

POWER SMART[®]

INSTRUCTION MANUAL

20V Robotic Lawn Mower

Model # PDL08A



Have product questions or need technical support? Please feel free to contact us!

Website: www.powersmartusa.com

Toll free: 1-800-791-9458 / 1-888-293-0024 Mon-Fri 9-5 EST

Email: support@amerisuninc.com / support@powersmartusa.com



Website

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TECHNICAL DATA

Robotic Lawn Mower

20V Robot Lawn Mower	Model # PDL08A
Protection type:	IPX4
Robot rated voltage:	20V
Battery:	Li-ion battery 20V, 4.0Ah
Charger rating:	Input: 120V, 60Hz, 1.5A; Output: 22.5V DC, 2.5A
Charging time for battery:	1.5 hour
Mowing time per battery charge:	70~90min
No-load speed:	3100 RPM
Drive speed:	0.1~0.3 m/s
Cutting capacity:	Up to 1/4 Acre
Blade:	3 with double-sided blades
Rated cutting power:	10~50W
Cutting circle:	8.7 inch
Cutting height:	1~2.4 inch(8 steps)
Max cutting slope:	25° (47%)
Max slope of boundary:	5.7° (10%)
Max outdoor temperature:	122°F
Measured noise level:	61.1dB(A)
Robot weight:	19.4 lb.
Package dimensions(L x W x H):	27.56 x 21.65 x 11.81 inch

Charging Station

Charging station input:	22V; = 2.5A
Charging station output:	21V; = 2.4 A
Protection type:	IPX4
Length of exposed cable:	117 inch
Charging station weight:	5.07 lb.

INTRODUCTION

Thank You for Purchasing a PowerSmart® Product. This manual provides information regarding the safe operation and maintenance of this product. Every effort has been made to ensure the accuracy of the information in this manual. PowerSmart® reserves the right to change this product and specifications at any time without prior notice.

Please keep this manual available to all users during the entire life of the Robot Lawn Mower.



This manual contains special messages to bring attention to potential safety concerns, Robot Lawn Mower damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

QUESTIONS? PROBLEMS?

Please contact our Customer Service Dept. with any questions and/or comments, either by Email: support@amerisuninc.com/support@powersmartusa.com, or Toll Free at (800)791-9458 / (888)293-0024. We are available Mon-Fri 9am-5pm EST to help solve any issues that you might encounter.

SAFETY INFORMATION

Before operating this Robot Lawn Mower, read and observe all warnings, cautions, and instructions on the Robot Lawn Mower and in this Owner's Manual.

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. Read the entire Owner's Manual for safety and operating instructions. Failure to follow instructions and safety information could result in serious injury or death.

This safety alert symbol is used to identify safety information about hazards that can result in personal injury.



A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

DANGER Indicates a hazard, which, if not avoided, will result in death or serious injury.

WARNING Indicates a hazard, which, if not avoided, could result in death or serious injury.

CAUTION Indicates a hazard, which, if not avoided, might result in minor or moderate injury.

CAUTION Without the alert symbol, indicates a situation that could result in damage.

GENERAL SAFETY RULES

Safety is a combination of common sense, staying alert, and knowing how your lawn mower works. **SAVE THESE SAFETY INSTRUCTIONS.**



WARNING: Do not operate this unit until you read this instruction manual for safety, operation and maintenance instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.



WARNING: Any other use not expressly approved in the present instruction manual can damage the device and thus present a substantial risk for the user.
The manufacture is not liable for a damage caused by improper use or incorrect operation.

Personal safety:

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities or lack of experience or knowledge.
- Do not use while there are other people, especially children nearby. The operator or user is responsible for any accidents or personal injury or material damage to third parties or their property.
- Stay alert, watch what you are doing and use common sense when operating the mower.
- Do not use the mower while you are tired or under the influence of drugs alcohol or medication. This may result in serious personal injury.
- Use protective personal equipment such as safety glasses, non-skid safety shoes, sturdy gloves to reduce the risk of personal injury.
- Do not wear loose clothing or jewellery and keep hair, clothing and gloves away from moving parts.
- Keep all body parts, especially hands and feet, away from the blade at all times. Do not operate when barefoot or wearing open toed shoes.
- Keep out of reach of children and animals at all times.

Using the device safety:

- Only use the mower on grass and lawns, as described in this manual.
- The blade will continue to move after the motor is switched off. Never touch the rotating blade.
- Ensure that the blade has fully stopped before:
 - clearing a blockage
 - adjusting the cutting height
 - lifting or carrying the mower
 - tilting the mower to move
 - checking or cleaning the mower
 - carrying out any maintenance
- Do not operate the mower if it is incomplete or has unauthorized modifications.
- Check the area where the mower is to be used and remove any objects that could jam or be thrown by the mower, such as stones and sticks. Never operate the mower over gravel, as this risks flicking stones.
- Remove any dog mess before mowing.
- To prevent imbalance, any damaged or worn-out parts should be replaced.
- The operator is responsible for accidents or hazards occurring to other people at their property.
- Avoid operating the machine when the grass is wet.

- Never modify the mower in any way.
- Use the machine only in daylight or with good artificial lighting.
- It is recommended to program the product for use during hours when the area is free from activity.
- The product must never be allowed to collide with persons or other living creatures. If a person or other living creature comes in the way of the product, it shall be stopped immediately.
- Do not put anything on top of the product or its charging station.
- Do not allow the product to be used with a defective guard, blade disc or body. Neither should it be used with defective blades, screws, nuts or cables. Never connect a damaged cable, or touch a damaged cable before it is disconnected from the supply.
- Always switch off the product when it is not in use.
- Check all visible fixing screws and nuts especially on the cutter disc, to ensure they are tightened properly.
- Before using the mower and after any impact, check for signs of wear and damage and repair or replace as necessary.

Electrical safety:

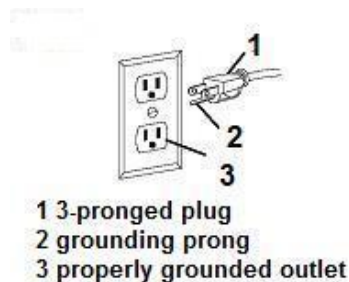
Grounding instructions

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching outlet that is properly installed and grounded in accordance with ALL local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

IMPROPER CONNECTION of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment grounding conductor to a live terminal.

CHECK with licensed electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure if the tool is properly grounded.



USE ONLY THREE-WIRE EXTENSION CORDS that have 3-pronged plugs and outlets that accept the tool's plug as shown in Fig. A. Repair or replace a damaged or worn cord immediately.

CAUTION: In all cases, make certain the outlet in question is properly grounded. If you are not sure if it is, have a licensed electrician check the outlet.

- Make sure that the mains voltage matches the details on the type plate.
- Avoid body contact with earthed or grounded surfaces, such as pipes. There is an increased risk of electric shock if your body is earthed or grounded.

- Keep the power cord away from the cutting tool when working. The cutting blades can damage the power cord and lead to contact with live parts.
- Do not use the power cord to pull the plug from the outlet. Protect the power cord from heat, oil and sharp edges.
- Regularly check the power supply and charge station cables for signs of damage or ageing. Switch the device off and pull the mains plug out of the outlet if the power cord is damaged. If the cord of this device is damaged, it must be replaced by the manufacturer or their customer service or by a similarly qualified person in order to avoid hazards.
- Do not connect a damaged power cord to the power supply. Do not touch a damaged power cord as long as it is connected to the power supply. A damaged power cord can result in voltage-carrying parts being touched.
- In the event of a thunderstorm: To reduce the risk of damage to electrical components in the product and the charging station, we recommend that all connections to the charging station are disconnected (power supply, boundary wire and guide wire) if there is a risk of a thunderstorm.
- Do not handle the charge station or the mower with wet hands.

Battery safety:

- This product contains Li-Ion batteries. Do not incinerate batteries or expose to high temperatures, as they may explode.
- After heavy use or in high temperatures the battery may become warm. Allow the product to cool for 30 minutes before charging.
- Do not expose the battery to direct sunlight for long periods and do not place it on a radiator. Heat damages the battery and there is a risk of explosion.
- Keep battery pack dry, clean, and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean battery pack.
- Do not open or mutilate the battery. Released electrolyte is corrosive and may cause damage to the eyes or skin. It may be toxic if swallowed.
- Do not crush, drop or damage battery pack. Do not use a battery pack or charger that has been dropped or received a sharp blow. A damaged battery is subject to explosion. Properly dispose of a dropped or damaged battery immediately.

Charger safety:































- Children must never play with the device. Cleaning and user maintenance must not be carried out by children if they are not supervised.
- Before each use, check the charger, cable and plug, and have repairs carried out by qualified personnel using only original spare parts. Do not use the charger if defective and do not open it yourself. This ensures the safety of the device is not adversely affected.
- Make sure that the mains voltage matches the details on the charger's type plate. Risk of electric shock.
- Disconnect the charger from the mains supply before closing or opening connections to the power tool. This ensures the rechargeable battery and charger are not damaged.
- Keep the charger clean and away from moisture and rain. Never use the charger outdoors. Soiling and penetration of water increases the risk of electric shock.
- The charger may only be used with the corresponding original rechargeable batteries. Charging other batteries can lead to injuries and the risk of fire. Avoid mechanical damage to the charger. This can lead to internal short circuits.
- The charger must not be operated on or in the immediate vicinity of flammable surfaces (e.g. paper, textiles). Risk of fire due to heating caused by charging. Do not attempt to charge non-rechargeable batteries in the charger. The device could be come damaged.

