

EN

**HONDA**

# Owner's Manual



# Honda Robotic Lawn mower HRM310/520



***Miimo***

Supplier's Declaration of Conformity  
47 CFR § 2.1077 Compliance Information

Unique Identifier

Trade Name: HRM520K2, HRM310K2

Model Number: MBDF, MBEF

Modular components identifier

Model number: cB-OBS421i-24

FCC ID: PVH0946

Responsible Party - U.S. Contact Information

American Honda Motor Co., Inc.

Power Equipment Division

4900 Marconi Dr.

Alpharetta, GA 30005-8847

Telephone number: (770) 497-6400

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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.

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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.

### CAUTION:

- **Operating a robotic lawn mower requires special attention to ensure the safety of operator and others.**
- **It can result in personal injury or equipment damage if you do not understand its proper operation.**
- **Read carefully and understand this Owner's Manual before operating the robotic lawn mower.**

How to identify your machine

The model of your robotic lawn mower is indicated on its "Identification label" by a series of letters.

Category	Series	Type
HRM	310/520	EAA
		└── EAA = AC 120 V - US plug
└── Robotic lawn mower		

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

Make sure to have your dealer fill in "LAWN DIAGRAM" (☞ page 80) and "DEALER CHECKSHEET" (☞ page 82) with details on the installation it has performed and the settings it has configured.

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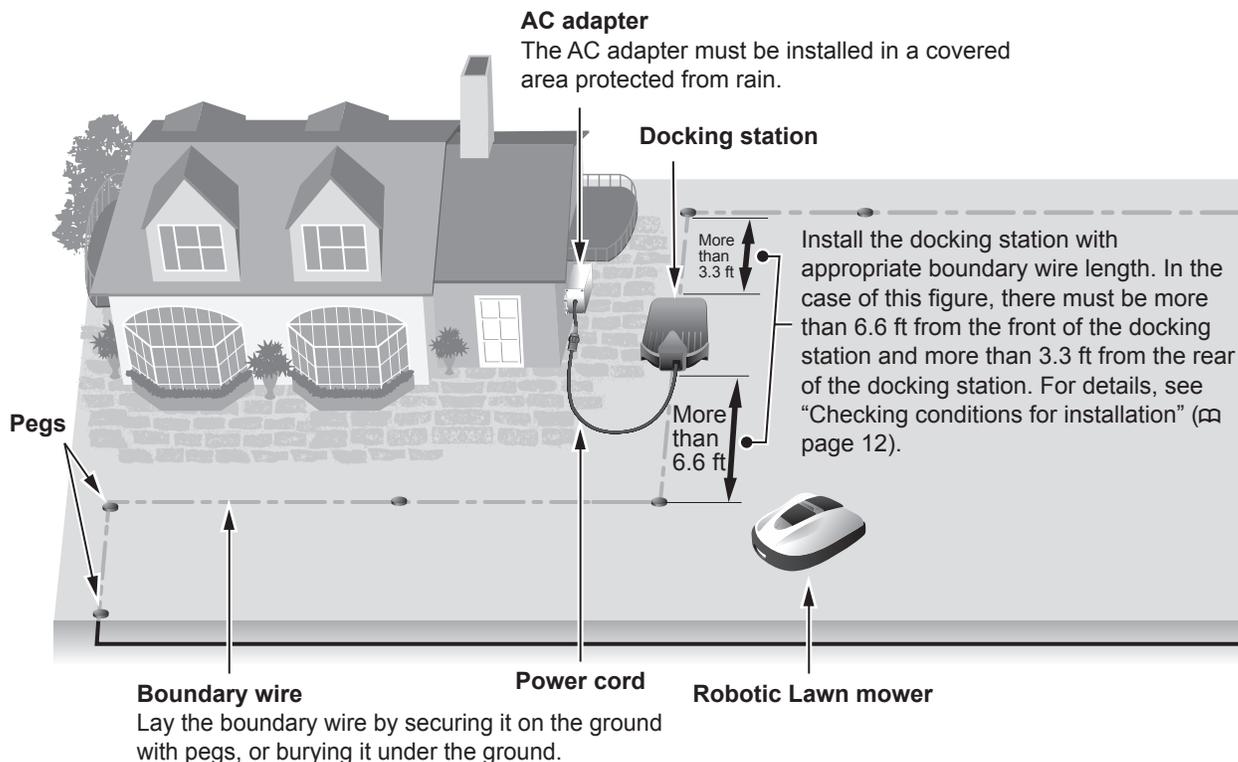
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# 1 OVERVIEW

