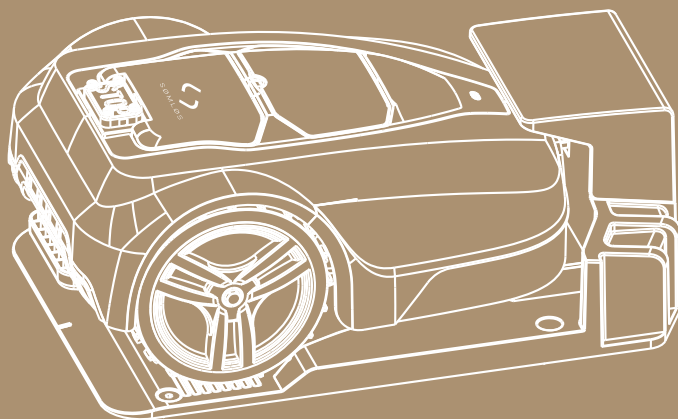




# User Manual



**Robotic Lawn Mower**

SØMLØS G1s



# 1. Preface

## Preface

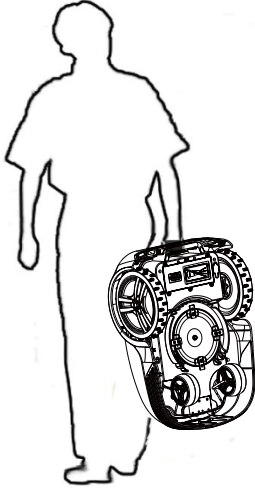
1. Congratulations on your choice of an exceptionally high quality product. To get the best performance, your SØMLØS G1s requires knowledge of its function. Operator's Manual contains important information about your robot mower, how you install it and how you use it.
2. Read the Operator's Manual carefully and understand the contents before using your SØMLØS G1s.

## Safety Instructions

1. Please read the Operator's Manual carefully and make sure you understand the instructions before using your robot mower, otherwise it may be damaged if incorrectly used.
2. It is not permitted to modify the original design of mower. All modifications are made at your own risk.
3. Check that there are no stones, branches, tools, toys or other objects on the lawn that can damage the blades and cause the mower to stop.
4. Never use a high-pressure washer or running water to clean the mower.
5. Do not ride or sit on the mower, little children and pets should be kept away from the mower when in operation.
6. Never lift the mower up or carry it around when the power is on.
7. Do not let anyone who does not know how the robot mower works to use it.
8. Do not put anything on top of the mower or its dock station.
9. Do not allow the mower to be used with a defective blade or body. Neither should it be used with defective blades, screws, nuts or cables.
10. Never put your hands and feet under the mower.
11. The mower does not guarantee full compatibility between mower and other types of wireless systems such as remote controls, radio transmitters, buried electric animal fencing or similar.
12. Start the mower according to the instructions.
13. It is recommended that the height of cutting be less than 5.5cm.
14. It is forbidden to cut at the lawn with a slope more than 25 degrees.
15. Turn the power switch off before cleaning the machine.
16. Carefully read all warnings on the machine, battery, dock station and user manual.
17. Check the blades before use to ensure they are secure.
18. During thunder/lightning storms, turn off your robot mower and the power supply connected to the docking station.
19. Do not let children and pets be around the mower. Accidentally turning it on or being in the vicinity of the mower whilst operating can cause serious injury.

# Transport

1. Power off the mower, if you intend to carry it.
2. Carry by the handle at the rear under the mower. Carry the mower with the blade plate away from the body.
3. Do not lift up the mower by the outer case.



