

EN

**HONDA**

## Owner's Manual



# Honda Robotic Lawn mower HRM310/520



***Mímo***

NOTE: 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 an authorized Honda servicing dealer.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Supplied items must be used with this equipment, and must not be used for other purposes.

Congratulations on your selection of a Honda Robotic Lawn mower. We are confident that you will enjoy the benefit of your Honda Robotic Lawn mower as we take great pride in creating the finest quality lawn care products.

We want to help you get the best results from your new robotic lawn mower and to operate it safely. This manual contains all the information on how to do that; please read it carefully.

As you read this manual, you will find information preceded by a **NOTICE** symbol. That information is intended to help you avoid damage to your mower, other property, or the environment.

Your Honda servicing dealer is dedicated to your satisfaction and will be pleased to answer your questions and concerns.

Honda Motor Co., Ltd. reserves the right to make changes at anytime without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the robotic lawn mower and should remain with it if it is resold.


## FOR YOUR SAFETY

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the mower.

This information alerts you to potential hazards that could hurt you or others. Please read these messages carefully. Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a mower. You must use your own good judgment.

### Safety Instructions

You will find important safety information in a variety of forms:

- Safety Labels — on the lawn mower.
- Instructions — how to use this mower correctly and safely.
- Safety Messages — preceded by a safety alert  symbol and one of three signal words: DANGER, WARNING, or CAUTION.

Each message tells you what the hazard is, what can happen, and what you can do to avoid or reduce injury.

These signal words mean:

** DANGER** You WILL be KILLED or SERIOUSLY HURT if you don't follow instructions.

** WARNING** You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

** CAUTION** You CAN be HURT if you don't follow instructions.

### NOTE:

Gives helpful information.

If a problem should arise, or if you have any questions about the robotic lawn mower, consult an authorized Honda dealer.

Honda robotic lawn mowers are designed to give safe and dependable service if operated according to instructions.

### NOTICE

- **Operating a robotic lawn mower requires special attention to ensure the safety of the operator and the safety of others. Read and understand this Owner's Manual before operating the robotic lawn mower; failure to do so could result in personal injury or equipment damage.**

\* The illustrations may vary according to the model of types.

Make sure to have your dealer fill in "LAWN DIAGRAM" (☞ page 76) and "DEALER CHECKSHEET" (☞ page 78) with details on the installation it has performed and the settings it has configured.

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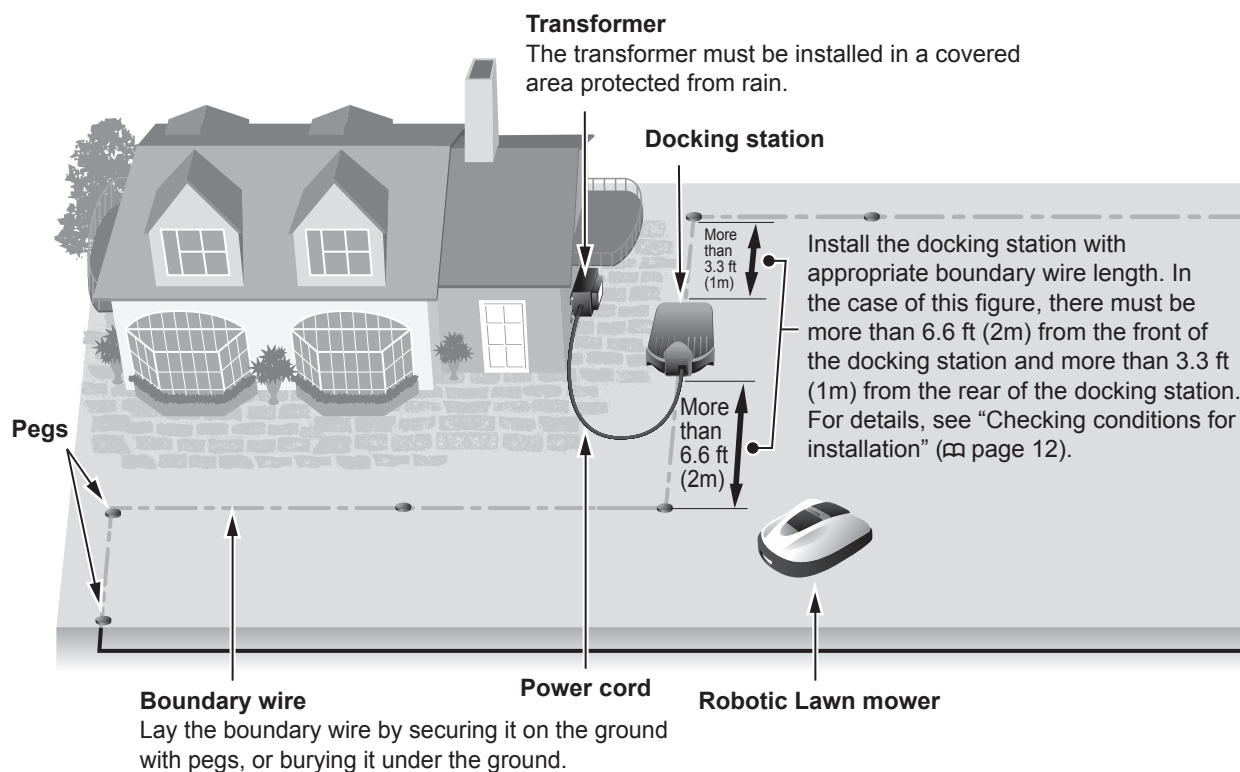
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# 1 OVERVIEW

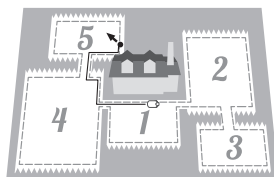
## How the Honda Robotic Lawn mower works

### Configuring the system

The mowing area is determined by the boundary wire that emits a signal; when the lawn mower detects the boundary, it turns and cuts the grass randomly. When the lawn mower's battery needs to be recharged, it returns to the docking station.



## Features



### Mowing start points

You can designate the start points from which the Honda Robotic Lawn mower will start mowing. Mowing start points allow your lawn mower to reach other areas which are difficult to access. Some mowing start points can be set by laying a boundary wire, increasing efficiency.

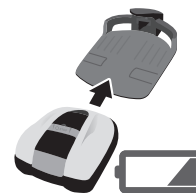
#### NOTE:

- You can configure the following start points for each model: (page 19)  
HRM310: 3 start points  
HRM520: 5 start points



### Operation timer

The Honda Robotic Lawn mower has multiple settings for designating the day and time the lawn mower operates. You can configure the lawn mower to run at any time you desire.



### Convenience

After configuring the Honda Robotic Lawn mower, it starts and stops mowing without any prompting. When the timed program is complete or the battery's charge becomes low, the lawn mower automatically returns to its docking station and recharges its internal battery.

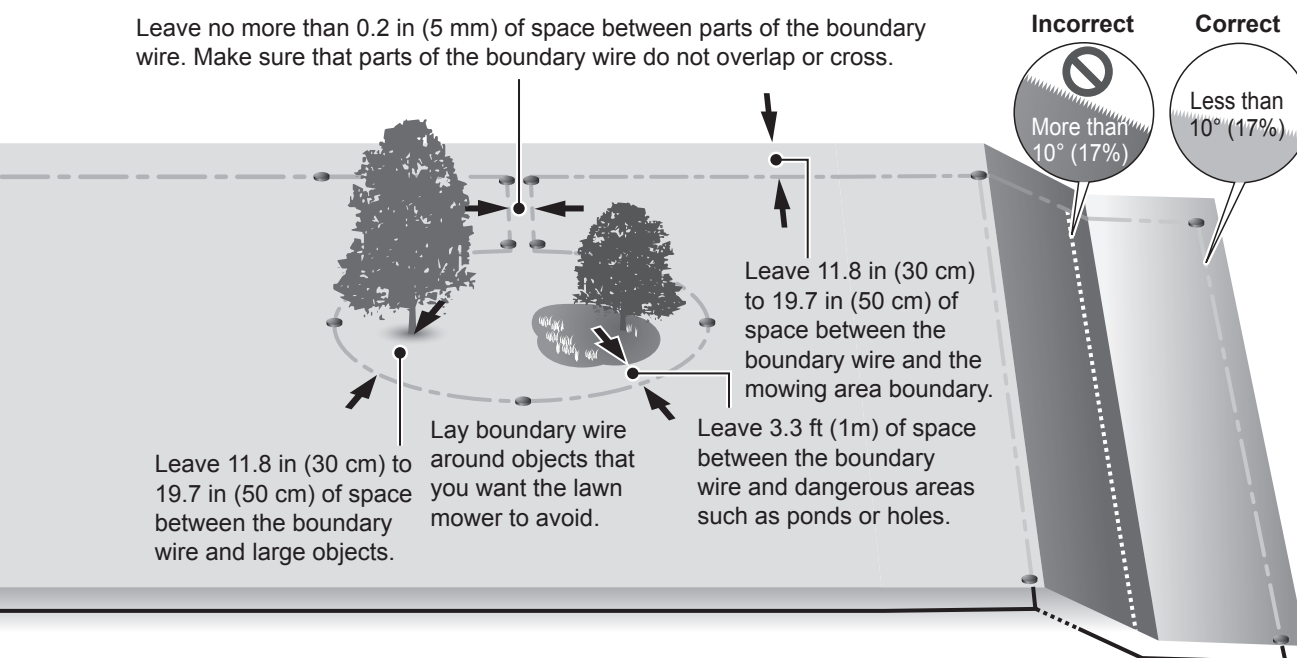
## ● Laying boundary wire

The boundary wire location determines the parameters of the mowing area, this area may consist of multiple sections in which the lawn mower can operate. For mowing start point setup and detailed information please see “4 MENU SETTINGS” (☞ page 25).

The work area must conform to the following conditions if it includes sloping areas.

- The lawn mower can operate on slopes of 24° (45%). Do not include slopes in the work area that are more than 24° (45%).
- Lay the boundary wire in locations that have a slope of less than 10° (17%).
- If the location in which you are laying the boundary wire has a slope that is steeper than 10° (17%), do the following:
  - Do not lay the boundary wire laterally across a slope that is steeper than 10°.
  - Lay the boundary wire laterally across a relatively flat space, with a slope of less than 10°, that comes after the location where the slope is more than 10° (17%). (Refer to the diagram below.)
- \* Laying the boundary wire where the slope is too steep has a bad effect on the lawn mower. This is because the lawn mower follows along where the boundary wire has been laid.

Leave no more than 0.2 in (5 mm) of space between parts of the boundary wire. Make sure that parts of the boundary wire do not overlap or cross.



### NOTE:

- Make sure to fill in “LAWN DIAGRAM” referring to the layout of boundary wire (☞ page 76).



### Safety

Blades on the lawn mower automatically stop when:

- You lift the lawn mower.
- The lawn mower is on a surface with a slope that is too steep.
- The lawn mower becomes overturned.

### Quiet operation

The motor and rotating blades of the Honda Robotic Lawn mower operate more quietly than traditional engine lawn mowers.

## ● Useful features

### Seasonal timer (☞ page 29)

The growth speed of lawn depends on the season. With this function, you can configure the ratio of the mowing time for each season.

### Quiet timer (☞ page 30)

You can set the blade speed, wheel speed and timer for operating the lawn mower quietly.

### Spiral cutting (☞ page 36, 38)

With this function, the lawn mower can be focused on mowing the area where the lawn is not completely mown, or the growth speed of the lawn is fast.

### Edge cutting (☞ page 35, 38)

With this function, you can mow the unmown area along the boundary wire.

## 2 SAFETY INSTRUCTIONS

### Precautions

Carefully observe the following precautions.

- Make sure to keep your hands, feet and any other body parts away from the rotating blades.
- Do not touch sharp components such as the blades or blade disc other than when performing maintenance. If you do, you may be injured.

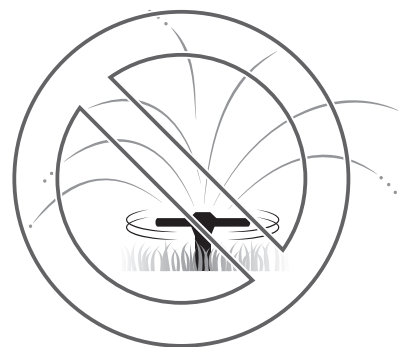


- Always press the manual STOP button first before you physically interact with the lawn mower such as when lifting the mower or turning it sideways, or upside down. If you do not, you may come in contact with the blades and become injured.
- Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with this Owner's Manual to interact with or handle the lawn mower.
- Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people or their property.
- Wear long pants and sturdy shoes when nearby or inside the work area while the lawn mower is operating.
- Before using the robotic lawn mower or entering the work area, persons using a pacemaker or other medical device should consult a doctor.
- Do not ride on the lawn mower, push the lawn mower, or use it for anything other than its intended purpose. Otherwise you or someone else may be injured.



- Never use the lawn mower in the immediate vicinity of people, especially children or pets.
- Carry out your mowing operation only within the boundary wire area.

- Do not use automatic lawn watering systems while the lawn mower is operating, because the watering equipment may become damaged and the likelihood of water penetrating into the lawn mower is greatly increased. Adjust the work timer of the lawn mower so the watering systems and the lawn mower do not operate at the same time.



- If there is a risk of adverse weather such as lightning or a storm, stop operation and disconnect the power cord.
- Parts of this product may become warm in direct sunlight. Make sure you do not touch these parts if they become extremely hot or you may burn yourself.
- Do not charge the lawn mower with anything other than the docking station. Injury may occur or the lawn mower may be damaged.
- If the power supply cord is damaged, immediately unplug it from the outlet and contact your dealer. Do not touch the damaged part of the power supply cord.
- If there are any holes in the work area, fill them in so that the work area is level. Periodically check the work area for holes.

## Observe the following points for your safety

- When carrying the lawn mower, turn it off and carry it as explained in this manual (see page 59) with the blades facing away from you.
- When carrying the lawn mower, make sure to carry it by the designated areas (see page 59). If you carry the lawn mower in any other way, you risk injury from the blades or charging socket of the lawn mower.



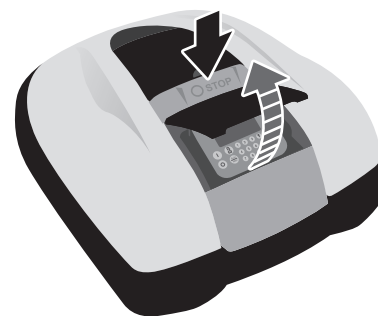
- Always use thick work gloves when performing maintenance. If you do not, you may be injured by the blades.



- Before operation, always check the work area and remove any branches, rocks, and other objects that can damage the blades and cause the lawn mower to stop. If you do not, you may be injured from objects that are ejected from the bottom of the lawn mower.



- Always press the manual STOP button first before you physically interact with the lawn mower. If you do not, you may become injured.
- When performing maintenance on the lawn mower, make sure to press the manual STOP button and stop the lawn mower from moving. If the lawn mower is moving, an accident may occur.



- Lay the boundary wire so that it is held firmly in place, and perform periodic checks after laying it to ensure that it has not slackened. If the boundary wire protrudes from the ground, you or someone else may trip on it and fall.
- Do not touch the exposed tip of a boundary wire that has been cut or damaged. You may be injured or electrocuted.
- If you find that the boundary wire has been cut, turn off the lawn mower, unplug the transformer's plug from the building's power outlet, and contact your dealer.
- Do not touch the charging socket. If you touch it, you may be injured.
- Observe the following points when touching the building's power outlet, power cord, and transformer. If you do not, you may be electrocuted.
  - Do not touch the building's power outlet, cord, or transformer with wet hands.
  - Do not touch the building's power outlet, cord, or transformer if the building's power outlet, power cord, or transformer is wet.
- The transformer may get hot during use. Unplug from the power outlet and wait for it to cool down sufficiently before touching it.
- Perform periodic checks to confirm that no dust, dirt, or other debris have gathered in or on the building's power outlet, power cord, or transformer. If such things are present, remove them or they may cause a fire.
- Make sure that the contents of "SAFETY INSTRUCTIONS" are absolutely clear to persons who may come in contact with the robotic lawn mower. If you do not, an accident may occur.
- When connecting the plug, hold the plug by its designated grip area. Failure to hold the plug correctly may result in electrocution if you touch the connector area.
- People who are not thoroughly familiar with this Owner's Manual should not come into contact with the lawn mower other than to stop it.
- When approaching the operating lawn mower, pay attention to materials that may be scattered by the blades.
- Do not use the lawn mower if the outer casing is damaged.  
The blade may accidentally cut you or you may be injured by debris thrown off by the blade.
- Never attempt to tamper with the lawn mower. It can cause an accident.

#### **Disposal**

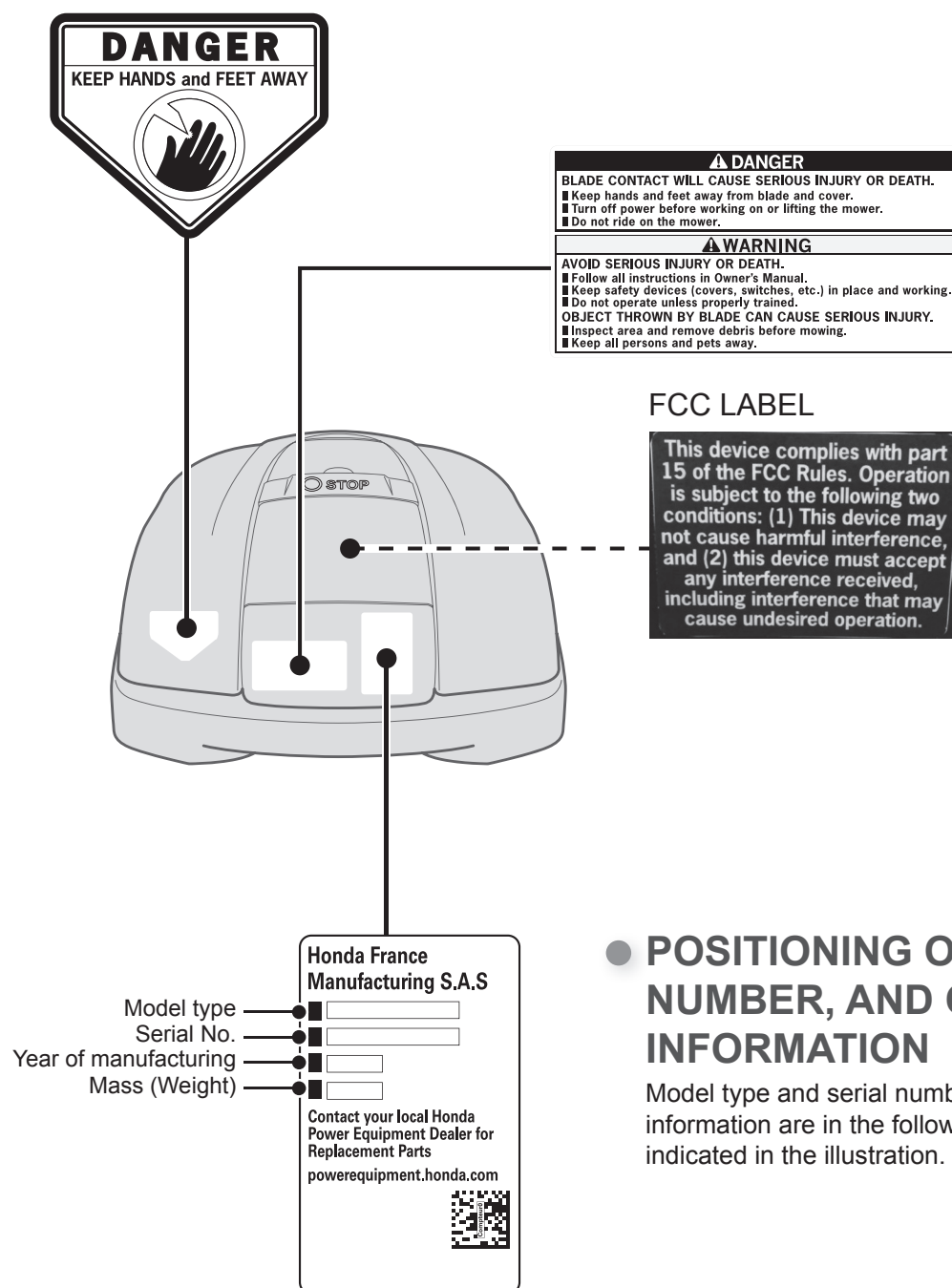
To protect the environment, do not dispose of this product, battery, etc. using standard waste collection.

Observe the local laws and regulations or consult your authorized Honda dealer for disposal.

## Label locations

### ● POSITIONING OF SAFETY LABELS

Your lawn mower should be used with due care and attention. Therefore, figured labels have been placed on various parts of the machine to remind you of the main precautions to be taken. Their full meaning is explained later on. These labels are an integral part of the lawn mower if any of them should become detached or illegible, contact your servicing dealer for their replacement. Carefully read the safety regulations in the applicable chapter of this handbook.



