

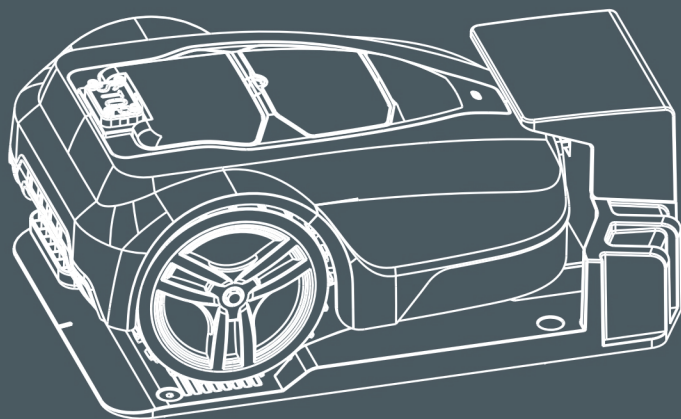
**HYUNDAI**  
POWER PRODUCTS

# Robot Lawn Mower

**HTDER50PW**

READ THE INSTRUCTIONS BEFORE USE THE MACHINE

ORIGINAL INSTRUCTIONS



## 1. APP Download and Installation

This product can be remotely controlled via the mobile phone APP.

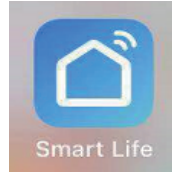
Please follow the instructions below or refer to the product guide in the APP interface.

### 1. APP Download and Installation

Please scan belowing QR Code to download and install APP.





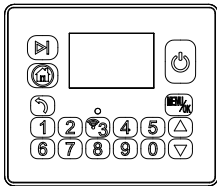
APP Download QR Code



Smart Life APP Icon

## 2. Activate Wi-Fi mode on the mower

1. Please ensure your garden with strong Wi-Fi signal.
2. Power on the mower;
3. Hold the Wi-Fi reset button  for 5s;
4. Comfirm Wi-Fi indicator light  is now rapidly flashing.



Step1

### Wi-Fi Indicator Light:

Wi-Fi connecting standby: LED light blinking;

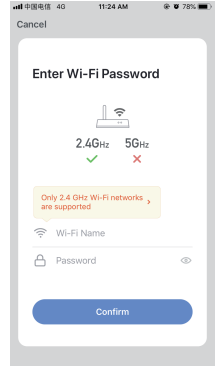
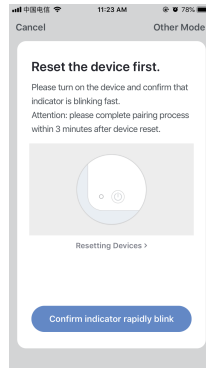
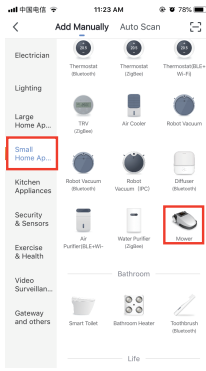
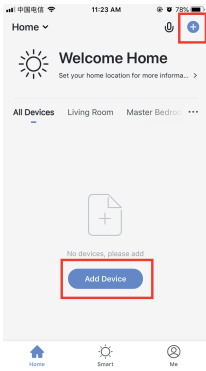
Wi-Fi connecting successfully:

LED light keeps on for 2 minutes and then light off;

Wi-Fi connecting unsuccessfully:

LED light keeps blinking for 3 minutes and then light off.

### 3. Open APP and Choose to add device like below images

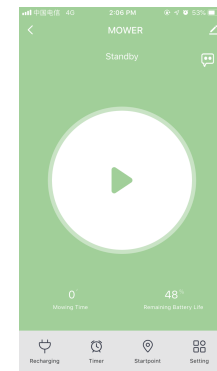
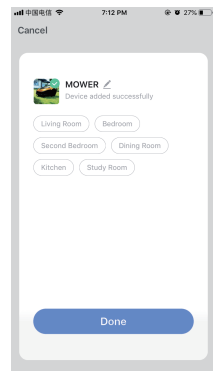
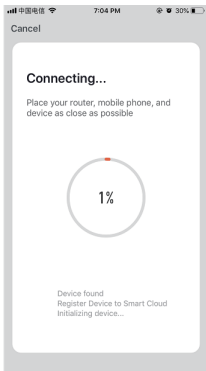


**Step 1 & Step 2**  
Open Smart Life APP,  
sign up and login;  
Then choose to add  
device;

**Step 3**  
Find “Small Home  
Appliances”, then  
on this category to  
find “Mower”;

**Step 4**  
Ensure the Wi-Fi  
indicator light is  
now rapidly blinking;

**Step 5**  
Enter Wi-Fi pass-  
word according to  
current Wi-Fi;



**Step 6**  
Connecting;

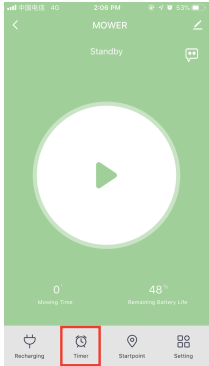
**Step 7**  
Mower connects  
successfully;

**Step 8**  
After successful  
connection, you will  
enter operating interface.

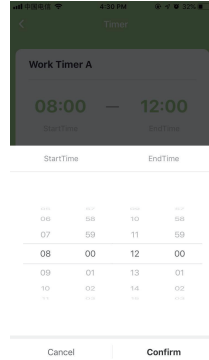
\* Notice: if it fails to connect the Wi-Fi, 1). please power off and then turn on the device again, then follow steps to connect Wi-Fi. 2). please confirm whether the WIFI password has been entered correctly; 3). whether your home router's wireless network frequency is 2.4G; 4). and whether the Wi-Fi signal is too weak.

## APP Timer Setting

The mower supports schedule function, which can help you enjoy smart life better. Use the Smart Life APP to control the mower. When you schedule successfully, the mower can be programmed to automatically start mowing and back to the dock station at specified time of the day.

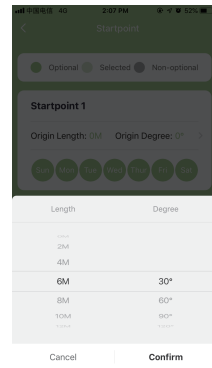
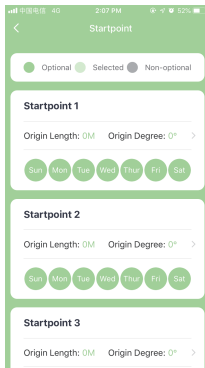


**Step 1**  
On operating interface, click Timer to enter Timer setting page;



**Step 2**  
Set the start time and end time of mower.  
*\*Noted: Start time should be earlier than end time.*

## APP Startpoint Setting



**Step 1**  
On operating interface, click Startpoint at the bottom to enter Startpoint Setting page;

**Step 2**  
Set the angle and length of startpoint where the mower starts to work, and set which day the mower will work on current startpoint;  
*(Light Green=Selected; Green background=can be selected; Grey=can't be selected)*

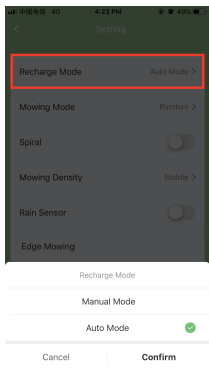
**Step 3**  
Select the angle and length of startpoint where the mower starts to work. After setting, choose "Confirm" to preserve setting.



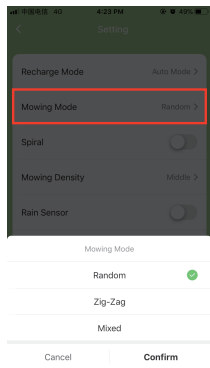
# More Settings on APP



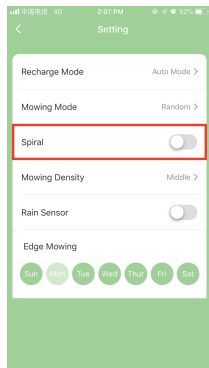
**Step 1**  
On operating interface, click Setting at the bottom to enter Setting page.



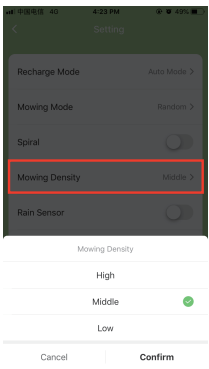
**Step 2**  
**To set the Recharge Mode:** click Recharge Mode to set mower back to dock station auto or manually. "Confirm" to preserve setting.



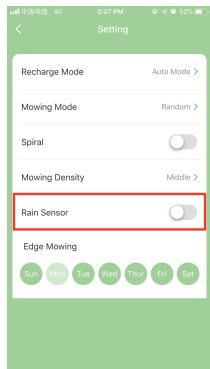
**Step 3**  
**To set the Mowing Pattern:** click Mowing Mode then choose Random, Zig Zag or Mixed pattern. "Confirm" to preserve setting.