Correct means



Incorrect means



Watch out your hands and feet



Read the manual carefully

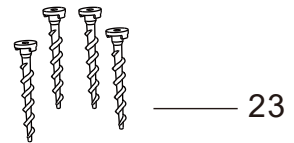
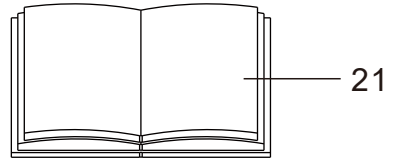
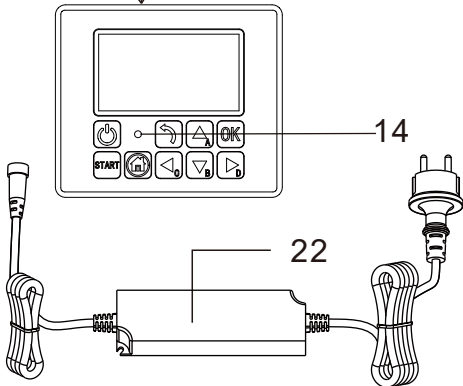
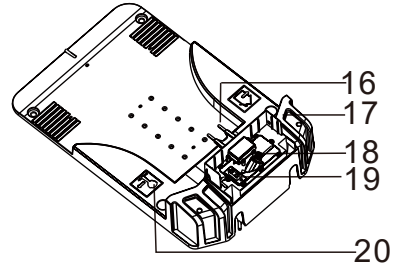
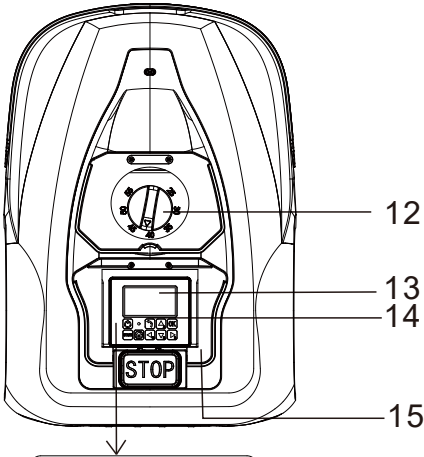
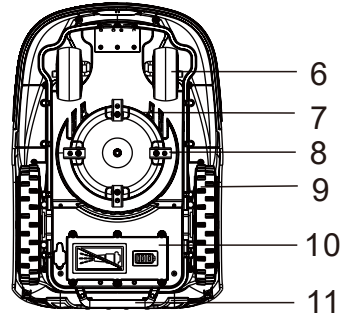
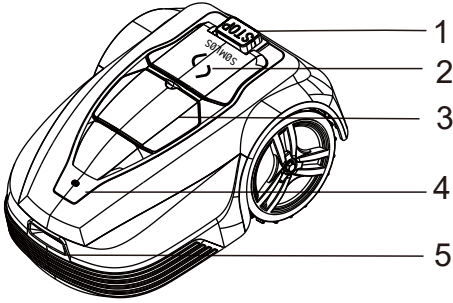


Don't ride and sit



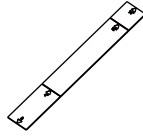
Pick up stones, branches, tools etc. on the lawn

# 2 . Know Mower

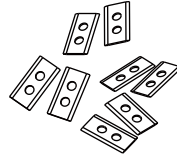




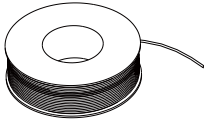
24



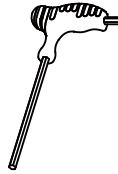
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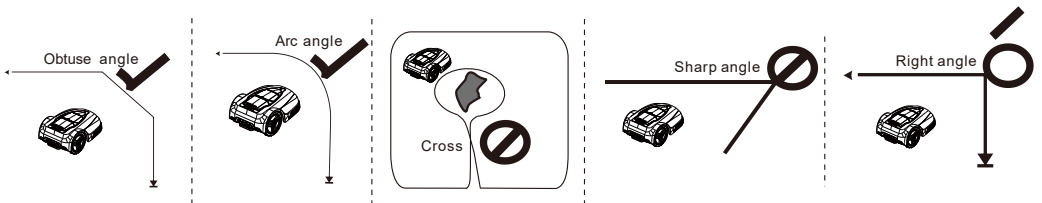
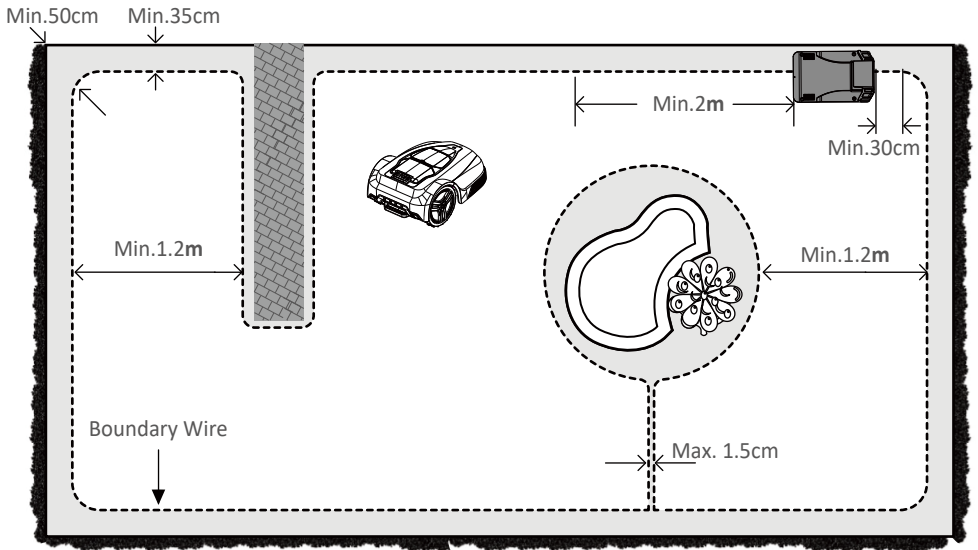
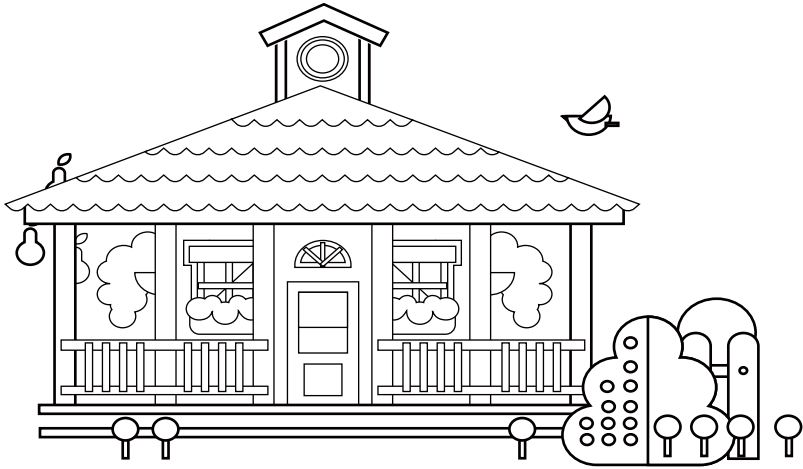