SPECIAL SAFETY RULES FOR ROBOTIC LAWN MOEWER

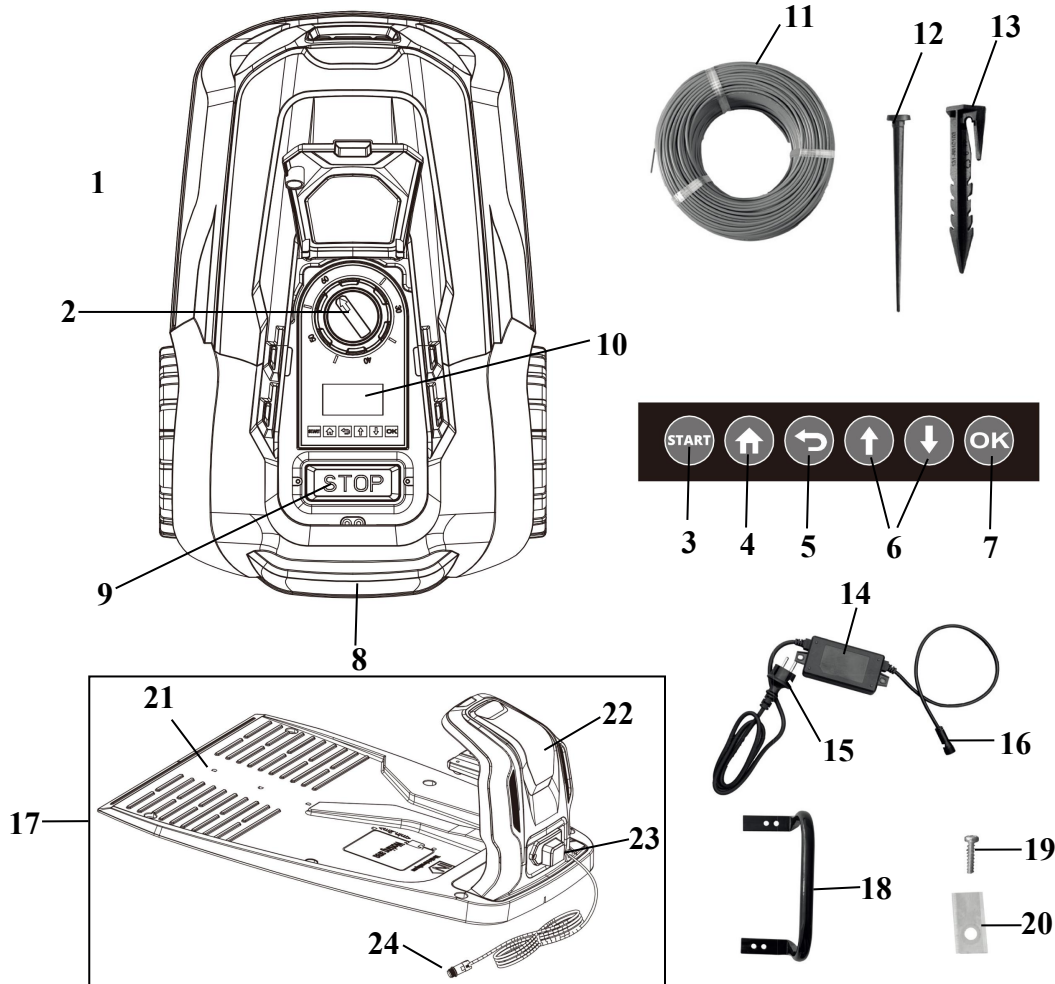
- Ensure correct installation of the automatic perimeter guard system according to the instructions. Be aware that pets may dig or disrupt the perimeter wire, so check regularly.
- Ensure that the device is switched off before inserting the rechargeable battery. Inserting a battery into a power tool that is switched on can lead to accidents.
- In order to minimize the risk of electric shock, pull the charger plug out of the outlet prior to cleaning it.
- Do not open the battery and avoid mechanical damage to the battery. There is a risk of a short circuit and vapour may leak out, causing irritation to the respiratory tract. Seek fresh air and also seek medical assistance in case of complaints.
- Do not use non-rechargeable batteries. The device could be come damaged.
- Operation and storage temperature for the lawn mower is 32-122 °F. Do not expose it to temperatures exceeding 122°F, for example leaving the mower in direct sunlight or in the hot boot of a car for prolonged periods. Temperature range for charging is 32-113 °F. Too high temperatures might cause damage to the product.
- Do not use on excessively steep slopes. The robot works in the slope area where the slope does not exceed 47% (25°).
- If foreign bodies enter the cutting tools, or if the machine generates unusual noises or vibrates unusually, immediately turn off the power supply (STOP) allow the machine to come to a standstill and identify the cause.
- The mower and its charge station should be periodically checked and cleaned and kept free of debris and obstructions. Note that some garden creatures such as spiders, insects, snails and slugs can nest or hibernate within crevices of the mower. These can attract small creatures / rodents that can damage the mower if not deterred.
- Only use spare parts and accessories which are supplied and recommended by the manufacturer, Using externally produced parts results in the immediate loss of the warranty claim.

SYMBOLS

Some of the following symbols may be used on this product. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the product better and safer.

Symbol	Designation/Explanation	Symbol	Designation/Explanation
	Hazard symbol with information on the prevention of personal injury or property damage.		To reduce the risk of injury, user must read and understand user's manual before using this product.
	Risk of injury due to ejected parts.		Caution-sharp cutting blades! Keep away from hands and feet, risk of injury!
	Caution! Risk of injury from moving blades.		DANGER! Rotating cutting blades.
	Pick up sticks, stones and foreign objects before using.		Do not dispose electrical products with general household waste. Please check with your local authorities for recycling advice.
	Keep nearby persons away from the lawn mower.		Do not sit on the device.
	Switch off the motor before carrying out adjustments or cleaning work.		Caution! Wait until blades stop rotating when switched off.
	Cutting circle.		Guaranteed Sound Power level.
	Do not use the device when it is raining. Do not cut wet grass.		Beware of electric shock hazard.
	Protection class III.		Protection class II.
	Cutting height adjustment.		Danger! Keep hands and feet at a safe distance.
	Display control.		Removable supply unit.
	Device fuse.		Switched-mode power supply.
	Short-circuit proof, closed safety transformer.		Producer.
	LED flashing green: Boundary wire damaged or incorrectly connected.		LED illuminated red: Battery charging.
	LED illuminated green: Battery charged.		Operating range indicator.

KNOWING YOUR ROBOTIC LAWN MOWER



- | | | | | | |
|---|-----------------|----|--------------------|----|-------------------------------|
| 1 | Cover | 9 | STOP button | 17 | Charging station |
| 2 | Rotary wheel | 10 | Display | 18 | Charging station bumper |
| 3 | START button | 11 | 200m Boundary wire | 19 | Screws for charging station*4 |
| 4 | HOUSE button | 12 | Fixing nails*6 | 20 | Blades |
| 5 | Back button | 13 | Hooks*350 | 21 | Base plate |
| 6 | Arrow button | 14 | Power adapter | 22 | Charging unit |
| 7 | OK button | 15 | Mains plug | 23 | Cover |
| 8 | Carrying handle | 16 | Charging plug | 24 | Bushing |

Unpacking

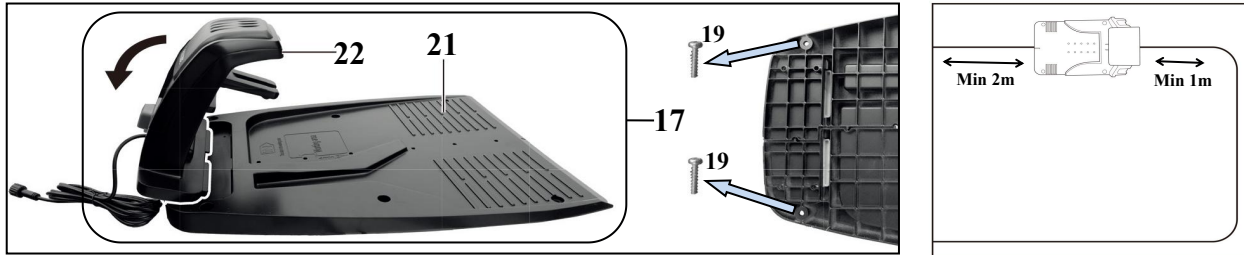
Unpack the lawn mower and all its parts, and compare against the list below. Do not discard the carton or any packaging materials. Please call 1-800-791-9458/1-888-293-0024 or E-mail us at support@amerisuninc.com / support@powersmartusa.com if any parts are damaged or missing.

Including: 20v Lawn Mower / 200m Boundary Wire / Charging Station+ Screws*4 / Power Adaptor / Fixing Nails*6 / Hooks*350 / User Manual

ASSEMBLY INSTRUCTIONS

Assembling And Positioning The Charging Station

1. Place the charging unit(22)with the two lugs first into the base plate (21) of the charging station.
2. Press the charging unit(22) down so that it is firmly seated in the base plate.
3. Fix the charging unit(22) from below to the base plate(21)with the four enclosed screws (19).
4. Select a flat position near an outlet for the charging station(17) with at least 2 m of space in front and 1 m behind. Don't peg the charging station down before you find a location with access to power.



