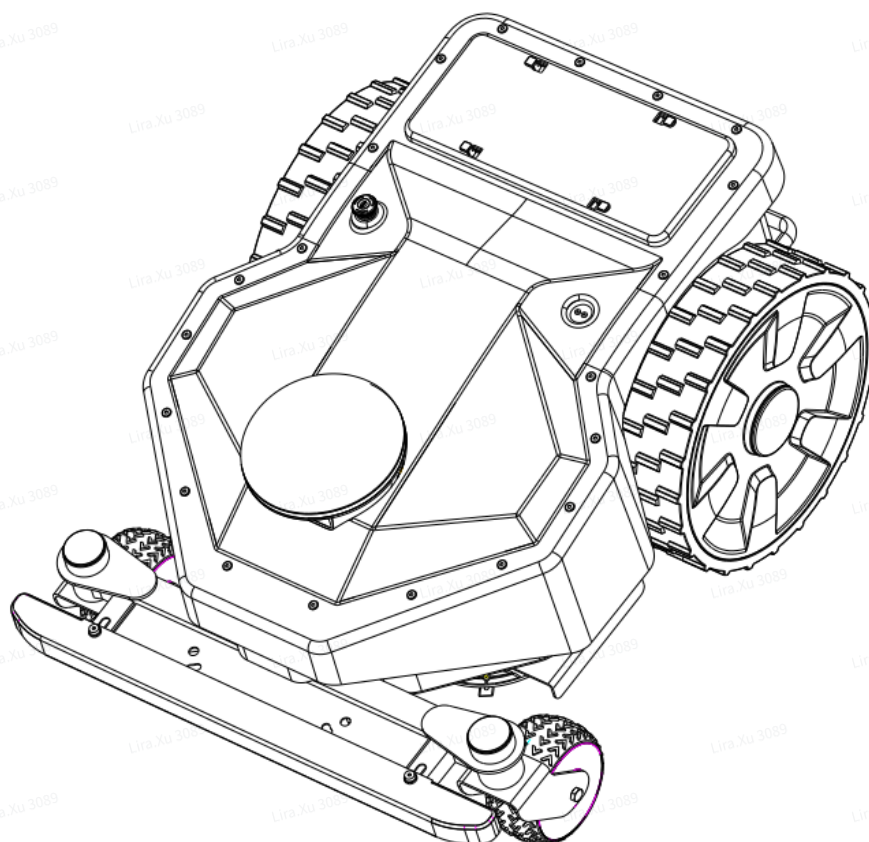


FRX Medium Lawn Mower Manual



FJDYNAMICS
丰疆智能

FRX medium lawn mower

Instructions for use



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This manual will be updated without further notice.

Revision record:

Version	Date	Revised content
1.0	2025.05	First edition

Read before use:



Please operate strictly according to this user manual!

Improper use may lead to equipment damage and performance degradation.

If you have any questions during use, please contact the service personnel in a timely manner.

Disclaimer:

- The products, services or features you purchase are subject to commercial contracts and terms. Some products, services or features mentioned in this manual may not be within the scope of your purchase or use. Unless otherwise provided in the contract, Fengjiang Intelligence makes no express or implied statements about the content of this manual.
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Safety tips



This symbol indicates important safety instructions. Failure to follow these instructions may endanger the personal safety or property safety of operators and other personnel. Before attempting to operate the lawnmower, please read and understand all instructions in this manual.

Evaluate the level of risk associated with this product based on the meaning of the following signal words

Safety warning symbol	Signal word	Explanation
	Danger	Indicates an urgent and dangerous situation that, if not avoided, could result in death or serious injury.
	Warning	Indicates a potentially dangerous situation that, if not avoided, could result in death or serious injury.
	Attention	(No safety warning symbol) indicates situations that may cause property damage.



Warning

Before using this machine, please be sure to read and understand all safety instructions in this manual, including safety warning symbols. If you do not understand the warnings and instructions in this manual, do not use this product. This machine is only for use by personnel who have read, understood, and complied with the safety signs printed on this manual and the lawn mower, and meet the age requirements of local regulations.



Warning

When using this machine, always follow basic safety precautions to reduce the risk of explosion, electric shock, fire, and other serious personal injury.



Warning

People wearing electronic medical devices such as pacemakers should consult a doctor before using this product. Operating electrical equipment near a pacemaker may cause pacemaker interference or malfunction.

- Before attempting to assemble and operate, please read, understand, and follow all instructions and warnings in this manual.
- Please be familiar with all control devices and their correct operation methods, and know how to quickly stop equipment operation and disconnect all control devices.
- Do not allow children or untrained adults to operate or repair this equipment.
- Please note that local regulations may limit the age of operators. Please comply with the user age requirements stipulated by local laws.
- If there are any situations not covered by this manual, please judge carefully and contact after-sales for help.

1. Overview

1.1 User Notice

The purpose of this instruction manual is to assist the owner and operator in maintaining and operating the lawn mower. Please read the instruction manual carefully. The information and instructions provided in this instruction manual can help you obtain reliable Computer Performance. The owner should ensure that the operator and mechanic read and understand this instruction manual. Before operating the machine, please read the instruction manual and all safety signs. The owner should ensure that the operator and mechanic are qualified and capable of operating this equipment. Mechanics of all sellers must be familiar with the safe operation methods of this equipment. Do not allow children or untrained personnel to operate or repair this equipment. Please note that local regulations may limit the age of operators.

1.2 Instructions for use

This manual is applicable to the FJD FRX series and provides users with an overview of the basic operation, installation, adjustment, and maintenance guidelines for lawn mowers. Due to significant differences in operating conditions, this manual cannot cover all situations. Unless otherwise specified, the descriptions of "right" and "left" in this manual refer to the direction in which the operator stands with their back to the front of the lawn mower. The photos and illustrations used in this manual are the latest versions at the time of printing, but the actual situation of the machine may be slightly different due to subsequent production adjustments. Fengjiang Intelligent Technology Joint Stock Company (hereinafter referred to as "Fengjiang Intelligent") reserves the right to redesign and modify the machine as needed without prior notice. If you find any changes to the machine that are not mentioned in the manual, please

consult the Fengjiang Intelligent Product dealer to obtain the latest information on the current parts.

1.3 Intended use of the product

This 48V smart lawn mower is only used for mowing.

1.4 General information

1. Before assembling and operating the equipment, please read, understand and strictly follow all the instructions and warnings in this manual. Please keep this manual properly for easy reference.
2. Please be sure to be familiar with all the control devices and their correct operation methods, and master the way to quickly stop the operation of the equipment and disconnect the control devices.
3. It is strictly prohibited for children or untrained personnel to operate or maintain this equipment. Please note that local regulations may have age restrictions for operators. Please strictly abide by the age requirements stipulated by relevant laws and regulations.
4. If you encounter any situation not covered by this manual, please be cautious, avoid blind operation, and contact the after-sales service for professional help in time.

1.5 Equipment modification

If you need to improve the performance of the equipment, users can contact Fengjiang Intelligence for official modification. Please do not change the product configuration by yourself, otherwise you will not be able to make any legal claims for the modified product based on the content of this manual. Only original parts can be used during modification, and using other parts will result in warranty invalidation. Without the permission of Fengjiang Intelligence, please do not install non-standard devices on the equipment to avoid danger or equipment damage.

1.6 Maintenance service

1.6.1 Warranty card

The owner must register the equipment by filling out the "Warranty Registration Form" provided in the packaging. As a new equipment owner, when using the "Warranty Registration Form", it

must be filled out and signed by both the authorized dealer and the original purchaser.

2. General Safety Warning for Power Tools

2.1 Safety in the workplace

- Keep the workplace clean and bright. Cluttered and dim environments are prone to accidents.
- It is forbidden to operate power tools in explosive environments such as flammable liquids, gases, or dust. Fire generated by power tool operation

It may ignite these flammable substances, causing danger.

- When operating power tools, ensure that children and bystanders stay away from the work area. Distracted attention may lead to ineffective control

Tools can cause accidents.

	Please read all safety warnings, instructions, diagrams, and regulations provided with power tools. Failure to follow the instructions listed below may result in electric shock, fire, or serious injury. Save all warnings and instructions for reference. The "power tool" in the warning refers to a mains-powered (wired) power tool or a battery-powered (wireless) power tool.
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2.2 Electrical safety

- The plug of the power tool must match the socket, and it is strictly prohibited to modify the plug in any way. Power tools that need to be grounded are prohibited from being turned

Use original plugs and compatible sockets to reduce the risk of electric shock.

- Avoid physical contact with grounded objects such as pipes, heat sinks, refrigerators, etc. during operation. Grounding the body will increase the risk of electric shock.
- Do not expose power tools to rain or damp environments, as water ingress can cause electric shock hazards.
- It is strictly prohibited to abuse wires, and power tools or plugs should not be directly pulled or pulled through wires. The wires should be kept away from heat sources.

Oil stains, sharp edges and moving parts, damaged or tangled wires can significantly increase the risk of electric shock.

- When using power tools outdoors, be sure to use extension cords that meet outdoor standards. Compliance cords can effectively reduce the risk of electric shock.

- If operation in a humid environment cannot be avoided, a power supply equipped with a residual current device (RCD) protection must be used, which can display

To reduce the risk of electric shock.

2.3 Specification for the use of power tools

- When operating power tools, stay alert, focus on the current operation, and follow basic common sense. Do not operate power tools when you feel tired, or under the influence of drugs, alcohol, or drugs. Momentary negligence in operating power tools can lead to serious personal injury.
- Use personal protective equipment. Always wear protective goggles. Using protective devices such as dust masks, non-slip shoes, hard hats, or hearing protection devices under appropriate conditions can reduce personal injury.
- Prevent accidental starting. Make sure the switch is in the OFF position before connecting the power and/or battery pack, picking up or handling tools.
- When moving tools, placing your finger on the switch or charging while the switch is on can cause accidents.
- Remove all adjustable hexagon wrenches or removable wrenches before starting the power tool. Removable wrenches or hexagon wrenches left on the rotating parts of the power tool can cause personal injury.
- Do not stretch your arms too far. Always stand firm and maintain body balance. This can better control power tools in case of accidents.
- Dress code. Do not wear loose clothing or accessories. Ensure that hair and clothing are kept away from moving parts. Loose clothing, accessories, or long hair may be involved in moving parts.
- If there is a connection device for vacuuming and dust collection equipment, ensure that it is properly connected and used. The use of dust collection equipment can reduce dust-related hazards.
- Please do not take the safety guidelines of tools lightly due to frequent use and familiarity with them. Any negligence may cause serious injury in an instant.