28

- |                                    |  |
|------------------------------------|--|
| 1. Emergency button                | 15. Keyboard                           |
| 2. The control panel cover         | 16. Charging electrodes                |
| 3. Cutting height adjustment cover | 17. Signal indicator light             |
| 4. Rain sensor                     | 18. Power connector                    |
| 5. Charging socket                 | 19. Boundary connector                 |
| 6. Front wheel                     | 20. Dock station base                  |
| 7. Blade plate                     | 21. Operator's manual                  |
| 8. Blade                           | 22. Power adapter                      |
| 9. Rear wheel                      | 23. Pegs for boundary wire             |
| 10. Battery cover                  | 24. Ground screws for the dock station |
| 11. Handle                         | 25. Installation ruler                 |
| 12. Cutting adjustment knob        | 26. Spare blades                       |
| 13. LCD display                    | 27. Boundary wire                      |
| 14. Wi-Fi indicator light          | 28. Allen wrench                       |

# 3. Guide Line Map

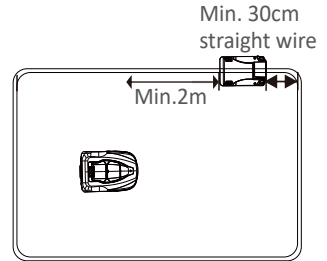
As below is a general guide line map how to install the mower including placement of the dock station and installation of the boundary wire.



\*At the corners, don't lay the boundary wire at a sharp or right angle, make sure it has 35 cm space to the wall or other obstacles; an arc with a radius of at least 50 cm is preferable.

## 4. Placement of the dock station

- a. Place the dock station in a flatening position.
- b. Make sure the dock station entrance is pointing in a counter-clockwise direction .
- c. Make sure there is minimum 2 metres straight wire in the front and 30cm straight wire in the back of dock station.



### CAUTION:

Don't secure the dock station to ground with ground screws before boundary wire and adaptor cable connected with dock station.