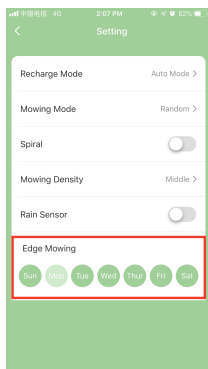
**Step 4**  
**To ON or OFF the Spiral Pattern:** on Spiral column, click right circle.  
(  means OFF  
 means ON )



**Step 5**  
**To set the Mowing Density:** click Mowing Density then choose High, Middle, or Low. "Confirm" to preserve setting.



**Step 6**  
**To ON or OFF Rain Sensor:** on Rain Sensor column, click right circle.  
(  means OFF  
 means ON )



**Step 7**  
**To choose which day do Edge Mowing:** under Edge Mowing column, choose one day from Mon-Sun. (Light Green=Selected; Green background=can be selected)

# 1.Introduction and safety

- WARNING ! Before using your tool, please read this manual carefully and understand the instructions. Please keep these instructions for future use. If you give this tool to a third party, please also give this manual.
- Failure to comply with these safety rules is not only dangerous, but also voids the warranty conditions.
- Never allow children, persons with reduced physical or sensory or mental abilities, or no experience or knowledge, or persons unfamiliar with these instructions to use this machine. Local laws may restrict the age of the operator.
- Children should not be near the machine when it is in use.
- Do not let children play with this machine, whether it is in operation or not.
- Please ensure that the machine is in good working order. In case of damage or defect, do not use the tool and have it repaired by a qualified service.
- Never turn the mower on if it is turned over or if it is not in the working position.
- Switch off the machine when:
  - o You do not use it,
  - o When left unattended,
  - o When performing an intervention on the machine,
  - o When the battery fails,
  - o During maintenance work,

- o When you transport the machine from one place to another.
- Keep children and animals out of reach of the machine.
- Before working, inspect the work area; remove any cables, stones, debris and any objects / materials from the area to be mowed that could cause an accident and damage.
- Avoid using the mower to cut grass that is not on the ground, for example, grass growing on walls or rocks, etc.
- In the presence of flammable and / or explosive substances such as liquids, gases and powders.
- The operator is responsible for any damage caused to third parties within the work area.
- Mow only in daylight or with adequate artificial light.
- If you do not use the mower, store it in a dry place out of the reach of children.
- The mower must be used in accordance with these instructions and only in a vertical position relative to the ground. Any other position is forbidden because dangerous.
- Check regularly that the screws are correctly tightened.
- Before using the appliance and after any impact, check for signs of wear or damage and have the tool repaired if necessary.
- Never use spare parts or accessories not supplied or recommended by the manufacturer.

- Never allow children, persons with reduced physical, sensory or mental abilities or lacking experience or knowledge, or persons unfamiliar with these instructions to use this machine.
- Never use this machine when people, especially children or animals are nearby.
- Never replace non-metallic cutting means with metal cutting means.
- Do not touch dangerous moving parts before stopping the unit completely.
- Do not use the tool without guards.
- Never use the mower when it is raining. Do not expose it to water and moisture. Do not leave it outside during the night. Avoid cutting wet or damp grass.
- Familiarize yourself with the controls and proper use of the equipment.
- After the operation, perform the maintenance of the tool. Carefully follow the instructions in the chapter "Care \ and maintenance". These instructions will help keep the tool in good condition.
- Never replace non-metallic cutting elements with metal cutting elements.
- Do not expose the tool to rain or moisture.
- Do not use the tool when there is a risk of thunderstorms and lightning. Do not use the tool when weather conditions are poor.
- Do not insert metal objects into the charger or the battery connections, as this may cause a short circuit or be a source of danger.

- When the mower is in operation:
  - o Do not open it and do not disassemble it
  - o Do not carry repairs
  - o Do not lift it
  - o Do not check the blade
- Any inspection, repair, maintenance must be done completely off machine.
- Do not use the mower on slopes of more than 30 degrees max.
- Do not use the mower when its safety device is damaged.
- When the machine is no longer used, turn off the main switch and keep the appliance in a place out of the reach of children, to avoid damage to children or the lawn mower.
- The battery should always be charged when using the mower.
- Always use the battery and charger supplied. Do not use or mix these elements with other similar products. Incorrect use may result in electric shock, overheating, or leaking corrosive liquid from the battery.

**IMPORTANT**  
**READ CAREFULLY BEFORE USE**  
**KEEP FOR FUTURE REFERENCE**

## **Safe operating practices**

## **Training**

- a) Read the instructions carefully. Be familiar with the controls and the proper use of the machine.
- b) Never allow people unfamiliar with these instructions or children to use the machine. Local regulations may restrict the age of the operator.
- c) The operator or user is responsible for accidents or hazards occurring to other people or their property.

## **Preparation**

- a) Ensure the correct installation of the automatic perimeter delineation system as instructed.
- b) Periodically inspect the area where the machine is to be used and remove all stones, sticks, wires, bones, and other foreign objects.
- c) Periodically visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.
- d) On multi-spindle machines, take care as rotating one blade can cause other blades to rotate.

## **Operation**

### **General**

- a) Never operate the machine with defective guards, or without safety devices, for example deflectors and/or grass catchers, in place.
- b) Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.

- c) Never pick up or carry an machine while the motor is running.
- d) Remove (or Operate) the disabling device from the machine
  - before clearing a blockage;
  - before checking, cleaning or working on the machine.

### **Additionally when the machine is operating automatically**

Do not leave the machine to operate unattended if you know that there are pets, children or people in the vicinity.

### **Additionally when using the manual controller**

- a) Mow only in daylight or in good artificial light.
- b) Avoid operating the machine in wet grass.
- c) Do not operate the machine when barefoot or wearing open sandals. Always wear substantial footwear and long trousers.
- d) Always be sure of your footing on slopes.
- e) Use extreme caution when reversing the machine towards you.
- f) Always switch on the motor according to instructions with feet well away from the blade(s).

### **Maintenance and storage**

- a) Keep all nuts, bolts, and screws tight to be sure the machine is in safe working condition.
- b) Check the grass catcher frequently for wear or deterioration.

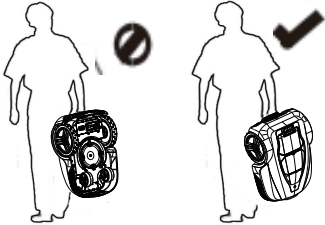
- c) Replace worn or damaged parts for safety.
- d) Ensure that only replacement cutting means of the right type are used.
- e) Ensure that batteries are charged using the correct charger recommended by the manufacturer. Incorrect use may result in electric shock, overheating or leakage of corrosive liquid from the battery.
- f) In the event of leakage of electrolyte flush with water/neutralizing agent, seek medical help if it comes into contact with the eyes, etc.
- g) Servicing of the machine should be according to manufacturers' instructions.

### **Additional instructions**

1. Congratulations on the purchase of this exceptional quality product. For best results with your mower, read all of these features. This user manual contains important information regarding the specifications of this product, its installation and use.
2. Read this user manual carefully before using the automatic mower.
3. The mower may be damaged if not used properly.
4. Do not modify the original design of this mower. Any changes to this instruction manual will damage the mower and may cause accidents.
5. Check for stones, branches, tools, toys and other objects on the lawn that may damage the blades and stop the mower.
6. Never use a pressure washer or water to clean the mower.



7. Do not sit on the mower and do not use it as a means of transportation. Children and pets should be kept away from the lawn mower.
8. Turn off the mower before lifting or transporting it.
9. **WARNING** - Never allow children, people with reduced physical, sensory or mental abilities or lack of experience and knowledge or persons unfamiliar with these instructions to use the machine, local regulations may restrict the age of the operator;
10. **WARNING** - Do not allow children to be near or play with the machine during operation.
11. **WARNING** - Do not use the machine to create a hazard. Only use a machine in good working order, on grass, with a work area free of obstacles.
12. Persons who are inexperienced and / or have no knowledge of the instructions should not use this automatic mower (to avoid serious injury).
13. Do not place anything on the mower or its charging station.
14. Do not operate the mower with defective or damaged components such as blades, screws, nuts, etc.
15. Never put your hands and feet under the mower.
16. The mower does not guarantee full compatibility between the mower and other types of wireless systems such as remote controls, radio transmitters, electrified fences, etc.
17. Start the mower according to these instructions.
18. It is recommended that the cutting height be less than 7cm.

19. It is forbidden to use the mower on a lawn with a slope of more than 30 degrees.
20. Turn off the power before cleaning.
21. Carefully read all warnings on the machine, the battery, the charging station and in this manual.
22. Turn off the mower before transporting or repositioning.
23. Carry the mower by the handle at the back under the mower. Carry the mower with the blade disc away from the body.
24. Do not lift the mower by the outer protective case.
25. Turn off the mower and make sure it is completely shut down before performing any maintenance and cleaning.
26. Inspect the mower weekly and have damaged or worn parts replaced, such as blades or brushes. Any replacement of parts and accessories must be done by the manufacturer or an authorized after-sales service.
27. CAUTION: Do not touch the rotating blade. The blade must stop completely before handling.
28. Always check the baffle condition to keep the material discharge chute clean and unhindered.
29. Never run using the machine or its peripherals;
30. Always use the battery supplied with this machine. In case of replacement, contact your dealer or the manufacturer for the type (s) of batteries that can be used with this machine.