### ● POSITIONING OF SERIAL NUMBER, AND OTHER INFORMATION

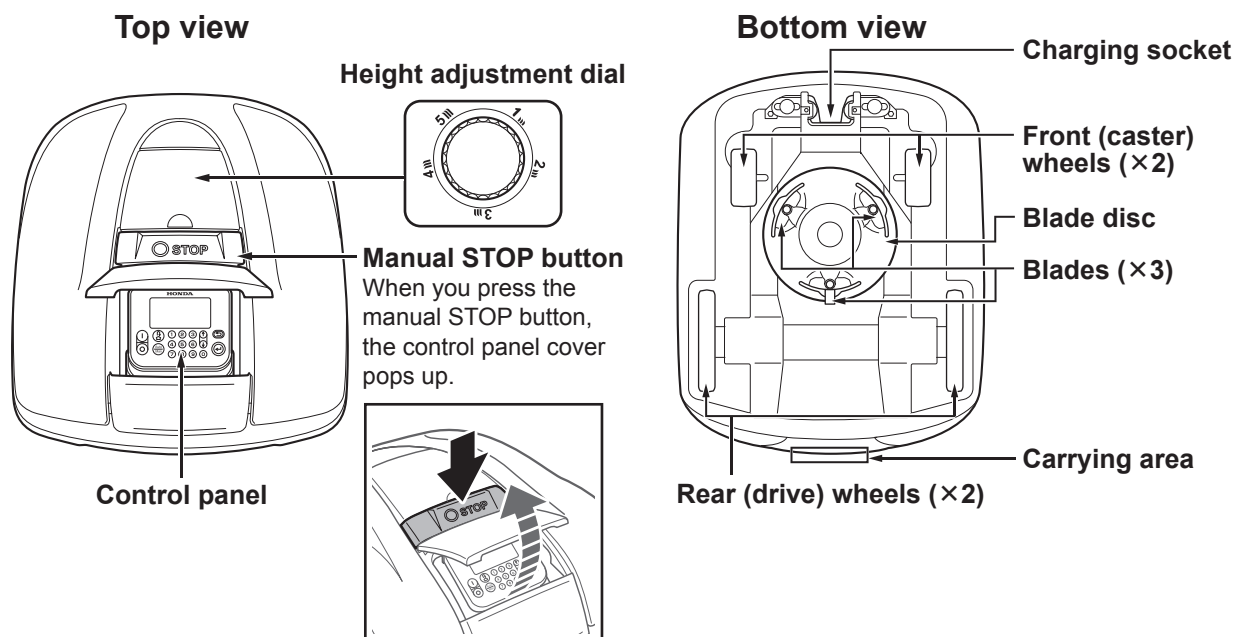
Model type and serial number, and other information are in the following locations indicated in the illustration.



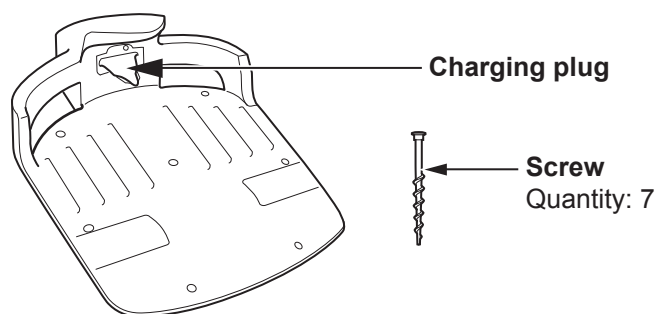
# 3 PREPARATION

## Component identification

### ● Body

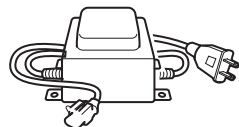


### ● Docking station



The lawn mower recharges at the docking station, and returns to the docking station when mowing is finished or the battery's charge becomes low. (You can configure the battery level for returning to the docking station from 10% to 50%.)

### ● Supplied items



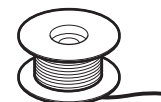
#### Transformer

Install the transformer off the ground. After making all other connections, connect the transformer to the building's power outlet. Install in a place not exposed to direct sunlight and protected from rain.



#### Power cord

Connect the power cord to the transformer and docking station.



#### Boundary wire

Lay boundary wire around the area in which you want the lawn mower to operate.

Length for HRM310: 656 ft (200 m)

Length for HRM520: 984 ft (300 m)

\* It is the responsibility of installer to properly install these supplied accessories according to this manual.



## Control panel

### Display

The home screen and menus can be seen here while the lawn mower is turned on.

### On button

Press to turn on the power.

### Off button

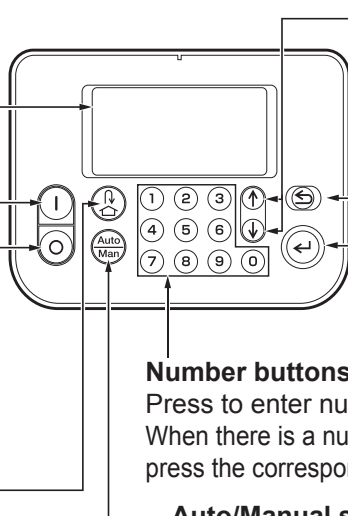
Press to turn off the power.

### NOTE:

- The timer does not function if you turn off the power.

### Home button

Press to automatically return the lawn mower to the docking station after you close the control panel cover.



### Up/down arrow buttons

Press to navigate to the previous/next item in the display.

### Back button

Press to return to the previous menu in the display. (The back button cannot be used in some cases.)

### Enter button

Press to enter your selection in the display.

### Number buttons

Press to enter numbers in the display menus. When there is a number to the left of a display menu item, you can press the corresponding number button to highlight that item.

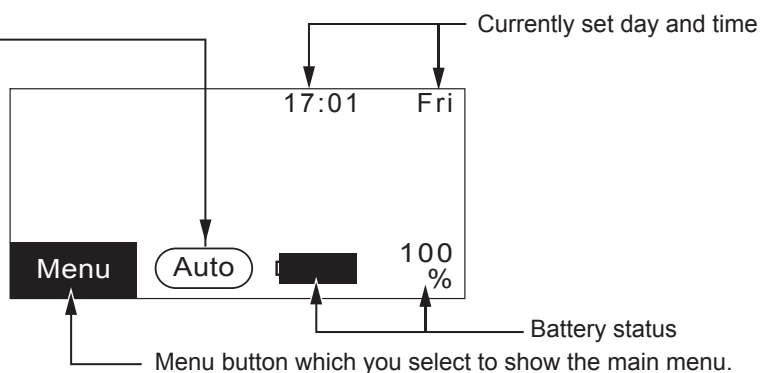
### Auto/Manual selection button

Press from the home screen to switch between operation modes. You can choose from Auto or Manual modes. For details, see "4 MENU SETTINGS" (page 25).

## Home screen

Mode selection button on which Lawn mower setting status is displayed as below:

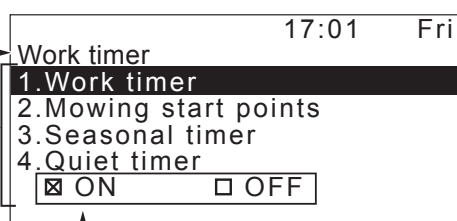
Icons	Description
	Auto mode is set.
	Manual mode is active and no timer is set.
	The lawn mower will return to the docking station.



## Item selection screen

Name of the first level menu

Selectable menu items and current setting status.



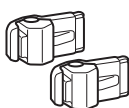
You can display the previous screen by pressing the button.

Selectable boxes to which you add a check by pressing the button.



### Pegs

Use pegs to hold the boundary wire in place when laying it.  
Quantity for HRM310: 200  
Quantity for HRM520: 300



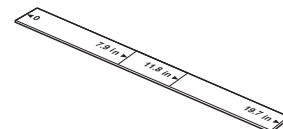
### Connectors for the boundary wire

Use connectors to connect the boundary wire to the docking station.  
Quantity: 2



### Spare Blades

Use spare blades to replace the worn ones.  
Quantity: 9



### Ruler

Part of the packaging of this product is a ruler. This ruler is used to check the position of the boundary wire installation.

## Installation

We strongly recommend that an authorized Honda dealer installs your Robotic Lawn mower. Installation by an authorized Honda dealer will ensure that your system is working correctly.  
Do not use anything other than supplied items and docking station bundled.

## Checking conditions for installation

Check with the dealer that performed the installation if the docking station and boundary wire are installed according to the conditions below. Also periodically confirm that these conditions are still met.

If any of these conditions are not met, consult your dealer.

We recommend that the main power supply is professionally installed in accordance with local laws and regulations.

### Conditions for installing the docking station

Image	Condition				
	<ul style="list-style-type: none"> <li>The docking station must be installed on a flat surface with an inclination of no more than 5° (8.7%).</li> <li>The docking station must not be curved.</li> <li>The screws must be firmly tightened.</li> <li>Before installing the docking station, check the ground condition, which may vary seasonally.</li> <li>If installing the docking station directly on the lawn, cut the grass on which the docking station will be located as short as possible.</li> <li>If the docking station is installed incorrectly, the lawn mower may not be able to charge.</li> </ul>				
<p><b>Docking direction</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p><b>CW (Clockwise)</b></p> </div> <div style="text-align: center;"> <p><b>CCW (Counter-clockwise)</b></p> </div> </div> <p>Right side wire connector (Type 0)</p> <p>Left side wire connector (Type 2)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Right side wire connector</td><td>Type 0</td></tr> <tr> <td>Left side wire connector</td><td>Type 2</td></tr> </table>	Right side wire connector	Type 0	Left side wire connector	Type 2	<p>You need to set the loop direction CW (Clockwise) or CCW (Counter-clockwise) when the lawn mower returns to the docking station.</p> <p>You also need to connect the connectors of the boundary wire with the terminals of the docking station with reference to the left table.</p> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>If your lawn mower is an HRM310, the max length of the boundary wire is 1,310 ft (400 m).</li> </ul>
Right side wire connector	Type 0				
Left side wire connector	Type 2				
<p><b>Pattern A</b></p> <p>More than 6.6 ft (2m)    More than 3.3 ft (1m)    0-7.9 in (0-20 cm)</p> <p><b>Pattern B</b></p> <p>Corner    6.6 ft (2m)    More than 3.3 ft (1m)</p>	<ul style="list-style-type: none"> <li>The boundary wire must be laid according to the figure on the left (Pattern A or Pattern B).</li> <li>There must be no obstacles as follows: Pattern A: within 3.3 ft (1m) from the station Pattern B: within 6.6 ft (2m) from the station</li> <li>There must not be foreign objects within the work area near the docking station (in the shaded area indicated in the image).</li> <li>The boundary wire under the docking station must be laid toward the outside of the work area.</li> <li>The boundary wire must be installed into the "outer" groove located on the bottom of the docking station.</li> </ul>				

## ● Conditions for laying the boundary wire


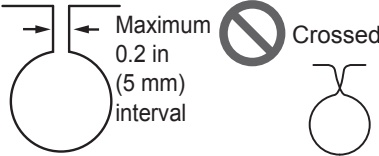
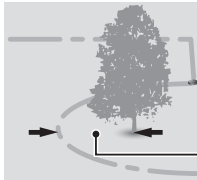

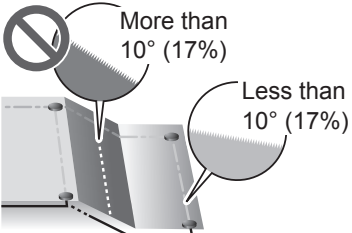

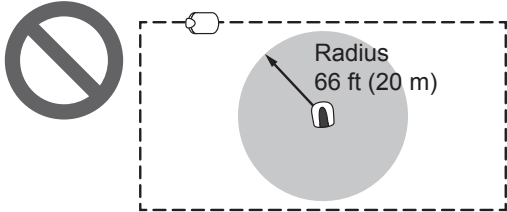
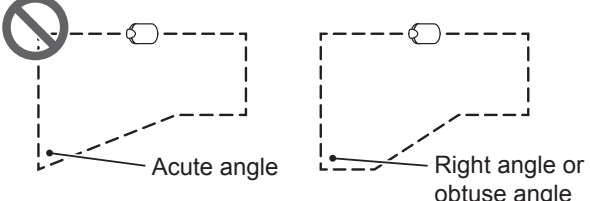
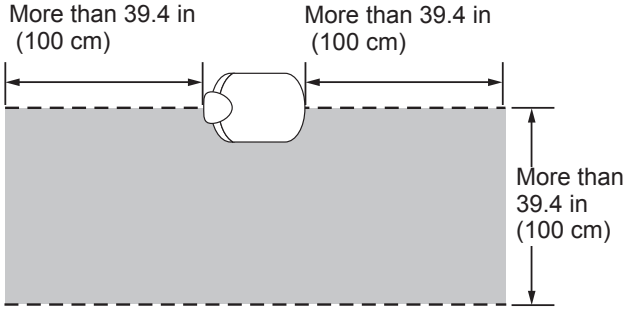
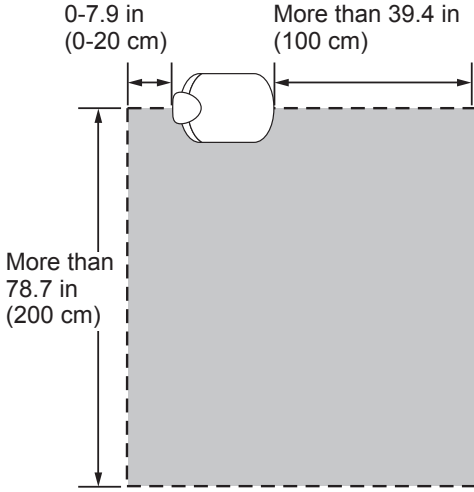
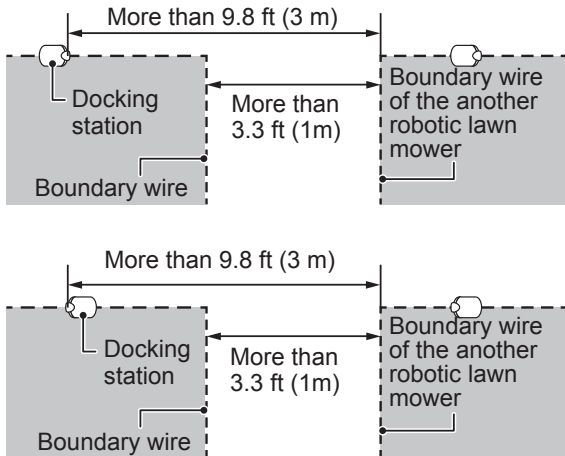
Image	Condition
<p>Height of objects which the lawn mower might run on top of</p>  <p>EX:</p>  <p>Maximum 0.2 in (5 mm) interval</p> <p>Crossed</p>	<p>Lay boundary wire around objects which the lawn mower might run on top of (e.g. rocks, tree roots, etc.); these objects must be removed from the work area.</p> <p>The boundary wire entry and exit points for a round area should be separated by no more than 0.2 in (5 mm). (However, the boundary wire should not cross itself.)</p>
 <p>11.8 in (30 cm) to 19.7 in (50 cm)</p>	<p>There must be 11.8 in (30 cm) to 19.7 in (50 cm) of space between the boundary wire and large objects. (This space can be reduced to as little as 11.8 in (30 cm) if you set [Wire Overlap] to a low value. For details, consult your dealer.)</p>
 <p>Taller than 5.9 in (15 cm)</p> <p>Areas which the lawn mower might fall into</p>	<p>Lay fencing taller than 5.9 in. (15 cm) around areas that the lawn mower might fall into, such as uneven ground, ponds, pools, driveways, or other areas with differences in height.</p>
 <p>More than 10° (17%)</p> <p>Less than 10° (17%)</p>	<p>Do not lay boundary wire so that it intersects on a slope of more than 10° (17%). You can lay boundary wire parallel to a slope of more than 10° (17%) in order to access an area with a slope of less than 10° (17%).</p>
	<p>Boundary wire should be laid so that there is no excess wire.</p>
 <p>Radius 66 ft (20 m)</p>	<p>The lawn mower can detect the signal from the boundary wire within a 66 ft (20 m) radius.</p> <p>If the lawn mower enters a space inside the work area with no boundary wire within a 66 ft (20 m) radius, the signal will not be detected and the lawn mower will stop.</p>
 <p>Acute angle</p> <p>Right angle or obtuse angle</p>	<p>The boundary wire must not be laid with any acute angles. (Angles should be more than 90°.)</p>

Image	Condition
 <p>More than 39.4 in (100 cm)</p> <p>More than 39.4 in (100 cm)</p> <p>More than 39.4 in (100 cm)</p> <p>When installing the docking station at a corner</p>  <p>0-7.9 in (0-20 cm)</p> <p>More than 39.4 in (100 cm)</p> <p>More than 78.7 in (200 cm)</p>	<ul style="list-style-type: none"> <li>• If you want to install the docking station in a narrow passage, lay boundary wire according to the figure on the left.</li> <li>• Turn off the shortcut wire setting.</li> <li>• Set the passage width setting anywhere from 0 to 5 levels.</li> </ul> <p><b>NOTE:</b></p> <ul style="list-style-type: none"> <li>- Narrow passage installation refers to the installation of the docking station in a narrow passage with a width of 3.3 to 10 feet (1 to 3 meters).</li> </ul>
 <p>More than 9.8 ft (3 m)</p> <p>Docking station</p> <p>Boundary wire</p> <p>More than 3.3 ft (1m)</p> <p>Boundary wire of the another robotic lawn mower</p> <p>More than 9.8 ft (3 m)</p> <p>Docking station</p> <p>Boundary wire</p> <p>More than 3.3 ft (1m)</p> <p>Boundary wire of the another robotic lawn mower</p>	<p>If you want to use an additional robotic lawn mower, the boundary wire must be laid according to the figure on the left.</p>

## Setting up the lawn mower

When first turning on the lawn mower, the initial settings and setup wizard will appear.

Through the initial settings, you can configure the display language, internal date and time, and create your PIN (Personal Identification Number).

Through the setup wizard, you can configure the settings for the mowing operation of your lawn mower.

### NOTE:

- If your dealer already configured the setup wizard, the setup wizard screen is not displayed.

## Turning on the power

After the battery is charged, press the **(On)** button to turn on the lawn mower.

The **(On)** button is located on the control panel towards the rear side of the lawn mower.

### ⚠ WARNING

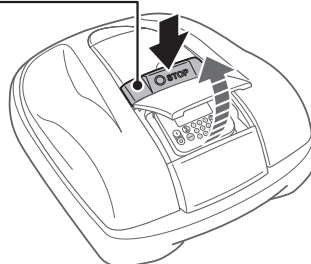
- Do not insert your finger beneath the closed operation panel cover or height adjustment dial cover.

1

**Press the manual STOP button.**

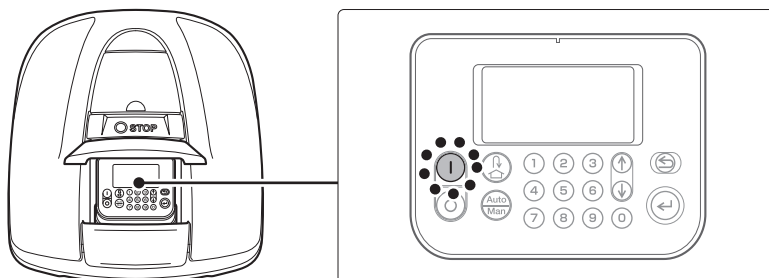
The control panel cover pops up.

Manual STOP button



2

**Press the **(On)** button on the control panel.**



The power turns on, and the initial setup screen on the control panel is displayed.

## Initial settings

When first turning on the lawn mower, the initial settings will appear to set the display language, internal date and time, and create your PIN (Personal Identification Number).

### NOTICE

- Make sure to press the manual STOP button before performing the following procedure.

1


Select your preferred language and press the  button.

Initial setup
Select language
1.English
2.Español
3.Français

2

Enter the date with the format {Month}/{Day}/{Year} and the time in 24-hour format.

#### NOTE:

- Please use following setting if you want to turn off daylight saving time ( page 50).

Initial setup
Set date and time
MM/DD/20YY
__:__(24h)
OK

3

Select [OK] and press the  button.

Initial setup
Create a PIN code
█ _ _ _
OK

4

Input a PIN using the number buttons.

Document your PIN and keep it in a secure location. A copy of the DEALER CHECKSHEET can be found on page 78 to document your PIN.

5

Select [OK] and press the  button.

The message "Initial setup complete" is displayed.  
If you select [2.Restart initial setup], you can set the initial settings again.

Initial setup complete
1.Setup wizard
2.Restart initial setup
Finish

Initial setup is completed. Go to the setup wizard to configure the settings for the mowing operation of your lawn mower.

## ■ Configuring the settings through the setup wizard

The setup wizard will guide you to configure the settings for your mowing operation as follows:

Menu name	Usage	Configuring and testing the settings
[1.Lawn layout]	For configuring the settings related to the layout of the boundary wire. These setting values are referred from the other settings.	<ul style="list-style-type: none"> <li>- Direction for the lawn mower to dock to the docking station</li> <li>- Length of the boundary wire</li> <li>- Lawn size</li> <li>- Existence of narrow passages</li> </ul>
[2.Mowing start points]	For configuring the mowing start point settings to enable the lawn mower to start mowing from other areas.	<ul style="list-style-type: none"> <li>- Direction of the mowing start points</li> <li>- Distance of the start points from the docking station</li> <li>- Ratio with which the lawn mower operates in each area</li> </ul>
[3.Test start points]	For testing the start points configured in [2.Mowing start points] menu.	<ul style="list-style-type: none"> <li>- Testing the setting of each start point</li> </ul>
[4.Work timer]	For setting the work timer to operate the lawn mower according to the schedule.	<ul style="list-style-type: none"> <li>- Work day and work time</li> </ul>


### NOTE:

- Before starting the setup wizard, confirm that both the docking station and boundary wire are completely installed.
- Before starting the setup wizard, fill out the DEALER CHECKSHEET at the end of the Owner's Manual.
- If the DEALER CHECKSHEET at the end of Owner's Manual was already filled out by your dealer, refer to it when configuring the settings through the setup wizard.
- After the settings are finished through the setup wizard, you can modify the setting values in the menu settings. For details, see "4. MENU SETTINGS" (page 25).

## 1. Setting the Lawn layout


Through this setting, you can configure the information of your lawn layout for operating the lawn mower.