2.4 The use and precautions of power tools

- Do not abuse power tools, be sure to choose the appropriate tool according to the purpose of use. Operating according to rated parameters can ensure efficient and safe operation of the tool.

- It is strictly prohibited to use power tools with malfunctioning switches. Tools that cannot be controlled normally through switches pose great safety hazards and must be repaired immediately.
- Before adjusting, replacing accessories, or storing power tools, be sure to disconnect the power supply and remove the removable battery pack. This preventive measure can effectively prevent the tool from accidentally starting.
- Idle power tools should be stored out of reach of children, and personnel who are not familiar with the tools and operating instructions are prohibited from using them. Untrained operation of power tools can easily cause danger.
- Regularly maintain power tools and their accessories, check whether the moving parts are misplaced, stuck, and whether the parts are damaged or have other conditions that affect operation. If damage is found, it needs to be repaired before use. Many accidents are caused by improper tool maintenance.
- Keep the cutting tools sharp and clean. Well-maintained sharp tools are not easy to get stuck and are easier to operate.
- Strictly follow these instructions and use power tools, accessories, and blades correctly in conjunction with the work environment and content. Using tools for unintended purposes may cause danger.
- Ensure that the handle and grip are dry, clean, and free of grease. Slippery or greasy grip surfaces can affect the safe operation and control of tools, increasing the risk of accidents.

2.5 Use and precautions for battery tools

- Only use the charging pile (charger) specified by the manufacturer for charging. Using a charging pile (charger) that is compatible with a certain type of battery pack for other battery packs may cause a fire.
- Be sure to use a dedicated battery pack for power tools. Using a mismatched battery pack may result in personal injury or fire accidents.
- Idle battery packs should be kept away from metal objects such as paper clips, coins, keys, nails, and screws. These objects may short-circuit the positive and negative electrodes of the battery pack, which can cause burns or fires.
- Improper use of batteries may cause liquid leakage. Avoid contact with leaking liquids. If accidentally touched, immediately rinse with plenty of water. If liquid enters the eyes, seek medical attention immediately. Liquid leaked from batteries is corrosive and may cause irritation or burns.

- Do not use damaged or modified battery packs and tools. Such batteries are unstable and may cause fires, explosions, or personal injury.
- Do not place the battery pack or tools in a fire or high temperature environment. Exposure to open flames or temperatures above 130 ° C can cause an explosion.
- Strictly follow the charging instructions and do not charge the battery pack or tool outside the specified temperature range. Improper charging or abnormal temperature may damage the battery and increase the risk of fire.

2.6 Maintenance

- Power tools must be repaired by qualified maintenance personnel using the same spare parts. This can maintain the safety of power tools.
- Do not repair a damaged battery pack yourself. The battery pack should be repaired by the manufacturer or an authorized service provider.

3. Notes

3.1 Operator Instructions

- When using the machine, approved personal protective equipment must be used, including at least safety helmets, eye and hearing protection devices, compliant tooling, safety shoes, etc. Personal protective equipment cannot eliminate the risk of injury, but if an accident occurs, it can reduce the degree of injury.
- Only responsible, trained, familiar with the instructions, and physically healthy personnel are allowed to operate the machine.
- Do not wear clothing with safety hazards such as scarves, loose clothing, shorts, and open-toed shoes to cut grass, in order to avoid being caught by components during machine operation. Do not use the machine barefoot.
- When operating a lawnmower in a dusty environment, always wear a full face mask or dust mask.
- Always wear gloves when handling cutting knives.
- When operating the machine, use ear protectors to avoid hearing loss. Do not use the radio or wear music headphones.

- To ensure safe operation, the operator needs to be attentive, focused on the mowing task, always keeping an eye on your destination, and paying attention to the surrounding environment.
- Observe the equipment carefully and be aware of any possible anomalies.
- Make sure there are emergency equipment nearby when using the machine.
- Do not operate the lawnmower when tired.
- Do not operate a lawnmower under the influence of drugs, alcohol, or other substances.

3.2 Lawn mower operation

- Read, understand, and follow all the content on the machine and in the instructions before starting the operation.
- It is recommended that you inform the relevant personnel that you are mowing the lawn so that they can provide assistance in case of injury or accident.
- Personnel who operate, maintain, and repair this machine must first read and understand this manual. Comply with the user age requirements stipulated by local laws. The machine owner has the obligation to train personnel who use this machine.
- The owner and operator of this machine should prevent accidents and be responsible for accidents or injuries to themselves, others, or property.
- Do not place your hands or feet near rotating parts or under the machine, and always stay away from the grass discharge port.
- Make sure there are no bystanders or animals in the area before operation. If anyone enters the area, please stop the equipment.
- Do not mow in reverse unless absolutely necessary. When using the remote control to operate the lawnmower, pay attention to the direction of operation and the surrounding environment.
- Do not operate the equipment without complete safety devices installed or with damaged safety devices.
- Do not operate poorly maintained equipment.
- Please slow down before turning.
- Do not attempt high-speed handling, especially in crowded areas or on slopes.
- Do not carry passengers.
- Do not operate on slopes greater than 20 degrees.

- Do not leave the running machine unattended, always park the machine on a level ground, stop the car after braking, and turn off the power.
- Pay attention to road conditions near or when crossing roads.
- Clean spilled oil before operating or storing the machine.
- If the lawnmower starts to vibrate abnormally, stop the machine and check the cause immediately. Abnormal vibration is usually a signal that the lawnmower is not working properly.
- Stop cutting the lawn when not cutting, turn off the power and wait for all parts to stop completely before cleaning the machine. After the machine is turned off, the cutting knife will continue to rotate for a few seconds. Do not place any part of your body in the cutting area until you ensure that the cutting knife stops rotating.
- If the lawnmower hits a foreign object, stop the machine immediately and check if any parts are damaged under safe conditions.
- If there are any situations not covered by this manual, please exercise caution and make appropriate judgments, and contact the dealer for assistance.

3.3 Operating area

- Before trimming any area, please thoroughly check whether there are any dangers in the area, whether there are any holes, falling objects, or hidden objects that may cause danger. It is necessary to clean up debris that may be thrown by the cutter, such as stones, toys, wires, etc.
- Do not operate near people or animals. Do not mow the lawn when there are children or others nearby.
- Plan the mowing method to avoid discharging grass clippings onto roads, sidewalks, bystanders, vehicles, windows, etc.
- Do not cut any other objects except for mowing grass.
- Do not let the cutter pass through leaves or other debris that may cause accumulation.
- When crossing dirt roads, gravel roads, or paved roads, please stop the cutting knife from running.
- When approaching blind spots, inner openings, shrubs, trees, or other objects that may block your line of sight, please be extra careful, as these objects may hinder the progress of the lawnmower.
- To reduce the risk of electric shock, do not operate the lawnmower in the rain, wet roads, or wet grass.

- To avoid losing control or overturning, do not operate on steep slopes or near water. Slow down and be extra careful on slopes.

3.4 Slope operation

- Slopes are the main cause of equipment loss of control and overturning, which can lead to serious injuries or death. Operating on slopes requires more care. If you cannot confirm whether the slope conditions are suitable for operation, please do not trim it.
- Avoid starting or stopping on slopes.
- It is recommended to trim slopes with a slope of no more than 20 degrees.
- Do not operate the machine under conditions where there are problems with tire friction, steering, or stability. Even if the car is parked on a slope, the tire may slide.
- Always keep the machine running when going downhill, do not slide in neutral.
- Pay attention to holes, ruts, rocks, or other obstacles that are not easily noticed, especially high grass areas where obstacles can be hidden. Uneven terrain and obstacles may cause the machine to tip over.
- Choose to drive at a low speed so you don't have to stop on a slope.
- When the grass is wet, do not trim on slopes, as tires may slip.
- Move slowly and steadily on the slope. Do not suddenly change speed or direction, otherwise it may cause the machine to overturn.
- When loading equipment with grass collection accessories or other accessories, extra care should be taken as they can affect the stability of the machine.

3.5 Child safety

- If the operator does not pay attention to the presence of children, tragic accidents may occur. Children are often attracted by machines and lawn mowing activities.
- Keep children away from the mowing area and have them supervised by adults other than operators.
- If children enter the area, please remain vigilant and turn off the machine.
- When mowing or operating a lawnmower, make sure there are no children around.
- Do not let children operate the machine.
- Be extra careful when approaching blind spots, shrubs, trees, or other objects that may block your line of sight.

3.6 Battery and charging safety

	If used improperly, the battery may pose a risk of fire or chemical burns. Do not overheat or disassemble or burn the battery. Leaks may occur during overuse, charging, extreme temperature conditions, or when the battery is damaged, squeezed, or punctured. Such leaks indicate a malfunction in the battery, please dispose of it properly.
	Note: Only replacement batteries and charging piles (chargers) provided by Fengjiang Intelligence can be used. Charging by other methods may damage the lawnmower or remote control.

Safety regulations for the use of charging piles (chargers):

- It is strictly prohibited to use charging piles (chargers) in rainy, humid environments, or places with flammable liquids or gases, nor to install them outdoors, in areas prone to water accumulation, or in areas with flammable and explosive substances.
- Be sure to confirm the applicable voltage marked on the charging pile (charger), and prohibit connecting mismatched AC power sources.
- Do not use extension cords unless necessary. If necessary, ensure that the rated current of the extension cords meets the needs of the charging pile (charger) to avoid voltage drop, power failure, or overheating due to insufficient current, which may cause fire or electric shock risks. At the same time, it is forbidden to use multiple power extension cords at the same time.
- Regularly check the power cord and extension cord of the charging pile (charger). If any insulation layer is found to be damaged, cut or cracked, immediately disconnect it from the socket and equipment. The damaged power cord cannot be used anymore and needs to be repaired or replaced in a timely manner.
- Standardize the use of power cords, prohibit dragging wires to move charging piles (chargers), and keep the wires away from heat sources, oil stains, water sources, sharp edges, and moving objects. When plugging and unplugging the power supply, please hold the plug and operate, and it is strictly prohibited to modify the plug and power cord.
- Avoid placing the charging pile (charger) in a position that is easily stepped on, tripped over, or damaged. When storing, choose a cool and dry place to prevent liquid from entering.
- Strictly prohibit small metal objects (such as steel wool, aluminum foil) or other foreign objects from entering the charging pile (charger) port; prohibit covering the charging pile (charger) to prevent the equipment from overheating.