31. Stop the machine by pressing the STOP button when you need to:
  - to remove a blocked item
  - check, clean or work on the machine.
  - Inspect the machine for damage after striking a foreign object.
  - Check the machine if it starts to vibrate abnormally. Check the damage before restarting;
32. The boundary wire must be disconnected from the docking station if it is damaged or intermingled. The mower must be extinguished before. the power plug of the adapter must be removed from the wall outlet.
33. Avoid using the machine and its peripherals in bad weather, especially in case of lightning, thunderstorms and generally in bad weather.

### **Residual risks**

Even if you use this product in compliance with all safety requirements, the potential risks of injury and damage remain. The following hazards may occur in the structure and design of this product.

There is a risk of injury and damage to property due to attachments or broken the sudden impact of hidden objects when using cutting.

Risk of damage to personal injury and property caused by flying objects.

To reduce residual risk, always inspect the work area, wear safety shoes and protective equipment.






## Intended use








This mower model is designed for mowing natural grass. Any other use is prohibited.

It is only suitable for private use in a garden or a plot. Lawn mowers designed for private plots or gardens are those used for the maintenance of grassy areas and private lawns.

**WARNING** - These types of mowers should not be used in public areas, parks, sports, agricultural or forestry areas.

### Symbols

	WARNING – Read instruction manual before use the tool
	WARNING – Risk of projections. Keep bystanders away
	In conformity with CE, RoHS
	WARNING - Sharp tines. Beware of cutting fingers or toes. Press the STOP button before working or lifting the machine. Read the instruction manual
	WARNING - Keep feet and hands away from rotating blades. Do not ride on this machine or use it as a means of transportation

	<p>Avoid disassembling and reassembling this unit. These operations must only be performed by qualified persons.</p>
	<p>Do not repair yourself. Any intervention must be done by a qualified service</p>
	<p>Never perform maintenance or debugging on this device without wearing personal protective equipment (PPE)</p>
	<p>CAUTION - Do not touch the rotating blades.</p>
	<p>Symbol for recycling</p>
	<p>Class III protection</p>
	<p>Degree of protection : IPX4</p>

## Maintenance

1. Power off the mower when works on the mower's underframe, such as cleaning or replacing the blades.
2. Inspect mower each week and replace any damaged or worn parts, such as blades.

## Presentation

### An Auto-mower includes four main components:

1. Auto-Mower HTDER50PW;

An automatic lawn mower that mows the lawn by moving in an irregular pattern or Zig-zag Pattern. The mower is powered by a rechargeable battery.

2. Dock Station:

Where your mower returns when the battery is low; the dock station has three functions:

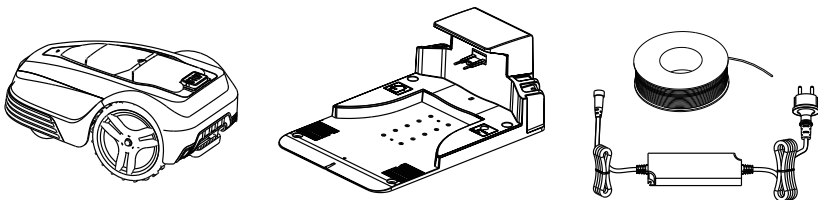
- a. To send control-signal to the Boundary Wire.
- b. To send avoid-signal around the station, so the mower can find dock station.
- c. To charge mower battery.

3. Boundary Wire

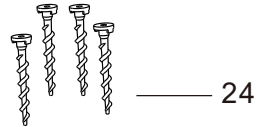
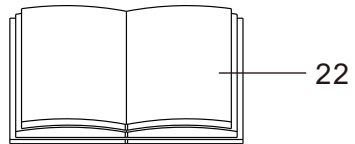
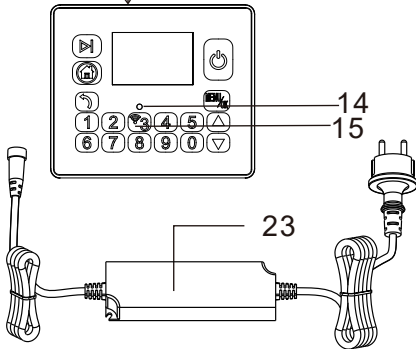
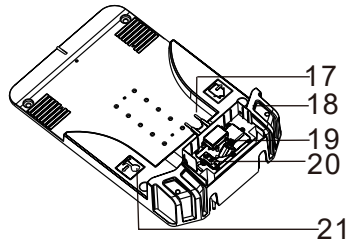
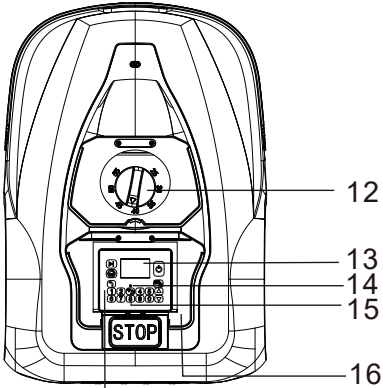
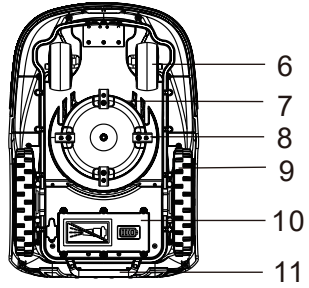
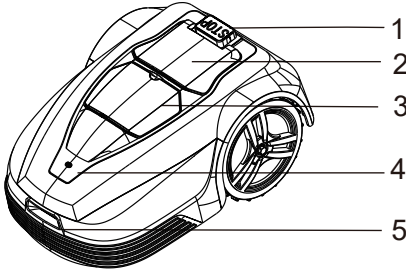
Laid in a loop around mower's working area. The Boundary Wire is laid around the edges of the lawn and around objects and plants, so the mower will not run into. The wire is also used for guiding the mower to dock station.

4. Power Adapter:

Connected between the dock station and a 100-240V wall socket, the adapter is connected to the wall socket and to the dock station with a built-in power cord.

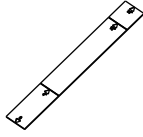


# Know Mower

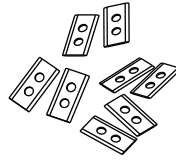




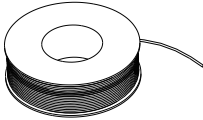
25



26



27



28



29

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



## Function of Mower

### A. Capacity

The HTDER50PW is recommended for lawns up to 500 m<sup>2</sup>. How large an area is mown depends on the condition of the blades and the type of grass, growth rate, humidity and the shape of the garden. How long the mower runs and recharges are various due to the ambient temperature. Up to 25°C, a fully charged mower battery mows for approximately 90 -120 minutes(2.6A Battery) depending on the age of the battery and the thickness of the grass.

### B. Mowing Technique

**b-1.**How the mower operates is based on an effective and energy efficient components. We recommend mowing mainly in dry weather to obtain the best mowing result.

**b-2.** The mower should not be left in the dock station when there is a risk of thunder.

**b-3.** When there is a risk of a thunder storm, the adapter plug should be removed from the socket and the Boundary wire disconnected from the dock station.

**b-4.** The blades must be in good condition to obtain the best mowing effect. In order to keep the blades lifetime as long as possible, it is important to keep the lawn free from branches, small stones and other objects.

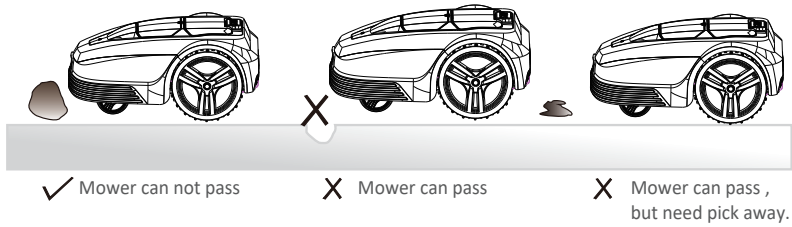
### C. Working Method

**c-1.** The mower automatically mows the lawn. It continuously combines mowing and charging.

**c-2.** The charging station sends out a signal that the mower can sense. It starts to search for the charging station when the battery power is low, which is only carried out in AUTO mode and not MANU mode. Mower does not mow when searching for the dock station.

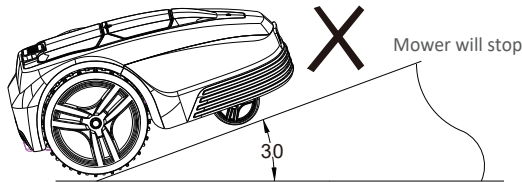
**c-3.** When the mower hits an obstacle higher than 6 cm, the mower reverses and selects a new direction.