## 5. Connection Of Boundary Wire And Dock Station

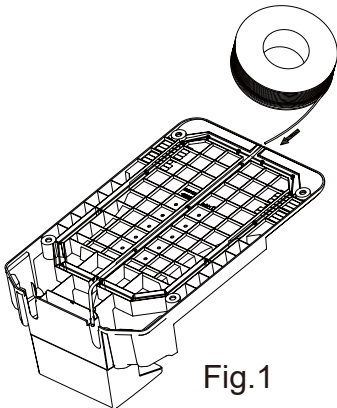


Fig.1

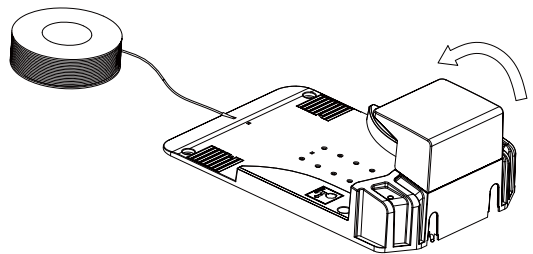


Fig.2



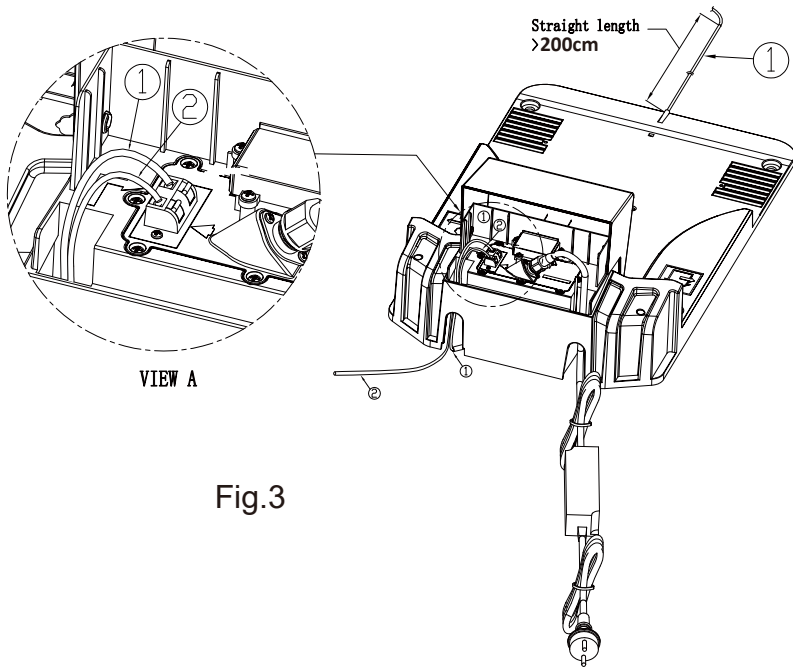


Fig.3

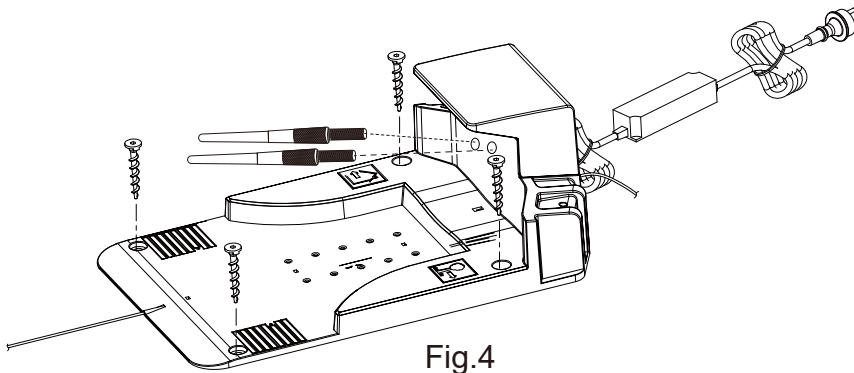
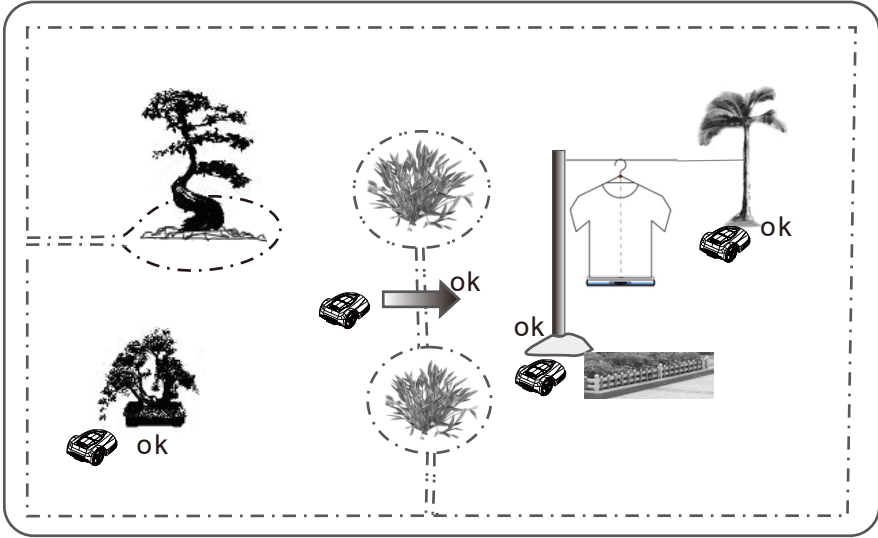


Fig.4

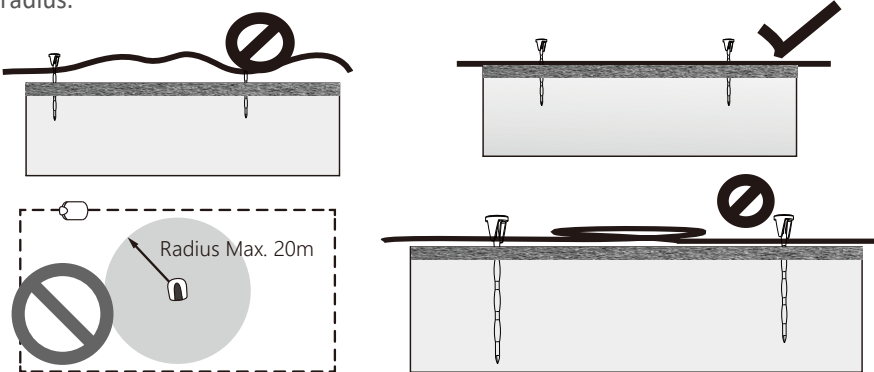
1. Follow up Fig.1 to Fig. 4 to connect the boundary wire with dock station.
2. Connect the adapter power cord to a 100-240 V wall socket.
3. LED indicator status of charging station:
  - Solid red light: Power supply normal;
  - Blinking blue light: Mower gets charging;
  - Solid blue light: Loop signal normal or fully charged.
4. Secure the dock station to the ground using the supplied ground screws by allen wrench

# 6. Installation of Boundary Wire

- a. Big trees, poles, flower beds and those can be an obstacle for the mower and prevent you burying the boundary wire.
- b. If flowers should not be mowed, use the boundary wire to protect them.
- c. A big tree with roots that can be an obstacle for the mower should be protected by burying the boundary wire.