1-1

**Select [1.Setup wizard] and press the  button.**  
Setup wizard top screen is displayed.

Initial setup complete	
1.Setup wizard	
2.Restart initial setup	
	Finish


1-2




**[1.Lawn layout] is selected. Press the  button to configure the lawn layout.**  
Lawn layout screen is displayed.

Setup wizard	
1.Lawn layout	
2.Mowing start points	
3.Test start points	
4.Work timer	



1-3

Select [Clockwise(CW)] or [Counter-clockwise(CCW)] referring to the layout of your docking station and boundary wire, and press the  button.

Lawn layout	1/7
Docking direction	
<input checked="" type="checkbox"/> Clockwise(CW)	
<input type="checkbox"/> Counter-clockwise(CCW)	
	
NEXT	

1-4

Select [NEXT] and press the  button.

1-5

Enter the values of the boundary wire length and lawn size.

**NOTE:**

- For details on the boundary wire length or lawn size, contact your dealer.
- Input the boundary wire length exactly because the values which are automatically configured are associated with the boundary wire length.
- If your lawn mower is an HRM310, the max length of the boundary wire is 1,310 ft (400 m).


EX: HRM520

Lawn layout
Boundary wire length
1 3 3 0 ft (MAX2600 ft)
Lawn size
3 2 0 0 0 ft <sup>2</sup> (MAX32300 ft <sup>2</sup> )
Do you have short cut wire?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

1-6

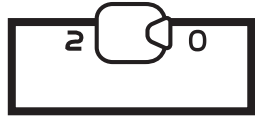
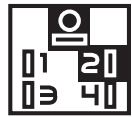
Select [NEXT] and press the  button.

1-7

Confirm the boundary wire connection of the docking station terminals with the displayed image. Select [OK] and press the  button.

**NOTE:**

- For detail, see "Conditions for installing the docking station" (page 12).

Lawn layout	2/7
Station connector	
	
	
OK	

1-8

Select [Yes] or [No] to the question on the narrow passages, and enter the values of the minimum passage width from 40 to 120 in (100 to 300 cm).

Lawn layout	3/7
Are there narrow passages?	
<input type="checkbox"/> Yes <input type="checkbox"/> No	
What is the minimum passage width(wire to wire)	
0 in	
(40 - 120 in)	
NEXT	

1-9

Select [NEXT] and press the  button.

The configuration of lawn layout is completed.  
The setup wizard top screen is displayed and [1.Lawn layout] is checked.

**NOTE:**

- If you want to change the settings in this configuration, select this menu again. You can modify the settings through the setup wizard.
- Confirm the following settings  
Homing setup - Passage width  
Start point setup - Passage width
- Input the narrow passage of lawn correctly.  
Be sure to test the settings because the lawn mower automatically set the passage width of departure and the return.



## 2. Setting the mowing start points

Through this setting, you can set the starting point to operate the lawn mower.

If you set the mowing start points and combine them with the settings of work timer, you can effectively mow your lawn.


2-1

Select [2.Mowing start points] and press the  button to configure the mowing start points.

Mowing start points screen is displayed.

Setup wizard
✓ 1. Lawn layout
2. Mowing start points
3. Test start points
4. Work timer

2-2

Select [Yes] or [No] to the question on the addition of the start points and press the  button.

If you select [Yes], go to step 2-3.

If you select [No], no start point is added and the setup wizard top screen is displayed.

**NOTE:**

- When selecting [No], [2.Mowing start points] and [3.Test start points] are checked on the setup wizard top screen.
- When selecting [No], the lawn mower will always start mowing from the charging station.

[illegible]

2-3

Select ↻ (Clockwise) or ↺ (Counter-clockwise), enter the values of the distance from the docking station to start cutting, and enter a percentage of the ratio which the lawn mower operates.

Repeat the above operation for the starting points which you want to configure.

**NOTE:**

- You can configure the following start points for each model:  
HRM310: 3 start points  
HRM520: 5 start points
- Input the percentage of the ratio on the basis of all the lawn sizes and the areas of each start point.  
Even if the lawn mower starts work at the start point, it works in areas other than the set area.

EX: HRM520

Mowing start points					4/7
Point	□ / □	(0 - 2600 ft)			
1	□ / □		ft		%
2	□ / □		ft		%
3	□ / □	---	ft	---	%
4	□ / □	---	ft	---	%
5	□ / □	---	ft	---	%

NEXT

2-4

Select [NEXT] and press the  button.

The configuration of mowing start points is completed.  
The setup wizard top screen is displayed and [2.Mowing start points] is checked.

**NOTE:**

- If you want to change the settings in this configuration, select this menu again. You can modify the settings through the setup wizard.

### 3. Testing the Start points


Through this testing, you can check the start points that you added in [2.Mowing start points].

#### NOTE:

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

**3-1** Select [3.Test start points] and press the  button to check the start points.

Setup wizard	
✓1.Lawn layout	
✓2.Mowing start points	
<b>3.Test start points</b>	
4.Work timer	

**3-2** Select a start point number and press the  button. The information of the selected start point is displayed.

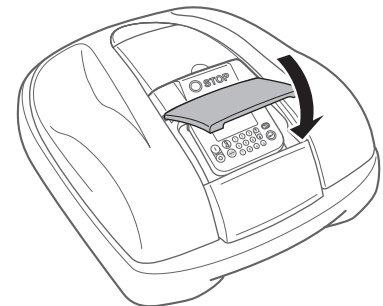
EX: HRM520

Test start points		5/7
Point	C / S (0 - 2600 ft)	
1	<input checked="" type="checkbox"/> / <input type="checkbox"/>	1080 ft
2	<input checked="" type="checkbox"/> / <input type="checkbox"/>	1150 ft
3	<input type="checkbox"/> / <input checked="" type="checkbox"/>	560 ft
4	<input checked="" type="checkbox"/> / <input type="checkbox"/>	0 ft
5	<input checked="" type="checkbox"/> / <input type="checkbox"/>	0 ft
0	Home	
		NEXT

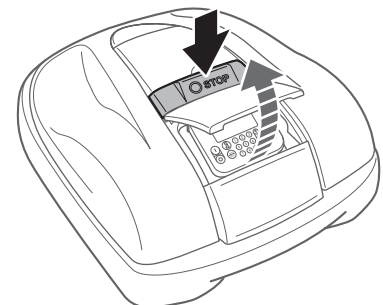
**3-3** Confirm the setting information of the selected start points.

Test start points	
Point1	
Location	CW 1080 ft
Close cover to start	

**3-4** Close the control panel cover.  
The lawn mower starts towards the selected start point. When the test is correctly finished, the lawn mower rolls slowly from the minimum to the maximum exit angle, and a beep is emitted from the lawn mower.



**3-5** Press the manual STOP button.  
The control panel cover pops up. The message "Test return home" appears on the display.



3-6

Select [Yes] or [No] to the question of the test result and press  button.

If you select [Yes], go to step 3-7.

If you select [No], the message "Do you want to modify the start point?" is displayed and you can modify the start point settings.

**NOTE:**

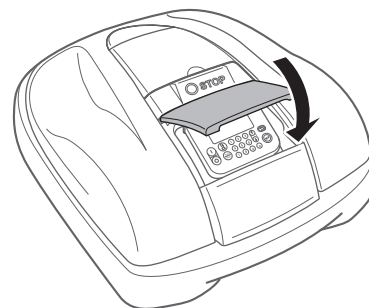
- For details on the start point settings, see step 2-3 of "2. Setting the mowing start points" (page 19).

3-7

**Close the control panel cover.**

The lawn mower returns to the docking station.

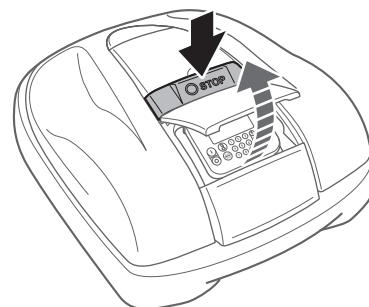
Test start points	
Test return home	
Yes	No




3-8

**When the lawn mower is docked at the docking station, press the manual STOP button.**

The control panel cover pops up.



3-9


Select [Yes] or [No] to the question of the test result and press  button.

If you select [Yes], Mowing start points screen is displayed to configure the start point settings.

If you select [No], go to step 3-10

Test start points	
Do you want to modify the start point?	
Yes	No

3-10

**After the start point test, select [NEXT] and press the  button.**

The setup wizard top screen is displayed and [3. Test start points] is checked.

**NOTE:**

- If you want to test the start points once, select this menu again. You can test the start points through the setup wizard.


EX: HRM520

Test start points		5/7
Point	(0 - 2600 ft)	
1	<input checked="" type="checkbox"/> / <input type="checkbox"/>	1080 ft
2	<input checked="" type="checkbox"/> / <input type="checkbox"/>	1150 ft
3	<input type="checkbox"/> / <input checked="" type="checkbox"/>	560 ft
4	<input checked="" type="checkbox"/> / <input type="checkbox"/>	0 ft
5	<input checked="" type="checkbox"/> / <input type="checkbox"/>	0 ft
0	Home	
		NEXT

## 4. Setting the work timer


Through this setting, you can configure the work day and work time to operate the lawn mower.

4-1

Select [4.Work timer] and press the  button to configure the work day and work time.

Setup wizard	
✓1.Lawn layout	
✓2.Mowing start points	
✓3.Test start points	
4.Work timer	

4-2

Select [1. Auto fill up timer] or [2. Manual setup] and press the  button.

Menu name	Description
[1.Auto fill up timer]	Automatically calculate the minimum days required by reference to the boundary wire length and lawn size.
[2.Manual setup]	Manually set the work day and work time to operate the lawn mower. You can configure the proper settings for your lawn.

Work timer	6/7
Recommended	100hrs/week
1.Auto fill up timer	
2.Manual setup	


If you select [1.Auto fill up timer], go to step 4-3.

If you select [2.Manual setup], go to step 4-4.

### NOTE:

- If you don't know the details on the work timer settings, select [1.Auto fill up timer], or contact your dealer.
- For details of the work timer settings, see "4. MENU SETTINGS" (page 25).
- Depending on the results of mowing using the automatically configured settings, you may need to adjust the lawn mower operating settings. If you don't know the details of the settings, contact your dealer.

4-3

Confirm the days that are automatically selected referring to the boundary wire length and lawn size. Select [NEXT] and press the  button to proceed to the timer setting screen.

### NOTE:

- You can select other days to operate the lawn mower.

Work timer	6/7
Minimum days required	4
<input type="checkbox"/> All	<input checked="" type="checkbox"/> MON <input checked="" type="checkbox"/> TUE
<input checked="" type="checkbox"/> WED	<input checked="" type="checkbox"/> THU <input checked="" type="checkbox"/> FRI
<input type="checkbox"/> SAT	<input type="checkbox"/> SUN
NEXT	

4-4

If you select [1.Auto fill up timer] in step 4-2, confirm the days that are automatically configured referring to the boundary wire length and lawn size.

If you want to change the work time, select the day and press the ⬅ button to change the work time of the lawn mower.

If you select [2.Manual setup] in step 4-2, select the day and press the ⬅ button to change the work time of the lawn mower.

OK	0	6	12	18	24
MON					
TUE					
WED					
THU					
FRI					
SAT					
SUN					

4-5

Enter a start time and an end time in 24-hour format for [1]. If necessary, also enter a start time and an end time in 24-hour format for [2].

**NOTE:**

- If selecting [Copy to week] and pressing the ⬅ button, you can copy the settings to the other days. For details on this operation, see "4 MENU SETTINGS" (☞ page 25).

Work timer		6/7	
Monday			
1	From	To	
	0 9 : 0 0	-	1 2 : 0 0
2	From	To	
	1 8 : 0 0	-	2 2 : 0 0
Copy to week			

4-6

Press the ⏮ button to return to the previous screen.

4-7

Select [OK] and press the ⬅ button.

4-8

If desired, select start points to be used each day by pressing the ⬅ button to select the start points.

**NOTE:**

- The check boxes which you configured in [2.Mowing start points] are displayed.

OK	Point 1	2	3	4	5
MON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
TUE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
WED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
THU	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
FRI	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
SAT					
SUN					

4-9

Select [OK] and press the ⬅ button.

4-10

Confirm the achieved and recommended hours per week. Select [Yes] or [No] and press the ⬅ button.

If you select [Yes], go to step 4-11.

If you select [No], go to step 4-8.

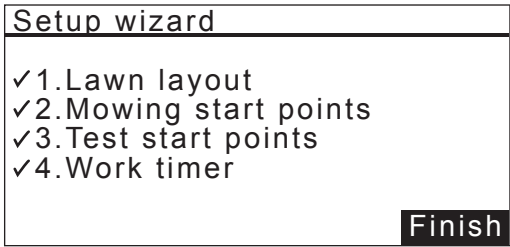
Work timer	6/7
Achieved	90hrs/week
Recommended	100hrs/week
Continue?	
Yes	No

4-11

Select [Finish] and press the ⏪ button.  
Initial setup complete screen is displayed.

**NOTE:**

- If you want to modify the settings in this menu, select this menu again. You can configure the settings through the setup wizard.



4-12

Select [Finish] and press the ⏪ button.  
Initial setup is completed and Home screen is displayed.



# 4 MENU SETTINGS

The control panel menus are used to set how the lawn mower operates.

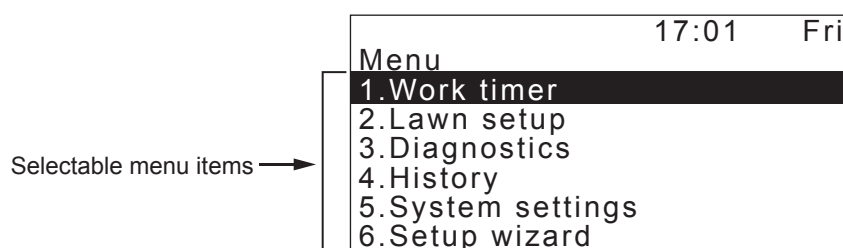
## Menu overview

### NOTE:

- We recommend having your dealer change these settings during installation.

### Menu screen

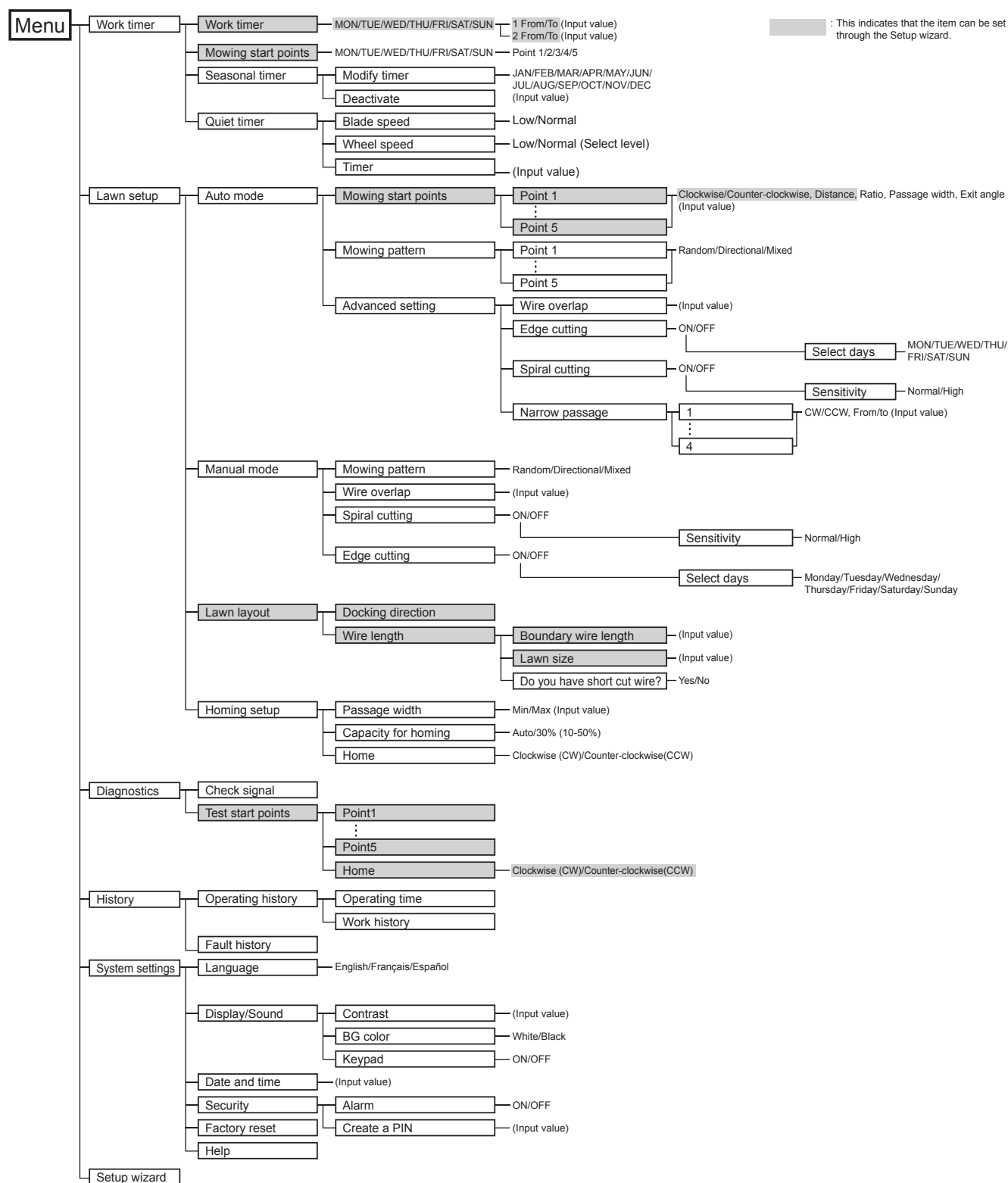
Selecting [Menu] in the home screen and press the ⬅ button, Menu screen is displayed as below:



The menu consists of multiple levels of submenus. The uppermost levels are as follows:

Menu name	Usage	See this page for information
[1.Work timer]	For setting the work day and work time, and selecting the start points.	(☞ page 27)
[2.Lawn setup]	For configuring the lawn mower to operate.	(☞ page 31)
[3.Diagnostics]	For diagnosing the lawn mower.	(☞ page 43)
[4.History]	For viewing operation and error history.	(☞ page 47)
[5.System settings]	For configuring system-related settings.	(☞ page 49)
[6.Setup wizard]	For configuring the setting through the set up wizard according to the steps of the screens.	(☞ page 17)

## Full menu diagram





## Setting the work timer

You can set the work day and work time for the lawn mower to operate. You can also specify a specific area for each work time.

### Work timer

You can select the day and time on which you want the lawn mower to operate.



Menu screen  
Home screen → [1.Work timer] → [1.Work timer]

Configure this setting to have the lawn mower operate on specific days and times. You can set up to two times for operation for one day.

#### NOTE:

- The [Timer 1] cannot be overlapped with the [Timer 2].
- The period of time cannot include "00:00".

1

Select the day on which you want the lawn mower to operate.

2

Press the ⏪ button to proceed to the timer setting screen.

3

Enter a start time and an end time in 24-hour format for [Timer 1] using the number buttons.

4

If necessary, also enter a start time and an end time in 24-hour format for [Timer 2].

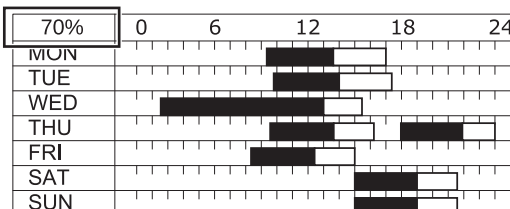
#### NOTE:

- If you want to copy the work timer settings to the other days of week, select [Copy to week] and the ⏪ button.

5

Press the ⏩ button to return to the previous screen.

The percentage which is configured in the seasonal timer is the ratio in which the lawn mower works in a month. For details on the seasonal timer, see "Seasonal timer" (page 29).



Confirm the period of work time for each day of week.

#### NOTE:

- Black part in the bar is the time in which the lawn mower will work. White part in the bar is the time in which lawn mower will not work. The ratio of black and white parts depends on the settings of seasonal timer. For details on the seasonal timer, see "Seasonal timer" (page 29).

Set the time.

Work timer

Monday

1 From To 00:00 - 00:00

2 From To 00:00 - 00:00

Copy to week

Work timer 6/7

Select days to copy

☐ All ☒ MON ☒ TUE

☒ WED ☒ THU ☒ FRI

☐ SAT ☐ SUN

Yes No

If you want to copy the work timer settings to the other days of week, select [Copy to week] and the ⏪ button.

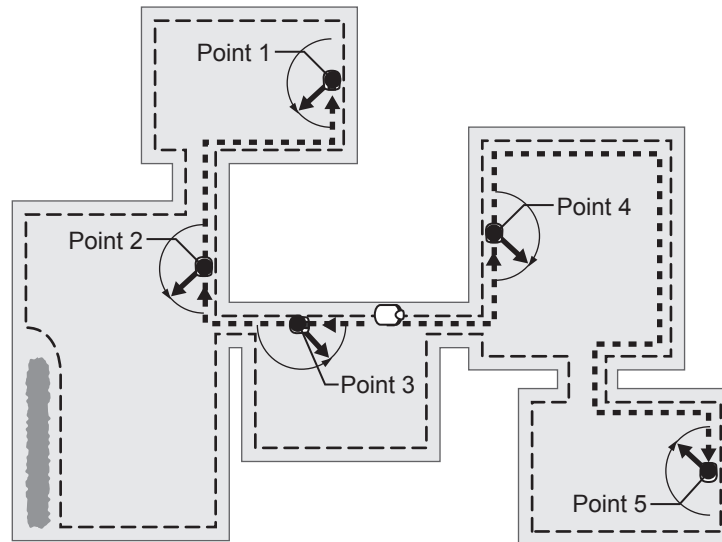
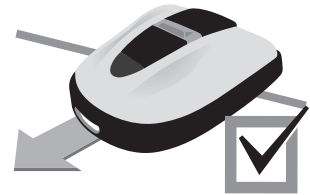
Select each box of the day to which you want to copy and press the ⏪ button.