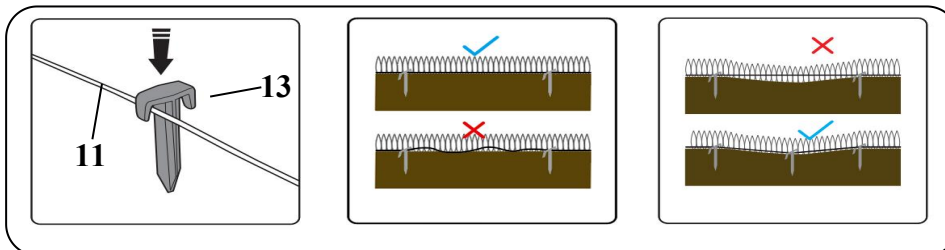
CAUTION: Trailing wires are a trip hazard. Take care when choosing your location. The location of the charging station should be flat and secure, without risk of movement, if placed next to a border edge that is unstable it can slump and cause the station to be uneven, this will cause problems for the mower when returning to charge. The location of the charging station must have a safe power source – either a weatherproof outdoor electrical socket or an indoor power point in a garage, for example.

CAUTION: Make sure that the charging station (17) is positioned an adequate distance away from ponds, pools and steps.

Install The Boundary Wire

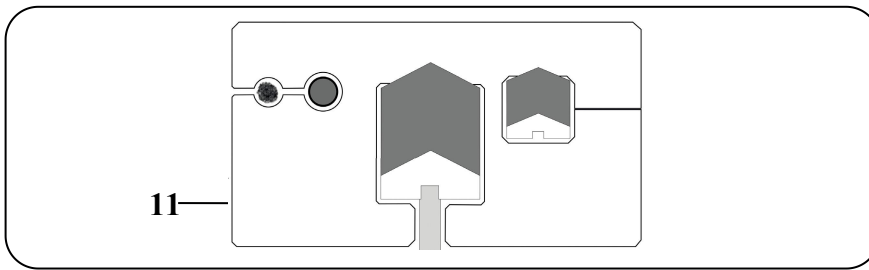
Before starting up the lawn mower, the boundary wire (11) must be placed around the lawn area to be covered by the automatic lawn mower. You can do this as follows:

- Mark out the lawn area with the hooks (13).
- Bury the boundary wire (11) in the ground (**depth of 1~15cm**).
- The perimeter wire must be kept tight. If it is loose it may well end up being cut by the mower as it passes over it.
- If the wire passes over a moderate dip in the lawn, more hooks will be required to keep the wire firmly pegged at ground level, or it risks being cut.

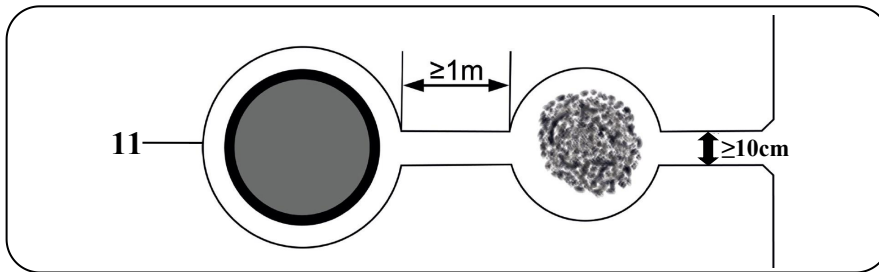


CAUTION: The lawn mower crosses over the boundary wire by about 20~30 cm before it turns around and searches for a new path, install the boundary wire accordingly to prevent damage. For the initial installation, we recommend marking out the boundary wire (11) with the hooks (13) in case corrections need to be made at a later date.

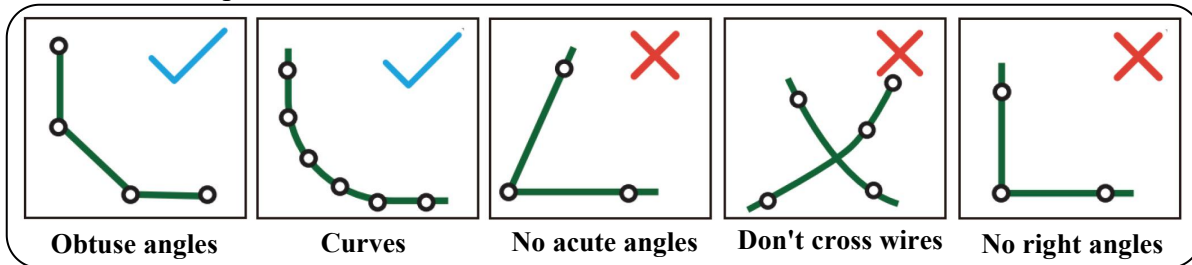
- The lawn area **must be bordered as a single enclosed area.**



- Any parallel boundary wires (11) installed **at a distance of at least 10 cm** are identified as an obstacle by the lawn mower and are evaded, and a distance of **5 mm or less** are not detected by the lawn mower and are passed over.
- **Keep a distance of at least 1m** between bordered obstacles. Border obstacles that do not meet this minimum distance as a single obstacle.

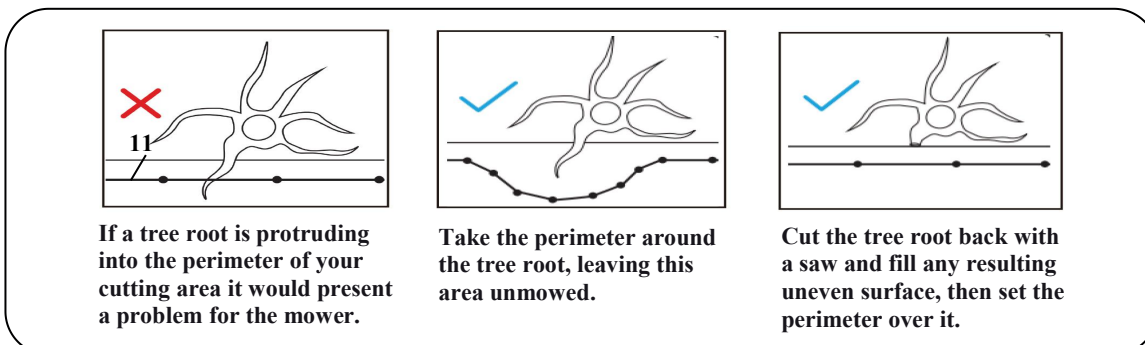


- The lawn mower's sensors are able to **detect and evade stationary and solid obstacles (walls, garden furniture, etc.) larger than 10 cm.** Protect sensitive obstacles (e.g. flowerbeds) on the lawn area with the boundary wire (11).
- Avoid creating corners with a 90° angle. Instead, split these into two 45° angles. Make sure that the boundary wire (11) does not intersect at any point. This can lead to faults and failures in the lawn mower's operation.



Trees

The lawn mower detects trees as a normal obstacle. However, protruding roots may damage the underside blades (20). We recommend using the boundary wire (11) to also border trees.



If a tree root is protruding into the perimeter of your cutting area it would present a problem for the mower.

Take the perimeter around the tree root, leaving this area unmowed.

Cut the tree root back with a saw and fill any resulting uneven surface, then set the perimeter over it.

Rocks

Remove small rocks (**lower than 100mm**) from the lawn area. These may damage the device and the blades.

The lawn mower detects rocks (**taller than 100mm**) as normal obstacles. We recommend using the boundary wire to also border rocks.

Slopes / gradients

The lawn mower is able to traverse uphill slopes/gradients up to max.25° (47%). At a distance of 1 m from the boundary wire, the slope/gradient should not exceed 5.7° (10%).



CAUTION: Make sure that a distance of at least 30cm is maintained between the boundary wire and an obstacle on an uphill gradient and at least 40cm on a downhill gradient.

Ponds / pools

Ponds and pools should be bordered by the boundary wire (11) where possible or designed so that the lawn mower cannot enter the water. This may seriously damage the device's electronics.

Paths / roads

The lawn mower can easily cross paths and roads at ground level.

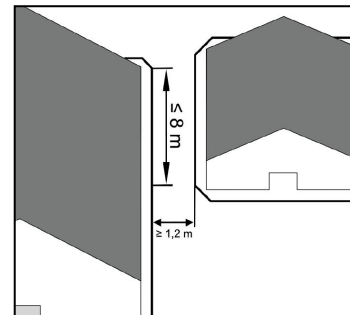
If there are height differences between the lawn area and path/road, border off the path/road with a safety distance of approx.40cm.

Narrow passages

Narrow passages on the bordered lawn area should be at least 1.2m wide and no more than 8 m long.



CAUTION: The width of 1.2 m refers to the distance of the boundary wire. The boundary wire is crossed by the lawn mower 0.2 m on both sides when mowing.



Connecting The Boundary Wire To The Charging Station

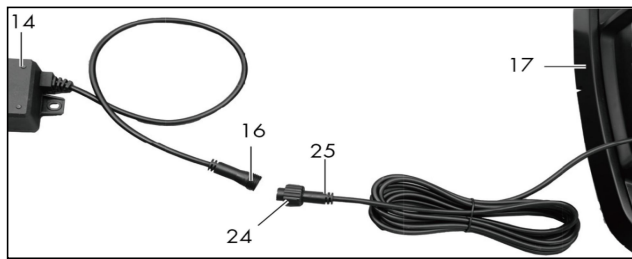
1. Strip approx.10-15 mm of both ends of the boundary wire (11) using cable strippers.
2. Fold the cover (23) upwards.
3. Connect the wire end of the boundary wire (11) that runs away from the front and surrounds the lawn to be mown to the contact socket marked -(27) .
4. Pass the other end of the boundary wire (11) through the groove (29) under the charging station (17).
5. Connect this end of the wire to contact socket marked +(26).
6. Connect the mains plug (15) to the power supply.
7. Check the LED (28) lights up green, the boundary wire (11) is connected to the charging station (17) correctly.