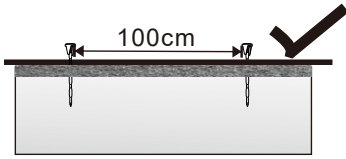


- d. Make sure to lay the boundary wire tight to the ground. If the boundary wire is loose or looped on the ground, the mower will cut the wire and the signal may be not strong enough for the mower to receive. The lawn mower can detect the signal from the boundary wire within a 20m radius.



e. Use a hammer to knock the pegs in the ground. Take care when hammering pegs and make sure the wire is flat on the lawn; the distance between pegs should be approximately 100cm. The distance between pegs should be 30~50cm at corners.

f. Don't let the boundary wire loop around itself.



g. If you intend to bury the boundary wire, make sure to place the boundary wire between 1mm and 15mm into the ground; the boundary wire should not be looped under the ground.



## 7. Operate Mower

### Quick start:

---

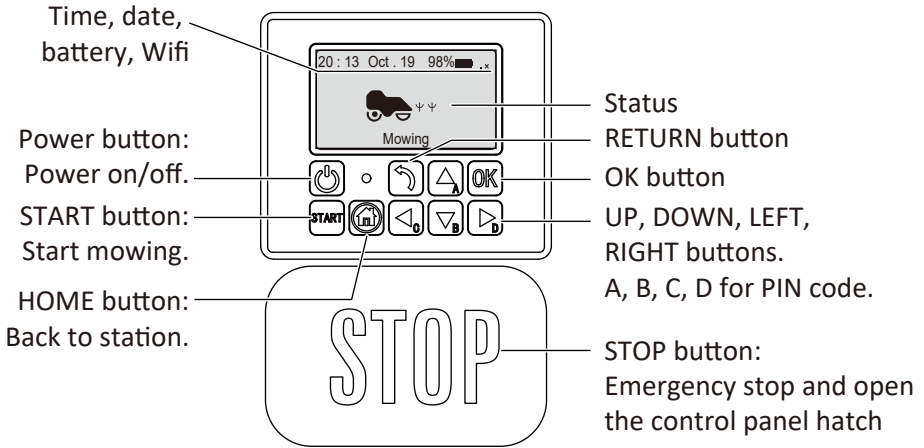
1. Place the mower in the area that inside the boundary wire.
2. Press STOP button to open the lid, hold the power button for three seconds to activate the lcd display, set the date and time, set the password, then it enters into menu. Inital default password is 'AAAA'
3. Click the start button, press OK button and close the lid, the robot lawn mower will work automatically.

## 8. Charging mower

The mower will go back to dock station for charging when it is out of power

# 9. Instruction Of Mower

## Control Panel



## Menu Function

Sub-menu 1	Sub-menu 2	Sub-menu 3
Spot mode	-	-
Setting	Language	English
		Germany
		France
		...
	Date&time	-
	Rain mode	-
	Work time	-
	WiFi setting	-
	Change PIN	-
	Factory reset	-
Information		About
		Error log
		Work log
Schedule	-	-
Zone	-	-


## Status

---

Status	Meaning
Standby	Mower is ready to work.
Mowing	Mower is mowing automatically.
Spot Mow	Mower is mowing spirally.
Returning	Mower is going back to station.
Charging	Mower is charging.
Charge to work	Mower is charging and continues to work when battery is recharged.
Emergency stop	Mower is stopped manually.
Error	Mower cannot work with errors.
Firmware update	Firmware is updating.


## Power On

---

1. Press the STOP button to open the control panel lid.
2. Press the  button for 3s to power on.
3. Enter the 4-letter PIN code. The original PIN code is 'AAAA'.
4. Mower waits for further operation in standby mode.

## Power Off

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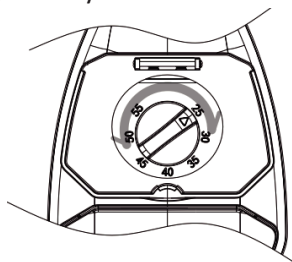
1. Press the STOP button to open the control panel lid.
2. Press the  button for 3s to power off.

## Cutting Height Adjustment

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1. Open the knob lid.
2. Cutting height can be adjusted from 2.5cm to 5.5cm by rotating the knob.

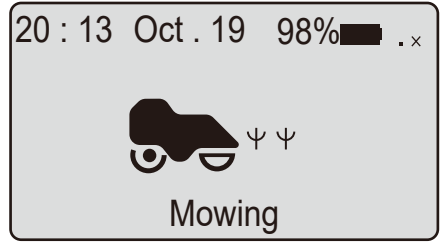
Tips: If the grass is high, it's appropriate to let mower start mowing at 5.5cm cutting height. Once the grass is shorter, you can gradually lower the cutting height.