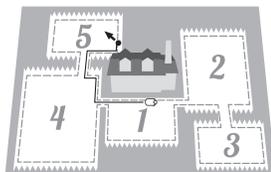
## How the Honda Robotic Lawn mower works

### 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.

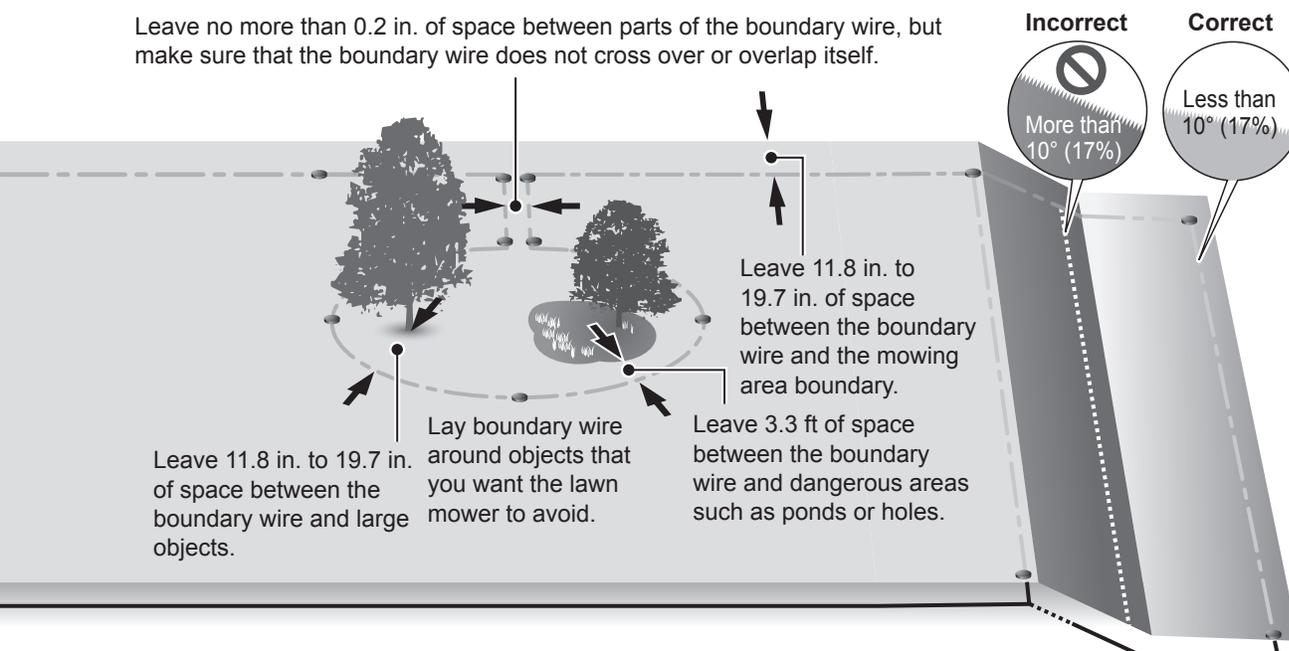
## ● Laying boundary wire

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 27).

Miimo can only operate correctly on mowing areas that have a slope of 24° (45%) or less; steeper slopes negatively effect mowing performance. Therefore, if the mowing area contains sloped areas, it must meet the following conditions:

- No part of the mowing area should have a slope exceeding 24° (45%).
- For best operation, the boundary wire only should be laid in locations that have a slope less than 10° (17%).
- If the mowing area has a slope that is steeper than 10° (17%).
  - Do not lay the boundary wire laterally across a slope that is steeper than 10° (17%).
  - Lay the boundary wire laterally across a relatively flat space, with a slope of less than 10° (17%), that is outside the part of the mowing area where the slope is more than 10° (17%). (Refer to the diagram below.)

Leave no more than 0.2 in. of space between parts of the boundary wire, but make sure that the boundary wire does not cross over or overlap itself.