- When the battery or charging pile (charger) overheats, wait for it to cool down before operating. The charging temperature should be controlled within the range of 0 °C to 40 °C (32 ° F to 104 ° F), and charging should not be done in narrow or poorly ventilated spaces.
- During charging, smoking or using open flames near the battery is strictly prohibited to prevent sparks from causing fires.

Battery usage and safety precautions:

- When the battery-powered lawnmower is running, it is prohibited to connect to the mains for charging, and only battery power can be used to reduce the risk of electric shock, explosion, or personal injury.
- When performing battery charging and discharging operations, safety glasses, protective clothing, and insulated tools must be worn.
- Batteries contain toxic liquids and explosive gases. Contact with skin, eyes, or clothing can cause chemical burns, and gas leaks can cause serious injury or even death.
- Incorrect battery cable wiring can damage the lawnmower, causing battery sparks or even explosions, resulting in serious personal injury.
- Do not expose the battery to open flames or high temperatures above 60 ° C (140 ° F) to prevent explosions; idle batteries should be kept away from metal objects (such as paper clips, coins, etc.) to avoid terminal short circuits causing sparks, burns, or explosions.
- Do not use or charge damaged, leaking, or corroded batteries; do not throw batteries into fire to prevent explosions.
- Batteries or conductors in high temperature conditions may cause burns, so be cautious when operating.

Emergency treatment for battery leakage:

- If leakage splashes onto the skin or eyes, immediately rinse the skin with plenty of cold water, rinse the eyes for at least 20 minutes, and seek medical attention as soon as possible.
- If leakage gets on clothing or shoes, remove and wash them immediately.
- If you feel respiratory irritation when opening the battery, immediately move to a ventilated area; if symptoms persist, seek medical attention promptly.
- If the battery generates smoke or gas during use, charging, or storage, it is necessary to ventilate and evacuate the site immediately to avoid gas hazards in enclosed spaces.

3.7 Handling and transportation

- Be extra careful when loading machines onto trucks or trailers using ramps. If the machine falls off the ramp, it may cause serious injury or death.
- Use a wide ramp to load the machine onto a trailer or truck.
- Use an approved trailer transport machine. Set the power switch to the off position and turn off the indicator light. Secure the front and rear wheels and body with a heavy-duty belt to prevent them from moving up and down and forward and backward, otherwise it may cause damage to the machine.
- During transportation, the parking brake is not sufficient to lock the machine in place. It is necessary to ensure that the machine is firmly and horizontally fixed on the transportation vehicle, and move the cutting table height to the highest position.
- The angle between the ramp and the ground must not exceed 20 degrees.
- Use ramps with sufficient strength and slowly load the remote-controlled lawn mower onto a truck or trailer. Do not lift the machine by hand.
- Familiarize yourself with the control device of the lawn mower before operating it uphill or downhill.
- Do not operate this machine on public roads.
- Before transporting machinery on the road, please check and comply with local traffic regulations.

3.8 Storage



Please store it properly and make sure to turn off the lawnmower when cleaning.

- Please store it after the machine has cooled down.
- When not using a lawnmower, it should be stored in a dry place, away from children, and away from prolonged direct sunlight.

3.9 Maintenance

- Before repairing, cleaning, or removing parts from the lawn mower, please remove the battery or disconnect the power.

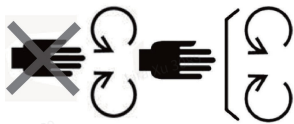
- Do not extend under the protective cover of the cutting knife. Make sure your hands, feet, and clothes are away from the rotating cutting knife.
- Be sure to use accessories approved by Fengjiang Intelligence.
- Electrical maintenance can only be performed by trained professionals.
- Maintaining lawn mowers requires keeping the cutting blade sharp and clean to ensure optimum performance and safe operation.
- Check daily and weekly maintenance checklists to ensure electrical connections are secure and bolts are tightened.
- Do not remove or tamper with the safety device, and check its normal operating status regularly. Do not do anything that interferes with the expected function of the safety device or reduces its functionality.
- Before restarting and operating the lawn mower, please repair or replace all damaged components.
- Regularly inspect the lawn mower cables and, if damaged, have them repaired by an authorized service provider.
- When replacing the cutting knife, wrap it or wear gloves. Replace the damaged cutting knife and do not repair or modify it.
- Keep the lawn mower free of grease, dirt, and other possible combustible materials.
- To avoid personal danger and damage to the machine, do not use a high-pressure washer for cleaning.
- Do not use battery-powered lawnmowers in the rain.
- Please follow the prescribed pressure inflation in the user manual for tire pressure. Excessive inflation can cause tire rupture and may result in injury or death. If there are scratches (cracks) on the tire, do not use it as there is a risk of tire rupture. At this time, be sure to contact Fengjiang Intelligence or a dealer to replace or repair the tire, inner tube, rim, etc.

4. Symbolic identification

The following are some symbols that may be used on this product. Please read and understand their meanings. Correctly understanding these symbols will enable you to operate the product better and safer.

V	Volt	Voltage unit
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A	Amperes	Current unit
Hz	Hertz	Frequency unit
W	Watts	Power unit
min	Minutes	Unit of time
---	Direct current	Type or characteristic of current
Km/h	Kilometers per hour	The speed of the lawn mower
	Safety warning	Indicates potential danger of personal injury.
	Wet condition alarm	Do not expose to rain or use in damp areas.
 	Read the user manual	To reduce the risk of injury, users must read and understand the instructions before using this product.
	Protect your eyes	Be sure to wear goggles or goggles with side guards.
	Hands and feet away	Do not put your hands or feet under the lawnmower cutting table.
	Be careful with the slope	Do not operate on slopes greater than 18 degrees.
	Away from bystanders	Please maintain a distance of at least 100 feet from all bystanders.

		
	Attention pop	Pay attention to the objects that pop out, and stay away from the machine when the motor is running.
	Keep people away from	Keep people away.
	Body warning	No riding or carrying objects
	Prevent electric shock	Please turn off the power before operating this machine.
	No footsteps	No footsteps allowed.
	Pay attention to cutting hands	Do not open or remove the safety shield when the motor is running.
	Pay attention to pinching your hands	Moving parts can easily squeeze or cut the hands, so keep them away.
	Pay attention	Pay attention to pinching your hands.



to
pinching
your hands

5. Product introduction

5.1 Specification parameters

Module	Functional operation	May 2025 data
Basic parameters of structure	Length * width * height	968*757*512mm
	Rear drive wheel diameter	400MM
	Selection material of universal wheel	Plastic, rubber, aluminum alloy
	Internal spacing of universal wheel	640mm
	Rear wheel spacing	Center spacing 576mm, outer ring 676mm, inner ring 476mm
	Cutting table upgrade distance	10mm~100MM
	Double row wheel	Support double row drive wheel

	Battery	Supports 0.5 kWh and 1 kWh, top cover quick removal and replacement
	Weight	Bare car 59kg/62KG with 0.5 kWh battery

Module	Functional operation	Data for May 2025
Performance parameters	Waterproof and dustproof grade	IPX5
	Working temperature	0~55°C
	Long-term storage temperature	0~25°C
	Cutter adjustment range	10Mm-100mm stepless adjustment
	Mowing width	260*2mm
	Climbing ability	20-Degree climb, 15-degree operation slope Working slope 20 degrees (twins)
	Battery pack capacity	0.5kw*h/1.0kw*h
	Battery pack voltage	50.4V
	Battery pack current	Maximum 10A output
	Charging time	2.2h
	Walking speed in	Maximum 1.1m/s. Support stepless speed regulation

three gears	
Cutter speed in three gears	1st gear; 2nd gear; 3rd gear;
Supports Wi-Fi and BT	Support
Support 4G communication	Support
Support satellite positioning communication	Support
Electronic anti-theft	Cheating software module W18L中文说明书.pdf
Network RTK	Support
Raindrops	Support
Lift up	Not supported
Tilt	Support
Collision	Support, front collision
Camera	Support 1 monocular and 1 binocular camera

6. Deploy RTK

If you have a network RTK service number based on **Ntrip** , you can use the network RTK positioning solution without deploying an RTK antenna.

6.1 Deploy base station RTK antenna

In order to optimize the performance of the RTK system, the RTK antenna must be located in an open area to receive satellite signals. You can install the RTK reference station on a flat and open ground, or on a wall or roof. Generally, the RTK antenna can be placed on the ground, but if you

have multiple courts, we recommend placing the RTK antenna on a wall or roof to improve stability and coverage.

6.1.1 Install RTK on the ground

If the RTK antenna installed on the wall/roof is not suitable for your usage scenario, you can choose to purchase our "Tripod Kit" accessories. You can check the detailed instructions below.

Site requirements

Choose a suitable location to install the reference station. The requirements are as follows:

1. Choose a place without trees or towers nearby. Also place your RTK antenna and tripod on open fields and as high terrain as possible.
2. Choose land with dense soil to ensure that the position remains unchanged after installation.
3. The position is not affected by collisions with operating machinery.
4. Choose an easy-to-find location.