After adding checks to the boxes, select [Yes] and press the ⏩ button to copy the settings to the selected days of week.

## Mowing start points

You can set the mowing start points for each day of week.

For example, if you set the following 5 start points in your lawn, you enable the lawn mower to reach other areas through narrow passages and mow your lawn effectively.



By setting the start points for each day of week, you can effectively operate the lawn mower to mow your lawn such as below:

	Point 1	2	3	4	5
MON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TUE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WED	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
THU	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FRI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SAT					
SUN					

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

← From Thursday to Friday:  
the lawn mower starts mowing  
from point 3, point 4, or point 5.



**Home screen** → **[1.Work timer]** → **[2.Mowing start points]**

Configure this setting to make the lawn mower start mowing from specific start points on specific days of week.

### NOTE:

- You can configure the following start points for each model:  
HRM310: 3 start points  
HRM520: 5 start points

1

Add a check to the box by pressing the button to select the start points.

2

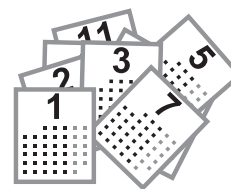
If you want to set the start points in detail, see the setup wizard top screen is displayed and [2.Mowing start points] is checked.

3

Press the button to return to the previous screen.

## Seasonal timer

The growth speed of lawn depends on the season. With this function, you can configure the ratio of the mowing time for each season.



Home screen → **Menu screen** → [1.Work timer] → [3.Seasonal timer] → [1.Modify timer]

Configure this setting to have a percentage of each month of lawn mower operation.

1

Enter a percentage of each month using the number buttons.

2

Select [OK] and press the button to return to the previous screen.

Seasonal timer											
JAN	0	3	0	%	JUL	0	7	0	%		
FEB	0	3	0	%	AUG	0	6	0	%		
MAR	0	7	0	%	SEP	1	0	0	%		
APR	0	9	0	%	OCT	0	9	0	%		
MAY	1	0	0	%	NOV	0	7	0	%		
JUN	1	0	0	%	DEC	0	7	0	%		
										OK	

Set the ratio of the mowing time for each month.

Home screen → **Menu screen** → [1.Work timer] → [3.Seasonal timer] → [2.Deactivate]

1

Select [OK] and press the button to return to the previous screen.

You can deactivate the timer for each season for operating the lawn mower.  
If the seasonal timer is deactivated, the lawn mower works 100% for each month.

## ■ Quiet timer


You can set the blade speed, wheel speed and timer for operating the lawn mower quietly.



 **Home screen** → Menu screen → **[1.Work timer] → [4.Quiet timer] ("ON" is checked)**

Configure this setting to operate the lawn mower with low noise during a set period.

1

Select [Blade speed] and press the  button. If you want the lawn mower to mow on your lawn quietly, select [Low].

2

Press the  button.

3

Select [Wheel speed] and configure the wheel speed level with which you want the lawn mower to operate by pressing the up/down arrow buttons.

4

Press the  button.


5

Select [Timer] and enter a start time and an end time in 24-hour format using the number buttons.

6

Press the  button.

7

Press the  button to return to the previous screen.

Configure the blade speed of the lawn mower.

Set a start time and an end time for the quiet operation.

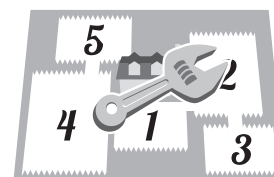
Quiet timer		17:01	Fri
Blade speed			
<input type="checkbox"/> Low	<input checked="" type="checkbox"/> Normal		
Wheel speed			
Low	■	■	<input type="checkbox"/> Normal
Timer			
0 0 : 0 0	-	0 0 : 0 0	

Configure the wheel speed of the lawn mower.

# Setting the lawn mower operation

## Auto mode

You can set up the lawn mower operation as follows:



### Setting the distance to the start point

Until the lawn mower reaches a set starting point in an area, it will run without mowing.

🔍 **Distance settings in [1.Mowing start points]** (page 33)

- Sets the distance from the docking station to start cutting.

### Setting the angle to turn from the boundary wire

When leaving the boundary wire, set the angle to turn from the boundary wire.

🔍 **Angle settings in [1.Mowing start points]** (page 33)

- Set the angle of departure for when the lawn mower arrives at the position specified by the angle of [1.Mowing start point].

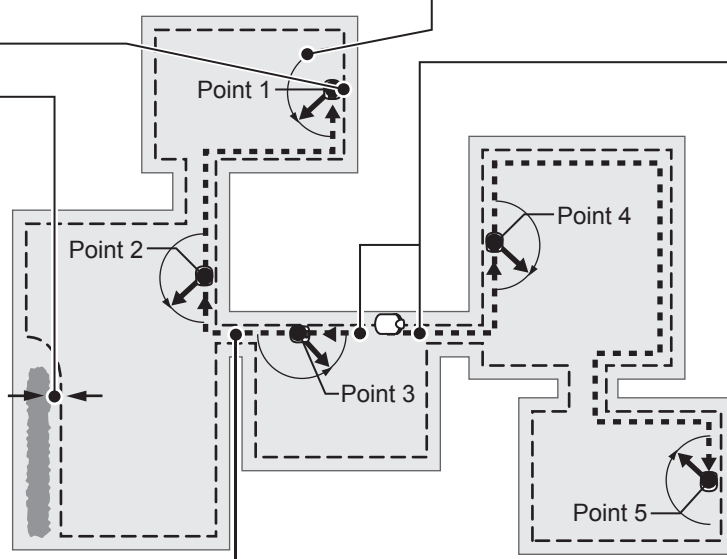
### Setting the overlap distance on the boundary wire

Set the distance that the lawn mower can cross the boundary wire.

🔍 **[1.Wire Overlap] in [4.Advanced setting]** (page 34)

#### NOTE:

- To have the lawn mower smoothly turn from the boundary wire, the recommended value of the Wire overlap is 7.9 in (20 cm).



### Setting the starting direction from the docking station

Set whether the lawn mower should travel clockwise or counter-clockwise along the boundary wire to reach a set starting point.

🔍 ⤴ (Clockwise) or ⤵ (Counter-clockwise) in [1.Mowing start point] (page 33)

### Setting the value to reach other areas through the narrow passage

The lawn mower can reach other areas through narrow passages with the following settings:

- Configure the value of the narrow passage distance from the docking station. When passing the configured narrow passage, the lawn mower closely follows the boundary wire. This is effective for 4 or fewer narrow pathways in the lawn.

🔍 **Width settings in [1.Mowing start points]** (page 33)

🔍 **[4.Narrow passage] in [4.Advanced setting]** (page 37)

#### NOTE:

- [4.Narrow passage] setting is for going toward the starting point. If you want to configure the setting for returning to the docking station, you need to set it in the Homing setup. For details, see "Homing setup" (page 41).

### Setting the operation ratio of each area operation

Set an area operation ratio if you want to mow more frequently from a certain start point.

For example, if you set the ratio for "Point 1" to 30%, the lawn mower will start mowing 3 times out of 10 from "Point 1" and 7 times out of 10 from other start points.

🔍 **Percentage settings in [1.Mowing start points]** (page 33)

#### NOTE:

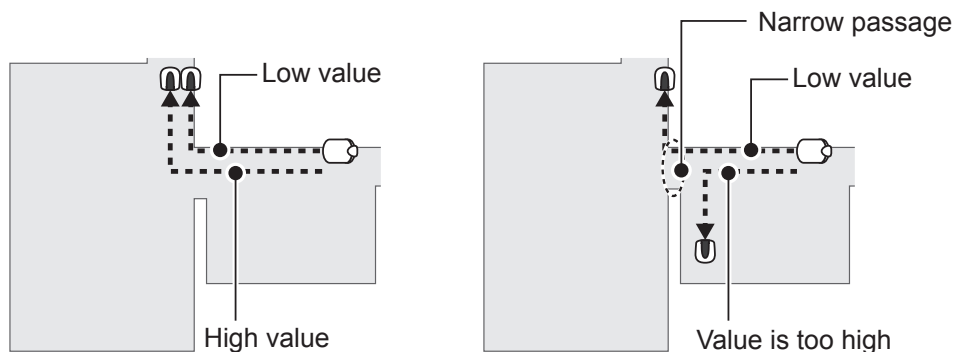
- You can configure the following start points for each model:  
HRM310: 3 start points  
HRM520: 5 start points

#### NOTE:

- If you want to operate the lawn mower with [Auto mode], see "Operating the lawn mower with the Auto mode." (page 55).

## Distance from the boundary wire when the lawn mower goes toward the mowing start points:

The lawn mower moves between the boundary wire and the specified value at random as it goes toward the mowing start point.



### NOTE:

- When the value is too high, lawn mower may not pass through narrow passage.

## Passage width sample table

Setup level	Passage width
0	4 in. (10 cm)
1	10 in. (25 cm)
2	12 in. (30 cm)
3	14 in. (35 cm)
4	16 in. (40 cm)
5	18 in. (45 cm)
6	20 in. (50 cm)
7	24 in. (60 cm)
8	28 in. (70 cm)
9	32 in. (80 cm)
10	36 in. (90 cm)
11	40 in. (100 cm)
12	44 in. (110 cm)

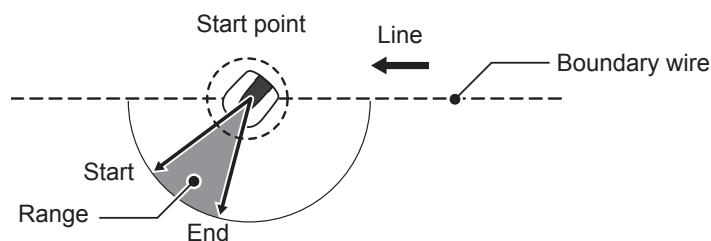
### NOTE:

- The field strength varies depending on the length of the boundary wire. The field becomes weaker with a longer boundary wire, and stronger with a shorter boundary wire.
- When the value is high (by avoiding moving along the same path), you can avoid creating wheel tracks in the grass.
- The numerical values of this table are for reference to return the lawn mower to the docking station along a straight line.
- The numerical values may differ depending on the actual conditions.

## The angle at which the lawn mower deviates from the boundary wire:

The lawn mower travels to this location along the boundary wire, and then turns away from the boundary wire to start mowing.

You can configure the angle (range) at which the lawn mower deviates from the boundary wire when it starts mowing as below:



**TIPS** Use the exit angle to let the lawn mower reach the mowing areas directly instead of using long wire exit locations.

## ● Mowing start points

 **Home screen** → **[2.Lawn setup]** → **[1.Auto mode]** → **[1.Mowing start points]** → **[1.Point 1]** to **[5.Point 5]**

The lawn mower travels to this location along the boundary wire, and then turns away from the boundary wire to begin mowing. This allows you to send the lawn mower to an area which is difficult to access.

**TIPS** Don't make the distance value bigger than it needs to be. This will maximize the cutting time.

1

Select ⌚ (Clockwise) or ⌚ (Counter-clockwise), enter the values of the distance from the docking station to start cutting, and enter a percentage of the ratio which the lawn mower operates.

2

Select [NEXT] and press the ⏪ button.

3

Enter the values of the width setting and angle, and press the ⏪ button.

### NOTE:

- By selecting [TEST], you can check the settings of each start point before mowing. For details, see "Test start point" (page 44).

4

Press the ⏩ button to return to the previous screen.

EX: HRM520

Set whether the lawn mower should travel clockwise or counter-clockwise along the boundary wire to reach a start point.

Mowing start points				1/2
Point	⌚ / ⌚	(0-2600ft)		
1	⌚ / ⌚	0 0 0 ft		0 0 0 %
2	⌚ / ⌚	0 0 0 ft		0 0 0 %
3	⌚ / ⌚	0 0 0 ft		0 0 0 %
4	⌚ / ⌚	0 0 0 ft		0 0 0 %
5	⌚ / ⌚	0 0 0 ft		0 0 0 %
				NEXT

Sets the distance from the docking station to start cutting.

Set an area operation ratio if you want to mow more frequently from a certain start point.

Sets the minimum and maximum distance between the lawn mower and the boundary wire when following the boundary wire.

Mowing start points				2/2
Point	Width		Angle	
1	3 - 6		5 0 - 1 5 0	
2	3 - 6		5 0 - 1 5 0	
3	3 - 6		5 0 - 1 5 0	
4	3 - 6		5 0 - 1 5 0	
5	3 - 6		5 0 - 1 5 0	
TEST	(0-1 2)		(1 0'-1 7 0')	

When leaving the boundary wire, set the minimum and maximum angle to turn from the boundary wire.





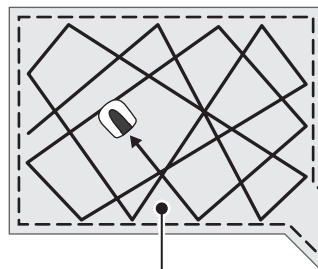
Menu screen

**Home screen** → **[2.Lawn setup]** → **[1.Auto mode]** → **[2.Mowing pattern]** → **[1.Point 1] to [5.Point 5]**

You can select from 3 mowing patterns below:

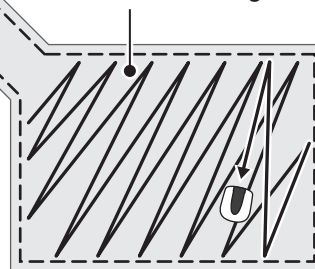
#### **[Random]**

With the **[Random]** setting, when the lawn mower detects the boundary wire, it turns at a wide angle. This is the most effective for mowing a large open area of grass. For normal operation, use this setting.



#### **[Directional]**

With the **[Directional]** setting, when the lawn mower detects the boundary wire, it turns at a narrow angle. This is used for mowing narrow areas.



#### **[Mixed]**

With the **[Mixed]** setting, the lawn mower alternates between the **[Random]** mowing pattern and the **[Directional]** mowing pattern at regular intervals.

You can adjust how the lawn mower moves while mowing.

The **[Mixed]** setting is also available. With this setting, the lawn mower alternates between the **[Random]** mowing pattern and the **[Directional]** mowing pattern at regular intervals.

1

Select **[Random]**, **[Directional]** or **[Mixed]**.

2

Press the **⏪** button.

3

Press the **⏩** button to return to the previous screen.



Menu screen

**Home screen** → **[2.Lawn setup]** → **[1.Auto mode]** → **[3.Advanced setting]** → **[1.Wire overlap]**

When the lawn mower detects the boundary wire, it can slightly cross the boundary to mow the outer edges of the mowing area. You can adjust how far it crosses the boundary wire.

1

Enter a value from 8 to 18.

2

Press the **⏪** button.

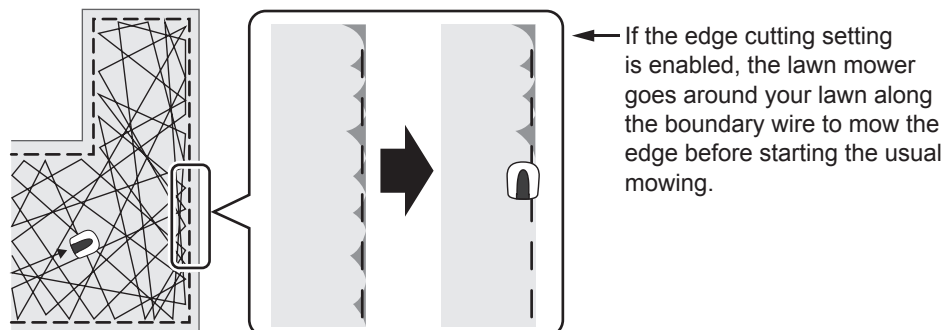
#### **NOTE:**

- It is better to use default 8 in (20 cm) setting for smoothly turning on the boundary wire.



Menu screen  
 Home screen → [2.Lawn setup] → [1.Auto mode] →  
 [3.Advanced setting] → [2.Edge cutting]

With this function, you can mow the unmown area along the boundary wire.



If you set this function on, the lawn mower mows along the boundary wire when the work timer starts for the first time on selected day(s).

You can also configure the day(s) of the week on which you want the lawn mower to mow along the boundary wire (2 days per week maximum).

1

**Select [ON] or [OFF] for configuring the edge cutting, and press the  button.**

If select [ON], go to step2. The unmown part along the boundary wire will be neatly-mowed. If select [OFF], you will return to the previous screen. You can operate the lawn mower normally without using the battery capacity for this feature.

2

**Select the day of the week on which you want the lawn mower to run with the edge cutting function, and press the  button.**

3

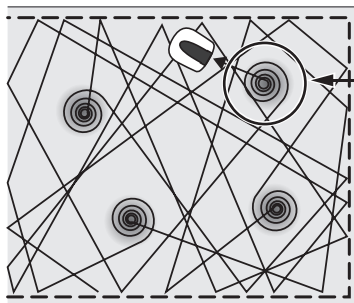
**Select [Finish] and press the  button.**



Menu screen

**Home screen → [2.Lawn setup] → [1.Auto mode] → [3.Advanced setting] → [3.Spiral cutting]**

With this function, the lawn mower can be focused on mowing the area where the lawn is not completely mown, or the growth speed of the lawn is fast.



The lawn mower detects the dense area and mow there spirally.

With this function, you can concentrate the lawn mower on mowing the dense area of lawn during the normal operation.

1

**Select [ON] or [OFF] for configuring the spiral cutting, and press the  button.**

If you select [ON], go to step 2. The lawn mower can be focused on mowing the area where the lawn is not completely mown, or the growth speed of the lawn is fast.

If you select [OFF], You will return to the previous screen. You can operate the lawn mower normally without using the battery capacity for this feature.

2

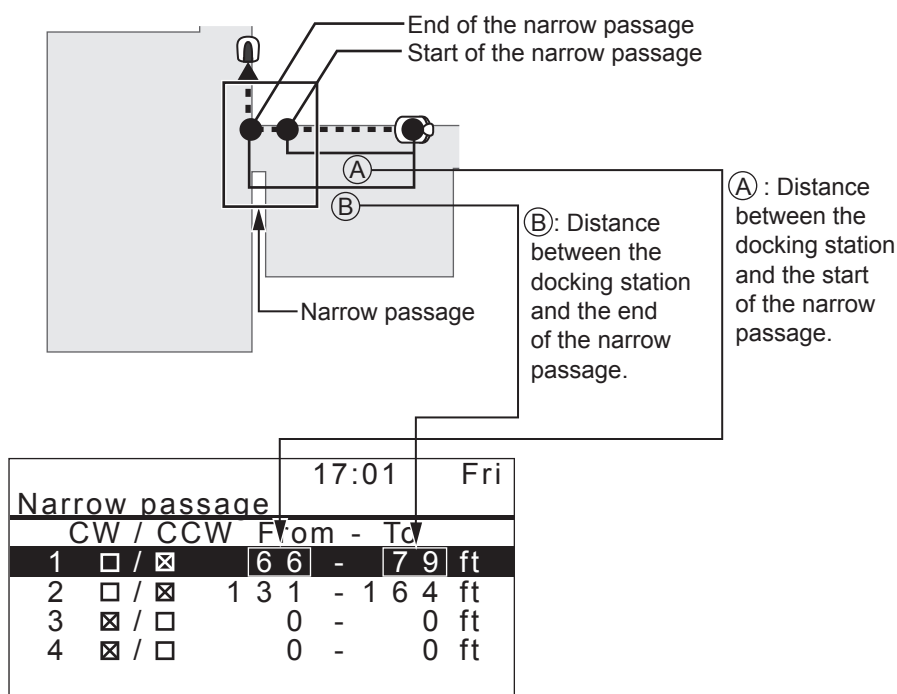
**Select [Normal] or [High] for configuring the sensitivity of detecting the density of lawn, and press the  button.**

3

**Select [Finish] and press the  button.**

Menu screen  
 Home screen → [2.Lawn setup] → [1.Auto mode] →  
 [3.Advanced setting] → [4.Narrow passage]

If there are narrow passages in your lawn, you can configure the settings of the narrow passages to let the lawn mower pass through them toward the starting point.



Configure the distance of the narrow passages from the docking station to let the lawn mower pass through them.

#### NOTE:

- Specify the distance from start to end of each narrow passage from the docking station.
- This setting is for going toward the starting point. If you want to configure the setting for returning to the docking station, you need to set it in the Homing setup. For details, see "Homing setup" (page 41).

1

Select a number from 1 to 4 which you want to configure and press the button.

2

Select CW or CCW and press the button. And enter the values of the distance from start to end of each narrow passage and press the button.

3

Press the button.

4

Press the button to return to the previous screen.

## Manual mode

With this function, you can configure the lawn mower to mow without the work timer function.



### NOTE:

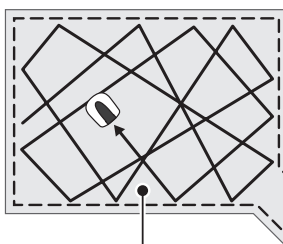
- If you want to operate the lawn mower with [Manual mode], see “Operating the lawn mower with the Manual mode” (⌘ page 72)

## Mowing pattern

You can select from 3 mowing patterns below:

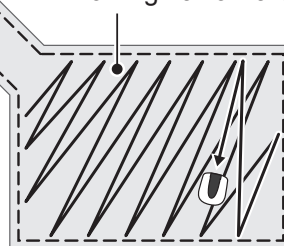
### [Random]

With the **[Random]** setting, when the lawn mower detects the boundary wire, it turns at a wide angle. This is the most effective for mowing a large open area of grass. For normal operation, use this setting.