## Start

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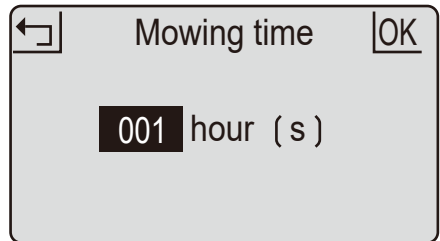
1. Press START button under standby or charging mode.
2. Close the hatch to start.
3. If the battery is lower than 70% in charging mode, the mower enters 'charge to work' mode and should get charged to 90% before mowing.
4. If the battery is lower than 30%, the mower goes back to station automatically for charging under 'charge to work' mode.



## Work time setting

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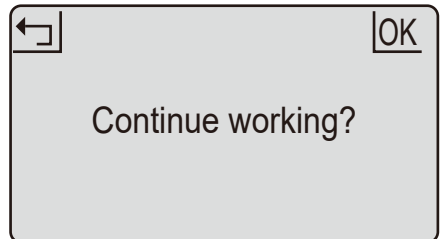
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'work time'.
4. Set work time by UP and DOWN buttons. (Default value is 8hrs).
5. Press OK button to confirm setting.



## Stop

---

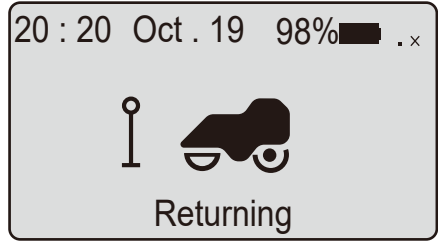
1. Press the STOP button.
2. The mower stops immediately and the control panel hatch opens.
3. The screen shows 'emergency stop'.
4. Press OK or RETURN button.
5. Enter the correct PIN code.
6. For the case that mower was working before pressing the STOP button, the screen shows 'continue to work?'. User can press OK button to continue the previous task, or press RETURN button to cancel it.



## Back to station

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1. Press HOME button for 3s.
2. Close the hatch to go back to station for charging.



## Charging

---

1. Place the mower in the station (or press HOME button for 3s).
2. Mower will get charged to 100% before standby.
3. Mower will get charged again if battery is lower than 75%. (The electrodes of mower and charging station must be connected).

## Schedule

---

1. Press OK button to enter sub-menu 1.
2. Select 'schedule'.
3. Press OK button to select the desired day.
4. Press UP, DOWN, LEFT and RIGHT buttons to set the start and end time.
5. Press OK button to confirm the daily setting.
6. Repeat step 3 to 5 to complete the weekly plan.
7. Press OK button to confirm the weekly setting.

## Zone

---

1. Press OK button to enter sub-menu 1.
2. Select 'zone'.
3. Press OK button to select the desired zone.
4. Press UP, DOWN, LEFT and RIGHT buttons to set the distance and percentage.
5. Press OK button to confirm the setting of single zone.
6. Repeat step 3 to 5.
7. Press OK button to confirm the setting of all the zones.

zone	dst(m)	pct(%)
<b>z_1</b>	8	100
z_2	----	--
z_3	----	--
z_4	----	--
z_5	----	--

### Notice:

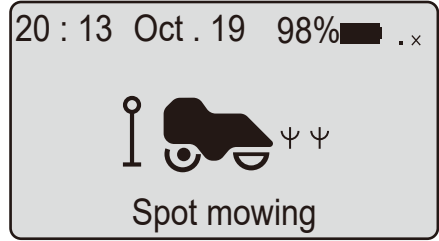
1. The distance refers to how far the mower will go along the boundary wire before entering into the yard. The percentage refers to how often the mower will start mowing from each zone.
2. The value of distance should be 0-500m, while the percentage should be 0-100%. The sum of percentage of each zone should be 100%. Or the setting cannot be completed.



## Spot Mow

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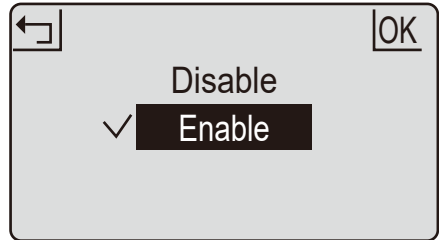
1. Place the machine inside the yard.
2. Press OK button to enter sub-menu 1.
3. Select 'spot mode'.
4. Close the lid to start.



## Rain Mode

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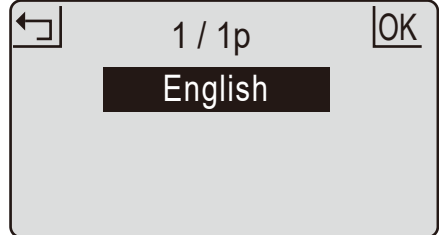
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'rain mode'.
4. Press UP and DOWN buttons to disable or enable the rain mode.
5. Press OK button to confirm setting.