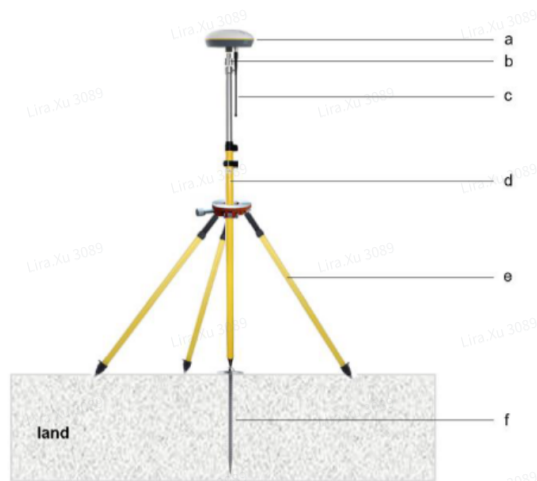
Installation guidance

1. It is recommended to complete the first installation of the receiver in the following order:

- A. On the selected plot, bury the reference station measuring pile in the ground and compact it; mark the pin top to be flush with the ground; mark the pin position for easy use next time.
- B. Remove the receiver, antenna adapter and radio antenna. Then connect the receiver's radio antenna and antenna adapter. The receiver needs to be mounted on the center pole of the tripod; then turn it on.
- C. Place the bottom of the center rod of the tripod on the marking pin, and stabilize the three legs of the tripod; adjust the length of the three legs so that the horizontal bubble above the tripod is centered.
- D. Set the center rod of the tripod to the appropriate height: 1.5~ 1.7 meters (make sure to set the same height every time)
- E. Configure the coordinates of the starting reference station through the software app and record the starting coordinate value of the current position.
- F. Start your mowing task.

2. Second operation:

First, find the marking pin point of the first operation, repeat steps b and c, and then use the coordinate value of the first start to start the receiver of the reference station and start the operation.



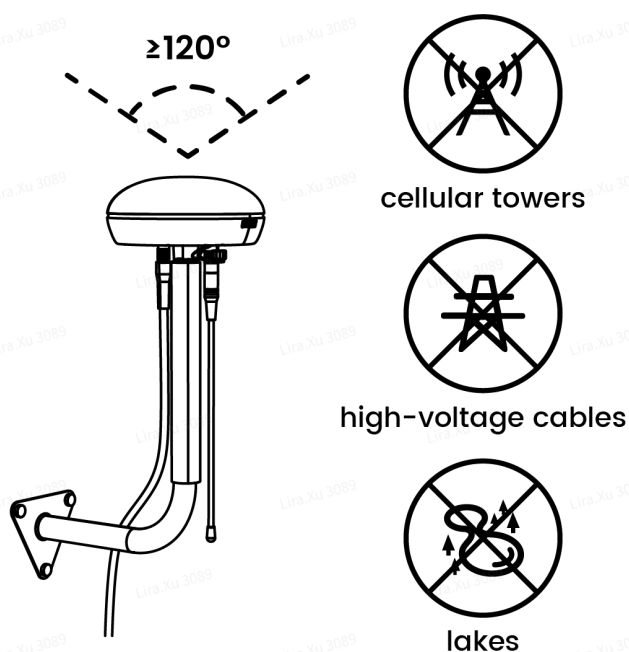
- | | |
|-------------------------------|------------------|
| a V1 receiver | d Alignment pole |
| b Adaptor with 5/8-inch screw | e Tripod |
| c Radio antenna | f Marking pin |

3. The steps for removing the receiver are as follows:

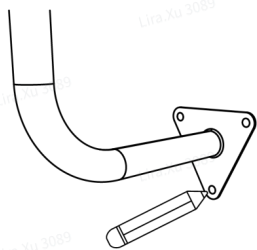
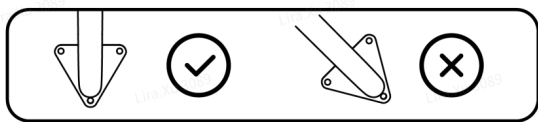
- A. Remove receiver and turn off; remove radio antenna and antenna adaptor;
- B. Folding tripod;

6.1.2 Install RTK antennas on walls/roofs

1. RTK antennas should be installed in open areas such as roofs or walls.
2. Ensure that there is a partially unobstructed sky at a 120 ° angle.
3. Install RTK antennas at least 500 meters away from water sources such as base stations, high-voltage cables, and lakes.



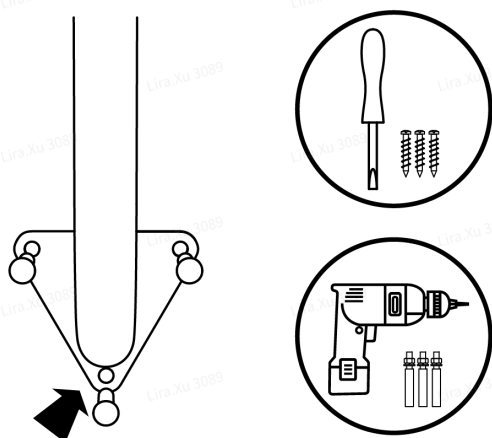
4. Mark the installation position of the curved mounting rod on the wall.
5. The mounting rod must be positioned vertically upward.



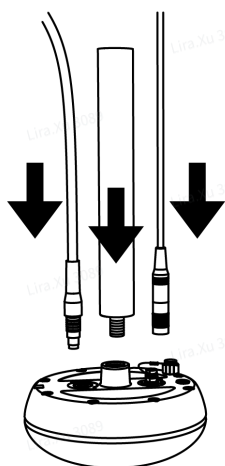
6. Select the appropriate bolts according to the wall material and drill holes at the marked positions.

7. For wooden walls: use M6 screwdrivers and screwdrivers.

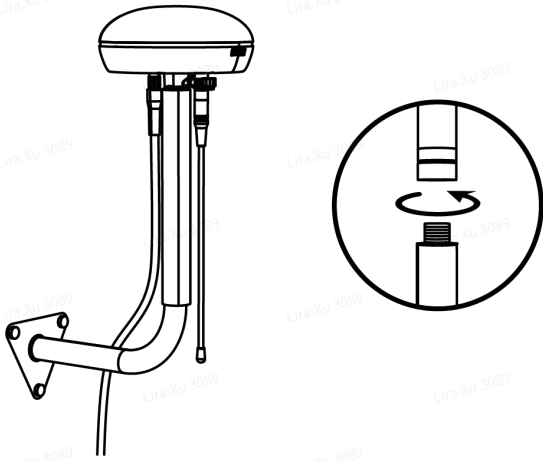
For concrete walls: use M8 expansion bolts and power tools (self-contained).



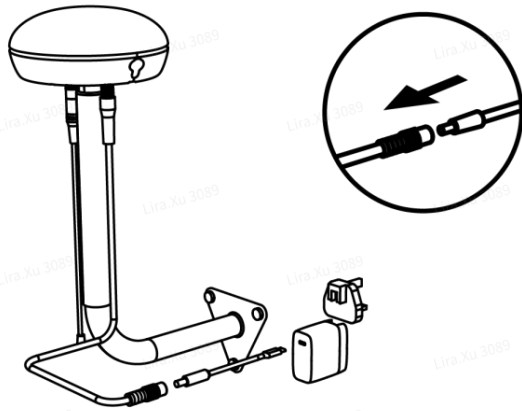
8. Install a direct hanging pole, RF antenna, and power cord (5m) on the RTK base station.



9. Secure the two mounting rods firmly.



10. Insert the DCUSB-C cable, adapter, and power adapter plug into the power outlet to activate the RTK base station.



7. Instructions for use

7.1 Preparation work

- Read and understand the safety instructions before use.
- Make sure the RTK antenna is deployed or the **ntrip** account information has been obtained.
- Make sure there is good Wi-Fi or mobile hotspot signal available nearby.
- Confirm that the Bluetooth function on your phone is enabled.

7.2 Download applications

FJDynamics is designed to work with applications, please download the application first, you can get the application iOS by scanning the QR code below or searching for {FJD Landscaping} on Android or the app store.



7.3 Register an FJDynamics account and log in

If you already have an FJDynamics account, see Login Only.

Mobile number registration is currently only available in Chinese mainland.

7.3.1 Register and log in

After downloading the application, you can create an account according to the following instructions.

7.3.1.1 Register with email

1. Click Register Now.
2. Enter your email address.
3. Click the Send Verification Code button, and a verification email will be sent to your email address (if not received, please check your junk email folder).
4. Enter the verification code (the valid period of the verification code is 10 minutes, please click the send button again to get a new verification email).
5. Set a password (the password should be between 8 and 22 characters, with at least lowercase letters and numbers).
6. Review the User Agreement and Privacy Policy.
7. Click to complete registration and login.

9:41

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REGISTER

For account security, please set a login password and enter verification code. Your password must be a combination of numbers, letters and special characters, and at least 8 characters long.

Enter Email Address

Enter Password

Enter Verification Code [Send](#)

Create Account

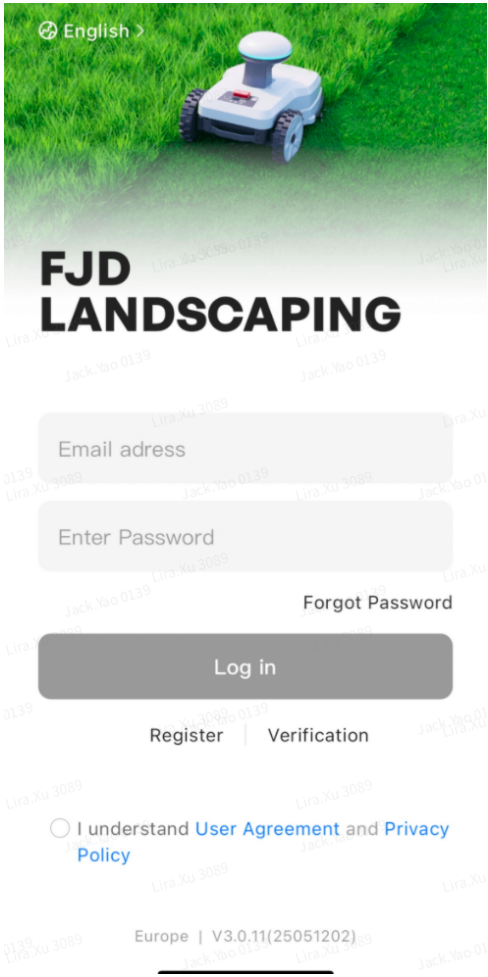
☐ I've read and agreed to [User Agreement](#) and [Privacy Policy](#)