NOTE: Allow extra space of 0.5 to 1 m for corrections when installing the boundary wire (11). Do not place the “protruding” remains of the boundary wire together. This can lead and failures in the lawn mower's operation.

Connecting The Charging Station To The Power Adapter

1. Connect the power adapter (14) to the charging station (17) via the charging plug (16) and the charging socket (25).
2. Screw the bushing (24) around the joint to protect it from moisture.

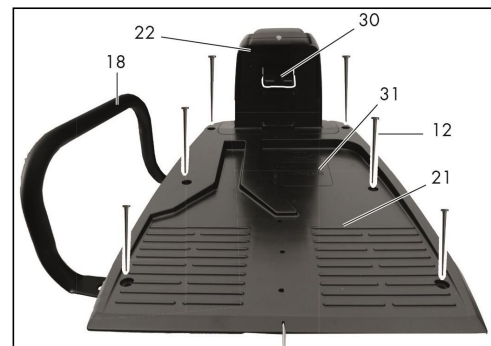


Fixing The Charging Station



CAUTION: The location of the charging station should be flat and secure, without risk of movement, if placed next to a border edge that is unstable it can slump and cause the station to be uneven, this will cause problems for the mower when returning to charge.

1. Secure the charging station and the charging station bumper (18) with the fixing nails (12).
2. The charging station bumper (18) is fastened to the side of the charging station outside the restricted lawn area.
3. The operating range indicator (31) on the charging station must be located within the restricted lawn area.



Inserting / Replacing The Battery

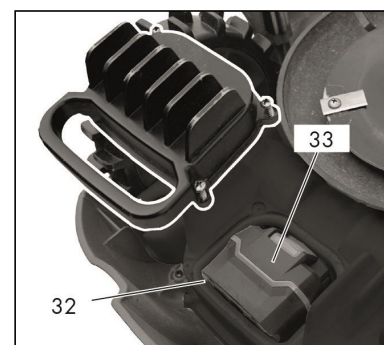


CAUTION: When replacing the battery: Switch off the device and wait for the blades to come to a stop. There is a risk of personal injury.



CAUTION: There is a risk of injury from leaking battery fluid if the battery is damaged! In case of contact with eyes or skin, rinse the affected sites with water or a neutralizer and seek medical attention.

1. Turn the lawn mower over.
2. Open the battery compartment (32) by removing the four screws on the underside of the device.
3. If necessary, remove the empty battery (33).
4. Insert a charged battery.
5. Close the battery compartment (32) again.



OPERATING INSTRUCTIONS OF THE LAWN MOWER



CAUTION: Regularly check the lawn area for rocks, branches, wires and objects that may damage the device and the blades.

Initial Start-Up

1. Press and hold the START button (3) for approx. 3 seconds until the display (10) lights up.

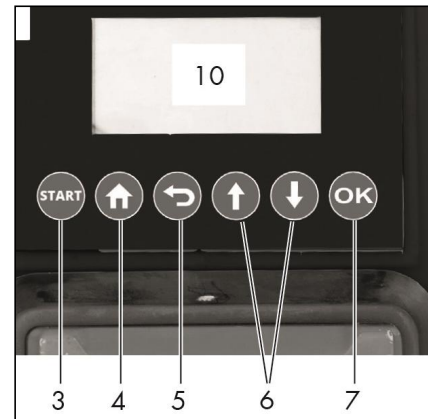
2. Set the desired language. Select with the arrow buttons (6) and confirm the selection with the OK button (7).

3. Set the date and time with the arrow buttons (6). Confirm the selection with the OK button. The individual positions can be navigated with the OK button (skip the right).

NOTE: The correct date and time setting is required to ensure the correct function of the operating time settings.

4. Enter 4-digit PIN you want to set. For information on which buttons translate into PIN entry and how, see in page 22.

5. Press the OK button to enter the main menu. The lawn mower is now in standby mode.



Setting The Language

1. Open the cover (1). Unlock the display (10) with the 4-digit PIN, press the OK button (7) to enter the main menu.

2. Use the arrow buttons (6) to select “Settings”, confirm the selection with the OK button.

3. Use the arrow buttons to select “Language”, confirm the selection with the OK button.

4. Use the arrow button to select the desired language, confirm the selection with the OK button.

5. Return to the main menu with the back button (5).

Switch On And Off

Switch on the lawn mower

1. Press and hold the START button (3) for approx. 3 seconds until the display (10) lights up.

2. Enter the 4-digit PIN. Press the OK button to enter the main menu. The lawn mower is now in standby mode.

- If the lawn mower is in standby or charge mode, press the START button (3) once to start mowing. The lawn mower will not start until the cover (1) is closed.
- If you have entered the wrong PIN: Wait about 3 seconds or press the OK button (7) to be able to enter the PIN again. If you enter an incorrect PIN three times in a row, the screen is locked for 15 seconds. For each additional incorrect PIN, the blocking time is doubled.

Switch off the lawn mower

The lawn mower stops if :

- The STOP button (9) is pressed.
- The START button (3) is pressed for 3 seconds.
- The cover (1) is raised.

- It loses the boundary wire signal and does not find it again within 5 minutes.
- It crosses the boundary wire when mowing.
- It gets stuck between obstacles and needs more than 10 seconds to find a way out.
- It is raised.

Setting The Cutting Height



WARNING: Switch off the device and wait for the blades to come to a stop. There is a risk of personal injury.

1. Open the cover (1).
2. Set the rotary wheel (2) to the desired cutting height.
3. Close the cover (1) again.

NOTE: The device can be adjusted in 8 steps to a cutting height between 1~2.4inch, The correct cutting height is between 1.2inch and 1.8inch for an ornamental lawn and about 1.2 to 2.4inch for a utility lawn.

A high cutting height should be selected for the first cuts in the season.

Auto Mowing

1. Open the cover (1). Unlock the display (10) with the 4-digit PIN.

When the lawn mower is in the charging station or charging:

- 2.1. Press the START button (3) once.

- If the battery charge level is more than 70%, the display shows “Close the cover to start”. Close the cover (1) and the mower will start mowing automatically.

- If the battery charge level is less than 70%, the display shows “Low battery” after 2 seconds. The lawn mower charges until the battery charge level is 90% and then starts mowing automatically.

When the lawn mower is in standby state:

- 2.2. Press the START button (3) once.

- If the battery charge level is more than 30%, the display shows “Close the cover to start”. Close the cover (1) and the mower will start mowing automatically.

- If the battery charge level is less than 30%, the display shows “Low battery” after 2 seconds. The lawn mower moves to the charging station.

Spot Mode/Fixed Mowing


1. Place the mower on the target area of the lawn.
2. Open the cover (1).
3. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
4. Select “Spot mode” with the arrow button (6). The display shows “Close the cover to start”.
5. Close the cover (1) and the mower starts mowing with the fixed point.

NOTE: The lawn mower mows in an anti-clockwise spiral direction and switches to “Automatic mowing” after a mowing radius of 1 m or 3.5 minutes of mowing.

- If the mower encounters an obstacle, the mower stops, the display indicates the mowing has stopped and the mower switches to standby mode. When the lawn mower hits the boundary wire (11), it continues mowing in the opposite spiral direction.

- If the mower is outside the boundary wire (11) or on the charging station and you select “Spot mode”, this display shows “Place inside the boundary and retry”. Set the mower down inside the boundary wire (11) and next to the charging station and restart “Spot mode”.
- If the battery charge level is less than 30 %, the display shows “Low battery voltage” after 2 seconds. Charge the lawn mower before you can start mowing with the fixed point.

Back To The Charging Station

1. When the device is in standby state, press and hold the HOUSE button  (4) for about 3 seconds. The display (10) shows “Close the cover to start”.
2. Close the cover (1) and the mower moves to the charging station. It then begins to charge there.

Manually Interrupting/Starting The Operating Cycle

Interrupting operation

Press the STOP button (9) to stop the mower during operation.

Starting /resuming operation

1. Open the cover (1). Confirm with the OK button (7).
2. Unlock the display (10) with the 4-digit PIN.
3. Press the START button (3).
4. Close the cover (1) again.

The lawn mower starts the set operating cycle or resumes its previous activity without interruption.

NOTE: Regular mowing stimulates the grass to an increased leaf formation, while at the same time killing weeds. As a result, the lawn becomes denser after each mowing and an evenly resilient lawn is created.

The first cut takes place roughly in April when the grass is about 2.7 - 3.3inch high. During the main growing season, the lawn is mowed at least once a week.

Setting The Date And Time

1. Open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select "Date&time”. Confirm the selection with the OK button (7).
5. Change the date and time with the arrow button (6) .The individual positions can be navigated with the OK button (7) (skip the right).

NOTE: The correct date and time setting is required to ensure the correct functions of the operating time settings.

Setting The Rain Sensor



WARNING :We advise against having the lawn mower operate while it is raining.

Never operate the lawn mower during storms and make sure to disconnect the charging station from the mains. If the rain sensor is switched on, the lawn mower returns to the charging station when it rains.

1. Open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.

3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Rain mode”. Confirm the selection with the OK button (7).
5. To **deactivate** the rain sensor, select “Disable” and confirm the selection with the OK button (7).
To **activate** the rain sensor, select “Enable” and confirm the selection with the OK button (7).
6. Return to the main menu with the back button (5).

NOTE: Select a time in minutes when the lawn mower should start operating again after the rain. Decide also whether the lawn mower should make up for the break in operating time caused by the rain. Confirm each selection with the OK button (7).

Setting The Operating Times

1. Open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Work time”. Confirm the selection with the “OK” button (7).
5. Select the desired operating time with the arrow buttons (6). Confirm the selection with the “OK” button (7). You can set the operating time in full hours per day.
6. Return to the main menu with the back button (5).