**c-4.** The mower can work in Zig-zag, Random, Spiral and Edge cutting modes.

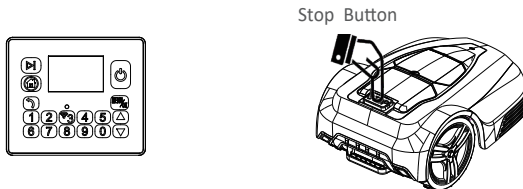


**c-5.** When the rain is too heavy, the mower will stop working and go to the station.

**c-6.** If the slope more than 30 degrees, the mower will stop, and the mowing motor will stop in one second.

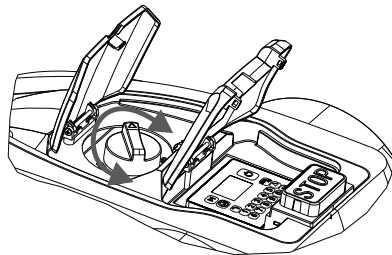


**c-7.** The STOP button in the back of mower is used to stop the mower during its mowing. When the control panel cover is open, you must close it to start the mower again.



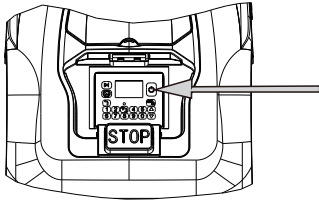
**c-8.** You can manage all the mower program by the control panel under the control panel cover.

**c-9.** Under the front cover there is a knob: rotate clockwise to increase cutting height and counter-clockwise to reduce cutting height



**c-10.** If you power on the mower you must close the cover, then the mower will start to cut.

**c-11.** If the power is on, the cover is open, the mower will power off after 6 minutes.

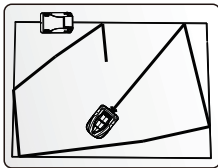


**Power Switch.** If you keep press the button about 2 seconds, the mower will power on, and if you long press once again, the mower will power off.

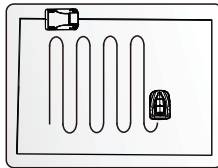
## Mowing Pattern

The mower's movement pattern has four modes: Random, Zig-zag, Edge and Spiral. Those patterns can be set by the display.

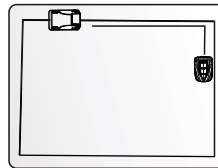
If mower enters an area where it senses the grass is high and dense, it will lower the mowing speed. If the grass become normal, the speed will return to the normal speed.



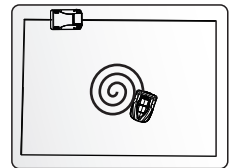
Random



Zigzag



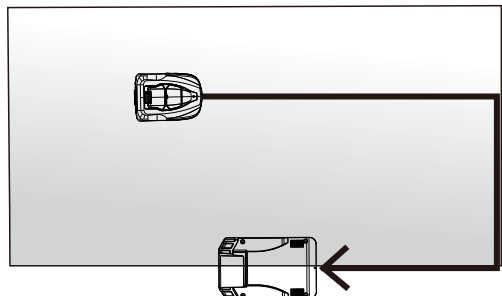
Edge



Spiral

## Search Method

Mower runs irregularly until it reaches the boundary wire. The mower then follows the boundary wire back to the dock station in AUTO mode. Please check there is no obstacles around the boundary wire.



## Installation

Read this entire chapter before starting installation. Installation also affects how well mower will work. It is important to plan the installation carefully.

Before installation, please make a sketch of the working area, including all obstacles. This makes it easier to see the ideal positions for the dock station, boundary wire .

Carry out the installation in the following steps:

1. Preparations.
2. Installation of the dock station.
3. Installation and connecting the dock station.
4. Charging the battery.
5. Installation of the boundary wire.
6. Instructions for obstacles.
7. Connecting the boundary wire.
8. Checking the installation.
9. Linking mower to the dock station.

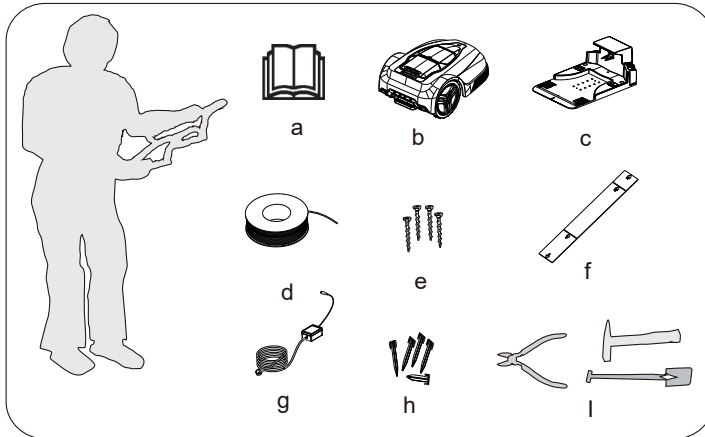
### 1. Preparations

A. If the grass of the lawn in the proposed working area is taller than 10 cm, please mow it using a traditional lawn mower. Then collect the clippings.

B. Check that all parts for the installation are included:

- |                           |                           |
|---------------------------|---------------------------|
| a. Operator's manual      | b. Robot mower            |
| c. Dock station           | d. The boundary wire      |
| e. Nails for dock station | f. Measurement gauge      |
| g. Adapter                | h. Pegs for boundary wire |

I. Add -->a pliers for peg , a straight spade for burying wire and a hammer for nails.

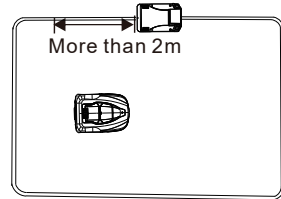


## 2. Installation of the Dock Station

Select position of the dock station

a. The dock station must be positioned with free space in front of it. (minimum 2 m)

b. The dock station must be positioned on relatively level ground. The front end of the dock station cannot be positioned higher lower than the back end. The height difference must not be more than 2cm.

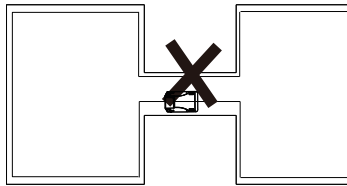


c. It is a good idea to place the dock station in the shadow. The battery is spared if it is charged in the lowest possible ambient temperature.

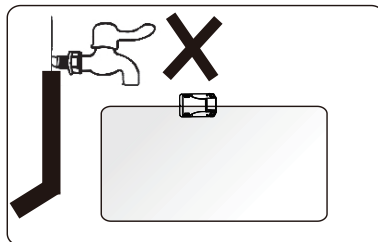
d. The dock station must not be positioned in a way that can bend its base plate.

e. The low voltage cable may cross the working area. It must be either pegged down or buried. In some cases there is a better positioning option for the dock station, for example, close to a house wall .

f. Avoid placing the dock station in a narrow passage ( narrower than about 2 metres).



g. Avoid placing the dock station near hydrant.



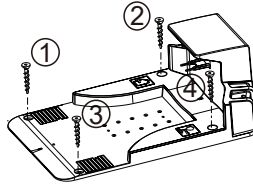
h. Avoid the adapter be exposed to direct sunlight.

i. Make sure the dock station entrance is pointing in a counter-clockwise direction. Then the mower will back to its base in a clockwise direction.

### 3. Installation and Connecting the Dock Station

- a. Place the dock station in a suitable position.
- b. Secure the dock station to the ground using the nails supplied. (1,2,3,4)

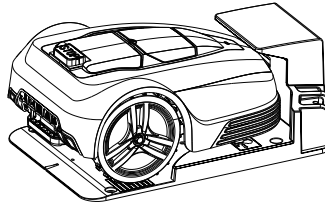
**CAUTION:**  
Don't secure the dock station to ground with nails before boundary wire and adapter cable connected with dock station.



- c. Connect the low voltage cable to the dock station.
- d. Connect the adapter power cord to a 100-240V wall socket.

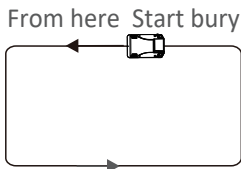
### 4. Charging the Battery

The mower is supplied with one or two unfullcharged battery. As soon as the dock station is connected, you can charge the battery.

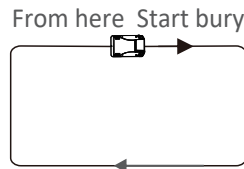


### 5. Installation of the Boundary Wire

- a. If you want to adjust the boundary wire in the future then it is preferable to peg down the boundary wire; water the area to make it easier to insert the pegs.
- b. If you don't like to insert pegs, you can bury the wire, or you can combine both methods.
- c. Laid in a loop around mower's working area. It is preferable to begin burying wire from one end of the dock station, then the boundary wire round the working area, to the other end of dock station.