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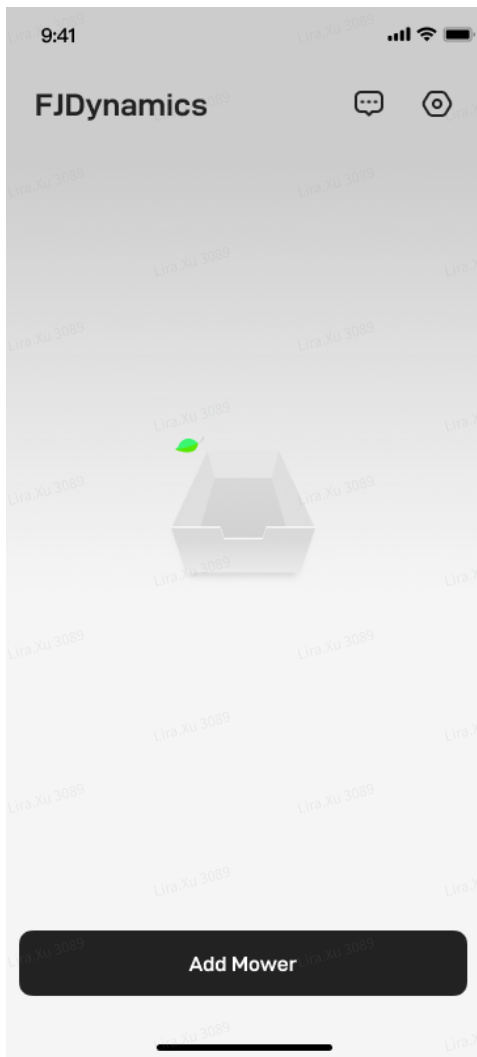
7.3.2 Log in only

You can log in directly by entering your username (i.e. email) + password, or username (i.e. email) + verification code. After that, check the User Agreement and Privacy Policy, and click Login to access the main interface of the system.

To switch the application language, please click on the upper left corner of the login page.



7.4 Facility Management

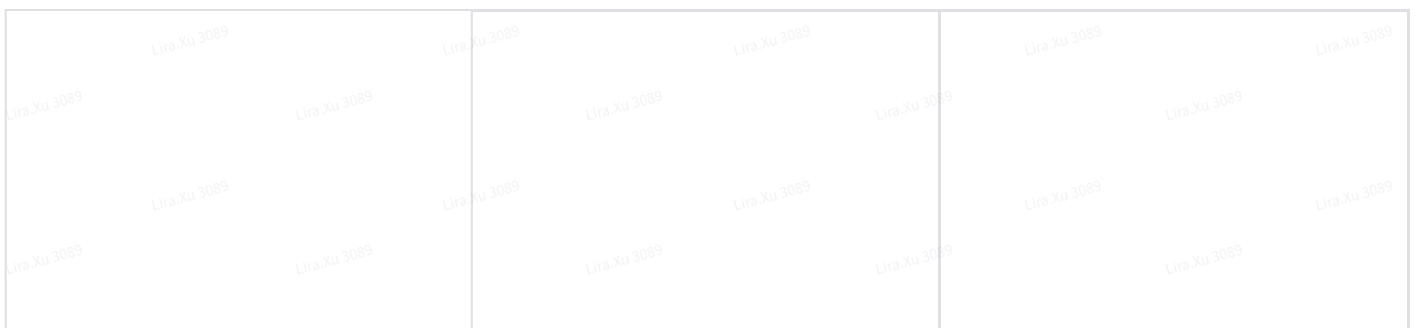


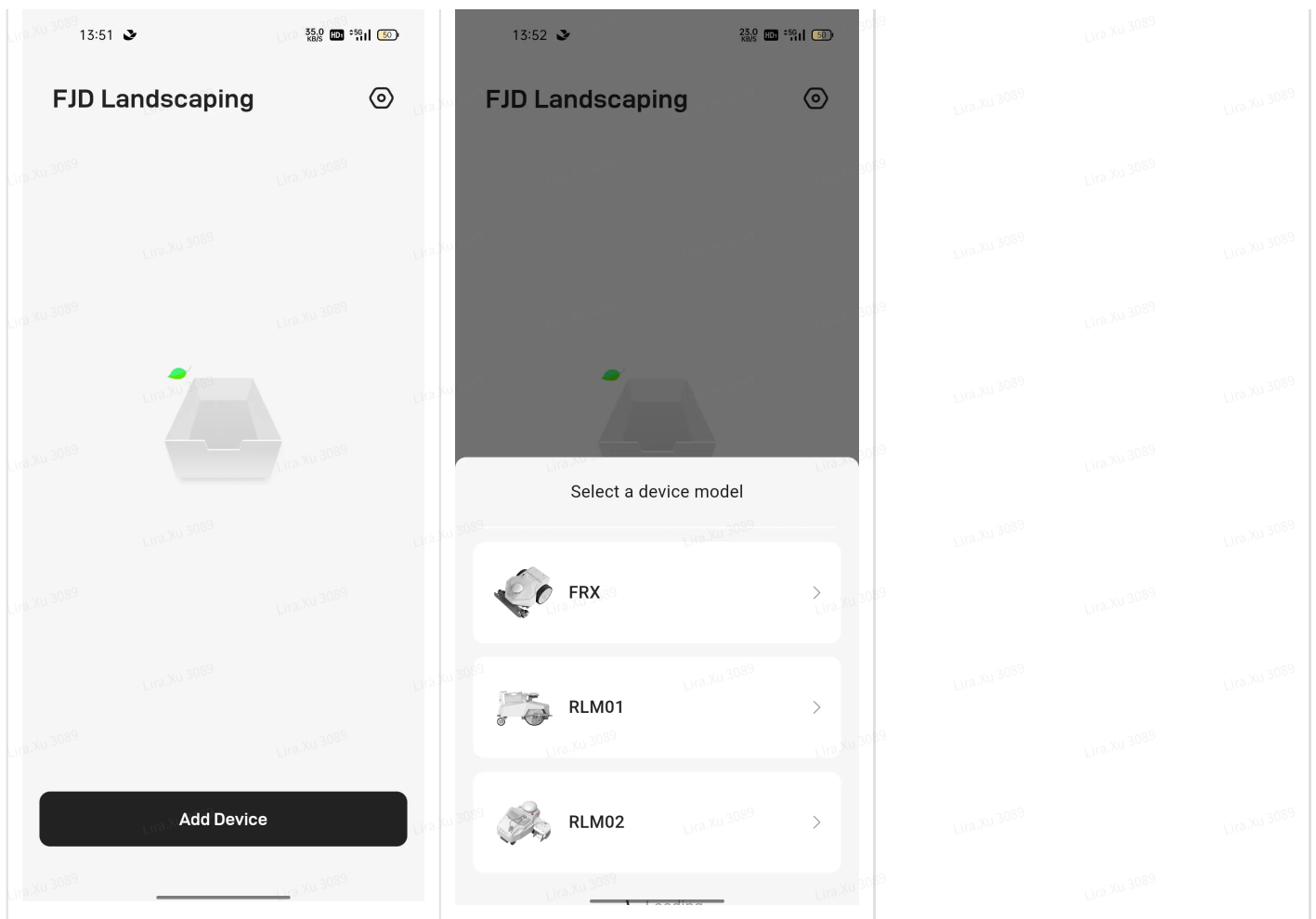
7.5 Add FRX lawn mowing robot



Note: To ensure that the Bluetooth function is normal, please make sure that the phone has turned on the Bluetooth function and the distance between the phone and the lawn mowing robot is less than 3m.

1. Click the "+ Add Device" button.
2. Select "FRX" from the options.
3. Follow the instructions to complete the setup of the robot.