NOTE: When the set operating time per day is reached, the lawn mower automatically returns to the charging station. An extension of the operating time during rain breaks can be set directly via the lawn mower, see chapter "Setting the rain sensor" or via the Smart Life App: Settings → Rain Sensor.

Connecting To WiFi

1. Open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Set WiFi”. Confirm the selection with the OK button (7). The device is in distribution state of WiFi.
5. Use your smartphone to connect to the lawn mower via the Smart Life App.

NOTE: See chapter “Connecting the device with the Smart Life App” in page 26.

Changing The PIN

1. If necessary, open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Change PIN”. Confirm the selection with the OK button (7).
5. Enter the old 4-digit PIN. If you have entered the PIN incorrectly, use the back button (5) to return to the PIN entry.
6. Now enter a new PIN. Confirm the new PIN by entering it again. (If you have entered the PIN incorrectly, use the back button (5) to return to the PIN entry, repeat step 5 and 6).
7. You can recognize a successful change when “Success!” appears on the display (10).
8. Return to the main menu with the back button (5).

Reading Out The Work And Error Log


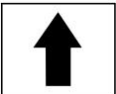



1. If necessary, open the cover (1).
2. Unlock the display (10) with the 4-digit-PIN. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Information”. Confirm the selection with the OK button (7).
5. Use the arrow buttons (6) to select “Error log” or “Work log”. Here we can read ten errors and work logs recently.
6. Press the back button (5) to return to the main menu.

Checking The Firmware Upgrade

1. If necessary, open the cover (1).
2. Unlock the display (10) with the 4-digit PIN you set. Press the OK button (7) to enter the main menu.
3. Use the arrow buttons (6) to select “Setting”. Confirm the selection with the OK button (7).
4. Use the arrow buttons (6) to select “Version check”. A check is made to see if a more recent firmware is available. If yes, it will be downloaded and installed automatically.
5. Press the back button (5) to return to the main menu.

EXPLANATION OF THE MESSAGES ON THE DISPLAY

The lawn mower has the following setting options that you can make via the control panel if you want to change the factory settings.

Button on the control panel	Name	Number for PIN entry	Function(s)
	HOUSE button (4)	1	Press in standby mode to make the robot return to the charging station.
	Arrow button (6)	2	Move selection/cursor up, in menu interface. Increase digit when setting parameters.
	Arrow button (6)	3	Move selection/cursor down, in menu interface. Reduce digit when setting parameters.
	OK button (7)	4	Confirm setting. Call up PIN entry interface after an error condition has ended. Call up next menu. Confirmation to move from main menu to next menu level.
	Back button (5)		Back to previous menu. Cancel next job.

Menus on the display

Main menu	Menu level 2	Menu level 3
Spot mode		
Setting	Language	
	Date & time	
	Rain mode	
	Work time	
	Set WIFI	
	Change PIN	
	Information	Error log Work log Device information
	Factory set	
	Version check	
Schedule		
Secondly areas		

Explanation of the (status) messages on the display

Text in control panel	Explanation
Standby	Lawn mower is in standby mode, there are no error messages.
Input PIN	Prompt to enter the PIN.
Charging	Lawn mower charges.
Mowing	Lawn mower mows.
Auto mowing	Lawn mower mows automatically.
Spot mode	Lawn mower mows a defined area.
Fix point mowing finished	Mowing completed in “spot mode”.
Returning	Lawn mower on the way back to the charging station.
Paused	Lawn mower in pause state triggered by: -pressing the STOP button. -pressing the “Pause” button on the APP.
Emergency stop	The STOP button (9) has been pressed.
Charge to work	Lawn mower charges.
Updating	Perform firmware necessary/in progress.
Low battery, charge to work	The charge level of the battery does not meet the minimum requirements at the start of work: 70% for automatic mowing. 30% for fixed point mowing (spot mode).
Raining now, returning	The rain sensor has been activated.
Close cover to start	Request to close the cover (1), close it.
Charge to work paused	Charging was interrupted (e.g. manually or due to a power failure).
Work interrupted, please retry	Automatic mowing was interrupted(e.g. STOP button (9) was pressed; The cover (1) was opened).
Place inside the boundary and retry	Request to place the lawn mower inside the boundary wire.
Continue working	Press the OK button (7) to continue the work or press the Back button (5).
Time set wrong	Correct times.
Charge to work paused	Charging process was interrupted, cause to be checked on site.
Current work was stopped	Work process was interrupted, check cause in site.
Low battery voltage	The charge level of the battery does not meet the minimum requirements at the start of work: 70% for automatic mowing. 30% for fixed point mowing (spot mode).
Low battery, charge to work	Place the the lawn mower in the charging station, or to wait for the charging process to finish, or the lawn mower returns to the charging station independently.
Low battery voltage, return to station	
No loop signal	Check correct installation of the boundary wire and correct if necessary, place the lawn mower inside the boundary and restart it .
No signal, please set up the loop first	
Loop signal lost	
Mower was locked! Waiting...	Wait until the current running process is completed.
Wrong PIN, kindly retry	Enter the PIN again.
Place inside the boundary and retry	Place the lawn mower inside the boundary and restart it.
Mower outside	

Text in control panel	Explanation
Please reboot to start the firmware update	Restart the lawn mower.
Work interrupted, please retry	
Rain sensor activated	Rain sensor is activated.
Mower in the station	Mower in the station.
Mower is not in the station	Mower is not in the station, if necessary, place the lawn mower in the station.
Press “START” key to start	Press the START button (3).
Duration at least 30 minutes	Indication of the time needed.
searching for signal...	Lawn mower searches for its signal.
Copy file, please wait	Please wait for the copying process.
Please turn it off	Switch off lawn mower.
Update fail	If necessary, carry out the update procedure again.
Error	See chapter “reading out the work and error log”.
Cutting motor stall	See chapter “Removing blockages”; Check blades for foreign bodies/defects; If necessary, contact customer service centre.
Left motor stall	
Please replace the battery	Replace battery.
Battery damaged	
Battery abnormal	
Battery temperature too low (discharge)	Cancel charging process.
Battery voltage high	Battery voltage too high.
Battery high temp/high temp	Battery has a high temperature, Cancel charging process.
High charge current	Cancel charging process, check input current.
High charge voltage	Cancel charging process, check input voltage.
Mower lifted	Lawn mower was lifted.
Mower overturned	Set lawn mower upright and restart.
Mower trapped	Clear the lawn mower and restart.
Mower tilted	Set lawn mower upright and restart.
Motor over temperature	Switch off the lawn mower and let it cool down.
Motor error	Contact customer service centre.
Em-sensor disconnect	
Hall sensor failure	
Hardware error	
Ladung abnormal	
Charging abnormal	
Battery discharge error	
Inertial measurement unit (IMU) error	
Motor disconnect	
Motor hall error	
Motor over-current	
Motor stall	
Right motor stall	
Rain sensor failure	
Loop sensor failure	

CHARGING



WARNING: Risk of injury! Press the STOP button(9) before picking up the mower!

IMPORTANT!

- Charge the battery before using it for the first time.
- If the operating time is considerably shortened despite charging, this shows that the rechargeable battery is depleted and must be replaced. Only use an original battery purchased from customer service.
- Always comply with the latest safety information, as well as the regulations and information relating to environmental protection.
- Defects resulting from improper handling are not covered by the guarantee.

Charging The Battery

The lawn mower automatically returns to the charging station when it has a low charge status. To do so, the lawn mower locates the nearest boundary wire and follows this in a clockwise direction. You can also place the lawn mower in the charging station yourself. After the battery is fully charged, the charging process stops and the lawn mower switches to standby mode.

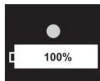
Graphical symbols on the charging station



LED flashing green: Boundary wire damaged or incorrectly connected.



LED illuminated red: Battery charging.



LED illuminated green: Battery charged.

LED not illuminated: Charging station not connected to power.

Checking The Charge Level Of The Battery

1. If necessary, open the cover (1)
2. Unlock the display (10) with the 4-digit PIN. The charge status is now shown by the battery symbol at the top right.
3. Press the START button (3) and close the cover (1) again. The lawn mower resumes its previously interrupted activity.

NOTE: You can check the charge status of the lawn mower on the LCD display at any time. It is possible to read the charge level without unlocking the display, but it is easier when the display is unlocked.

CONNECT THE DEVICE WITH SMART LIFE APP

Connecting The Device With Smart Life App

1. Scan the the Smart Life QR code to download the App (We can also download the APP in the APP store /google search).
2. Enable Bluetooth on your smartphone, also ensure your phone is connected to the WiFi which your device distributed.
3. Open the device cover (1). Unlock the display (10) with the 4-digit PIN you set. Press the OK button (7) to enter the main menu.
4. Use the arrow buttons (6) to select “Settings”. Confirm the selection with the OK button (7).
5. Use the arrow buttons (6) to select “Set WiFi”, the device will be in the state of distribution.
6. Click the “+” icon in the upper right corner and select “Add Device” on the APP of your phone.