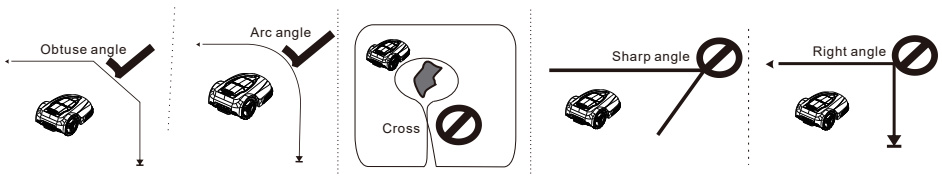
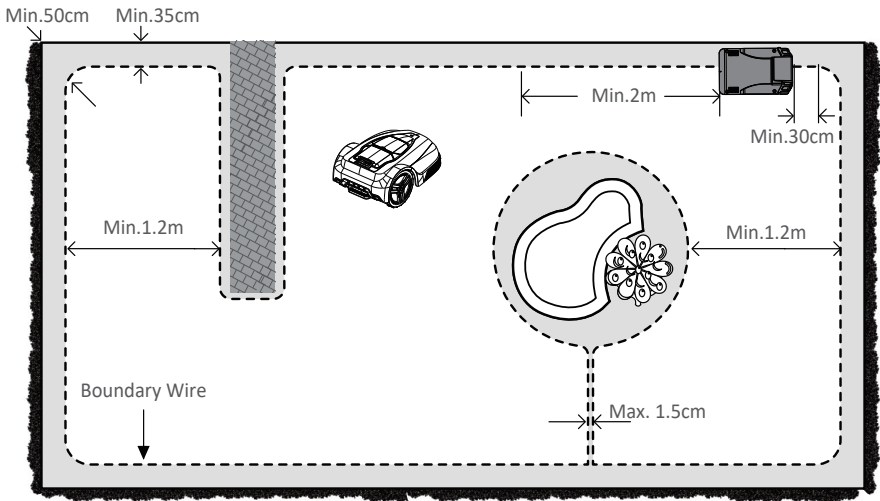
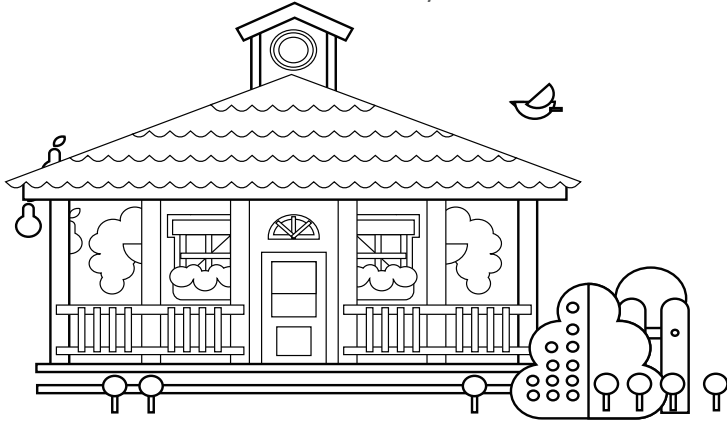


or



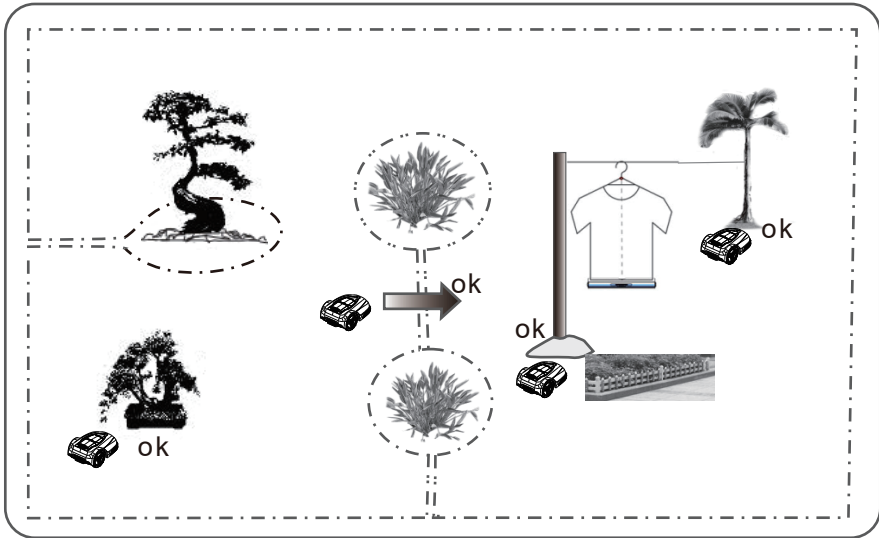
- d. The boundary wire should be laid 35 cm from the area edge, obstacle, fence, flower bed etc. This will prevent the mower from colliding with the obstacle and will reduce mower body wear.

- e. At the corners, don't lay the boundary wire at a sharp or right angle; make sure it has 35cm space to the wall or other obstacles; an arc with a radius at least 50cm is preferable.
  - f. When there are several working areas, the width of the passage connecting the areas must be over 1.2m. Otherwise it is difficult for the mower to move into other area. If you have a swimming pool, pls leave 2m between the edge and the limit as a path.
- \*As below is a general guide line map how to install the mower including placement of the dock station and installation of the boundary wire.

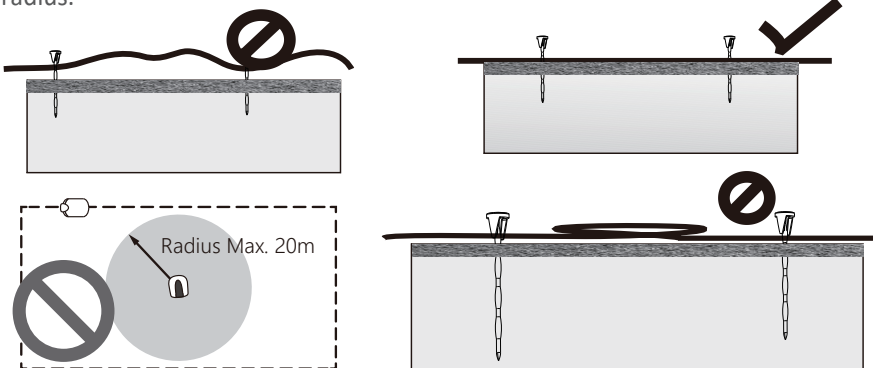


## 6. Obstacle Instruction

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



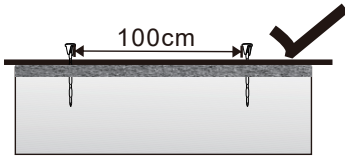
- d. Make sure to lay the boundary wire tight to the ground. If the boundary wire is loose or looped on the ground, the mower will cut the wire and the signal may be not strong enough for the mower to receive. The lawn mower can detect the signal from the boundary wire within a 20m radius.



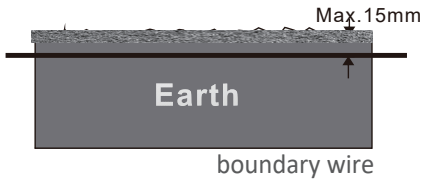


e. Use a hammer to knock the pegs in the ground. Take care when hammering pegs and make sure the wire is flat on the lawn; the distance between pegs should be approximately 100cm. The distance between pegs should be 30~50cm at corners.

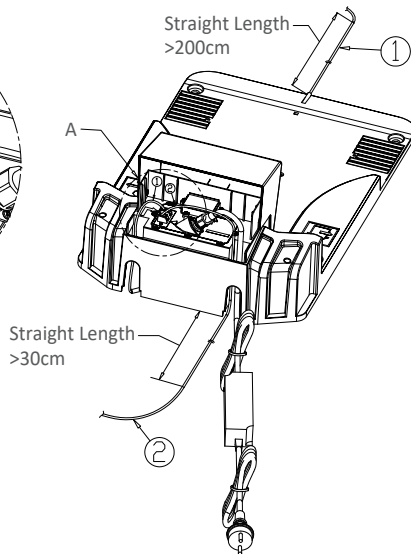
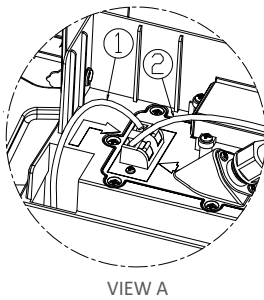
f. Don't let the boundary wire loop around itself.

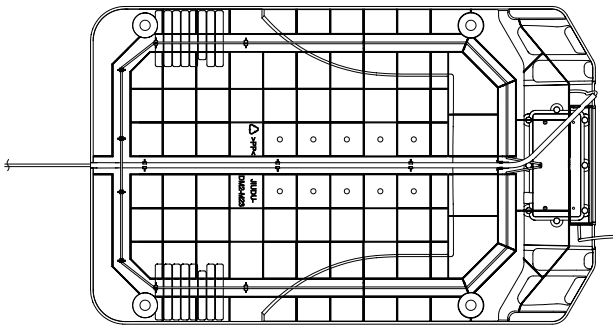


g. If you intend to bury the boundary wire, make sure to place the boundary wire between 1mm and 15mm into the ground; the boundary wire should not be looped under the ground.



## 7. Connecting the Boundary Wire





Note: The blue light out of red light on the dock station flashes means good connection.

## 8. Checking the Installation

Verify the loop signal by checking the LED indicator on the dock station.  
 Blue light out of red light on the dock station flashes = the signal is OK.  
 Red light = break in the loop and no signal send.

## 9. Linking the Mower to the Charging Station

Open the control panel cover by pressing the **STOP** button.  
 Place mower into the charging station and check charging information on the LCD control panel. The mower will beep until the panel cover is closed.

## Wake-up A Uncharged Battery

When mower is new or has been stored for a long period, the battery must be charged before starting. Charging takes between 2 hours for one battery and 4 hours for two batteries.