### NOTE:

- Make sure to fill in “LAWN DIAGRAM” referring to the layout of boundary wire (☞ page 80).



### 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 31)

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 32)

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

### Spiral cutting (☞ page 38, 41)

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 37, 40)

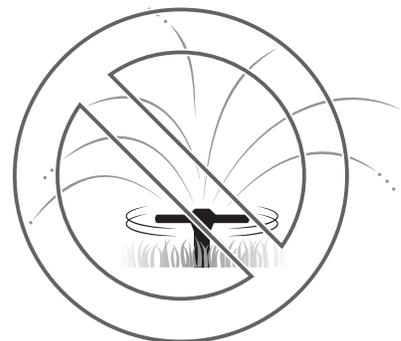
With this function, you can mow the unmown area along the boundary wire.

## 2 SAFETY INSTRUCTIONS

### Precautions

Carefully observe the following precautions.

- 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 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 be 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 mowing 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 the outside air temperature is lower than 41°F(5°C), the lawn mower will be unable to charge. If lower than 32°F(0°C), the lawn mower will not charge nor operate.
- 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 61) with the blades facing away from you.
- When carrying the lawn mower, make sure to carry it by the designated areas (see page 61). 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 before you physically interact with the lawn mower. If you do not, you may be 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.
- Do not puncture, crush, or short circuit the battery.
- Under normal conditions of use, the electrode materials in the mower's battery and the electrolyte they contain are hermetically sealed, provided that the integrity of the battery is preserved and the solder remains intact.
- However, if the battery vents are opened or the battery is ruptured, the electrolyte can leak.
  - If the electrolyte is inhaled, ensure the person is moved into fresh air, then stays still and is kept warm.
  - If the electrolyte comes in contact with a person's eyes, flush the eyes with a large amount of water for at least 15 minutes.
  - If the electrolyte is swallowed, rinse out the person's mouth and have them drink plenty of water.
- To avoid electrocution, disconnect all power circuits:
  - Before accessing the battery terminals.
  - Before examining the mower for damage after hitting a foreign object.
  - In the event of an accident.
  - Before anyone has any interaction with the mower.
- If a person is injured by, or while using, the mower, disconnect all power circuits to disable the mower. Call 911 or other emergency responders as appropriate.



- 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.
- If the boundary wire has been cut or damaged:
  - Do not touch the exposed ends, as you may be electrocuted or otherwise injured.
  - Turn off the lawn mower, unplug the AC adapter plug from the power outlet, and call your dealer.
- Install the AC adapter in a place that is easily accessible, but remains out of direct sunlight and will not get wet, even in the rain.
- Wear gloves when touching the AC adapter because it becomes hot when it is plugged into a building's power outlet.
- If you need to clean the AC adapter, only use a dry cloth or brush.
- Sources of open flames, such as candles, must not be placed on the AC adaptor.
- If the AC adapter cords or plugs become broken, dispose of the adapter and contact your dealer for a replacement.
- People who are not thoroughly familiar with this Owner's Manual should not come into contact with the lawn mower.

IP55 applies to the adapter body other than the plug. The plug must always be sheltered from the rain and elements. If the plug is used outdoors, the socket must be waterproof.



Protection class II appliance



non-inherently Short-circuit-proof safety isolating AC adapter



Switch mode power supply unit

- 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 AC adapter. If you do not, you may be electrocuted.
  - Do not touch the building's power outlet, cord, or AC adapter with wet hands.
  - Do not touch the building's power outlet, cord, or AC adapter if the building's power outlet, power cord, or AC adapter is wet.
- The AC adapter 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 AC adapter. 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

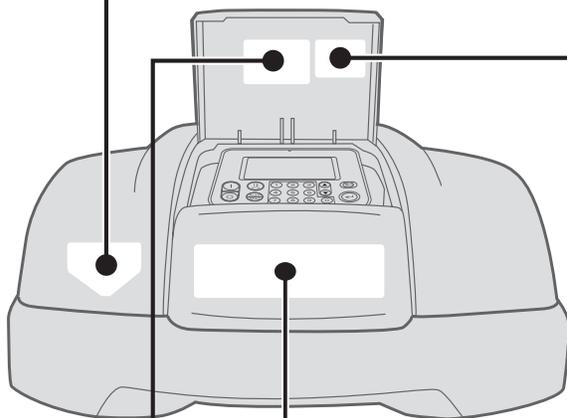
## ● POSITIONING OF SAFETY LABELS

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.