### [Directional]

With the **[Directional]** setting, when the lawn mower detects the boundary wire, it turns at a narrow angle. This is used for mowing narrow areas.

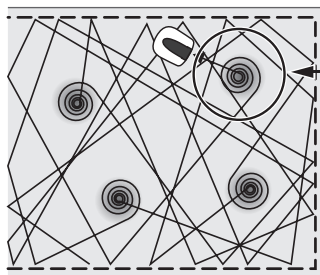


### [Mixed]

With the **[Mixed]** setting, the lawn mower alternates between the **[Random]** mowing pattern and the **[Directional]** mowing pattern at regular intervals.

## Spiral cutting:

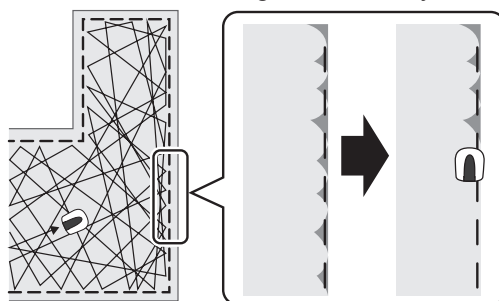
With this function, the lawn mower can be focused on mowing the area where the lawn is not completely mown, or the growth speed of the lawn is fast.



The lawn mower detects the dense area and mow there spirally.

## Edge cutting:

With this function, you can mow the unmowed area along the boundary wire.



← 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.




## Menu screen

## Home screen → [2.Lawn setup] → [2.Manual mode]

You can adjust how the lawn mower moves while mowing.

**NOTE:**

- If you want the lawn mower to operate with the manual mode, change the operating mode by pressing the  button. For details, see “5 USAGE” (page 53).
- Among the mowing pattern settings, the [Mixed] setting is also available. With this setting, the lawn mower alternates between the Random mowing pattern and the Directional mowing pattern at regular intervals.


1

Select [Mowing pattern] and press the  button.

2

Select [Random], [Directional] or [Mixed] for configuring the mowing pattern, and press the  button.

3

Select [Wire overlap] and enter the values of the wire overlap from 8 to 18, and press the  button.


4

Select [NEXT] and press the  button.

5

Select [ON] or [OFF] for configuring the spiral cutting, and press the  button.

6

Select [NEXT] and press the  button.  
If you select [ON], go to step 7.  
If you select [OFF], go to step 9.


7

Select [Normal] or [High] for configuring the sensitivity, and press the  button.


8

Select [NEXT] and press the  button.

9

Select [ON] or [OFF] for configuring the edge cutting, and press the  button.  
If you select [ON], go to step 10.  
If you select [OFF], go to step 11.

10

Select the day of the week on which you want the lawn mower to run with the edge cutting function, and press the  button.

11

Select [Finish] and press the  button.

Select the mowing pattern. →

Configure the values of wire overlap. →

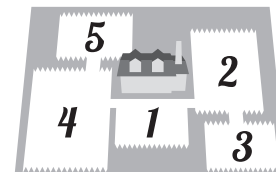
Set the spiral cutting and sensitivity. →

17:01 Fri	
Manual mode setup	
Mowing pattern	
<input checked="" type="checkbox"/> Random	
<input type="checkbox"/> Directional	
<input type="checkbox"/> Mixed	
Wire overlap	
8 in.	NEXT
17:01 Fri	
Manual mode setup	
Spiral cutting	
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF
Sensitivity	
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> High
NEXT	

Set the edge cutting and select the days on which you want the lawn mower to operate with this function.

17:01 Fri		
Manual mode setup		
Edge cutting		
<input checked="" type="checkbox"/> ON	<input type="checkbox"/> OFF	
Select days		
<input checked="" type="checkbox"/> MON	<input type="checkbox"/> TUE	<input type="checkbox"/> WED
<input checked="" type="checkbox"/> THU	<input type="checkbox"/> FRI	
<input type="checkbox"/> SAT	<input type="checkbox"/> SUN	Finish

## Lawn layout



**Home screen** → **Menu screen** → **[2.Lawn setup]** → **[3.Lawn layout]** → **[1.Docking direction]**

You can set the direction for the lawn mower to move in relation to the docking station.

### NOTE:

- Before configuring the settings, confirm the completion of installing the docking station and laying boundary wire with your dealer.
- For details on the boundary wire connection of the docking station terminals, see "Conditions for installing the docking station" (page 12).

1

Select [Clockwise(CW)] or [Counter-clockwise(CCW)].

2

Press the button.

**Home screen** → **Menu screen** → **[2.Lawn setup]** → **[3.Lawn layout]** → **[2.Wire length...]**

You can configure the information of your lawn layout to operate the lawn mower.

### NOTE:

- Before configuring the settings, confirm the completion of installing the docking station and laying boundary wire with your dealer.
- If the DEALER CHECKSHEET at the end of Owner's Manual was already filled out by your dealer, refer to it when configuring the settings.

1

Enter the values of the boundary wire length and lawn size, and select [Yes] or [No] to the question about the short cut wire. See "Other setting item information" (page 78).

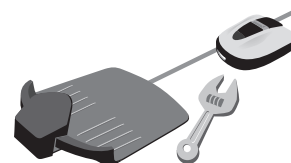
### NOTE:


- Select [No] to the question about the short cut wire if you will install the docking station near a corner.
- Have your dealer install the short cut wire.

2

Press the button.

## Homing setup



 **Home screen** → Menu screen → **[2.Lawn setup]** → **[4.Homing setup]** → **[1.Passage width]**

You can set where the lawn mower moves in relation to the boundary wire as it goes back to the docking station.

### NOTE:

- This setting must be set to a value lower or equal than the lowest width value that is set for any mowing start point setting. For details on the mowing start point settings, see "Mowing start point" (page 33).

**Passage width sample table**

Setup level	Passage width
0	4 in. (10 cm)
1	10 in. (25 cm)
2	12 in. (30 cm)
3	14 in. (35 cm)
4	16 in. (40 cm)
5	18 in. (45 cm)
6	20 in. (50 cm)
7	24 in. (60 cm)
8	28 in. (70 cm)
9	32 in. (80 cm)
10	36 in. (90 cm)

- The field strength varies depending on the length of the boundary wire. The field becomes weaker with a longer boundary wire, and stronger with a shorter boundary wire.
- When the value is high (by avoiding moving along the same path), you can avoid creating wheel tracks in the grass.
- The numerical values of this table are for reference to return the lawn mower to the docking station along a straight line.
- The numerical values may differ depending on the actual conditions.

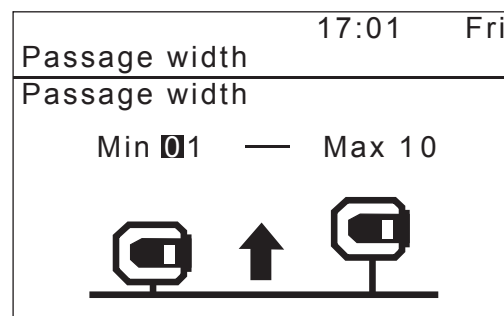
**TIPS** Use as big a passage width as possible so to reach the area quickly.

1

Enter a number setting.

2

Press the  button.





Menu screen

**Home screen** → **[2.Lawn setup]** → **[4.Homing setup]** → **[2.Capacity for homing]**

You can set the percentage of remaining amount of the battery when the lawn mower starts to go back to the docking station.

**TIPS** The longer the wire is, the higher this value should be.

1

**Select [Auto] or Enter a percentage of battery residual capacity.**

The range of the percentage of battery residual capacity is 10 – 50%.

2

**Press the  button.**



Menu screen

**Home screen** → **[2.Lawn setup]** → **[4.Homing setup]** → **[0.Home]**

You can test if the lawn mower will correctly return to the docking station.

**NOTE:**

- Perform this test when the lawn mower is not connected to the docking station.

**TIPS** Test returning through the different passages.

1

**Select [Clockwise(CW )] or [ Counter-clockwise(CCW )].**

2

**Press the  button.**

3

**Close the control panel cover.**

The lawn mower returns to the docking station.

4

**When the lawn mower is docked at the docking station, press the manual STOP button.**

The control panel cover pops up.

The message "Test finished" appears on the display.



# Checking the system

## Check signal

You can check if the boundary wire signal is correctly reaching the lawn mower and confirm how strong the signal is.



 Home screen → Menu screen **[3.Diagnostics]** → **[1.Check signal]**

Signal level indication	Signal strength
Level 0	No loop signal
Level 1	Weak
↕	↕
Level 5	Moderate
↕	↕
Level 10	Strong

## ■ Test start points

You can check whether the lawn mower can correctly return to the docking station, and whether it can reach each start points according to settings.



 **Home screen** → Menu screen → **[3.Diagnostics]** → **[2.Test start points]** → **[1.Point1] to [5.Point5]**

You can test if the lawn mower will correctly go to a specific start point.

HRM310: Start point 1 to 3

HRM520: Start point 1 to 5

### NOTE:

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

1

Select a point from 1 to 5 which you want to test and press the  button.

2

Confirm the value of the selected point settings.

3

Select [Yes] and press the  button.

4

### Close the control panel cover.

The lawn mower starts to the selected start point. When the test is correctly finished, the lawn mower rolls slowly from side to side showing the minimum and maximum exit angle, and a beep sound is emitted from the lawn mower.

5

### Press the manual STOP button.

The control panel cover pops up. The message "Do you want to modify the start point?" appears on the display.

6

Select [Yes] or [No] to the question and press  button.

If you select [Yes], Mowing start point screen appears. You can modify the settings of the tested start point.

If you select [No], the previous screen appears.

### NOTE:

- For details on the start point settings, see "Setting the mowing start points" (page 19).



Menu screen

Home screen → [3.Diagonostics] → [2.Test start points] → [0.Home]

You can test if the lawn mower will correctly return to the docking station.

**NOTE:**

- Perform this test when the lawn mower is not connected to the docking station.

1

Select [Clockwise(CW)] or [Counter-clockwise(CCW)].

2

Press the ⏪ button.

3

Close the control panel cover.

The lawn mower returns to the docking station.

4

**When the lawn mower is docked at the docking station, press the manual STOP button.**

The control panel cover pops up.

The message "Do you want to modify the homing setup?" appears on the display.

5

**Select [Yes] or [No] to the question and press ⏪ button.**

If you select [Yes], Homing setup screen is displayed. You can modify the homing settings.  
If you select [No], the previous screen is displayed.

**NOTE:**

- For details on the homing settings, see "Setting how the lawn mower returns to the docking station" (⌘ page 12).

# Viewing history

## Operation history

You can check the cumulative time that the lawn mower has operated and recharged.



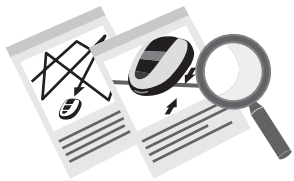
 **Home screen** → Menu screen **[4.History]** → **[1.Operating history]** → **[1.Operating time]**

You can view how long the lawn mower has mowed, and how long the lawn mower has charged.

- 1 Check the history.
- 2 Press the ⏮ button to return to the previous screen.

	17:01	Fri
	Operating time	
This is the total cutting time. →	Cutting	180h55min
This is the total charging time. →	Charging	141h37min

## Work history



 **Home screen** → **Menu screen** → **[4.History]** → **[1.Operating history]** → **[2.Work history]**

You can view the lawn mower's cutting history (when the lawn mower was mowing), return history (when the lawn mower was returning to the docking station), and charge history (when the lawn mower was charging).


**NOTE:**

- Only the history of auto mode is displayed.

1

Check the history by pressing the up/down arrow buttons to scroll the menu.

2

Press the  button to return to the previous screen.

Each time the lawn mower leaves the docking station after recharging, a new entry is created in the history list. The most recent entry is [01], and the oldest entry is [10].

The time for the most recent charge history entry is displayed first.

Work history

Cutting history

01:22 min	1	06:43 min	1
02:60 min	1	07:67 min	2
03:53 min	—	08:33 min	3
04:12 min	3	09:59 min	—
05:62 min	1	10:45 min	1


↕



Work history

Charge history


01:32 min	06:43 min
02:66 min	07:77 min
03:53 min	08:33 min
04:42 min	09:59 min
05:71 min	10:45 min

17:01 Fri



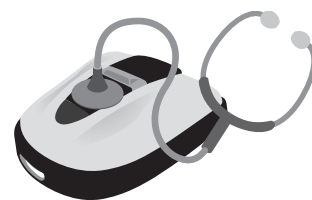
This mark indicates that there is another page. Use the  /  buttons to change pages.

The start point number where the lawn mower was mowing is displayed.



## Fault history

You can view the lawn mower's fault history (when a fault occurred).



 **Home screen** → <sup>Menu screen</sup> **[4.History]** → **[2.Fault history]**

The history of errors that have occurred are logged.

### NOTE:

- If the same error occurs repeatedly many times on the same day, only the time when the first error occurred is saved.

1


Select fault history entry by using the up/down arrow buttons.


2

Press the  button.

Fault information is displayed.  
For details on faults, see "6 TROUBLESHOOTING" (page 60).



3

Press the  button to return to the previous screen.

The most recent fault error entry is displayed first.  
Press the  button for more information.

Fault history			17:01	Fri
1.	3A036	28.08.12	11:23	
2.	3A024	28.08.12	10:58	
3.	3A022	28.08.12	10:42	
4.	3A013	28.08.12	10:38	
5.	-			
6.	-			



This mark indicates that there is another page. Use the  /  buttons to change pages.



Fault information and the time of the fault are displayed.

Fault history			17:01	Fri
03:Lift sensor				
Fault				
28.08.2014 10:42				



## Setting the system

### Language

You can set the menus of the display to your preferred language.



 Home screen → <sup>Menu screen</sup> [5.System settings] → [1.Language]

Select the language shown in the display from among 3 languages.

#### NOTE:

- If you want to set other languages, contact your dealer.

- 1 Select your preferred language.
- 2 Press the ⬅ button.
- 3 Press the ⌂ button to return to the previous screen.

### Display/Sound



 Home screen → <sup>Menu screen</sup> [5.System settings] → [2.Display/Sound] → [Contrast]

You can set the contrast of the control panel display.

- 1 Change the contrast level by pressing the up/down arrow buttons.
- 2 Press the ⬅ button.
- 3 Press the ⌂ button to return to the previous screen.

 Home screen → <sup>Menu screen</sup> [5.System settings] → [2.Display/Sound] → [BG color]

You can set the background color of the control panel display.

- 1 Select [White] or [Black] by pressing the up/down arrow buttons.
- 2 Press the ⬅ button.
- 3 Press the ⌂ button to return to the previous screen.



Home screen →

Menu screen

→ **[5.System settings]** → **[2.Display/Sound]** → **[Keypad]**

You can set whether or not a beep sound is emitted when you press control panel buttons.

1

Select [ON] or [OFF] by pressing the up/down arrow buttons.

2

Press the ⏪ button.

3

Press the ⏩ button to return to the previous screen.

## ■ Date and Time

You can set the internal date and time for the lawn mower.



Home screen →

Menu screen

→ **[5.System settings]** → **[3.Date and Time]**

Set the date and time for the lawn mower. The timer operates based on this date and time setting. "Daylight saving time" is also known as "summer time". When it is on, Miimo's clock switches to daylight saving time automatically.

1

Enter the date with the format {Month}/{Day}/{Year} and the time in 24-hour format using the number buttons.

2

Press the ⏪ button.

3

Press the ⏩ button to return to the previous screen.

### NOTE:

- Turn it off as needed because it is on by default.

		17:01	Fri
Date and time			
Date		Time	
08/29/2016		18:00(24h)	
Daylight saving time			
<input checked="" type="checkbox"/> ON		<input type="checkbox"/> OFF	
From	12/31/2016		
to	11/06/2016		





## Security

Security settings are used to prevent the lawn mower from being operated by other people.



**Home screen** → Menu screen **[5.System settings] → [4.Security] → [1.Alarm]**

### NOTE:

- Before selecting [1.Alarm], you will need to input your PIN.

This setting enables or disables the alarm. When set to [OFF], all alarms other than the alarm before the blades start moving are disabled.

### NOTE:

- The [OFF] setting also disables the security alarm that is triggered when the incorrect PIN (Personal Identification Number) is entered 3 times in a row.

1

Select [ON].

2

Press the button.

### NOTE:

- To disable this function, select [OFF].

3

Press the button to return to the previous screen.



**Home screen** → Menu screen **[5.System settings] → [4.Security] → [2.Create a PIN]**

### NOTE:

- Before selecting [2.Create a PIN], you will need to input your PIN.

You can modify the PIN used for unlocking the control panel menus. Make sure to create the PIN to prevent theft of the lawn mower, unauthorized access, etc.

1

Input a new PIN using the number buttons.

2

Press the button.

The message "Activated" is displayed.

3

Press the button to return to the previous screen.

### NOTE:

- Write down your PIN in the space provided. See "DEALER CHECKSHEET" (page 78). If you forget your PIN, contact your dealer.

## Factory reset

You can reset all settings to the factory defaults.



 **Home screen** → Menu screen **[5.System settings]** → **[5.Factory reset]**

Execute this command to revert all settings to their factory defaults.

### NOTE:

- This command will not reset the history of the lawn mower (working and fault history). This only resets the settings of the lawn mower.
- Consult your dealer before executing this command.

1

Input your PIN and press the  button.

2

Select [Yes].

3

Press the  button.

After the message "Activated" is displayed, the power turns off.

## Help

You can get the information of the lawn mower such as the model name, frame serial number, and software version.



 **Home screen** → Menu screen **[5.System settings]** → **[6.Help]**

Help		17:01	Fri
Honda Power Equipment			
Miimo	:HRM520	← This is the model name.	
	:MBDF-1000001	← This is the frame serial number.	
Software version			
Main ECU	: 1.0.0		
Display ECU	: 1.0.0		

This is the software version. →

### NOTE:

- If the Frame number is "0000000", contact your dealer.

## 5 USAGE

### Checking the mowing area

Before operating the lawn mower, ensure the mowing area is free of pets and foreign objects.

Turn off the lawn mower before removing any foreign objects.

**NOTE:**

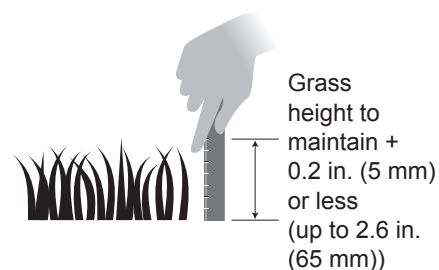
- If there are any holes in the work area, fill them in so that the work area is level. Periodically check the work area for holes.



Adjust the height of the grass and blades as follows.

**NOTE:**

- If the grass height is 0.2 in. (5 mm) longer or more than the grass height you want to maintain, use standard lawnmowing equipment to cut the grass before using the lawn mower. The lawn mower cuts up to 0.2 in. (5 mm) at a time. Adjust the height of the lawn mower so that the mowing length is within 0.2 in. (5 mm). (see page 57).



### Connecting to a power source

Follow the steps below when connecting to a power source.

Follow these steps in reverse when disconnecting from a power source.

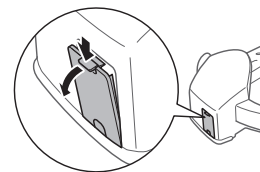
For details on moving the transformer or changing to a different power outlet, contact your dealer.

**NOTE:**

- Connect the station only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 30 mA.
- Check that all of the cables up to the station are connected, and then connect the transformer to a power outlet last.
- Preferably, the primary side (Power outlet side) cable of the transformer should not be extended.
- Do not extend the secondary side (not Power outlet side) cable of the transformer to the length of the included extension cable (10 m) or longer.
- Do not damage the body or cable when securing the transformer.
- Push in the connectors of the transformer and extension cable until the hook is locked in place.

1

Remove the connector cover from the station.

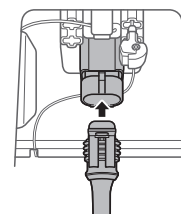


2

Connect the power cord connector to the station's internal connector.

**NOTE:**

- When disconnecting the connectors, make sure to lift the clip.



3

**Attach the connector cover to the station.**

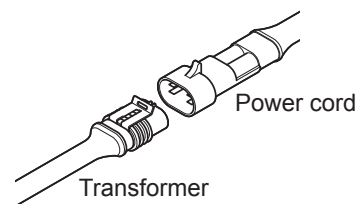
(The power cord and boundary wire should go through the notch in the connector cover.)

4

**Connect the power cord and the transformer connectors.****NOTE:**

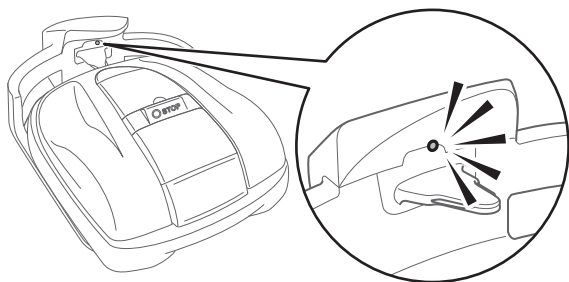
- When disconnecting the connectors, make sure to lift the clip.

5

**Connect the transformer plug to a power outlet with the designated voltage.**

## Checking the lawn mower

Before operation, check to make sure that it is connected all the way into the docking station.



The LED light above the charging plug changes as follows:

Color	Description
Green	The docking station signal setting is correct.
Green (blinking)	The boundary wire is too long.
Amber	The lawn mower is correctly connected to the docking station.
Amber (blinking)	A signal problem—such as the boundary wire becoming disconnected or cut—has occurred. Contact your dealer.
Red	Contact your dealer.
Off	Confirm the connection with the power cord. If the docking station is correctly connected with the power cord, a power failure has occurred. Contact your dealer.