If the connection is good, charging information is shown on the display during the entire charging process.

## Use

### 1. Using the Mower

In order to improve the mower's quality, please use the timer to start the mower to cut lawn every other day.

### 2. Starting Mower

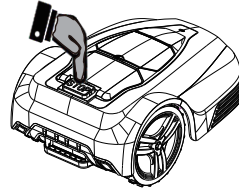
1. Press the STOP button to open the control panel cover.
2. Press Power switch .
3. Enter the right password.
4. Set the start mode.
5. Press Start button.
6. Press MENU/OK button.
7. Close control panel cover.

The mowing message is shown on the display, the blades turn and then the driver wheel will run.

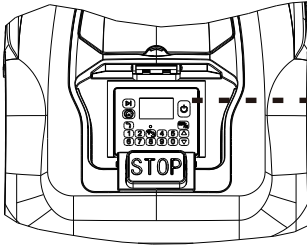
### 3. Stopping Auto-Mower

Press the STOP button, the mower will stop, the blade motor stops in one second, and the control panel cover opens.

Stop Button



### 4. Switching off Mower



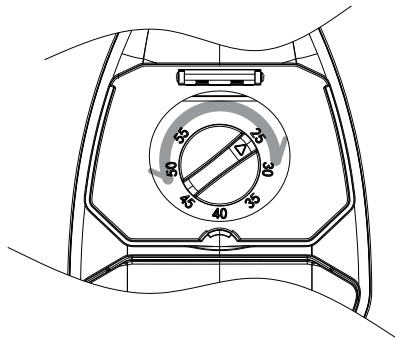
1. Press the *STOP* button.
2. Long press power switch.  
The display is blank.

### 5. Adjusting the Cutting Height

The cutting height can be adjusted from MIN(2.5 cm)to MAX(5.5 cm). If the grass is long it is appropriate to let Mower start mowing at the MAX cutting height. Once the grass is shorter, you can gradually lower the cutting height.

#### To Adjust the Cutting Height:

- No.1 Press the *STOP* button to stop the mower.
- No.2 Push the front cover, and rotate knob to adjust the cutting height.
- No.3 Rotate knob by clockwise to increase the cutting height.
- No.4 Rotate knob by counter-clockwise to reduce the cutting height.



# Control Panel

Use the control panel for all commands and settings. All functions are accessed via a number of menus.

The control panel consists of a display and a keypad. All information is shown on the display and all input is done on the keypad.

The main menu is the uppermost level of the menu structure.

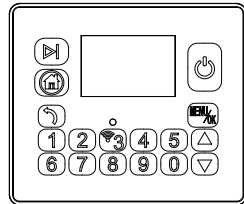
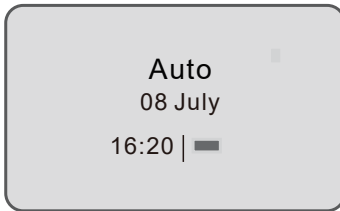
The cursor shows which menu has been selected when the MENU/OK button is pressed.

The clock shows the current time.

The text AUTO or MAN shows which operating mode has been selected.

The battery status shows the remaining battery power.

The keypad consists of three groups of buttons: selection, numbers and power switch.



## 1. Select Button

### Return:

Press to go back one step in the menu structure, or to interrupt an ongoing input.

### MENU/OK:

Press to confirm an entry or selection.

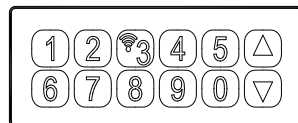
### Arrow up and arrow down:

Press any of the arrow buttons to move the cursor between menus or different options.



## 2. Numbers Button

Used in the menu structure to enter settings, for example, password and time.



Browse through the main menu and submenus with the arrow buttons.

Enter values and the time with the numerical buttons and confirm each selection with the MENU/OK button. Press the Cancel button to go one step back.

## 3. Function Button

Start mower. Please follow up the LCD display information to start the mower.

#### 4. Function Button

Via this button, you may set work mode of the mower. Press this button, LCD shows Home, Auto, Man. select by using arrow button and press MENU/OK button to confirm.

#### 5. Function Button

Wi-Fi reset button. Via this button, you can connect the mower with APP for more convenient and smart use.

## Menu Functions

### Main Menu

The main menu consists of five options:

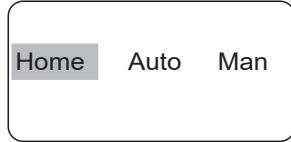
- a. Work Timer (1)
- b. Lawn Setup (2)
- c. Diagnostics (3)
- d. System Setting (4)
- e. Fault History (5)

The numbers in brackets refer to the menu rows on the mower display. Each option has a number of submenus used to access all functions to establish mower settings.

Setting the work timer:

You can set the work day and work time for the lawn mower to operate.

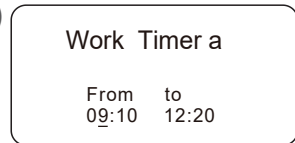
You can set two schedules in one day.



### a. Work Timer

1. "Work timer"---> "work timer a" or( "work timer b")

Select the "work timer a", press OK to set the schedule time, Enter a start time and an end time in 24-hour format. Also enter a start time and end time in 24-hour format for timer 2 if necessary.



**Note:**

1. The start time should be earlier than the end time;
2. Set time between 0 to 24.
3. In order to implement the reservation function. We must set the start and end time of the work, as well as the day's work. If you want to use the startpoint function, you must also select which startpoint be active on the reservation day and set the relevant parameters of the startpoint.

2. "Work Timer"--->"Work Day"

Use the arrow key to select which day the lawn mower should work.

Use the arrow key to select s\* and press yes to set the startpoint.

**Note:**

**1) The startpoint No. is from 1 to 3.**

## 2) "0" means startpoint NA.

Start point NO

3

Please input 0 to 3,  
"0" means start point NA.

Work Day

Mon	<input checked="" type="checkbox"/>	S1	Fri	<input type="checkbox"/>	S1
Tue	<input checked="" type="checkbox"/>	S2	Sat	<input checked="" type="checkbox"/>	S2
Wed	<input checked="" type="checkbox"/>	S3	Sun	<input type="checkbox"/>	S3
Thu	<input type="checkbox"/>	S1	AI	<input type="checkbox"/>	

3. "Work Timer" --> "Mower Startpoints" --> "Set Startpoint"

Press yes to enter into this interface, then enter the startpoint length and angle. Use the arrow key to select startpoint 1/2/3, press "OK" button to set the startpoint length and angle. Input the value, then press "OK" to confirm your setting.

Note:

- 1) The range of Angle is 000°-180°.
- 2) The range of Length is 000m-999m.
- 3) The scheduling must be activated when the lawn mower is charging at the dock station.

Set Startpoint

	Angle	Length
Startpoint 1	090'	120m
Startpoint 2	150'	080m
Startpoint 3	120'	150m

Startpoint 1

Angle	Length
090'	120m

## b. Lawn Setup

Auto mode setting:

### 2-1. Set Mowing Pattern


Home screen--> Lawn Setup--> Auto mode setting--> Mowing pattern--->Random, Zig-zag, Mixed

Random: Used for mowing narrow areas, normal operation.

Zig-zag: Used for mowing large open area.

Mixed: With the setting, the lawn mower alternates between the [Random] mowing pattern and the [Zig-zag] mowing pattern at regular intervals. You can adjust how the lawn mower moves while mowing. The [Mixed] setting is also available.

Procedures:

- 1) Select Random, Zig-zag or Mixed pattern.
- 2) Press OK button. A tick means being selected.
- 3) Press the  button to return to the last screen.

## Lawn Setup

- ▶ Auto mode setting
- Manual mode setting

## Auto mode setting

- ▶ Mowing pattern
- Edge cutting
- Spiral cutting

## Mowing pattern

- ▶ Random
- Zigzag
- Mixed


### 2-2. Set Edge Cutting

Home screen --> Lawn Setup --> Auto Mode Setting --> Edge Cutting

With this function, the mower will mow along the boundary wire. You can set which day needs lawn mower to cut along boundary wire from Monday to Sunday.

If the edge cutting setting is enabled, the lawn mower goes around your lawn along the boundary wire to mow the edge before starting the usual mowing.

#### Procedure:

- 1) Select the "edge cutting", press OK to set it;
- 2) Select YES, then press OK button (A tick means being selected).
- 3) Select "work day" and set the number 0-7. This sets day for edge cutting. (1 means Monday, 2 means Tuesday,...,7 means Sunday).
- 4) Press the  button to return to the previous screen.

Note:

You can select Yes( A tick shows behind), Press "OK" button (the tick disappears) to cancel edge cutting set.

## Edge Cutting

- ▶ yes
- which day is work 5

## Spiral Cutting

- ▶ yes

### 2-3. Set Spiral Cutting

Home screen --> Lawn Setup --> Auto Mode Setting --> Spiral Cutting

After setting this function, the lawn mower could focus on mowing the area where the lawn is not completely mown or where the grass is too thick.

### 2-4. Manual Mode Setting

Please refer to the auto mode setting and repeat the steps as above.