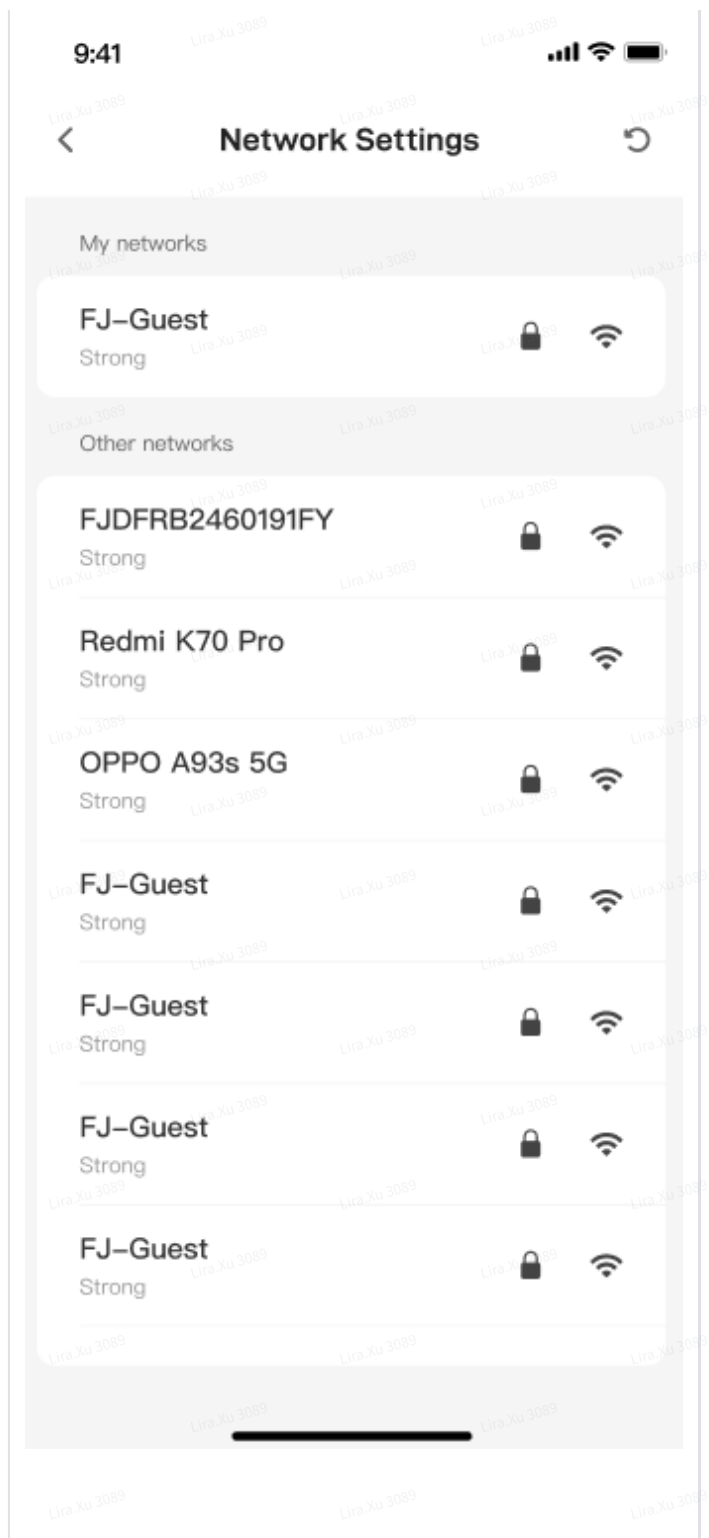
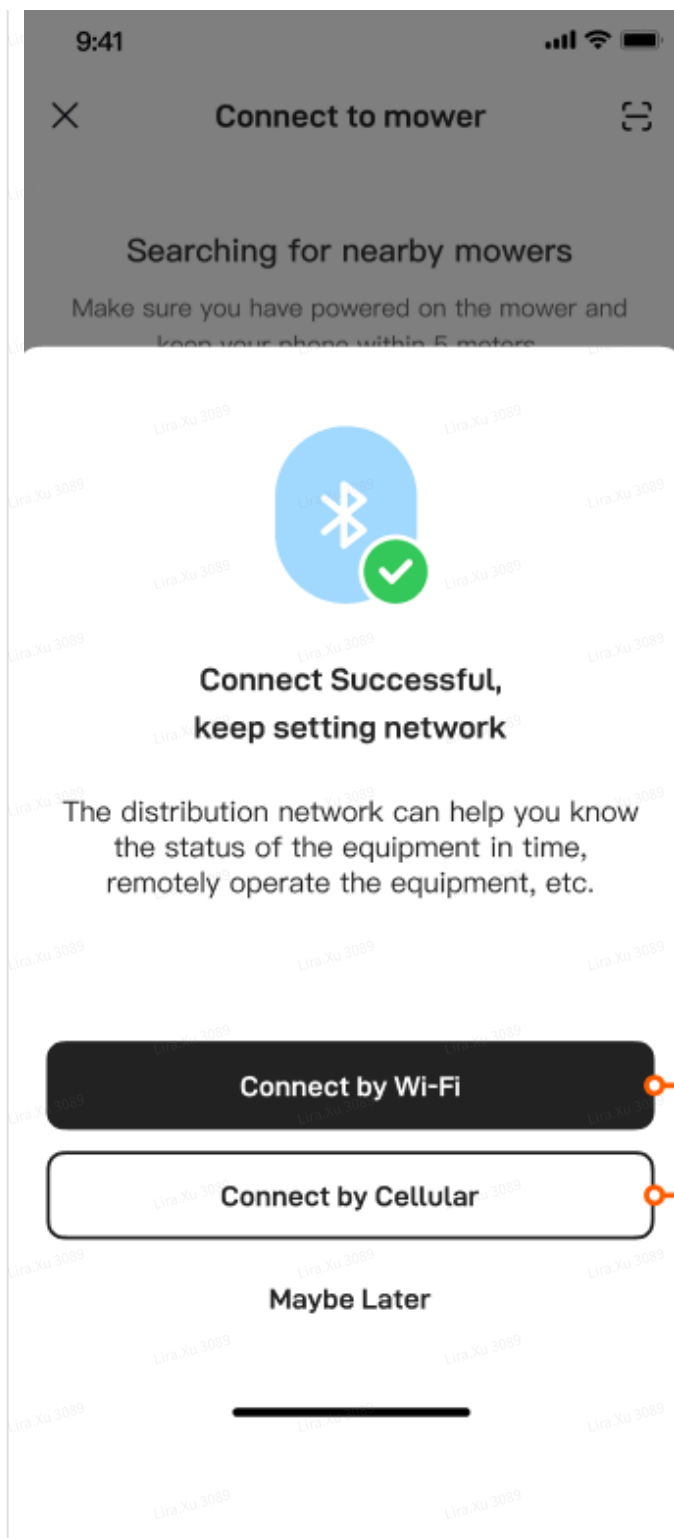
7.5.1 Connect the lawn mowing robot to the network

!	Note: FRX lawn mowing robot only supports 2.4GHz Wi-Fi network. If you are using a iOS device, the lawn mower can only connect to the Wi-Fi network that your phone is connected to. First, connect your phone to Wi-Fi, and then connect the lawn mower to the same Wi-Fi network.
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When adding a device for the first time, guiding the phone to connect to the vehicle via Bluetooth will initiate the network configuration process.

- Enter or select a Wi-Fi network name.
- Enter the Wi-Fi password.
- Click Finish.





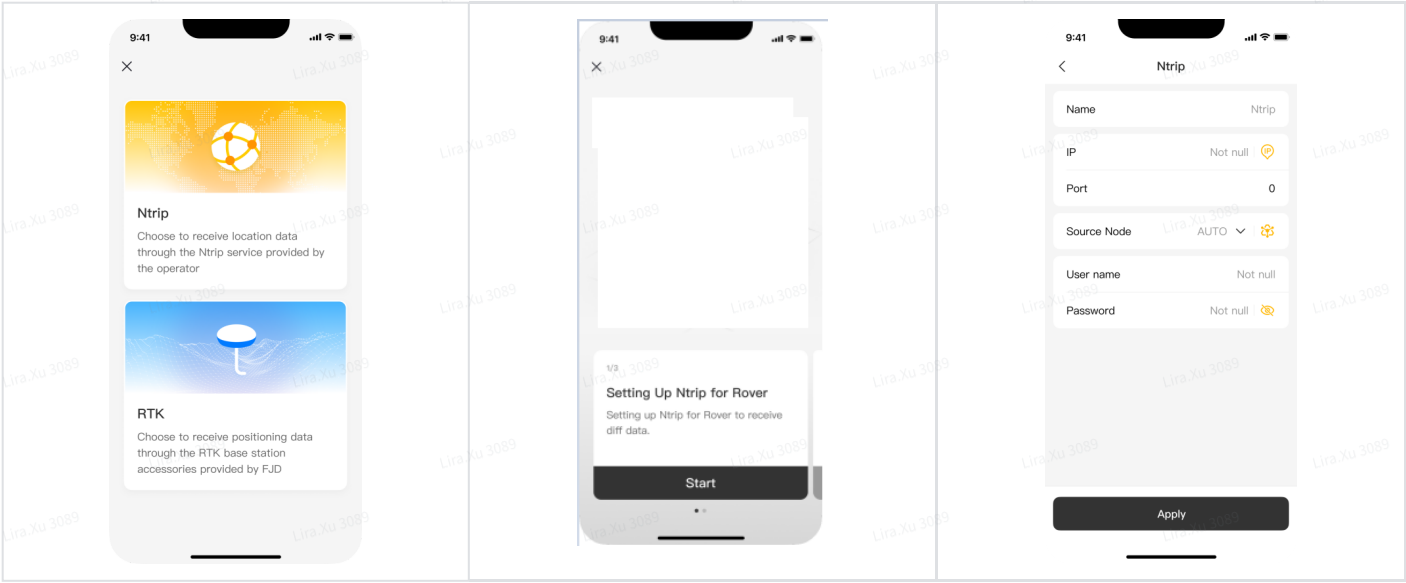
7.5.2 Deploy RTK reference station

The lawn mower supports two RTK base station deployment options: Ntrip network RTK base station or local RTK base station.

7.5.2.1 RTK reference station deploys Ntrip network

1. Select Ntrip when deploying RTK.
2. Read the deployment instructions.
3. Enter the required Ntrip network RTK configuration.

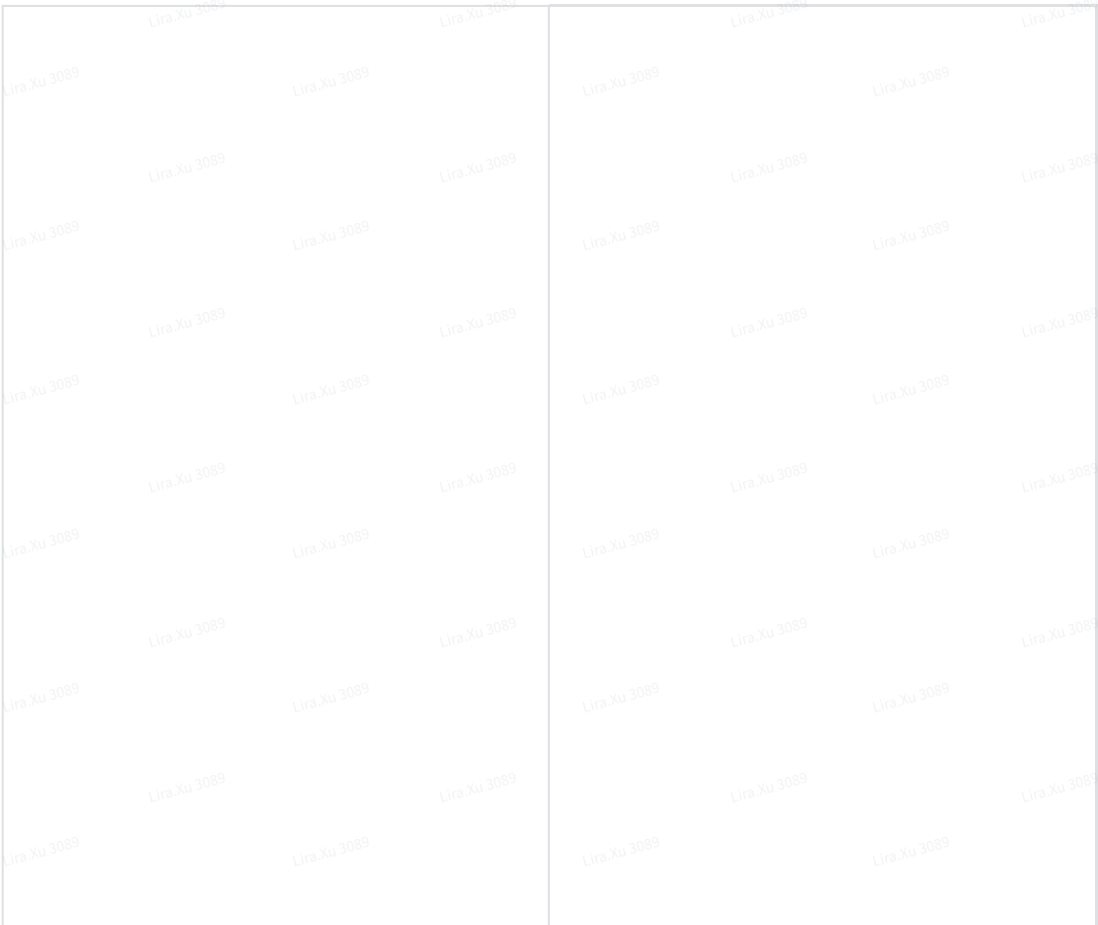
4. Wait for the base station function deployment to complete.