**NOTE:**

- If the lawn mower is not correctly connected to the docking station, the battery cannot recharge.
- Do not touch the recharging connector. If you touch it, you may be injured.

## Turning on / off the power

### ● Turning on the power

After the battery is charged, press the (On) button to turn on the lawn mower.

The (On) button is located on the control panel at the rear side of the lawn mower.

**⚠ WARNING**

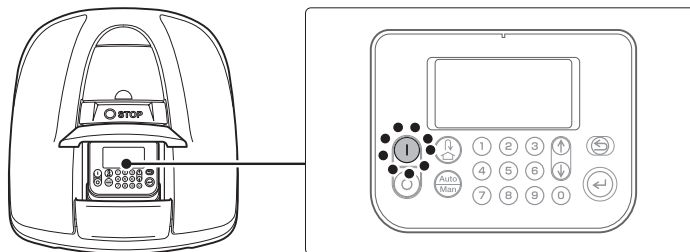
- Do not insert your finger beneath the closed operation panel cover or height adjustment dial cover.
- When stopping the lawn mower, approach it from the back. Approaching it from the front or sides may lead to unintended contact with the lawn mower, and you may fall over it when the lawn mower begins to move.

1

**Press the manual STOP button.**  
The control panel cover pops up.

2

Press the ① (On) button on the control panel.



The power turns on, and the startup screen on the control panel is displayed.

## ● Turning off the power

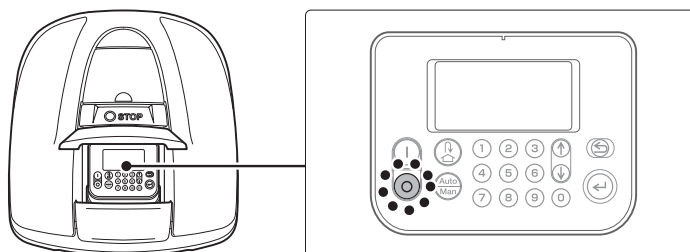
1

Press the manual STOP button.

The control panel cover pops up.

2

Press the ② (Off) button on the control panel.



### NOTE:

- When you turn off the lawn mower, it will not begin to operate even if you set the timer.

## Operating the lawn mower in Auto mode

### ● Entering your PIN (Personal Identification Number)

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

1

Enter the PIN using the number buttons.

### NOTE:

- To change the PIN, see “4 MENU SETTINGS” (page 25).

PIN code	17:01	Fri
Input your PIN		
■ _ _ _		
Remaining attempts:3		

2

Press the ③ button.

The home screen is displayed.

### NOTE:

- If you input an incorrect PIN 3 times in a row, the control panel is locked for 5 minutes, during which time you cannot perform operations.
- If you forget the PIN, consult your dealer.
- If an error message is displayed, see “6 TROUBLESHOOTING” (page 60).

PIN code	17:01	Fri
Input your PIN		
* * * *		
Remaining attempts:3		

## ● Auto mode operation

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

### NOTE:

- For details on settings, see "4 MENU SETTINGS" (☞ page 25).

### NOTICE


- **Make sure to press the manual STOP button before performing the following procedure.**

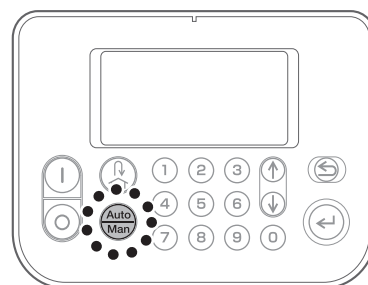
1

Press the  button.

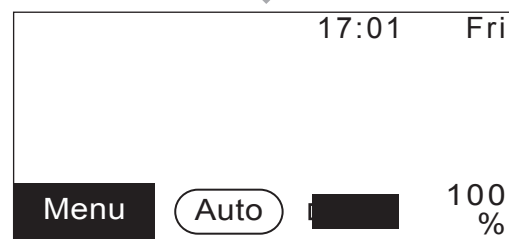
2

If the [Auto] is displayed on the Home screen, go to step 2.

If the [Man] is displayed on the Home screen, press the  button until the [Auto] is displayed.

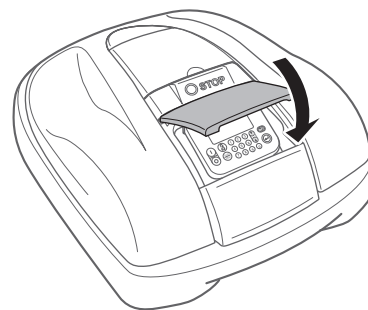


For details on the icons in the screen, see "Home screen" (☞ page 11).




3

Close the control panel cover.



Setting is now complete. The lawn mower starts mowing at the time scheduled for the Auto mode.  
For details on settings, see "4 MENU SETTINGS" (☞ page 25).

### NOTE:

- If you press the  (Off) button after configuring these settings, the lawn mower will not activate.

## Adjusting the height of the blades

The height of the blades determines how tall or short the grass will be cut. Test the lawn mower on a small area and adjust blade height according to your preference.

### ⚠ WARNING

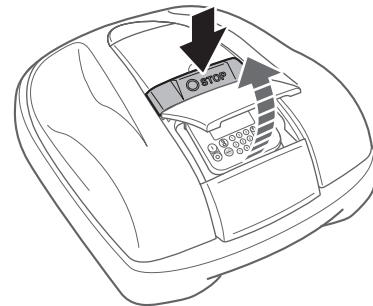
- Make sure to press the manual STOP button before performing the following procedure.

### CAUTION:

- Avoid cutting too much at once. Mow gradually step by step (from level 5 to 1.)
- Avoid cutting more than 0.2 in (5 mm) of grass at once. If you want to cut more than 0.2 in (5 mm), it should be done gradually in steps of 0.2 in (5 mm) maximum per week. Example: decreasing from 2.0 in (50 mm) to 1.2 in (30 mm) should require 4 weeks with 0.2 in (5 mm) steps.

1

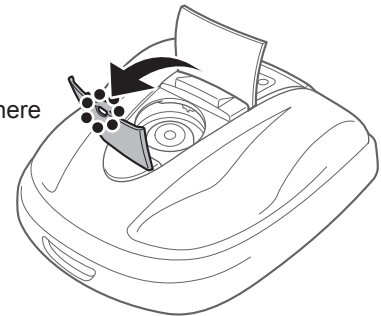
Press the manual STOP button.  
The control panel cover pops up.



2

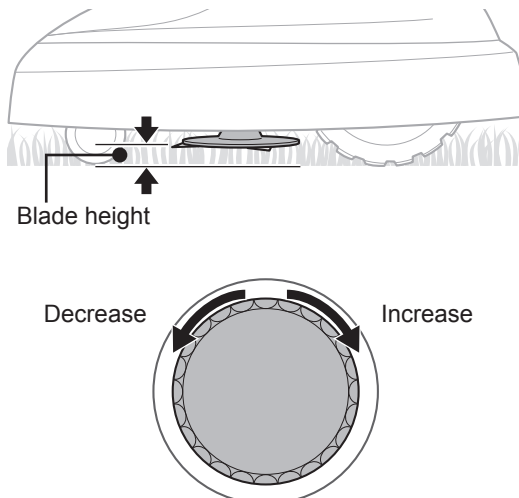
Open the height adjustment dial cover with your finger.

Insert your finger here  
and pull up.



3

Turn the dial counter-clockwise to lower the blades, or turn the dial clockwise to raise the blades. Use the numbers on the dial to approximate the height of the blades.

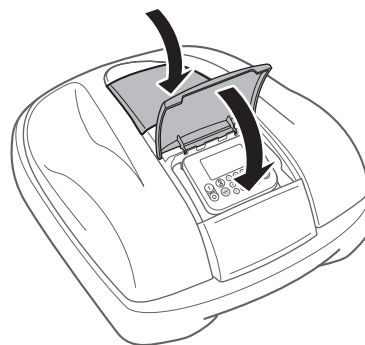


Approximate blade heights for each dial position:

Position	Approximate blade height
1	0.8 in. (20 mm)
2	1.2 in. (30 mm)
3	1.6 in. (40 mm)
4	2.0 in. (50 mm)
5	2.4 in. (60 mm)

4

**Close the height adjustment dial cover, and close the control panel cover.**



Repeat the steps above if you need to make additional adjustments.

## **Weekly checks**

Check the lawn mower and docking station once a week to remove dirt and grass. Also check if the blades and blade disc have been damaged, and verify that there are no other problems.

### **● Cleaning the lawn mower and docking station**

Dirt and grass may accumulate on the top and bottom of the lawn mower, docking station, and charging plug during and after mowing.

For details on how to clean the lawn mower, see “7 MAINTENANCE” (page 63).

### **● Checking the blades and blade disc for problems**

The blades and blade disc may become damaged while mowing. Make sure to perform weekly checks of the blades and blade disc.

For details on how to check the blades and blade disc, see “7 MAINTENANCE” (page 63).



## Carrying the lawn mower

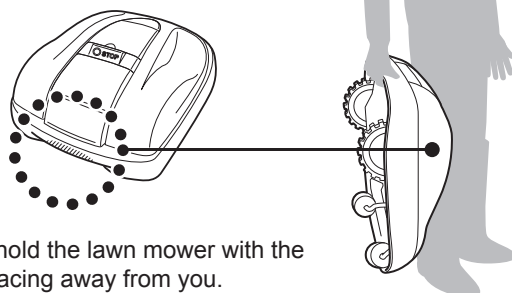
When carrying the lawn mower, observe the following points.

### ⚠ WARNING

- Do not carry the lawn mower with the blades pointed toward you.
- Make sure to press the manual STOP button and turn the lawn mower off before performing the following procedure.
- Make sure the lawn mower (especially the blades) does not touch anyone when you are carrying it.

1. Press the manual STOP button to open the control panel cover, and press the ☉ (Off) button.
2. Close the control panel cover.
3. Pick up the lawn mower by the carrying area.

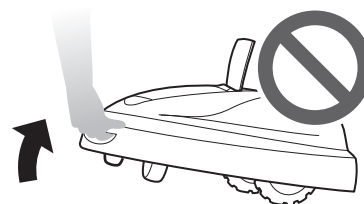
Lift the lawn mower with one hand from the rear side with the blades pointed away from you.



Always hold the lawn mower with the blades facing away from you.

### CAUTION:

- When carrying the lawn mower, make sure to carry it by carrying area at the lower rear of the lawn mower. If carrying it by any other area, you may be injured by the blades or charging socket area of the lawn mower.
- Do not lift or carry the lawn mower by holding it from the opening in the front.



### NOTICE

- Do not carry the lawn mower while it is attached to the docking station. The lawn mower and docking station may be damaged. Move it backwards and make sure that it is not docked before you lift it.



## 6 TROUBLESHOOTING

### Before contacting your dealer

In the unlikely event that you are facing a problem and you need to contact your dealer, ensure that you have the following information available.

- Owner's Manual
- Consider any recent landscaping or construction done to your lawn.
- [Fault history] information



Home screen → [4.History] → [2.Fault history]

### Messages

If any of the following messages appear in the display, use this troubleshooting guide to address the problem before contacting your dealer. If the problem persists, contact your dealer.

Message	Cause	Solution
<b>Key pad</b>	A button was pressed while the lawn mower was running (with the control panel cover closed).	Open the control panel cover and check if any foreign objects are stuck inside. If this message appears after removing any foreign objects, contact your dealer.
<b>ENT Key</b>	The Enter button was pressed while the lawn mower was running (with the control panel cover closed).	
<b>Clock Reset</b>	The backup battery power has drained during long-term storage. The clock has been reset.	Set the current date and time. The time must be in 24-hour format. If the clock cannot be set, contact your dealer.
<b>Battery voltage high</b>	The battery charges too much.	Remove the lawn mower from the docking station, set the power to ON, and wait until the message disappears. If the message does not disappear, contact your dealer.
<b>Battery voltage low</b>	The battery does not charge enough.	Charge the lawn mower with the docking station. This message disappears if the battery is charged more than 10%. If the message does not disappear, contact your dealer.
<b>Battery temp high</b>	The battery temperature is too high.	Set the power to ON, and wait until the message disappears. If the message does not disappear, contact your dealer.
<b>Battery temp low (1)</b> <b>Battery temp low (2)</b>	The battery temperature is too low.	Put the lawn mower in a place where the temperature 41°F(5°C) or higher, set the power to ON, and wait until the message disappears. If the message does not disappear, contact your dealer.

Message	Cause	Solution
<b>Outside loop</b>	The lawn mower exited the boundary wire.	Move the lawn mower into the work area. Check the power supply of the docking station. Check if the boundary wire connectors are correctly connected. If the message does not disappear, check if the boundary wire connectors are correctly connected, and check if there are no similar lawn mowers in the area. If the message still does not disappear, contact your dealer.
<b>Blade motor temp high</b>	The temperature of the blade motor is or exceeds 185°F(85°C).	Leave the power ON and the control panel cover open, and wait 15 to 30 minutes until the message disappears. If the message does not disappear, contact your dealer.
<b>Obstruction detection</b>	An obstruction is being detected, or the sensor detects something.	Enter the PIN so that the message disappears. If the message does not disappear, contact your dealer.
<b>Obstruction sensor</b>	Obstruction sensor is inactive, or there is an object interrupting the sensor.	Fully move the main cover in order to check sensors can be activated. Shake : Not possible to recover Turn off : Not possible to recover If "Obstruction sensor" message remains, check around and underneath the cover for any objects, like chips, dust or small toys, then remove it or contact your dealer.
<b>Excessive tilt</b>	The lawn mower is in an excessively tilted area.	Place the lawn mower on a flat surface, and enter the PIN so that the message disappears. If the message does not disappear, contact your dealer.
<b>Mower lifted</b>	The cover has been lifted by something, e.g. a stone.	Enter the PIN so that the message disappears. If the cover is heavily damaged or the message does not disappear, contact your dealer.
<b>Upside down</b>	The lawn mower is upside down.	Place the lawn mower on a flat surface, and enter the PIN so that the message disappears. If the message does not disappear, contact your dealer.
<b>Battery capacity reduced</b>	The battery does not charge enough.	Increase the remaining capacity of homing. See "Homing setup" (☞ page 41). If the message does not disappear, contact your dealer.
<b>Battery capacity low</b>	The battery does not charge enough.	
<b>No boundary signal</b>	The lawn mower does not detect the boundary wire signal.	Check a power supply of docking station. See "Test start points" (☞ page 44). If the message does not disappear, contact your dealer.
<b>Area signal lost</b>	The lawn mower does not detect the boundary wire signal.	Check if the boundary wire connectors are correctly connected. If the message does not disappear, contact your dealer.
<b>Contact your dealer if you cannot solve your problem using the troubleshooting displayed on the screen.</b>		
<b>Area sensor</b> <b>Battery Error</b> <b>Battery temperature</b> <b>Blade motor</b> <b>Blade motor blocked</b> <b>Blade motor relay</b> <b>Charging control</b> <b>Clock</b>	<b>Communication Error</b> <b>Data memory Error</b> <b>Display Unit Error</b> <b>Lift sensor</b> <b>Manual stop</b> <b>Motor ECU Error</b> <b>Motor sensor Blade</b> <b>Motor sensor L</b>	<b>Motor sensor R</b> <b>Rollover sensor</b> <b>Tilt sensor</b> <b>Wheel motor</b> <b>Wheel motor blocked</b> <b>Wheel motor relay</b> <b>Yaw sensor</b>

## Resolving problems

Unless having the power on is necessary to check something, turn off the power when checking the condition of the lawn mower or the blade.

Problem	Solution
The lawn mower cannot be charged.	Check the connections, and charge the lawn mower again. If the lawn mower cannot be charged, contact your dealer.
The lawn mower will not enter an area, or the blades and movement have stopped.	The lawn mower will try to evade an area with a slope of more than 24°. In the case of a 25 - 35 degree slope (depending on unevenness of the ground) - The lawn mower will try to escape from the slope In the case of a slope more than 35 degree slope - The lawn mower will stop due to "Excessive tilt"
The lawn mower stops frequently.	Operation of this product with other wireless devices, remote controls, or electric fences is not guaranteed. Contact your dealer.
The lawn mower leaves the preset area or behaves differently from the settings.	See the error message on the screen and follow the instructions before contacting your dealer. If you cannot solve the issue, contact your dealer with the error messages ready.
The boundary wire has slackened and come out of the ground or a peg has come out of the ground.	Stop the lawn mower because it may cut the wire. Be careful not to trip on the boundary wire or peg. Contact your dealer.
A strange noise is heard from the lawn mower or the lawn mower vibrates.	Check the blades if they are broken or not. Broken blades can create an unbalanced blade disc. It can create noise. Try to use "Quiet timer". Contact your dealer if it cannot be solved.
Lawn mower does not leave the docking station. No error message is displayed.	<ul style="list-style-type: none"> <li>- Timers were not set up correctly. Check the timer settings. See "4 MENU SETTINGS" (☞ page 25).</li> <li>- The Date and Time are incorrect. Check the clock (☞ page 50).</li> <li>- The manual STOP button was pressed, but the ⏻ button was not pressed before closing the control panel cover.</li> <li>- The lawn mower is in inactive mode. Another cause could be that the machine is in "Home" mode.</li> <li>- The lawn mower in the Auto mode will always charge the battery up to 100%. If you want to make the lawn mower to start mowing sooner, change the operating mode to the Manual mode.</li> </ul>
Poor mowing results.	<ul style="list-style-type: none"> <li>- The cutting height is incorrect or the grass is too high. Adjust the cutting height or cut with a standard lawn mower first if the grass is too high.</li> <li>- Check the condition of the blades (☞ page 68).</li> </ul>
Lawn mower does not work inside the boundary wire.	<ul style="list-style-type: none"> <li>- If there are electromagnetic and electric fields near the boundary wire such as power line, factory, electric noise might affect the movement of your lawn mower. Contact your dealer.</li> <li>- A power failure occurred. The lawn mower behaves as follows: In case that the power supply is cut off for more than 30 minutes, the lawn mower will shut off automatically to prevent the battery from becoming empty. In case that the power supply comes back within 30 minutes, the lawn mower will start mowing automatically. *</li> </ul> <p>* The lawn mower will return to the docking station if the battery residual capacity is low.</p>
The lawn mower goes out of the boundary wire.	Record where the lawn mower goes out of wire. Check the ground condition, weather condition and tire condition when the lawn mower goes out of the boundary wire. Clean up the tire if it has any mud, leaves, or grass. Try to continue. If the issue occurs frequently, contact your dealer.
The lawn mower does not dock into the docking station.	Check station condition if it deformed or not. Check boundary wire underneath the station (☞ page 12). Clean up the charging terminal of both the lawn mower and station.
Noticeable wheel tracks.	Try to reduce the work timer. You can reduce the work timer automatically by using "Seasonal timer". Try to increase "passage width".
The lawn mower does not enter narrow corridors.	Check the "passage width" setting. If necessary, you can use the "Narrow passage" function (☞ page 37).

# 7 MAINTENANCE

## Periodic inspection and maintenance

The lawn mower must be periodically inspected and maintained for safety and to keep it running at a high level of performance. Periodic maintenance will also help to extend service life.

The required service intervals and the kind of maintenance to be performed are described in the following chart. Honda recommends annual service to be completed by your local authorized Honda dealer. The dealer will be able to perform a variety of checks and software updates that cannot be completed by the owner.

### Maintenance schedule

REGULAR SERVICE PERIOD		Every week	Every year or every 840h operating hours. (Cutting time)	Page
Perform at every indicated period or operating hour interval, whichever comes soonest.				
Blade & Blade nut <sup>†1</sup>	Check	○		(☞ page 68)
Blade disc <sup>†1</sup>	Check	○		(☞ page 68)
Drain hole	Check or clean	○	○ <sup>*2</sup>	(☞ page 64)
Manual stop button	Check		○	(☞ page 65)
Body parts <sup>†1</sup>	Clean	○		(☞ page 64)
	Check		○ <sup>*2</sup>	—
Docking station	Clean	○		(☞ page 65)
	Check		○	(☞ page 66)
Docking station Screws	Check or tightness	○ <sup>*3</sup>		(☞ page 67)
Rear (drive) wheels <sup>†1</sup>	Clean	○		(☞ page 64)
	Check		○ <sup>*2</sup>	—
Rear wheels axle	Grease		○ <sup>*2</sup>	—
Front (caster) wheels <sup>†1</sup>	Clean	○		(☞ page 64)
	Check		○ <sup>*2</sup>	—
Front caster ball bearing & bushing	Check		○ <sup>*2</sup>	—
	Replace		if necessary <sup>†2</sup>	—
Frame inside	Clean		○ <sup>*2</sup>	—
Frame seals	Replace		○ <sup>*2</sup>	—
Obstruction sensors (case, springs and lift washer)	Check or clean		○ <sup>*2</sup>	—
	Replace		○ <sup>*2</sup>	—
Docking station (boundary wire connectors)	Check		if necessary <sup>†2</sup>	—
	Clean		○ <sup>*2</sup>	—
Docking station (charging plug)	Check		○ <sup>*2</sup>	—
Mower recharging plates	Clean		○ <sup>*2</sup>	—
	Replace		if necessary <sup>†2</sup>	—
Battery condition	Check		○ <sup>*2, *4</sup>	—

<sup>\*1</sup> Blades, the blade nuts, the blade disc, body parts, the front (caster) wheels, and the rear (drive) wheels should be replaced as needed.

<sup>\*2</sup> These items should be serviced by your servicing dealer, unless you have the proper tools and are mechanically proficient.

Refer to Honda shop manual for service procedures.

<sup>\*3</sup> If the screws become loose, tighten them securely.