In MANU mode, you can manually move your mower to other zones which has buried boundary wire for mowing. In this mode, you need to manually move the mower for cutting and recharging.

## Operating the lawn mower in Auto mode

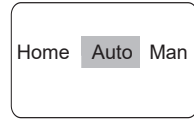
Entering your PIN (Personal Identification Number)

When turning the lawn mower, you must enter the PIN.

1. Enter the PIN using the number buttons.

2. Press the OK button.

The home screen is displayed AUTO.



### AUTO Mode Operation

These instructions can be used to operate the lawn mower at the time scheduled and Startpoint settled for the Auto mode settings.

Make sure to press the STOP button before performing the following procedure:

1. Press the OK button;
2. If the [Auto] is displayed on the Home screen, go to step 3;  
If the [Man] is displayed on the Home screen, press the HOME button and select [Auto] by arrow button, then press OK button;
3. Press Start button, then press OK button, finally close the control panel cover to start mowing.

Setup completed. If the lawn mower on the charging station when you do above setting, the lawn mower will start mowing at the time scheduled and startpoint for AUTO mode. If the lawn mower inside the signal area, the robot will start to work automatically.

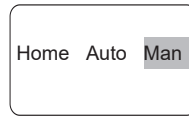
## Operating the lawn mower in Manual Mode.

Entering your PIN (Personal Identification Number)

When turning the lawn mower, you must enter the PIN.

1. Enter the PIN using the number buttons.
2. Press the OK button.

The home screen is displayed Man.



### Manual Mode Operation

1. Press the OK button;
2. If the [Man] is displayed on the Home screen, go to step 3.  
If the [Auto] is displayed on the Home screen, press HOME button and select [Man] by arrow button, then press OK.
3. Press Start button, then press OK button, finally close the control panel cover to start mowing.

Setting completed. The lawn mower starts mowing at the manual mode.

**Note: If you forget the password of the lawn mower, please contact after-sales service center for help.**



### c. Diagnostics

Select "Diagnostics", press MENE/OK to check the system.

#### 1. Check signal

Home Screen --> (Diagnostics)- -> (Check signal)

You can check the boundary signal status.

Signal include:

1. R sensor (shows if mower inside the boundary wire area or outer)
2. L sensor ( shows if mower inside the boundary wire area or outer)
3. Lift sensor (To check if the lift sensor is ok);
4. Bump sensor (To check if the bumper sensor is ok );
5. Rain sensor (To check if the Rain sensor is ok).

Note:

<1/2> The words "None" or "Inner" or "Outer" will appear on the screen.

None: Means the signal sensor is broken ;

Inner: Means the signal sensor is ok;

Outer : Means no signal.

<3/4/5> The words "OK" or "NG" will show on the screen.

OK: Means sensor is normal. NG: Means sensor is not good.

#### 2. Mowing Motor test

Home screen --> Diagnostics --> Test start mowing motor

The mowing motor service for the cutting blade, we need to check whether it is good or not.

Attention: Before you test the mowing motor, we must make sure there is no obstacle at the bottom of the machine. Press the "OK" button, then the screen shows "Please input 7 to test", and follow the instruction press "7" button, the mowing motor will work and check if it is normal or not.

Test mowing motor

▶ yes

Test Wheel motor

▶ yes

#### 3. Test Wheel Motor

"Test Wheel Motor " to check whether the wheel is working normal.

Attention:

Before you test the wheel motor, we must make sure to put the machine in an open area, in order to prevent the machine from running around, causing losses.

Press the "OK" button, then the screen shows "Please input 7 to test", and follow the instruction press "7" button, the wheel motor will work and check if it is normal or not.

### Diagnostics

- ▶ Check signal
  - Test mowing motor
  - Test wheel motor
  - Test startpoint

### Check signal

L sensor	Inner
R sensor	Inner
Lift sensor	ok
Bump sensor	ok
Rain sensor	ok

#### 4. Test Startpoint

You can check whether the lawn mower can reach each start points according to settings .

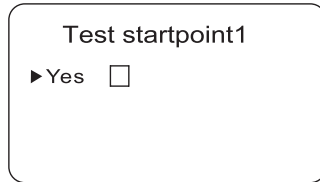
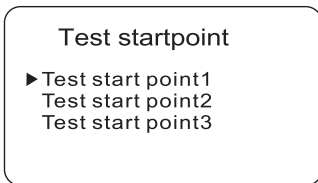
Home screen --> Diagnostics --> Test startpoints: <Point 1> to <point3>  
You can test if the lawn mower will correctly go to the specific startpoint.

**Note:**

Perform this test when the lawn mower is connected to the docking station.

1. Select a point from 1 to 3 which you want to test and press the <OK> button.
2. Select <Yes> and press the <OK> button.
3. Close the control panel cover.

The lawn mower will start test the selected startpoint. When the test completed, the mower will stop and you can check whether the value you set is ok.

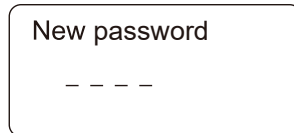
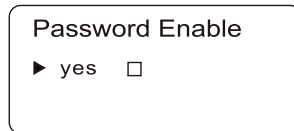
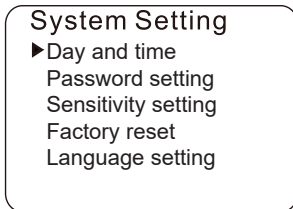


#### d. System setting

Day and time set

Home screen --> System Setting --> Day and time

1. Enter the date with the format {Year}/{Month}/{Day}. The time in 24-hour format using the number buttons.
2. Press OK button.
3. Press the return button to return to the previous screen.



The lawn mower work time is based on this Day and time setting.

#### Password setting

Password setting is used to prevent the lawn mower being operated by others.

Home screen --> System Setting --> Password setting

**Note:**

How to change password:

1. Press OK to enter password setting menu;

2. Enter old password, press OK button;
3. Enter new password, input new password again, press OK button;
4. It will show the setting is ok.

**Sensitivity Setting**

Home screen --> System Setting -->Sensitivity setting

**Attention:**

Rain means whether you choose to open the Rain sensor. You can turn on or off the rain sensor via this menu.

Sensitivity Setting	
▶ Low	yes <input checked="" type="checkbox"/>
Middle	yes <input type="checkbox"/>
High	yes <input type="checkbox"/>
Rain	yes <input type="checkbox"/>

**Factory Reset**

Home screen --> System Setting --> Factory Reset

1. Press OK button, enter into the interface as below
2. Input password
3. Tick “Yes”
4. The machine will start rebooting, then the machine returns to the factory setting.

<b>Factory reset</b>	
yes	<input checked="" type="checkbox"/>
Are you sure to reset?	
Password:	
_____	

**Language Setting**

Home screen --> System Setting --> Language Setting

1. Choose Language setting and press MENU/OK button;
2. Enter Language setting page, use arrow button to select the language;
3. Press MENU/OK button to choose the language you select.

System Setting
Day and time
Password setting
Sensitivity setting
Factory reset
▶ Language setting

Step1

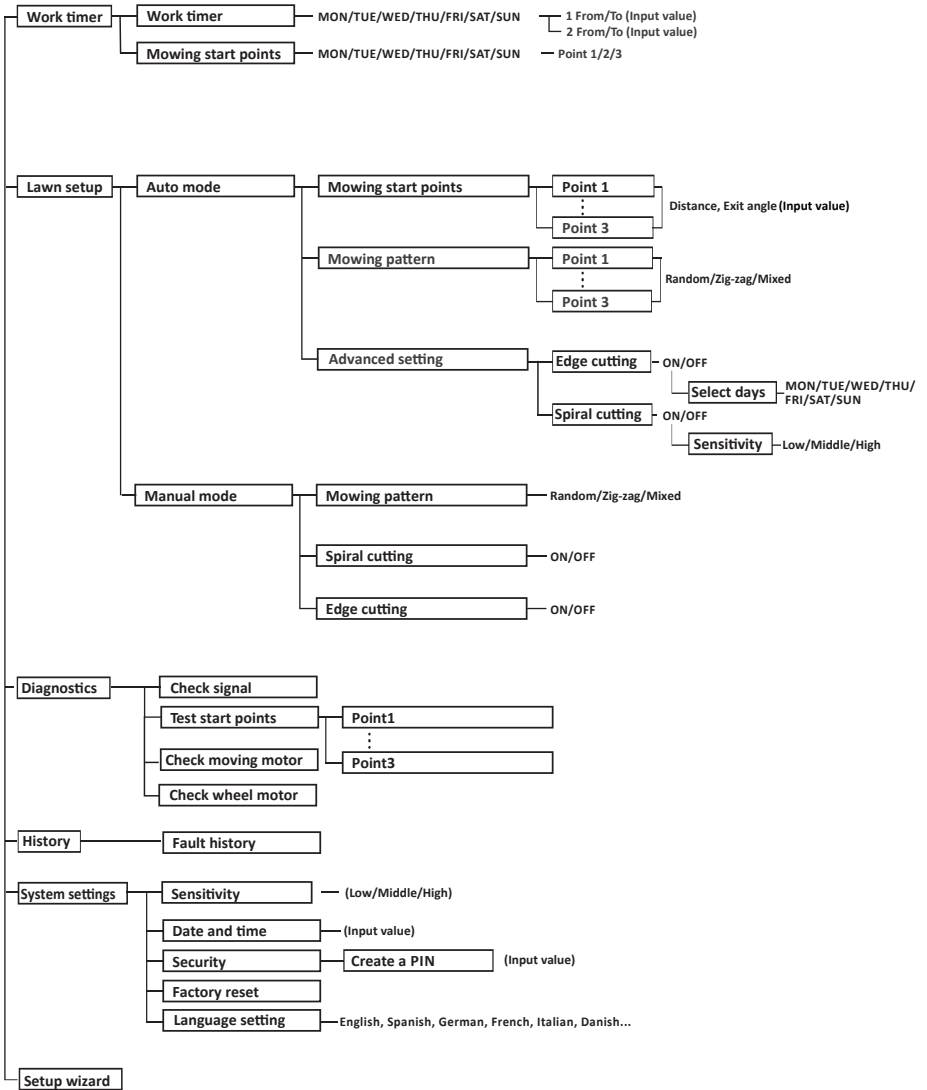
Language Setting
▶ English
Spanish
German
French
Italian