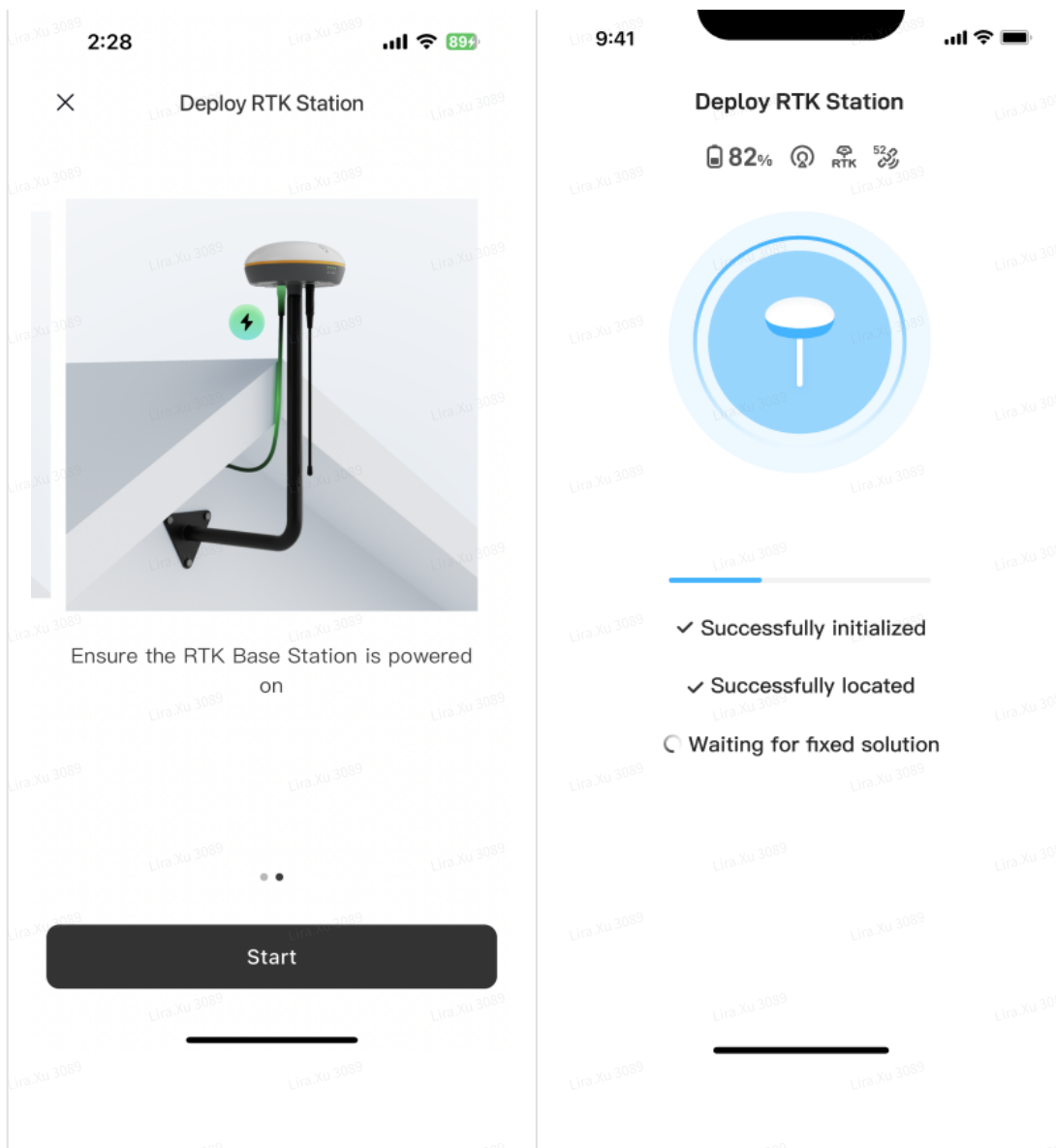


7.5.2.2 Deploy local RTK base stations

Ensure that the RTK base station is installed and powered on, and ensure that the phone is connected to the lawn mowing robot via Bluetooth.

- 1. Select the base station site.
- 2. After confirming that the preparation steps have been completed, click Start.
- 3. Wait for the base station function deployment to complete.





8. Maintenance

8.1 Maintenance Plan

Cycle	Maintenance matters
Before first use	- Start up and check if there are any fault prompts - Observe if the wheels are loose - Check the cutter - The cutting knife must be sharp. - Check whether the cutting knife and disc bolts are loose and tighten them with a wrench

	• Inspect components such as bolts, nuts, or bolts for damage, loss, or looseness. Ensure that all protective devices are installed and working properly • To ensure that the operating system and applications remain up-to-date, check for software updates, and if so, install them in a timely manner (regularly update according to reminders).
In use	• Avoid working for long periods of time on wet grass or rugged terrain. • Periodically pause to check whether the blade is entangled with debris. • Avoid colliding with hard objects such as stones, tree roots, etc. • Avoid working on potholes. • Larger obstacles such as tree trunks, thinner obstacles such as chair legs, etc. are easy to get stuck in the machine. Please circle them into a forbidden area
After each month of use	• Clean the cutting table (depending on the situation, increase the inspection frequency). ◦ Put down the cutter in the app accessories bar and turn off the power. ◦ Use a small water pipe, rinse appropriately, and avoid using a high-pressure water gun for hard flushing ◦ After cleaning and drying, turn on the machine • Check the cutter ◦ 4-6 weeks depending on the situation, 9-12 weeks depending on the situation scrapped • Check for looseness of rear wheel bolts and tighten • Check the front wheel blockage and clean the grass clippings • Wipe the front glass of the machine and camera • Clear the weeds near the charging pile

8.1 Storage lawn mower

If you plan to not use this machine for a long time, please follow these steps to store it.

- Clean the lawn mower as described in the previous section.
- Check the cutter and replace or sharpen it if necessary (see the Maintenance section).
- Store the lawn mower indoors in a dry, clean, well-ventilated, and out of reach of children. Do not place it next to corrosive materials such as fertilizers or rock salt.
- Do not cover the lawn mower with solid plastic sheets. Plastic coverings can trap moisture around the mower, causing rust and corrosion.

- Thoroughly inspect for any worn or damaged parts that need to be replaced and order from the dealer.
- Check the tire pressure every month to prevent tire leaks.
- For more information on battery pack maintenance, please refer to the battery pack maintenance section of this manual.

8.2 Battery maintenance

	During maintenance, only batteries designated by Fengjiang Intelligence can be used for replacement. Using any other parts may cause danger or product damage.
	Do not smoke when repairing batteries.
	Be sure to wear safety glasses and protective clothing near the battery. Use insulated tools.
	It is not recommended to use compressed dry air as a cleaning method for charging piles. If using compressed air for cleaning is the only available method, please always wear goggles. If the environment is dusty, also wear a dust mask.

Your lawnmower is powered by batteries, which, if properly maintained, will provide years of service life. To receive proper care, please follow the instructions below.

- When not using the lawnmower, please disconnect the power switch of the car in time to reduce unnecessary battery consumption.

	Use Fengjiang Intelligent's approved charging pile (charger) for charging. Incorrect battery charging will invalidate the warranty and may cause equipment damage, serious injury or death.
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- Each time the battery is repaired, check whether the battery cable is firmly fixed to the battery.

- Prevent grass, dirt, and debris from accumulating near the battery terminals.
- After the battery undervoltage protection, the battery should not be kept in a discharge state for a long time, otherwise the battery will be damaged.
- Charge the battery in a ventilated and dry place away from sparks or airflow. Do not let the charging pile (charger) come into contact with rainwater, steam, or liquids.
- The charging piles (chargers) recommended by Fengjiang Intelligence only charge the batteries provided by Fengjiang Intelligence.
- Do not touch the charging pile electrode or the uninsulated part of the output connector.
-
- To extend the life of the battery pack and ensure that the module remains in good condition, please follow the instructions below.
- Excessive discharge of the battery pack means that the battery life will be shortened and the battery may be permanently damaged.
- When the battery is fully discharged and turned off, please charge it as soon as possible. Even if you only charge the battery for 5-10 minutes, it is still beneficial and does not need to be fully charged. It is best to charge the battery within 24 hours after it is fully discharged and turned off.
- If the battery pack is not used for a long time (several days or weeks), please disconnect the power switch in the car to reduce the standby loss of the battery and extend the storage time of the battery pack.
- If the battery needs to be stored for a long time, please make sure that the battery is about 50% charged before starting storage, and regularly recharge the battery to more than 50% for three months to keep the battery in a healthy state.
- When the battery pack needs to be stored for a long time, it is recommended to store it in an environment with a temperature of 25 ° C (77 ° F). When the storage environment temperature is between -20 ° C and 45 ° C (-4 ° C)
- It is recommended to store for no more than one month in the range of ° F to 113 ° F; when the storage environment temperature is in the range of 0 ° C to 35 ° C (32 ° F to 95 ° F), it is recommended to store for no more than six months.
- The optimum discharge operating temperature is -15 ° C to 50 ° C (5 ° F to 122 ° F), and it is recommended to use it within the above temperature range.
- Battery packs should be stored without severe vibration.
- Battery maintenance tips:
 - Charge the battery before it runs out

- Avoid recharging fully charged batteries
- Charge at suitable room temperature and booster charge after battery cools

8.3 Maintenance points

- Park the lawn mower on a level surface. Make sure the cutter switch is in the "off" state, raise the cutting table, and press the emergency stop switch.