<sup>\*4</sup> Confirm using 10 last charges history.

## Maintenance procedures

Dirt and grass may accumulate on the top and bottom of the lawn mower during and after mowing, and the blades may become worn, damaged, or unable to turn. Make sure to check the lawn mower according to the chart in "Periodic inspection and maintenance" (☞ page 63).

### ▲ WARNING

- Make sure to press the manual STOP button and turn the lawn mower off before performing the following procedures.
- Put on a pair of work gloves before performing the following procedures.
- Be careful when performing the following procedures, because blades are extremely sharp.

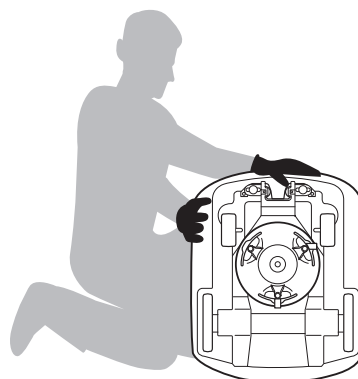
### NOTE:

- Remove the lawn mower from the docking station when performing the following procedures.

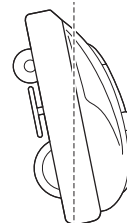
## ■ Preparing

Perform the following procedures in an area not subject to rainfall.

- Put on a pair of work gloves.
- When checking the blades, turn the lawn mower on its side.
- Do not tilt the lawn mower over an angle of 90 degrees to prevent grass clippings or fluid from entering inside the lawn mower.



**Correct**  
90 degrees  
or less



**Incorrect**  
More than 90  
degrees



## ■ Cleaning

### ⚠ WARNING

- Do not touch the blades with your hands.
- Do not lift the lawn mower off of the ground while checking or cleaning it.
- Make sure to press the manual STOP button and turn the lawn mower off before performing the following procedures.

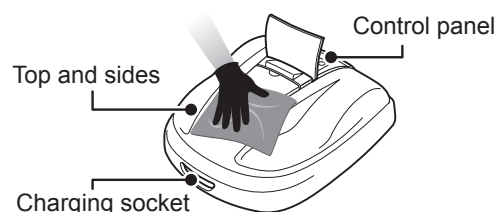
### NOTE:

- Do not wash the lawn mower with water. The lawn mower may be damaged.



## ● Cleaning the body (Exterior)

Clean dirt and grass off of the lawn mower using a dry brush and cloth.

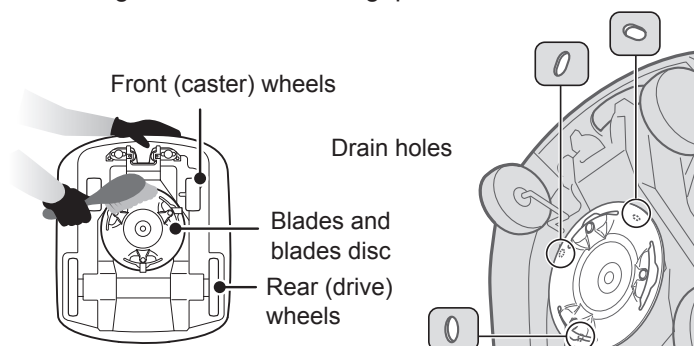


## ● Removing the grass clippings

By using a dry brush or scraper, remove grass clippings attached to the blades, driving part and water drain holes.

### NOTE:

- Never pour water on the bottom of the lawn mower, and avoid using a sponge or rag soaked with water for cleaning the lawn mower. The lawn mower may be damaged if water or dirt, such as grass clippings, enter inside of the lawn mower through the drain holes or gaps.



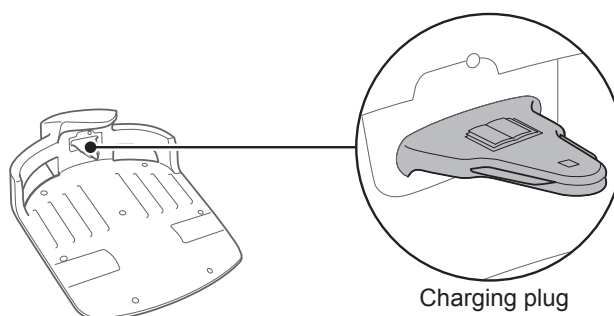
## ● Cleaning the docking station

### ⚠ WARNING

- Unplug the transformer's plug from the building's power outlet before cleaning it.

Clean dirt and grass off of the docking station using a brush.

**Brush off dirt and grass from docking station, particularly around parts on which the lawn mower rests and around the charging plug area:**



## ■ Checking

### ● Checking the manual STOP button

### ⚠ WARNING

- Do not touch the blades with your hands.
- Do not lift the lawn mower off of the ground while checking or cleaning it.

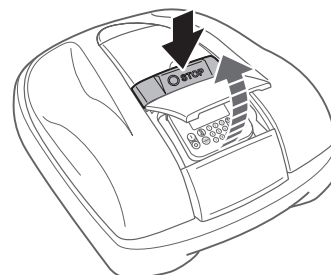
Check item(s)		Action
Manual STOP button and control panel cover	Normal operation of the manual STOP button (and the control panel cover)	While performing a test operation of the lawn mower, press the manual STOP button. If the lawn mower does not stop (and the control panel cover does not open), consult your dealer.

1

Press the ① (On) button on the control panel.

2

Test a start point (▣ page 44). When the lawn mower is moving, press the manual STOP button and check that the lawn mower stops.

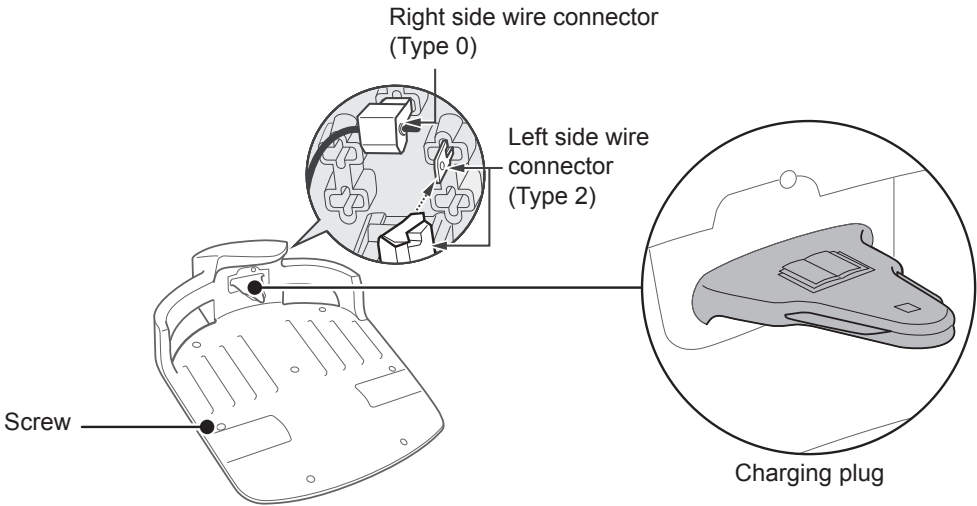




## ● Checking the docking station

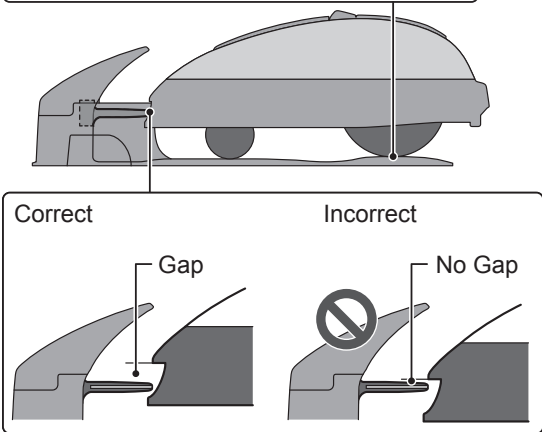
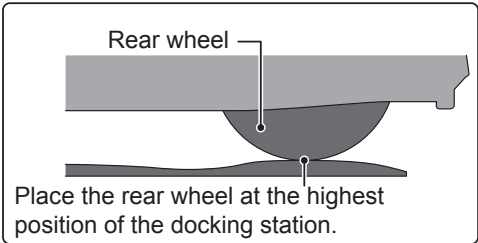
Check the docking station for problems.

Check item(s)		Action
Docking station	Damage to the docking station	Visually inspect the docking station. If it is damaged, consult your dealer.
Connectors	Loosened connectors of the docking station	Visually inspect the connectors. If they are loose, consult your dealer.



Check item(s)		Action
Docking station	Gap between the docking station's charging plug and the lawn mower's charging socket	Check if there is a gap between the docking station's charging plug and the lawn mower's charging socket. If there is not, adjust the docking station.

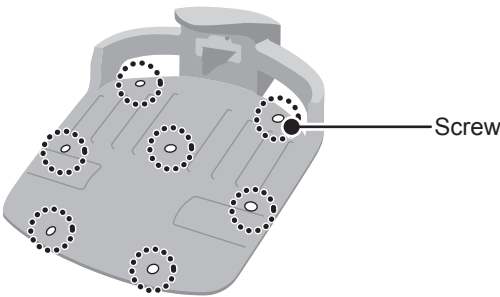
- 1 Place both rear wheels of the lawn mower at the highest position of the docking station.
- 2 Check if there is a gap between the docking station's charging plug and the lawn mower's charging socket. If there is not, contact your dealer.





● **Checking the docking station screws**

Check item(s)		Action
Docking station	Loosened screws of the docking station	Visually inspect the screws. If they are loose, tighten them with a flat-blade screwdriver.



## ● Checking the blades and blade disc

Check the condition of the blades and blade disc as follows.

### Life time of the blades

In order to have good cutting performance, maintain the sharp cutting edge on the blades. Typically, the life time of the blades is 160 hours.(2 weeks to 2 months) Because the life time depends on grass condition, it may be necessary to exchange earlier than usual, especially in the spring season.

If your grass develops brown tips at the ends, this is a sign that the blades are not cutting cleanly and require replacement.

Example: if the lawn mower works for 11.4 hours per day every day, the life time of the blades is 2 weeks.

If the lawn mower works for 2.6 hours per day every day, the life time of the blades is 2 months.

### ▲ WARNING

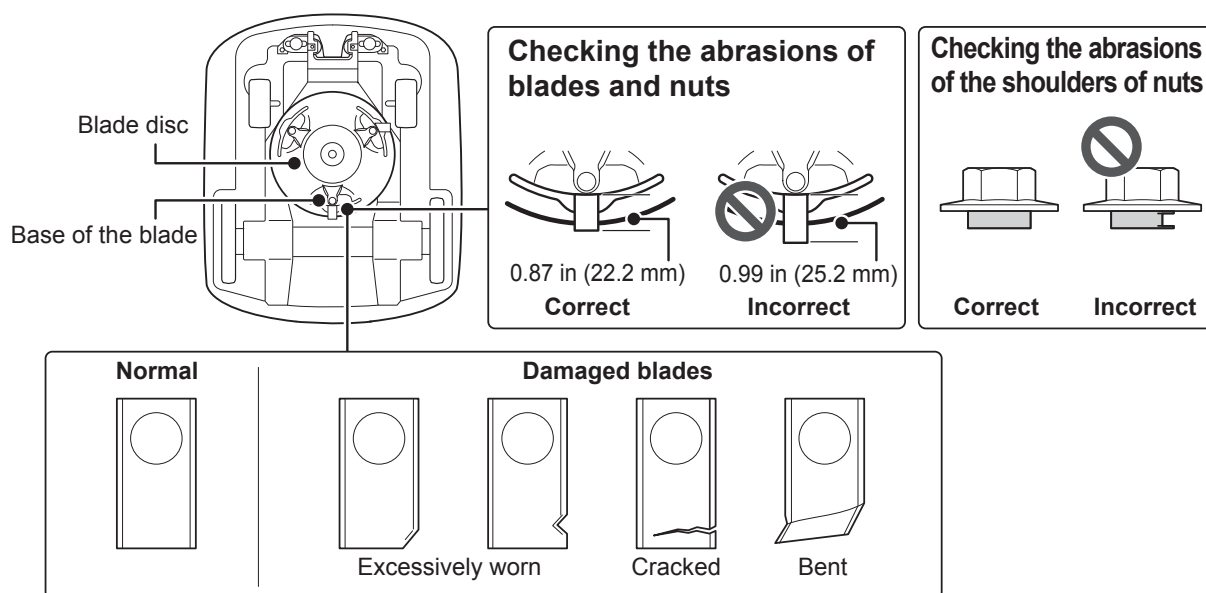
- Do not touch the blades with your hands.
- Make sure to press the manual STOP button and turn the lawn mower off before performing the following procedures.

### NOTE:

- Hold the lawn mower against a wall for support.
- Do not lift the lawn mower off of the ground while checking it.

Check the blades, nuts and blade disc for problems.

Check item(s)		Action
Blades and nuts	Damage to the blades	Visually inspect the blades. If they are damaged, replace the blades. See "Replacing the blades" (page 69).
	Loosened bases of the blades	Rotate the nuts with your finger to check that they are tight. If the nuts are loose, tighten them to the specified torque value. See "Replacing the blades" (page 69).
	Abrasions of the holes of blades and abrasions of the shoulders of nuts	Visually inspect for abrasions of the hole of blades and the abrasions of the shoulder of nuts. While mowing, the hole of the blades will widen and the shoulder of the nuts will decrease in size because of abrasions, and there is a danger that the blades will be detached from the blade disc. If they are worn, replace the three blades and nuts if necessary. See "Replacing the blades" (page 69).
Blade disc	Warping of the blade disc	Rotate the blade disc and visually check it. If it is warped, consult your dealer.



## Replacing the blades

To replace the blades, perform the procedures below.

### ⚠ WARNING

- Put on a pair of work gloves before performing the following procedures.
- Do not touch the blade while it is spinning. You may be injured if you do so.

### NOTE:

- This work requires technical skill and knowledge, as well as special tools. Consult your dealer if you cannot perform the procedures below.
- Before replacing the blades, remove the grass clippings (⌘ page 64) .
- Use genuine parts or their equivalent for the blade.

1

Turn the power off.

Adjust the height of the blades to position 1 and turn the lawn mower upside down.

2

Hold the base of the blade disc with a 15/16 in (24 mm) wrench so that the blade disc does not rotate when you rotate the nuts.

3

Remove the nut from each blade with a 5/16 in (8 mm) wrench.

4

Replace the blades, insert each blade through each bolt on the blade disc, and lightly tighten a nut with a 5/16 in (8 mm) wrench.

### NOTE:

- Tighten the nuts after the shoulders of the nut is securely in the hole of the blade.

5

Tighten the nuts to the specified torque value using a torque wrench.

**3.2~4.4 lbf • ft (4.4~6.0 N • m, 0.45~0.60 kgf • m)**

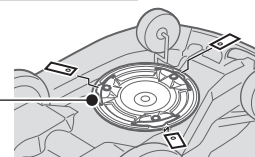
### NOTE:

- If you do not have a torque wrench, have your dealer perform the work.
- Use a wrench between the blade disc and the lawn mower body.

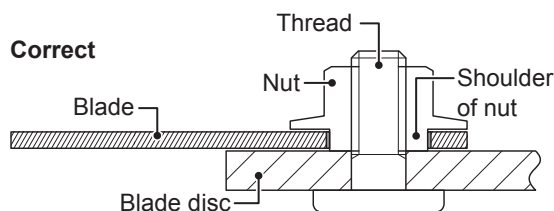
6

Check that the blades rotate smoothly. If they do not rotate smoothly, remove and install the nuts again.

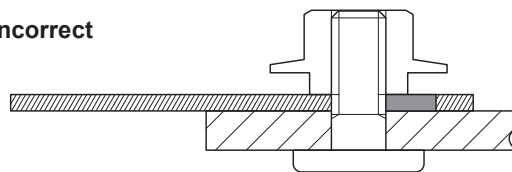
**Hold the blade disc in place**  
Insert a wrench between the blade disc holder and the lawn mower body.



**Correct**



**Incorrect**



## 8 STORAGE

### ■ Winter Storage

#### ■ Lawn mower and Docking station

It is very important that your lawn mower and docking station are cleaned thoroughly before placing into storage. The battery should be charged before it is stored in a dry place away from frost and protected from the winter weather.

Recommended battery charge level for long storage	50 - 70%
Recommended temperature for long storage	41 - 68 °F (5 - 20°C)

#### ■ Electrical Components

It is strongly recommended that you disconnect the transformer and power cables over winter leaving only the boundary wire in the ground. Spray electrical contact cleaner on boundary wire terminals before encasing them in a waterproof box (e.g. electrical junction box) to ensure they do not corrode over the winter period. Honda recommends that all electrical components, such as the transformer, be stored in a dry, frost free environment that is not exposed to the winter weather.

### ■ Get your lawn mower ready for the new season

Once the winter season has passed and it is time to recommence your lawn mower operation, it is strongly recommended that you consult your dealer. An authorized dealer will check that all systems are functioning correctly and that your lawn mower is safe to begin mowing for the forthcoming season.

## 9 TECHNICAL INFORMATION

### Specifications

Model		HRM310	HRM520
Description code		MBEF	MBDF
Type		EAA	
Length		25.4 in (645 mm)	
Width		21.7 in (550 mm)	
Height		10.8 in (275 mm)	
Weight		25.6 lbs (11.6 kg)	26.2 lbs (11.9 kg)
Electrical system			
Battery		Li-ion 22.2 V / 1800 mAh	Li-ion 22.2 V / 3600 mAh
Transformer	Input	AC120V	
	Output	26.0 V / 2.3 A	
Mowing			
Blade motor speed		2500 rpm (Normal) / 2200 rpm (Low)	
Cutting height		0.8-2.4 in(20-60 mm)	
Cutting width		8.7 in (22 cm)	
Boundary wire			
Boundary wire length (Comes with the product)		656 ft (200 m)	984 ft (300 m)
Maximum possible length		1,310 ft (400 m)	2,600 ft (800 m)

**NOTE:**

Specifications are subject to change without notice due to improvements.

# 10 APPENDIX

## Operating the lawn mower with the Manual mode

This setting can be used when 2 or more areas within the boundary wire are connected by a narrow path. If you have 2 or more areas within the boundary wire connected by a path that is less than 3.3 feet (1 meter) wide, the lawn mower cannot pass between them, and must be carried to the other area manually. Follow the steps below when performing this procedure.

### Manual mode operation

These instructions can be used to operate the lawn mower for the Manual mode settings.

1

See “Manual Mode” (page 38) to configure settings for Manual Mode.

2

Press the  (Off) button on the control panel.  
The power turns off.

3

Close the control panel cover.


4

Carry the lawn mower to the desired area.  
For details on carrying the lawn mower, see “Carrying the lawn mower” (page 59).

5

Press the manual STOP button.  
The control panel cover pops up.


6

Press the  (On) button on the control panel.  
The power turns on, and the startup screen on the control panel is displayed.

7

Enter the PIN using the number buttons to display the Home screen.

8

Press the  (Auto / Manual) button repeatedly until Manual mode screen is displayed.

Manual mode	17:01	Fri
<input checked="" type="checkbox"/> Mow until empty <input type="checkbox"/> Mow then recharge continuously <input type="checkbox"/> Mow then resume auto timer		

9

Select an operation of lawn mower.

Items	Description
Mow until empty	The lawn mower works until battery is empty.
Mow then recharge continuously	The lawn mower works and charges until the work timer is changed to Auto mode by the user.
Mow then resume auto timer	The lawn mower works and charges once then switches automatically to Auto mode and resumes the timer.

10

Press the ⬅ button.

11

Press the ⏪ button to return to the Home screen.

12

**Close the control panel cover.**

The lawn mower automatically begins to operate.

**NOTE:**

- The lawn mower does not turn off automatically when in manual mode.

## ● Canceling the Manual mode operation

You can cancel the operation which you selected on the Manual mode screen and the lawn mower returns to the docking station.

1

Press the manual STOP button from behind the lawn mower.

**NOTE:**

- If you select [Mow then resume auto timer] the lawn mower will stop at the time of the work timer configured in the Auto mode.

2

Press the ⏻ (Off) button on the control panel.

The power turns off.

3

Place the lawn mower in a area that is near the docking station.

4

Press the ⏻ (On) button on the control panel.

The power turns on, and the startup screen on the control panel is displayed.

5

Enter the PIN using the number buttons to display the Home screen.

6

Press the 🏠 (Home) button.

7

Select the operation of lawn mower after going back to the docking station.

Go back home	17:01	Fri
Then after charging:		
<input type="checkbox"/> Restart on next timer		
<input checked="" type="checkbox"/> Stay at home		

Items	Description
Restart on next timer	The lawn mower goes back home, then switches automatically to Auto mode and resumes the timer.
Stay at home	The lawn mower stays at the docking station after charging.

8

**Press the  button.**

The power turns on, and the startup screen on the control panel is displayed.