## Language

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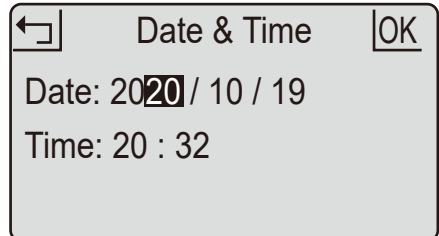
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'Language'.
4. Press UP and DOWN buttons to select the desired language. (Will update the language very soon)
5. Press OK button to confirm setting.



## Date and Time

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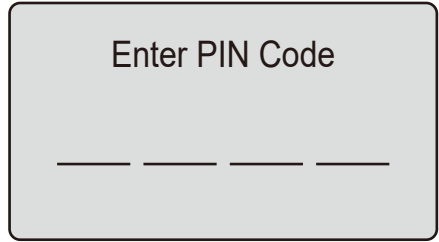
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'date&time'.
4. Press UP, DOWN, LEFT and RIGHT buttons to set the date and time.
5. Press OK button to confirm setting.



## PIN Code

---

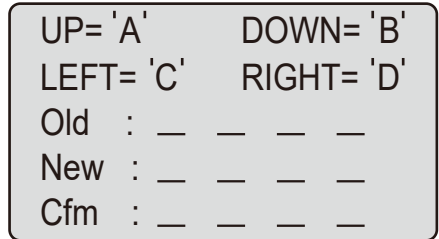
1. PIN code should be entered after powering on, pressing STOP button, and before clearing error status and changing PIN code.
2. If the PIN code is incorrect, the screen will show 'PIN wrong, please retry.'
3. If the PIN code is entered incorrectly for 3 times, the screen will be locked for 15s. The lock time will double for further incorrect PIN.



## Change PIN code

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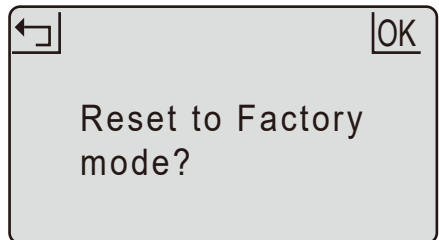
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'change PIN'.
4. Enter the original PIN code.
5. Enter the new PIN code.
6. Enter the new PIN code again. ('New passwords do not match' will be shown for inconsistent passwords.)
7. Press OK button to confirm.



## Factory Reset

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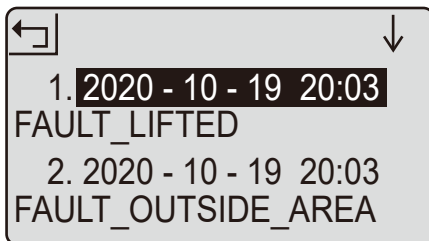
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'factory reset'.
4. The screen shows 'Reset to factory mode?'.
5. Press OK button to confirm.



## Error Log

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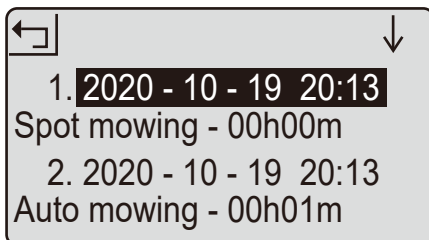
1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'information' to enter sub-menu 3.
4. Select 'error log'.
5. The past 10 records (including date, time and error message) will be shown.



## Work Log

---

1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'information' to enter sub-menu 3.
4. Select 'work log'.
5. The past 10 records (including date, time, work mode and work time) will be shown.



## About

---

1. Press OK button to enter sub-menu 1.
2. Select 'setting' to enter sub-menu 2.
3. Select 'information' to enter sub-menu 3.
4. Select 'about'.
5. The software version information will be shown.

## Save Power

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The backlight will switch off after 2min and the mower will power off after 8min, respectively, without user interference.

## LED indicator

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The backlight will switch off after 2min and the mower will power off after 8min, respectively, without user interference.

LED	Solid red light	Breathing blue light	Solid blue light
Status	Power supply normal.	Mower gets charging.	Loop signal normal. Or fully charged.

## Error

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Error message	Cause	Solution
Mower outside	Mower is outside the yard.	Place the mower inside the yard.
Mower lifted	Mower is lifted away from the ground.	Place the mower on the ground.
Mower tilted	Mower is tilted too much.	Place the mower in flat yard.
Mower overturned	Mower is upside down.	Place the mower normally on the ground.
Mower trapped	Mower is trapped by obstacles.	Remove the obstacles out of the yard.
Loop signal lost	Power supply or the wire is not connected to the station. Wire is broken.	Check the power supply, station, wire are connected normally.
Motor fault	Blade motor or drive motor is stuck. The motor current is too high.	Clear the grass or soil in cutting means and driving wheels. Cut the high and thick grass by traditional lawn mower.
High temp	The battery temperature is too high.	Wait until the temperature decreases.
Battery abnormal	The battery is damaged.	Call for help from service center.