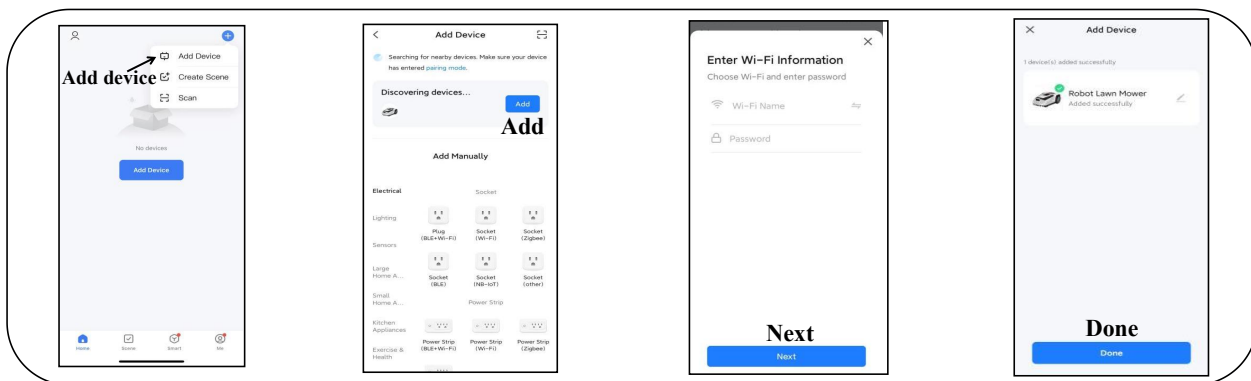
Smart Life APP

NOTE: The app scans the area for available devices and indicates if available devices have been found. From here there are two options to connect the device. If a list of available devices is not automatically suggested to you, please see 7.2.

7.1. The available devices are displayed in a list. Select your device by clicking “Add”. (Select only one device at a time. If there are other check marks for other devices, clear the check marks by pressing them.)

8.1. Select your WLAN and enter the correct password. Confirm the successful connection with “Next”.

9.1. The device is now listed in the tab and can be selected. Click it and your device will connect with your phone, confirm with “Done” key. The device is connected.



If the device is not suggested automatically, follow these steps: (pics in next page)

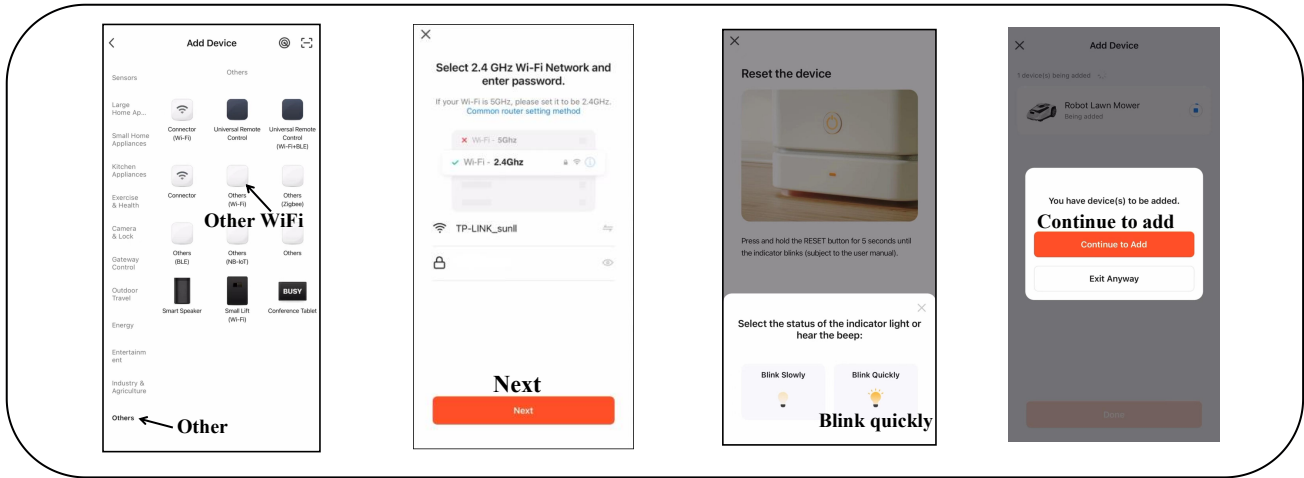
7.2. Select “Other” key in the bar on the left.

8.2. Select “Other (WiFi/BLE)” in the car on the right. Select your WLAN and enter the correct password. Confirm the successful connection with “Next”.

9.2. Confirm that the display “blink quickly”. The app now searches for available devices and suggests them to you.

10.2. Select the desired device.

11.2. Confirm with “Continue To Add”, then with “Done”. The device is connected.



CAUTION: Upgrading the firmware can change the features of the app.

Features Of The App

Auto Mowing

When the device in the standby/charging state. Click “**Auto**” key and set the working time as prompted. After confirmation, the machine enters the mowing state.

NOTE: The operation is effected by the battery power, please refer to the details in Page 17.

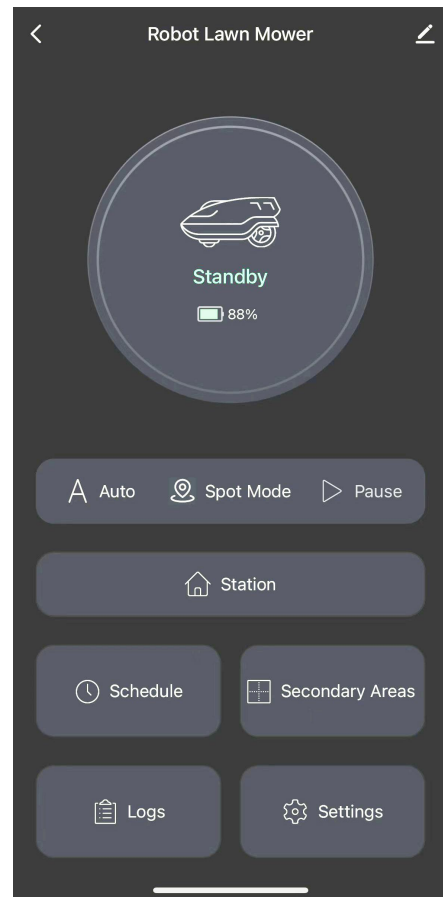
Fixed Mowing

When the device in the standby state, click “**Spot Mode**” key to enter the fixed mowing mode. During this period, you can press “**Cancel**” key to cancel the current task (the machine enters the standby state again). Otherwise, the single fixed point mowing task is completed and the automatic mowing task is entered by default.

Pause State

When the device mowing automatically, click the “**Pause**” key to pause the current task. In this state:

1. Click “**Continue**” key to continue the task of mowing;
2. Click “**Auto**” key to cancel the current task and start a new mowing task;
3. Click “**Spot Mode**” key to cancel the current task and enter the fixed mowing task;
4. Click “**Station**” key to cancel the current task and perform the recharge task.



Return To Charge

When the device in the standby state, click “**Station**” key to make the device return to the charging station. In the process of charging, you can click “Cancel” to cancel the current charging task, and the device will enter the standby state again.

Make An Appointment For Mowing

When the device in the standby/charging state, click “**Schedule**” key to set weekly mowing tasks and set daily tasks (no more than two time periods) as prompted.

Secondary Areas

When the device in the standby/charging state, click “**Secondary Areas**” key to divide the lawn area and set up five zones at most. The distance represents the walking distance along the boundary when the device leaves the station, and the area ratio represents the probability of the device entering the area. The sum of the area ratio of the partition is no more than 100%.

Logs

When the device in the standby/charging state, click “**Logs**” key to check ten error or work log of the device recently.


Here you can read out the error and time of the error / operating times of the lawn mower.

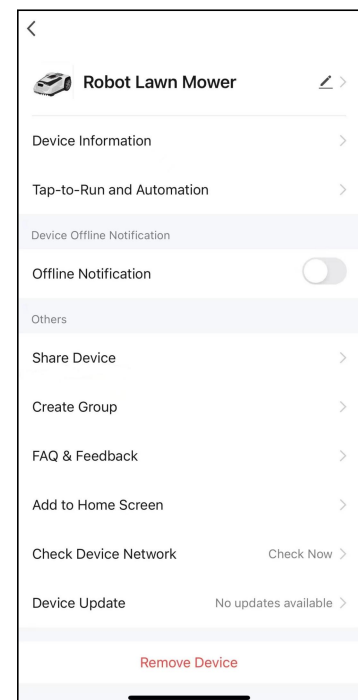
Settings

When the device in the standby/charging state, click “**Settings**” key to view and set the default mowing duration, device PIN code, rain switch and rain time.

Device Information

Click the “” icon in the upper right corner of the device operation interface.

- If you select the  icon again, you can assign a new image to the lawn mower under “**Symbol**”, and rename the lawn mower under “**Name**” or assign it a “**Location**”.
- “**Device information**” can be called up under this menu item.
- “**Tap to Run and Automation**” allows you to run automation you have saved.
- “**Offline Notification**”, when activated, sends you a notification when the App loses connection to the lawn mower.
- “**Share Device**” allows you to grant other members of the same household access to the lawn mower via the Smart Life App.
- “**Create Group**” allows you to create device groups.
- “**FAQ \$ Feedback**” answers frequently asked questions.
- “**Add To Home Screen**” Create shortcuts on your phone.
- “**Check Device Network**” can help to check the connection of the device.
- “**Device Update**” checks if the firmware is up to date and enables an upgrade if a newer version is available.
- “**Remove Device**” deletes the lawn mower from your device list in the app.



Others

If there is an error or fault during the operation of the lawn mower, a pop-up message will be displayed on the APP.

MAINTENANCE



WARNING: Before any maintenance or cleaning work, switch off the device and wait for the blades to come to a standstill. Handle your device with care. Keep the tools sharpened and clean in order to be able to work better and safer. Follow the maintenance instructions.