9

**Press the  button to return to the Home screen.**

10

**Close the control panel cover.**

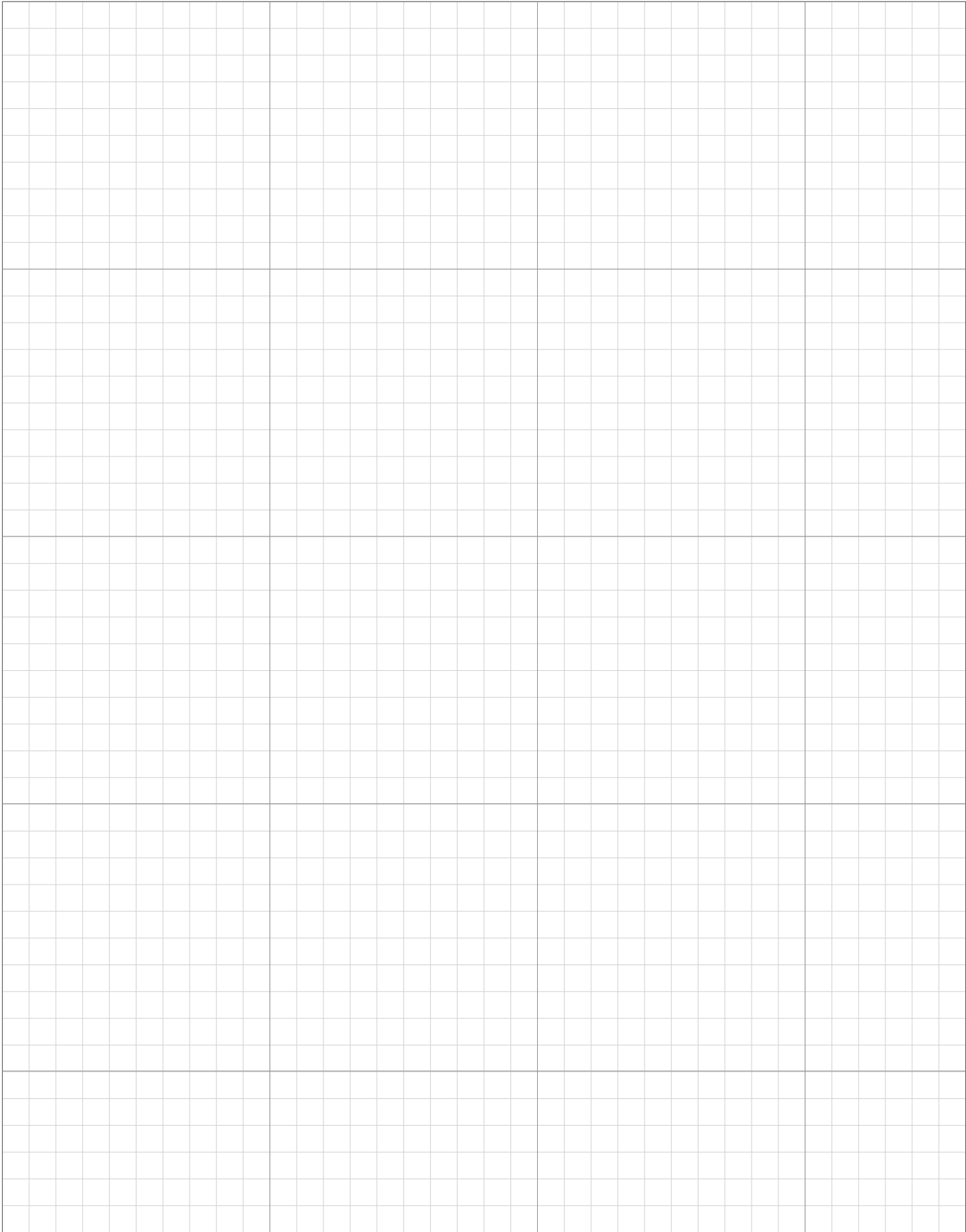
The lawn mower returns to the docking station.



# LCD MENU INDEX

Menu name	Step	Page
<b>A</b> Alarm	System settings → Security	P.51
Auto mode	Lawn setup → Auto mode	P.31
<b>B</b> BG color	System settings → Display/Sound	P.49
<b>C</b> Check signal	Diagnostics	P.43
Contrast	System settings → Display/Sound	P.49
Create a PIN	System settings → Security	P.51
<b>D</b> Date and time	System settings	P.50
Docking direction	Lawn setup → Lawn layout	P.40
<b>E</b> Edge cutting	Lawn setup → Auto mode → Advanced setting	P.35
<b>F</b> Factory reset	System settings	P.52
Fault history	History	P.48
<b>H</b> Help	System settings	P.52
History	History	P.46
Home	Lawn setup → Homing setup	P.42
Homing setup	Lawn setup → Homing setup	P.41
<b>K</b> Keypad	System settings → Display/Sound	P.50
<b>L</b> Language	System settings	P.49
Lawn layout	Lawn setup	P.40
<b>M</b> Manual mode	Lawn setup → Manual mode	P.38
Mowing pattern	Lawn setup → Manual mode	P.38
Mowing start points	Lawn setup → Auto mode → Mowing start point	P.33
Mowing start Points	Work timer	P.28
<b>N</b> Narrow passage	Lawn setup → Auto mode → Advanced setting	P.37
<b>O</b> Operating time	History → Operating history	P.46
Operation history	History	P.46
<b>P</b> Passage width	Lawn setup → Homing setup	P.41
<b>Q</b> Quiet timer	Work timer	P.30
<b>S</b> Seasonal timer	Work timer	P.29
Security	System settings	P.51
Setup wizard	Setup wizard	P.15
Sound	System settings	P.49
Spiral cutting	Lawn setup → Auto mode → Advanced setting	P.36
Spiral cutting	Lawn setup → Manual mode	P.38
<b>T</b> Test start points	Diagnostics → Test start points	P.44
<b>W</b> Wire length	Lawn setup → Lawn layout → Wire length...	P.40
Wire overlap	Lawn setup → Auto mode → Advanced setting	P.34
Work history	History → Operating history	P.47
Work timer	Work timer	P.27

# LAWN DIAGRAM



# LAWN DIAGRAM

# DEALER CHECKSHEET

The following information is provided by your dealer after setup is complete.

## Basic setting information (pages 16, 51)

PIN (Personal Identification Number):

--	--	--	--

Language : English / Français / Español

## Setup wizard setting information (page 17)

The following items are related to the basic settings for Setup wizard.

### Lawn layout (page 17)

Direction: Clockwise / Counter-clockwise

Wire length: \_\_\_\_\_ ft

Lawn size: \_\_\_\_\_ ft<sup>2</sup>

Narrow passage: \_\_\_\_\_ in.

### Mowing start point (page 19)

Starting points	Direction	From station to start point	Area percentage
Point 1	CW / CCW	ft	%
Point 2	CW / CCW	ft	%
Point 3	CW / CCW	ft	%
Point 4	CW / CCW	ft	%
Point 5	CW / CCW	ft	%

### Work timer (page 22)

Day of the week	Timer 1	Timer 2	Starting point
Monday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Tuesday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Wednesday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Thursday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Friday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Saturday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5
Sunday	__ : __ - __ : __	__ : __ - __ : __	1 / 2 / 3 / 4 / 5

Seasonal timer:

Percentage: JAN : \_\_\_\_\_ % FEB : \_\_\_\_\_ % MAR : \_\_\_\_\_ % APR : \_\_\_\_\_ %

MAY : \_\_\_\_\_ % JUN : \_\_\_\_\_ % JUL : \_\_\_\_\_ % AUG : \_\_\_\_\_ %

SEP : \_\_\_\_\_ % OCT : \_\_\_\_\_ % NOV : \_\_\_\_\_ % DEC : \_\_\_\_\_ %

## ■ Other setting item information

Please fill the following items if configuring them with the Menu settings.

### ■ Lawn layout setting information (pages 33, 37, 40, 41)

#### Passage width:

 Home screen → [2.Lawn setup] → [1.Auto mode] → [1.Mowing start points] → [1.Point 1] to [5.Point 5]

Point 1: \_\_\_\_ - \_\_\_\_ Point 2: \_\_\_\_ - \_\_\_\_ Point 3: \_\_\_\_ - \_\_\_\_

Point 4: \_\_\_\_ - \_\_\_\_ Point 5: \_\_\_\_ - \_\_\_\_

#### Narrow passage:

 Home screen → [2.Lawn setup] → [1.Auto mode] → [3.Advanced setting] → [4.Narrow passage]

1: Direction: CW / CCW From: \_\_\_\_ ft To: \_\_\_\_ ft

2: Direction: CW / CCW From: \_\_\_\_ ft To: \_\_\_\_ ft

3: Direction: CW / CCW From: \_\_\_\_ ft To: \_\_\_\_ ft

4: Direction: CW / CCW From: \_\_\_\_ ft To: \_\_\_\_ ft

#### Shortcut wire:

 Home screen → [2.Lawn setup] → [3.Lawn layout] → [2.Wire length...]

Yes / No

#### Passage width (Homing):

 Home screen → [2.Lawn setup] → [4.Homing setup] → [1.Passage width]

Value: \_\_\_\_

### ■ Useful features information (pages 30, 35, 36)

 Home screen → [1.Work timer] → [4.Quiet timer]

Quiet timer: ON / OFF

 Home screen → [2.Lawn setup] → [1.Auto mode] → [3.Advanced setting]

Edge cutting: ON / OFF

Spiral cutting: ON / OFF

### ■ System setup (Docking station) (page 40)

 Home screen → [2.Lawn setup] → [3.Lawn layout] → [1.Docking direction]

Loop Direction: CW / CCW

Your dealer's contact information is below:

Dealer:

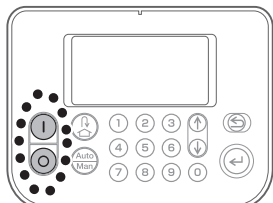
Tel:

Mail:

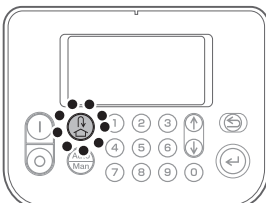
# QUICK GUIDE

## Fundamentals

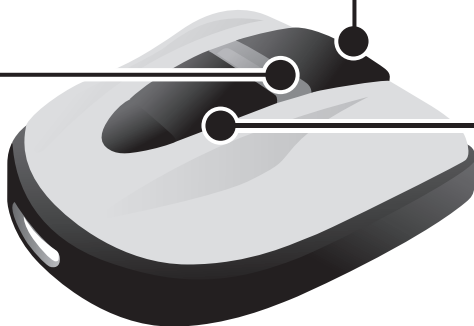
Turning on / off the power  
(☞ page 11, 54)



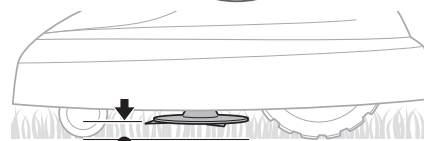
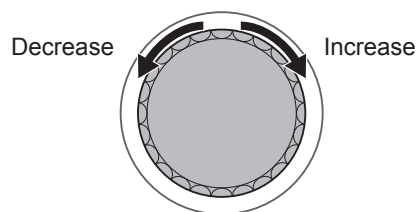
Sending back home  
(☞ page 11)



Stopping the lawn mower  
(☞ page 10)



Adjusting the cutting height  
(☞ page 57)



Position	Approximate blade height
1	0.8 in. (20 mm)
2	1.2 in. (30 mm)
3	1.6 in. (40 mm)
4	2.0 in. (50 mm)
5	2.4 in. (60 mm)

## Daily use

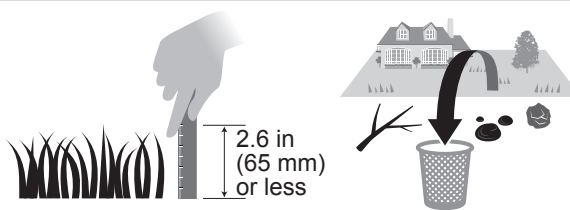
### 1 Menu settings



Configure the operation mode, timer, and other settings.

- Work settings for the lawn
  - Mowing start point settings (☞ page 28)
  - Narrow passage settings (☞ page 33)
  - Mowing pattern settings (☞ page 38)
- Timer settings (☞ page 27)
- Useful settings (☞ page 29, 30, 38)
- Operation checks (☞ page 43)
- Setup wizard (☞ page 15)

### 2 Check the lawn



Maintain the area before the lawn mower starts mowing.

- Checking the lawn (☞ page 53)
- Removing foreign objects from the area (☞ page 53)

## Technical tips

### Mowing mode

You can select from 2 modes of operation (available in “Menu Settings”).

- **Auto mode** (☞ page 31)

The lawn mower automatically mows according to inputted time and lawn settings.

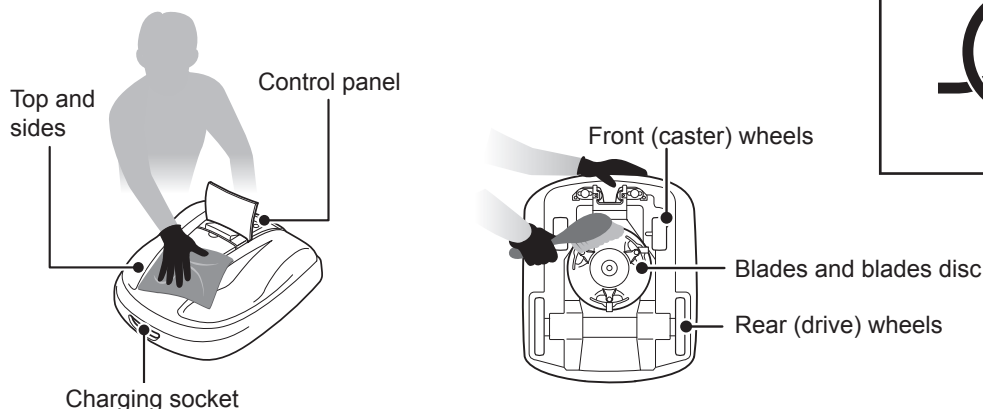
- **Manual mode** (☞ page 38)

Start mowing anytime without timer settings.

### Cleaning the lawn mower (☞ page 64)

Clean dirt and grass off of the lawn mower using a dry brush and cloth.

Remove dirt and grass from the following areas:

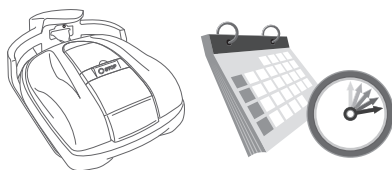


#### NOTE:

- Do not clean the lawn mower with solvent, a pressure washer, garden hose, etc.



## 3 Paused



Put on “Paused” (Push the power button and close the panel cover) state for work so you can start operation at your desired time.

- Adjusting the height of the blades (☞ page 57)
- Checking the “Paused” state (☞ page 54)
- Checking the docking station connections (☞ page 53)

## 4 Weekly check



Regularly check the lawn mower for assurance.

- Checking the standby status (☞ page 54)
- Checking the docking station connections (☞ page 66)
- Blade conditions (☞ page 68)
- Checking the parts (☞ page 63, 65)

## 5 Storage



Store properly for next use.

- Cleaning and replacing the blades (☞ page 70)
- Cleaning the lawn mower (☞ page 64)
- Cleaning the docking station (☞ page 66)
- Disconnecting the transformer and power cable (☞ page 53)

# Distributor's Limited Warranty

## Honda Power Equipment

This warranty is limited to the following Honda Power Equipment products when distributed by American Honda Motor Co., Inc., Power Equipment Division, 4900 Marconi Drive, Alpharetta, Georgia 30005. The following warranty applies to products purchased at retail or placed in rental service on or after June 1, 2017.

PRODUCTS COVERED BY THIS WARRANTY:	LENGTH OF WARRANTY: <sup>(1)</sup> (FROM DATE OF ORIGINAL RETAIL PURCHASE)	
	PRIVATE RESIDENTIAL	COMMERCIAL/RENTAL/INSTITUTIONAL
Miimo Autonomous Mower	24 months	24 months

(1) Length of Warranty: Batteries supplied with applicable products as standard, original equipment are covered by this warranty for a period of 24 months from the date of original retail product purchase.

### To Qualify for This Warranty:

The product must be purchased in the United States, Puerto Rico, or the U.S. Virgin Islands from American Honda or a dealer authorized by American Honda to sell those products. This warranty applies to the first retail purchaser and each subsequent owner during the applicable warranty time period, unless noted otherwise.

### What American Honda Will Repair or Replace Under Warranty:

American Honda will repair or replace, at its option, any part that is proven to be defective in material or workmanship under normal use during the applicable warranty time period. Warranty repairs and replacements will be made without charge for parts or labor. Anything replaced under warranty becomes the property of American Honda Motor Co., Inc. All parts replaced under warranty will be considered as part of the original product, and any warranty on those parts will expire coincident with the original product warranty.

### To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment product, accessory, replacement part, apparel, or the power equipment on which the accessory or replacement part is installed, and proof of purchase to any Honda Power Equipment dealer in the United States, Puerto Rico, or the U.S. Virgin Islands who is authorized to sell and/or service that product, during the dealer's normal business hours. To locate a dealer near you, visit our web site at <http://powerequipment.honda.com> and click on Find a Dealer.

If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved;

normally this will resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc. at the following address:

American Honda Motor Co., Inc.  
Power Equipment Customer Relations Dept.  
4900 Marconi Drive  
Alpharetta, GA 30005-8847  
Telephone: (770) 497-6400



**Exclusions:**

1. Any damage or deterioration resulting from the following:
  - Neglect of the periodic maintenance as specified in the product owner's manual
  - Improper repair or maintenance
  - Operating methods other than those indicated in the product owner's manual
  - Increasing engine speed beyond factory specification
  - The use of non-genuine Honda parts, accessories, lubricants, and fluids other than those approved by Honda
  - Exposure of the product to soot and smoke, chemical agents, bird droppings, sea water, salt, or other corrosive environments
  - Collision, fuel contamination or deterioration, neglect, unauthorized alteration, misuse, incorporation or use of unsuitable attachments or parts
  - Normal wear and tear (including, but not limited to, normal fading of painted or plated surfaces, sheet peeling, and other natural deterioration)
2. Consumable parts: Honda does not warrant parts deterioration due to normal wear and tear. The following parts are not covered by this warranty unless they are needed during another repair covered under this warranty: spark plug, fuel filter, air cleaner element, clutch disc, tire, wheel bearing, recoil starter rope, cable, belt, cutter blade, boundary wire, bushings, oil, and grease.
3. Cleaning, adjustment, and normal periodic maintenance work (carburetor cleaning, engine oil draining, blade sharpening, belt and cable adjustments).
4. Any product that has ever been declared a total loss or sold for salvage by a financial institution or insurer.
5. Auger and paddle assemblies, skid shoes, and scraper bars of snow throwers/snow blowers, tiller tines of roto-tillers, and mower blades and mower deck housings are specifically not warranted against impact damage including, but not limited to, abrasive damage.

**Disclaimer of Consequential Damage and Limitation of Implied Warranties:**

American Honda disclaims any responsibility for loss of time or use of the product, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written limited warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, therefore the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

# Distributor's Limited Warranty

## Honda Parts, Accessories, and Apparel

This warranty is limited to Honda Power Equipment parts, accessories, and apparel when distributed by American Honda Motor Co., Inc., 4900 Marconi Drive, Alpharetta, Georgia 30005-8847.

PRODUCTS COVERED BY WARRANTY:	LENGTH OF WARRANTY: (FROM DATE OF ORIGINAL RETAIL PURCHASE)	
	PRIVATE RESIDENTIAL	COMMERCIAL/RENTAL/INSTITUTIONAL
Parts	6 months	3 months
Accessories	12 months	3 months
Apparel	6 months	3 months

### To Qualify for This Warranty:

1. The parts, accessories, or apparel must be purchased from American Honda or a dealer authorized by American Honda to sell those products in the United States, Puerto Rico, and the U.S. Virgin Islands. Parts and accessories must be purchased for installation on original Honda equipment or engines to be eligible for warranty coverage. Installing parts and accessories on non-Honda products or engines voids this warranty.
2. You must be the first retail purchaser. This warranty is not transferable to subsequent owners.

### What American Honda Will Repair or Replace Under Warranty:

American Honda will repair or replace, at its option, any Honda Power Equipment parts, accessories, or apparel that are proven to be defective in material or workmanship under normal use during the applicable warranty time period. Anything replaced under warranty becomes the property of American Honda Motor Co., Inc. The warranty on all parts, accessories, and apparel replaced under warranty will expire coincident with the original warranty on the replaced parts, accessories, or apparel. Parts and accessories installed by a dealer who is authorized by American Honda to sell them will be repaired or replaced under warranty without charge for parts or labor. If installed by anyone else, parts and accessories will be repaired or replaced under warranty without charge for parts, but any labor charges will be the responsibility of the purchaser. Apparel will be repaired or replaced under warranty without any charge.

### To Obtain Warranty Service:

You must, at your expense, take the Honda Power Equipment part, accessory, or apparel, or the Honda Power Equipment on which the accessory or part is installed, and proof of purchase to any Honda Power Equipment dealer in the United States, Puerto Rico, or the U.S. Virgin Islands who is authorized to sell that product, during the dealer's normal business hours. To locate a dealer near you, go to our web site at <http://PowerEquipment.Honda.com> and click on Find a Dealer. If you are unable to obtain warranty service or are dissatisfied with the warranty service you receive, contact the owner of the dealership involved; normally this will resolve the problem. However, if you should require further assistance, write or call the Power Equipment Customer Relations Department of American Honda Motor Co., Inc.

American Honda Motor Co., Inc.  
Power Equipment Customer Relations Dept.  
4900 Marconi Drive  
Alpharetta, GA 30005-8847  
Telephone: (770) 497-6400

### Exclusions:

This warranty does not extend to parts, accessories, or apparel affected or damaged by collision, normal wear, use in an application for which the product was not designed, or any other misuse, neglect, incorporation or use of unsuitable attachments or parts, unauthorized alteration, improper installation, or any causes other than defects in material or workmanship of the product. Installing parts and accessories on non-Honda products or engines voids this warranty.

### Disclaimer of Consequential Damage and Limitation of Implied Warranties:

American Honda disclaims any responsibility for loss of time or use of the product, or the power equipment on which the product is installed, transportation, commercial loss, or any other incidental or consequential damage. Any implied warranties are limited to the duration of this written warranty. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions and limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.





HRM310K1  
HRM520K1