Before adjusting, cleaning, or repairing, wait for all movements to stop. Repairs or maintenance that require electricity can only be performed by trained maintenance personnel. Also, read the safety warning instructions in this manual.

- Any maintenance operation that requires removal of the safety cover must be performed by a trained service technician.
- Clean the bottom of the cutting table with a stick or similar tool, and keep your body away.
- By keeping the battery room and cutting table clean, prevent the accumulation of garbage, grass clippings, and other debris.
- Clean all dirt and debris in the battery room, electric control box, cutting table, etc. Do not use water, solvents, hard cleaners, or abrasives.
- When repairing batteries or sanding lawnmower blades and removing accumulated debris, be sure to wear goggles. When the lawnmower is running, do not attempt to cut the mower's cutting table,
- Any adjustment or repair of the cutter or any accessories.
- Do not work under the machine unless it is safely supported by a jack bracket. When the machine is raised and placed on the jack bracket, ensure that any maintenance operations that require removal of the safety cover must be performed by a trained service technician.
- Before checking the bottom of the cutting table, make sure that the power switch is in the "off" state, that is, the indicator light is off, and the cutting table blade switch must not be accidentally started.
- Use a cleaning brush or similar tool to clean the bottom of the cutting table, and do not approach the body.
- By keeping the battery room and cutting table clean, prevent the accumulation of garbage, grass clippings, and other debris.

- Clean all dirt and debris in the battery room, electric control box, cutting table, etc.
- When repairing batteries or sanding lawnmower blades and removing accumulated debris, be sure to wear protective goggles. Do not attempt to make any adjustments or repairs to the mower's cutting table, knives, or any accessories while the lawnmower is running.

The battery used in this lawnmower contains the following toxic and corrosive substances: lithium ions.

	All toxic substances must be disposed of in a specific way to prevent environmental pollution. Before disposing of damaged or worn lithium-ion batteries, please contact the local waste disposal agency or the local Environmental Protection Agency office for information and specific instructions. Send the batteries to the local recycling or processing center for lithium-ion treatment.
	If the battery ruptures, whether there is a leak or not, do not recharge or use the battery. Dispose of and replace the battery. Do not attempt to repair it! To avoid the danger of injury, explosion, or electric shock, and to avoid damage to the environment, please cover the battery terminals with insulating tape.

- Do not attempt to disassemble or damage any batteries.
- Do not attempt to open the battery.
- If there is a leak, the released electrolyte is corrosive and toxic. Do not let the solution flow into the river or come into contact with the skin, and do not consume it.
- Do not place these batteries in household waste.
- Do not burn.
- Do not place it in a place that will become a landfill for any waste.

9. Troubleshooting

9.1 The mowing function fault of the cutting table and its treatment

If unsure, please contact your dealer.

Mowing cannot discharge well	Grass is	Work after the lawn is dry
	The grass is long	Increase cutting height, cut twice
	Low cutting height	Increase cutting height
	Work fast	Reduce operating speed
Remnants after cutting	Work fast	Reduce operating speed
	The grass is long	Increase cutting height, cut twice
	The cutter is worn or damaged	Replace the new cutter
	The haystack is piled up inside the cutting platform	Clean the inside of the cutting table
Uneven cutting	Work fast	Reduce operating speed
	The cutter is not sharp enough	Sharpening cutter
	Blade bending	Replace the new cutter
	Cutting table is not level	Level the cutting table according to the "Adjust the level and height position of the cutting table" section in the manual
	Cutter wear	Replace the new cutter
	Incorrect roller setting	Adjust the height of the roller
	Low tire pressure	Air to normal tire pressure

Cut to the grass (soil)	Low cutting height	Increase cutting height
	Fast turning speed	Reduce turning speed
	The ground is raised	Change the mowing operation mode (cutting direction, etc.)
	Cutter bending	Replace the new cutter
	Low tire pressure	Air to normal tire pressure
Large vibration	The grass is piling up inside the cutting table	Clean cutting table
	The cutter is bent or unbalanced	Replace the new cutter or balance cutter
	Loose cutter fastening bolt	Tightening cutter fastening bolts
The cutting table has a large workload	Work fast	Reduce operating speed
	Grass piles and wraps around the cutting table shaft	Clean cutting table
The cutting knife is serrated and gray-brown	The cutter is not sharp	Sharpening cutter
	Cutter wear	Replace the new cutter
	Cutting table is not level	Leveling cutter
Error message displayed on the car computer	Handle and maintain according to the displayed error information	Handle and maintain according to the displayed error information
The lawn mower cannot start	Power switch light off	Check if the power switch is turned on and the indicator light is on
	Battery cable not connected	Make sure the battery cable is connected

Circuit breaker trip

Check if the circuit breaker trips

9.2 Battery failure and handling

When handling batteries, please read the battery precautions carefully.

Failure	Fault condition	Troubleshooting or solution
The lawn mower cannot start	The battery is dead	Fully charge the battery
	Poor battery terminal contact	Clean the terminals and then re-tighten the bolts and nuts
	Battery life is up	Replace the battery
	There are problems with the wiring harness and switch	Entrust dealer for maintenance
Cannot charge	Battery life is up	Replace the battery
The terminal is severely corroded and overheated	Insufficient terminal fastening	Clean the terminals and then re-tighten the bolts and nuts
Battery fluid suddenly decreases	The battery has cracks and small holes	Replace the battery
	Charging voltage is too high	Check charging pile (charger)

9.3 Troubleshooting of mowing motor and mowing motor controller



Before you begin these steps, make sure your DMM can measure resistance up to 1.20 million ohms (Q).

Before performing any maintenance or repair, be sure to disconnect the battery cable. After disconnecting the battery cable, wait for 5 minutes before operating the machine.

1. Remove debris accumulated on all cutting table components.
 - b. Verify that all power connections on the mowing motor and the mowing motor controller are properly tightened. Also check that the cutting table is working properly. If a loose connection is not found, continue with the following steps.
3. Label the connection points of the mowing motor controller so that they can be easily seen for correct reconnection.
4. To ensure correct reconnection, label all wiring with the appropriate connection point label in step 3.
5. Remove all wire connections from the mowing motor controller.
 - f. Measure the resistance (Q) of the mowing motor controller
 - i. First, adjust the multimeter to the short-circuit test mode.
 - ii. Place the positive electrode of the digital multimeter on the positive terminal of the mowing motor controller; place the negative electrode of the digital multimeter on the negative terminal of the mowing motor controller.
 - iii. At this time, if the multimeter beeps, the controller is damaged and needs to be replaced.
7. If no problem is found, please re-tighten the wiring of the mowing motor controller and the motor.
8. Measure the resistance (Q) of the mowing motor.
 - a. First, adjust the gear of the multimeter to the resistance gear.
 - b. Place the positive electrode of the multimeter on the motor terminal U and the negative electrode on the motor terminal V, and observe the resistance reading.
 - c. Place the positive electrode of the multimeter on the motor terminal U and the negative electrode on the motor terminal W, and observe the resistance reading.
 - d. Place the positive electrode of the multimeter on the motor terminal V and the negative electrode on the motor terminal W, and observe the resistance reading.

- e. If the resistance of the above three tests is greater than 5 ohms, the mowing motor needs to be replaced.
- i. Place the negative (-) dial of the digital multimeter on pin 2 and the positive (+) dial on pin 3 to measure the resistance in the six-pin motor connector. The resistance reading should be between 800k (Q) and 1.2m (Q) ohms. The resistance between pin 2 and pins 1, 4, 5, and 6 should be 0 ohms. If the resistance is higher or lower than these ranges, the mowing motor needs to be replaced.
- j. If steps 1 through 9 have been completed and the problem persists, refer to the wiring harness troubleshooting process below.

9.4 Troubleshooting of lawn mower harness

The lawn mower cannot start	Poor contact of wiring harness terminals below power switch	The connector needs to be re-inserted into the switch when it is loose, and the switch harness pin needs to be repaired by a dealer when it is loose
	The plug-in on the wiring harness to the battery is loose	Check and plug in the plugin
Motor not working	Power harness or communication harness issues for each motor	Check whether the power harness and communication harness are on and off, and whether the plug-in is loose. If necessary, entrust the dealer for repair
Switching device not working	The plug-in on the wiring harness to the battery is loose	Check the problem switch according to the interface display, and then check whether the switch plug-in is abnormal. If so, you need to entrust the dealer to repair it

10. Waste disposal

This product contains metal materials and electronic components. Waste disposal should be based on environmental protection principles, comply with local laws and regulations, and

hand over the waste materials (including packaging materials, metal parts, electronic components, etc.) to local manufacturers with recycling qualifications for processing.

11. Storage

The correct storage method is crucial for maintaining the performance and extending the service life of lawn mowers. The following are a few points to note when storing lawn mowers:

- 1. Drying and ventilation:** Lawn mowers should be stored in a dry environment to prevent the machine from getting damp and affecting the normal operation of its electrical system and mechanical components. At the same time, good ventilation conditions can prevent the internal parts of the machine from getting damp or corroded due to long-term closure.
- 2. Avoid direct sunlight and rain :** Direct sunlight and rain may cause the shell of the lawn mower to fade, deform, rapidly age the painted pipeline, and even affect the performance of its internal electronic and mechanical components. Therefore, choose a place to store the lawn mower that avoids direct exposure to sunlight and rain.
- 3. Non-corrosive gas environment:** The environment where lawn mowers are stored should avoid the presence of corrosive gases, because these gases may corrode the metal parts of lawn mowers and affect their service life.
- 4. Regular inspection and maintenance:** Even if stored in the correct environment, it is recommended to regularly inspect and maintain the lawn mower to ensure that it is in the best condition. This includes checking whether the mechanical parts are worn, whether the pipe joints are leaking, etc., and timely repair and replacement.

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FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body