Step2

## e. Fault history

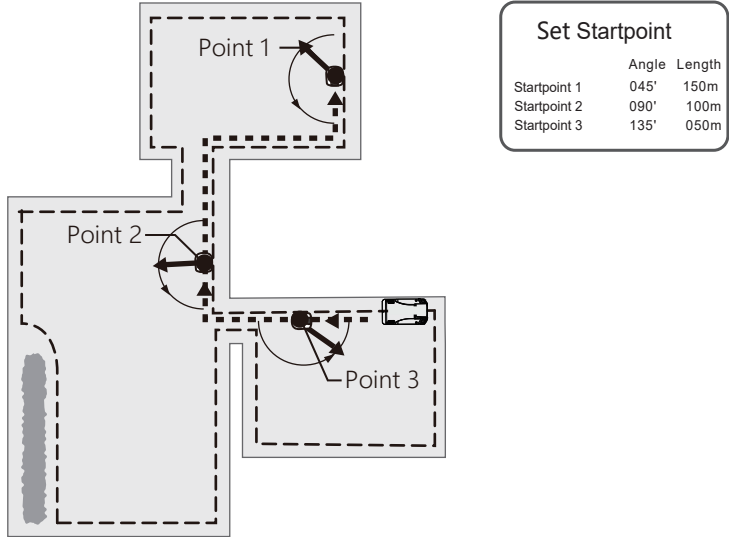
Display the Fault Information of mower.

## Full Menu Diagram



# Mowing Startpoints

You can set the mowing startpoints for each day of week. For example, if you set the following 3 startpoints on your lawn, the lawn mower can reach other areas through narrow passages and mow your lawn effectively.



By setting the startpoints for each day of the week, you can mow your lawn effectively.

### Set Startpoint:

1. Length of startpoint: The length is counted by the boundary wire length from charging station;
2. Angle of startpoint: The angle is counted by counterclockwise rotation based on forward direction.

### Work Day

Mon <input checked="" type="checkbox"/> S1	Fri <input type="checkbox"/> S1
Tue <input checked="" type="checkbox"/> S2	Sat <input checked="" type="checkbox"/> S2
Wed <input checked="" type="checkbox"/> S3	Sun <input type="checkbox"/> S3
Thu <input type="checkbox"/> S1	AllDay <input type="checkbox"/>

From Monday to Wednesday: the lawn mower starts from point 1, point 2, or point 3.

The display show :  
 Monday start point 1.  
 Tuesday start point 2.  
 Wednesday start point3.  
 Saturday start point 2.

## Daily Maintenance

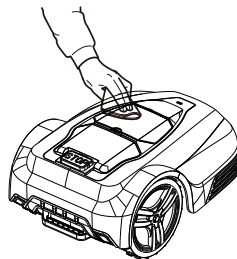
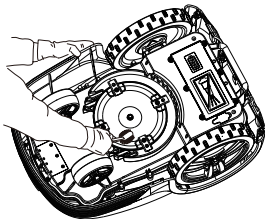
1. Check and clean mower regularly once a week.
2. When you first start using the mower, the blade plate, protection plate and blades should be checked once a month.
3. It is important that the blade rotates easily. Additionally, if the blades is fixed, the blade plate must rotate easily.
4. Blade edges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

## Cleaning

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



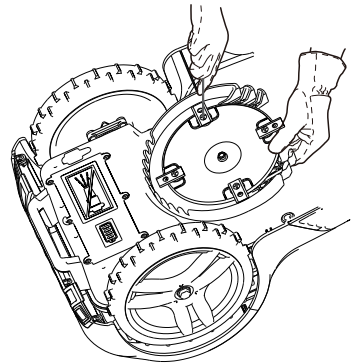
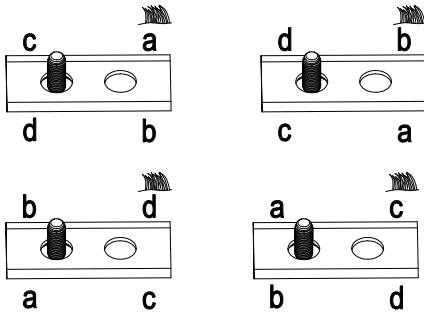
2. It is important to keep the mower clean. Mowing with a large amount of clippings and high slopes, mower needs more power to drive the blade plate.
3. We recommend using a brush and spraying with water to clean mower underneath, and a soft, damp sponge or cloth to clean the top body and outer case.



## Change The Blades

### To replace the blades:

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



## Winter Storage

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

## After Winter Storage

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

## Technical Data

Item	Robot Mower HTDER50PW
<b>Dimensions</b>	
Size (Length x Width x Height)	50cmx35.5cmx24cm
Weight	16Kg
<b>Electrical System</b>	
Battery (Option one or two)	Li-ion battery 22.2V/2600mAH
Tension	29.4 V / 2.0A
Boundary Wire Length	100m
Blade Motor	BLDC
Blade Motor Speed	3200~3500rpm
Wheel Motor	BLDC
Bump Sensor	Yes
Rain Sensor	Yes
Lift Sensor	Yes
Emergency Switch	Yes
Mowing System	Four pivoted blades
Cutting Height	2.5-5.5 cm
Cuttig Width	180mm
Working Capacity	(500 m <sup>2</sup> ) +/- 20%
Operating frequency band(s): 2412 ~ 2472 MHz	
Radio-frequency power: 16.29 dBm	
Power adapter: Model FY2942000, 100-240V~ 50/60hz, 1,5A Max, 29.4 Va.c. / 2A	
The noise emission does not exceed 70 dB(A)	



## Warranty

We guarantee this product for 2 full years.

The warranty period for this item starts on the day of purchase.

You can prove the date of purchase by sending us the original receipt.

We insure over the entire warranty period:

- Free repair of possible malfunctions.
- Free replacement of damaged parts.
- Including the free service of our specialized personnel (i.e. free assembly by our technicians)

Provided that the damage is not due to improper use of the device.

To help you with your product, we invite you to use this link or call us on +33 (0)9 70 75 30 30;

<https://services.swap-europe.com/contact>

You must create a "ticket" via their platform:

- Register or create your account
- Indicate the reference of the tool
- Choose the subject of your request
- Explain your problem
- Attach these files: Invoice or receipt, identification plate photo (serial number), photo of the part you need (eg broken transformer plug pins)



# EC Declaration of conformity



BUILDER SAS

ZI, 32 rue Aristide Berges – 31270 Cugnaux - France

Declares that the machine indicated below:

MOWER ROBOT

HTDER50PW

Serial number: **20200160371-20200160514**

Complies with the provisions of the Directive "machinery" 2006/42 /

EC and national laws transposing it;

Also complies with the following European directives:

EMC Directive 2014/30/EU

**ROHS Directive 2015/863/EU**

REACH-SVHC (SVHC 205)

DIRECTIVE RED 2014/53/EU

Directive on noise emission 2000/14 / EC + Annex VI and 2005/88/EC

Is also in line with European standards, with national standards and  
the following technical provisions:

EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A2:2019+A14:2019

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 489-17 V3.1.1 (2017-02)

EN 55014-1:2017

EN 55014-2:2015

EN 61000-3-2:2014

EN 61000-3-3:2013

(IEC 61000-4-2; IEC 61000-4-3; IEC 61000-4-4;

IEC 61000-4-5; IEC 61000-4-6; IEC 61000-4-11)

ETSI EN 300 328 V2.2.2 (2019-07)

EN62311:2008

EN62233:2008

EN 50636-2-107:2015+A1:2018

Cugnaux, the 20/12/2019

Philippe MARIE / CEO

Responsible of technical file: M. Olivier Patriarca

# HYUNDAI

POWER PRODUCTS

**For Inquiries, please contact:**

BUILDER SAS

32, rue Aristide Bergès Z1 31270 Cugnaux, France

Tél. : +33 (0) 5.34.502.502 Fax : +33 (0) 5.34.502.503

<http://www.hyundaipower-fr.com/>

Fabriqué en République Populaire de Chine (PRC)