General Cleaning And Maintenance Work

- Keep the device clean. Check and clean mower regularly once a week. Use a brush or cloth for cleaning, but do not use any aggressive cleaning agents or solvents. Never spray down the lawn mower with water. There is a risk of electric shock.
- Oil the wheels from time to time.
- Make sure that all nuts, bolts and screws are properly tightened, and that the device is in safe working order.
- Wear gloves when handling the blades. Ensure that only replacement cutting tools approved by the manufacturer are used.
- Inspect the lawn mower for any damage. Check the covers and protective devices for damage and correct fit. Have any necessary repairs carried out on damaged parts. Replace these if necessary.
- Do not try to repair the device by yourself unless you have professional training. All work not mentioned in these instructions may only be performed by authorized service representatives commissioned by us.
- When you first start using the mower, the blade plate, protection plate and blade should be checked once a month.
- Blade edges should not be damaged. Blade life depends on the type of grass, soil, lawn etc. Replace worn or damaged parts in the interests of safety. When setting up the blades, take care that your fingers do not become caught between the rotating blades and stationary parts of the machine.
- Working with dull blades gives a poor mowing result, which needs more power to mow, meaning the mower covers a smaller area at a time. Change the blades if necessary.
- Charge the battery fully at the end of the season before winter storage. If storage time is longer than one year you will need to recharge the mower before use.

Turning / Replacing The Blades

The lawn mower is equipped with reversible blades. If the blades are blunt on one side, they can be turned over. If the blades are damaged or show signs of imbalance, they need to be replaced (see “Spare parts/accessories”).

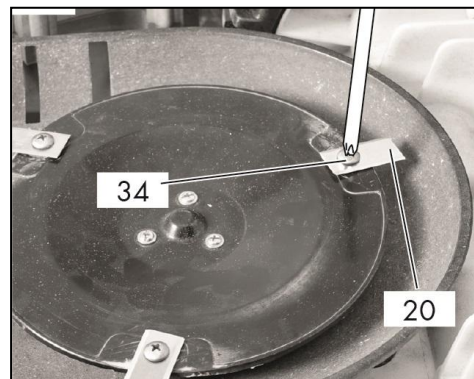
1. Turn the device over.
2. Remove blade bolts (34) on the underside of the device.

Turning the blades

- 3.1. Turn the blades (20) over.
- 4.1. Refasten blades with the blade bolts (34).

Replacing the blades

- 3.2. Remove the old blades (20).
- 4.2. Refasten the new blades (20) with the blade bolts (34).

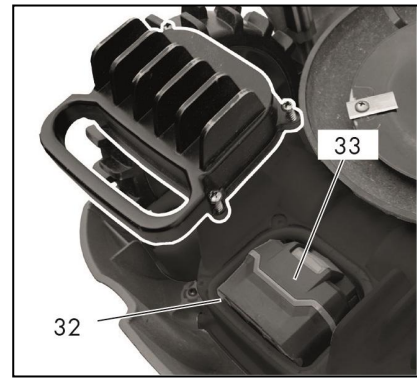


Removing Blockages



WARNING: Wear safety gloves. There is a risk of injury.

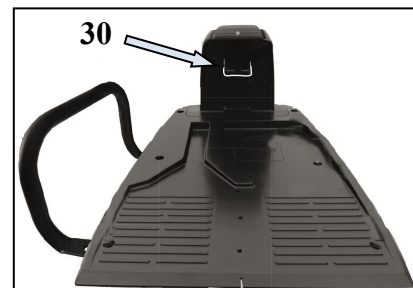
1. Turn the lawn mower over.
2. Open the battery compartment (32) by removing the 4 screws on the underside of the device.
3. Remove the battery (33).
4. Remove the blockage.
5. Reposition the battery (33).
6. Close the battery compartment (32).



Storage Over Winter

- Robotic lawn mower must be carefully cleaned before winter storage. Clean the device prior to storage (see “General cleaning and maintenance work”).
- Charge the battery fully before storage. Check the battery charge status approximately every 3 months during a prolonged storage period and re charge if necessary.
- Store the mower in the station and place in a dry area to protect from frost, preferably stored in the original packaging, do not enclose the device in nylon sacks as this may cause moisture to form. Out of reach of children.
- Boundary wire can be left in your lawn. As the charging station is removed, you should protect boundary wire end from moisture with electrical tape.
- Disconnect the charging station from the boundary wire.
- Insulate the contacts of the boundary wire with adhesive tape.

NOTE: If you are starting the device after an extended storage period, clean the battery contacts on the device and the charging prongs (30) on the charging station with a brass brush to prevent charging problems.



After Winter Storage

1. Check whether the mower, boundary wire and charging rods need to be cleaned before use. If the charging strips appear to be rusty, clean them by using an emery cloth or suitable abrasive cloth. Check whether the mower time and date are setting correctly.
2. Check whether the blades need to be changed.
3. Check whether the blades and blade plate turn easily.



WARNING: We are not liable for damage cause by our device if this is caused by improper repair, the use of non-original parts or incorrect use.

Transport



WARNING: Carry the mower by the handle between the two rear wheels with the blades pointing outwards.

Risk of injury!

A carrying handle (8) for transporting the device is located on the rear of the lawn mower.



ENVIRONMENTALLY SAFE BATTERY DISPOSAL

Remove the battery from the device and re cycle the device, battery, accessories and packaging in an environmentally-friendly manner.

The batteries used in this lawn mower's battery pack contain the following toxic and corrosive material: **LITHIUM-ION.**



WARNING: Toxic materials must be disposed of in a specified manner in order to prevent contamination of the environment. Before disposing of damaged or worn out Lithium-Ion battery packs, contact your local waste disposal agency for information and specific instructions. Take the batteries to a local recycling and/or disposal center that is certified for disposal.

If the battery pack cracks or breaks, whether it leaks or not, do not recharge it and do not use it. Dispose of it and replace it with a new battery pack. **DO NOT ATTEMPT TO REPAIR IT!**

Follow these instructions in order to avoid injury and the risk of fire, explosion, or electric shock, and to avoid damage to the environment:

- Do not throw batteries into domestic waste, fire (risk of explosion) or water.
- Cover the battery's terminals with heavy-duty adhesive tape.
- Do not attempt to remove or destroy any of the components of the battery pack.
- Do not attempt to open the battery pack.
- If a leak develops, the electrolytes that are released are corrosive and toxic. Do not get the solution in the eyes or on the skin, and do not swallow it.
- DO NOT incinerate batteries.
- DO NOT place batteries where they will become part of any waste landfill or municipal solid waste stream.
- Dispose of batteries at a certified recycling or disposal center.

Directive 2012/19/EU on waste electrical and electronic equipment: Used electrical devices must be collected separately for disposal and recycled in an environmentally sound manner.

Depending on the implementation in national law, you may have the following options:

Return to a shop:

Food retailers with a total sales area of at least 800 square meters that offer electric and electronic devices multiple times a year or permanently and distribute them on the market are obligated to take back old electric and electronic devices at no charge. When handing a new electric or electronic device to an end user, they have to take back an old device of the same kind from the end user that essentially fulfil the same functions as the new device at the site of handover or in the immediate vicinity at no charge as well as take back up to three old devices per device type with external dimensions no larger than 25 cm in the retail shop or the immediate vicinity at no charge without the purchase of an electric or electronic device at the request of the end customer.

Hand over to an official collection points:

Take the device to a recycling plant. The plastic and metal parts used on your device can be properly sorted according to materials and grades and efficiently recycled. Please contact our service centre for more information.

Return to the manufacturer/distributor:

We will dispose of any defective devices that you send to us free of charge Please contact our service centre for more information. This does not affect accessories enclosed with the old devices or tools without any electrical components.