# 10. Mower Maintenance

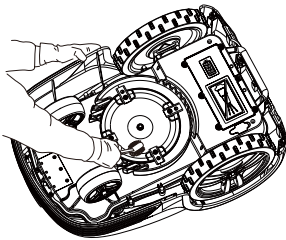
1. Check and clean mower regularly once a week.
2. When you first start using the mower, the blade plate, protection plate and blades should be checked once a month.
3. It is important that the blade rotates easily. Additionally, if the blades is fixed, the blade plate must rotate easily.
4. Blade edges should not be damaged. Blade life depends on the type of grass, soil, lawn, etc.
5. Working with dull blades gives a poor mowing results, which needs more power, therefore the mower can only cover a smaller area.
6. Charge the battery fully at the end of the season before winter storage. If storage time is longer than one year, please recharge the mower again.

## Cleaning

1. Never use a high-pressure washer or running water to clean mower.



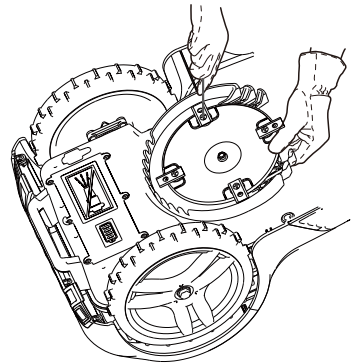
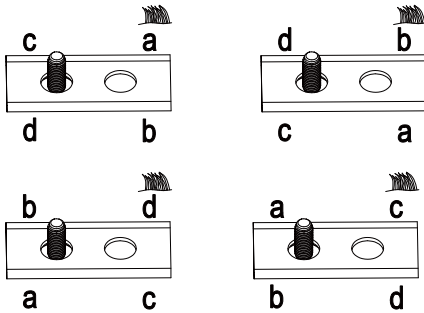
2. It is important to keep the mower clean. Mowing with a large amount of clippings and high slopes, mower needs more power to drive the blade plate.
3. We recommend using a brush to clean mower underneath, and a soft, damp sponge or cloth to clean the top body and outer case.



## Change Cutting Blades

### To replace the blades:

1. Power off the mower.
2. Wear protective gloves.
3. Turn mower upside down.
4. Rotate the skid plate so that its hole aligns with the blade screw.
5. Unscrew the blade. Use a flat head or head screwdriver.
6. Pry the protection plate and blade plate a little apart and remove the blade and screw.
7. Tightly screw on new blade.
8. Change the blade to another side if current side is broken, worn, damaged or dulled.



## Winter Storage

1. Mower must be carefully cleaned before winter storage. Charge the battery fully before winter storage.
2. Store the mower in the station and place in dry area to protect from frost, preferably stored in the original packaging
3. Boundary wire can be left in the ground. As the charging station is removed, you should protect boundary wire end from moisture with electrical tape.

## After Winter Storage

1. Check whether the mower, boundary wire and charging electrode need to be cleaned before use, . If the charging or contact strips appear to be rusty, clean them by using an emery cloth. Check whether the mower's time and date are correct.
2. Check whether the blades need to be changed.
3. Check whether the blades and blades plate turn easily. If not, please contact the service center for help.

# 11. Technical Data

Item	SØMLØS G1s
<b>Dimensions</b>	
Length x Width x Height	50cmx35.5cmx24cm
Weight	18 Kg
<b>Electrical System</b>	
Battery	Li-ion battery 22.2V/2600mAH
Adapter	29.4 V / 2.0A @ 100~240 V/
Boundary Wire Length	100m
Blade Motor	BLDC
Blade Motor Speed	3200~3500rpm
Wheel Motor	BLDC
Bump Sensor	Yes
Rain Sensor	Yes
Lift Sensor	Yes
Emergency Switch	Yes
<b>Noise Emissions</b>	
Measured Noise Level	65 dB(A)
Guaranteed Noise Level	65dB(A)
Mowing	65 dB(A)
Mowing System	4 pivoted blades
Cutting Height	2.5-5.5 cm
Cutting Width	18 cm
Working Capacity	(800 m <sup>2</sup> ) +/- 20%
Working Time	1 Hour

Item	SØMLØS G1s+
<b>Dimensions</b>	
Length x Width x Height	50cmx35.5cmx24cm
Weight	19 Kg
<b>Electrical System</b>	
Battery	Li-ion battery 22.2V/5200mAH
Adapter	29.4 V / 2.0A @ 100~240 V/
Boundary Wire Length	150m
Blade Motor	BLDC
Blade Motor Speed	3200~3500rpm
Wheel Motor	BLDC
Bump Sensor	Yes
Rain Sensor	Yes
Lift Sensor	Yes
Emergency Switch	Yes
<b>Noise Emissions</b>	
Measured Noise Level	65 dB(A)
Guaranteed Noise Level	65dB(A)
Mowing	65 dB(A)
Mowing System	4 pivoted blades
Cutting Height	2.5-5.5 cm
Cutting Width	18 cm
Working Capacity	(1600m <sup>2</sup> ) +/- 20%
Working Time	2 Hour







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