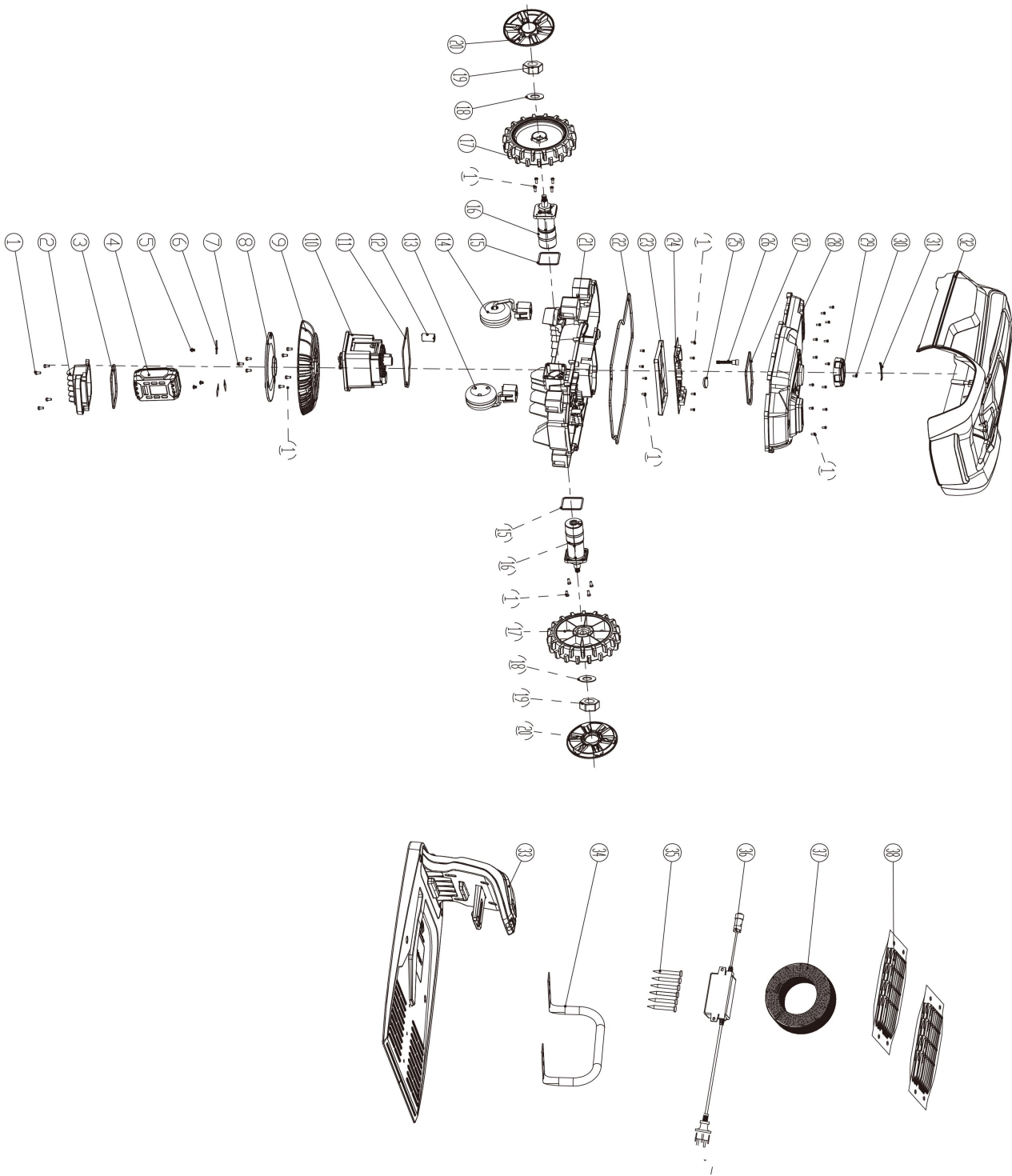
TROUBLE SHOOTING

The following form lists the common operating system with problem and solutions. Please read the form carefully and follow it.

PROBLEMS	POSSIBLE CAUSES	SOLUTION
Machine does not start	Rechargeable battery not inserted	Insert rechargeable battery (see “Replacing the battery” in page 15).
	Cover (1) is open	Close cover (1).
	Defective motor	Sent the device in to the Service Centre for repair (Consult customer service).
	Grass too long	Pre-mow the long area if necessary . Set higher cutting height.
	Battery abnormal	Remove the battery and check the voltage. The normal voltage is 20V. If the detected voltage is not this value, please contact us for a replacement battery.
Motor switches off	Blockage by foreign body	Remove foreign body.
	Battery high temp	The battery temperature is too high. Wait until the temperature decreases.
Lawn mower moves but does not cut	Blades blunt or defective	Replace blades (see “turning/replacing blades” in page 30).
	Cutting motor defective	Contact manufacture (Consult customer service).
Output not satisfactory or motor is difficult to operate	Cutting height too low	Set higher cutting height.
	Blades (20) is blunt	Sharpen or replace the blade.
	Blade area blocked	Clean device.
	Blades (20) incorrectly mounted	Install blades correctly.
	The slope is too high	Please make sure that the robot works in the slope area where the slope does not exceed 47% (25°).
Abnormal sounds, clattering or vibrations	Blade bolts (34) loose	Tighten blade bolts.
	Blades (20) damaged	Replace blades.
Lawn mower moves out of the boundary	Routing error : 90° corners can lead to signal loss	Take corners widely.

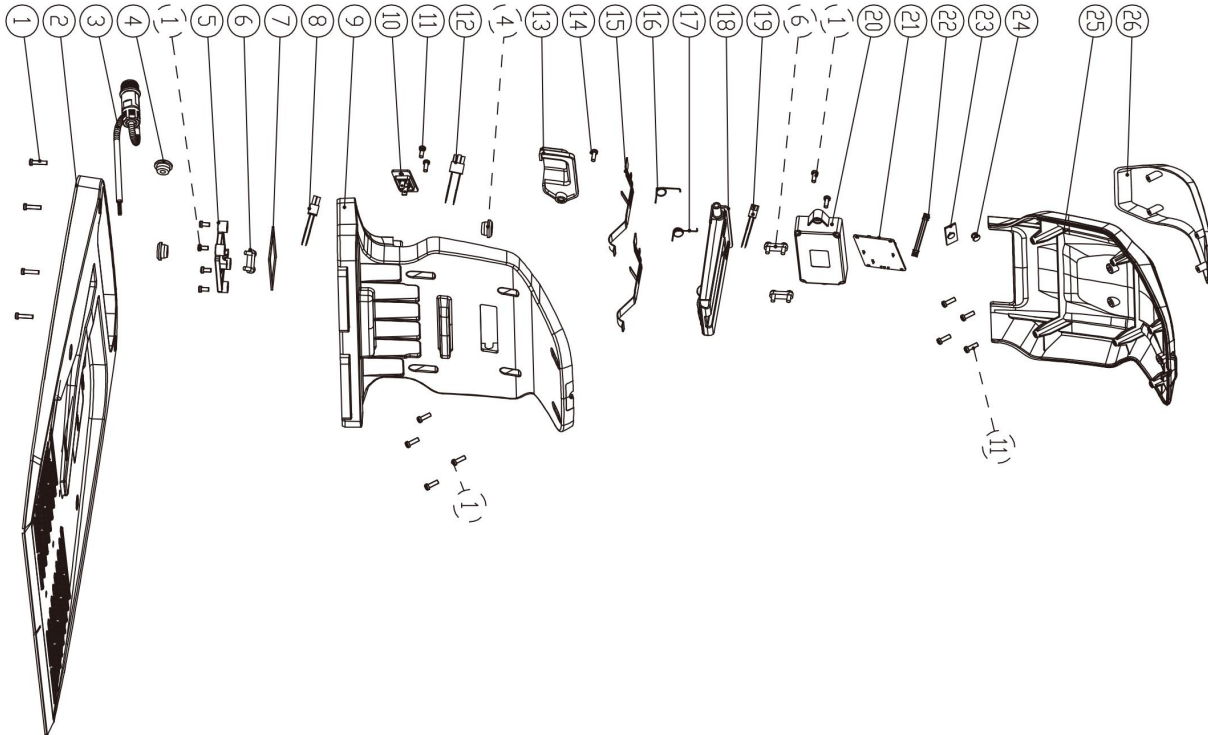
EXPLODED VIEW & PARTS LIST

Lawn Mower Exploded View & Part List



Item	Stock#	Description	Qty
1	PDL08A-001	screws	38
2	PDL08A-002	Carrying Handle	1
3	PDL08A-003	Battery compartment seal	1
4	PDL08A-004	Battery Pack	1
5	PDL08A-005	Blade Screws	3
6	PDL08A-006	Blade	3
7	PDL08A-007	Knife plate screws	3
8	PDL08A-008	8.5 inch knife plate	1
9	PDL08A-009	8.5 inch shield	1
10	PDL08A-010	Chassis components	1
11	PDL08A-011	Enclosure Seals	1
12	PDL08A-012	Magnetic ring 3	1
13	PDL08A-013	Right front wheel assembly	1
14	PDL08A-014	Left front wheel assembly	1
15	PDL08A-015	Rear Drive Seals	2
16	PDL08A-016	Rear wheel drive assembly	2
17	PDL08A-017	Rear wheel assembly	2
18	PDL08A-018	Flat Gasket	2
19	PDL08A-019	Loosen the nut	2
20	PDL08A-020	Rear Hub Cap	2
21	PDL08A-021	Chassis assembly (large screen)	1
22	PDL08A-022	Chassis Seals	1
23	PDL08A-023	Main control board case	1
24	PDL08A-024	Main control panel (large screen)	1
25	PDL08A-025	Coin cell batteries	1
26	PDL08A-026	Data Acquisition Cable	1
27	PDL08A-027	Adjustment box sealing ring	1
28	PDL08A-028	Middle cover assembly (large screen)	1
29	PDL08A-029	Adjustment knob	1
30	PDL08A-030	Self-tapping screws	1
31	PDL08A-031	Adjust the knob cover	1
32	PDL08A-032	Top cover assembly	1
33	PDL08A-033	Charging Piles	1
34	PDL08A-034	Guardrails	1
35	PDL08A-035	Charging pile ground nail	6
36	PDL08A-036	Power adapter	1
37	PDL08A-037	Borderline	1
38	PDL08A-038	Crimped ground nails	350

Charging Station Exploded View&Part List



Item	Stock#	Description	Qty
1	P033-001	Self-tapping screws	14
2	P033-002	Charging pile base	1
3	P033-003	Power cord	1
4	P033-004	Wire Hole Seals	3
5	P033-005	Waterproof cover	1
6	P033-006	Pressure plate	3
7	P033-007	Waterproof cap seal	1
8	P033-008	Power supply line	1
9	P033-009	Charging pile shell	1
10	P033-010	Borderline socket	1
11	P033-011	Self-tapping screws	6
12	P033-012	Boundary socket lines	1
13	P033-013	Dustproof cover	1
14	P033-014	Flange face self-tapping screws	1
15	P033-015	Contact Sheet	2
16	P033-016	Left reset spring	1
17	P033-017	Right reset spring	1
18	P033-018	Charging head	1
19	P033-019	Charging head cord	1
20	P033-020	Controller housing	1
21	P033-021	Charging pile control board	1
22	P033-022	Lamp cord	1
23	P033-023	LED light board	1
24	P033-024	Lampshade	1
25	P033-025	Charging pile top cover	1
26	P033-026	Charging pile decorative cover	1

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Please call toll free at: 1-800-791-9458/1-888-293-0024 (M-F 9am – 5pm EST)
Email: support@amerisuninc.com / support@powersmartusa.com

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