FCC LABEL

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :  
 (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.  
 This device contains FCC ID :PVH0946



<p><b>⚠ DANGER</b></p> <p><b>BLADE CONTACT WILL CAUSE SERIOUS INJURY OR DEATH.</b></p> <ul style="list-style-type: none"> <li>■ Keep hands and feet away from blade and cover.</li> <li>■ Turn off power before working on or lifting the mower.</li> <li>■ Do not ride on the mower.</li> </ul>	<p><b>⚠ WARNING</b></p> <p><b>AVOID SERIOUS INJURY OR DEATH.</b></p> <ul style="list-style-type: none"> <li>■ Follow all instructions in Owner's Manual.</li> <li>■ Keep safety devices (covers, switches, etc.) in place and working.</li> <li>■ Do not operate unless properly trained.</li> </ul> <p><b>OBJECT THROWN BY BLADE CAN CAUSE SERIOUS INJURY.</b></p> <ul style="list-style-type: none"> <li>■ Inspect area and remove debris before mowing.</li> <li>■ Keep all persons and pets away.</li> </ul>
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**Honda France Manufacturing S.A.S**

Model type

Serial No.

Mass (Weight)

Year of manufacturing

Contact your local  
 Honda Power Equipment Dealer  
 for Replacement Parts  
[powerequipment.honda.com](http://powerequipment.honda.com)  
 Assembled in France

(BC)

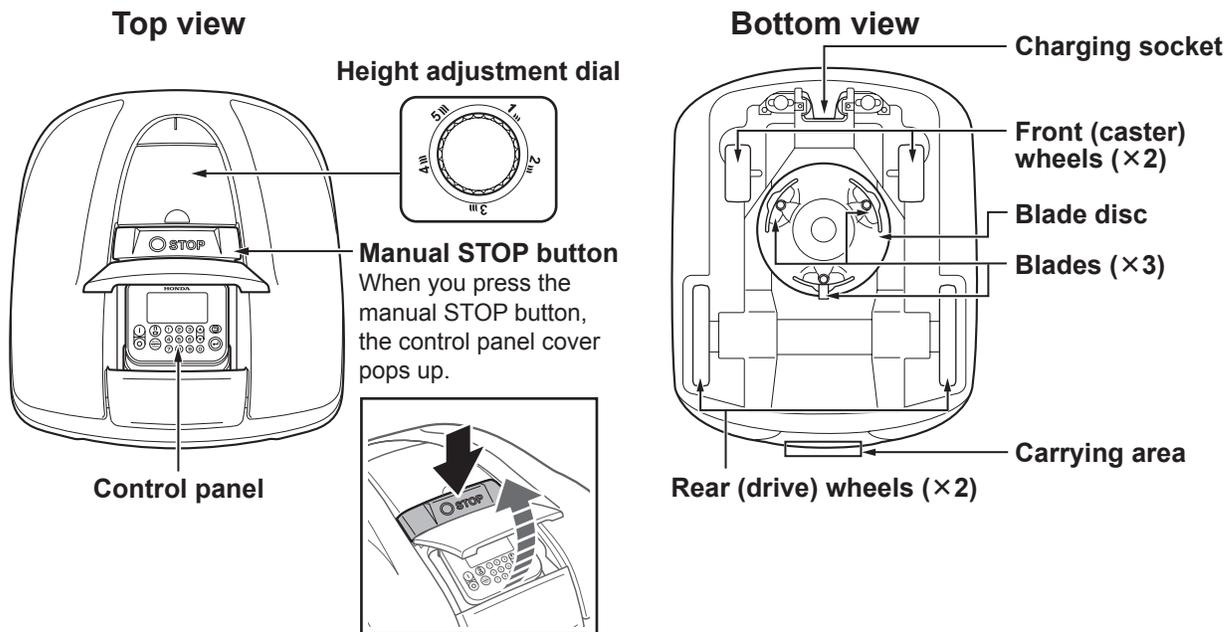
## ● POSITIONING OF SERIAL NUMBER, AND OTHER INFORMATION

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

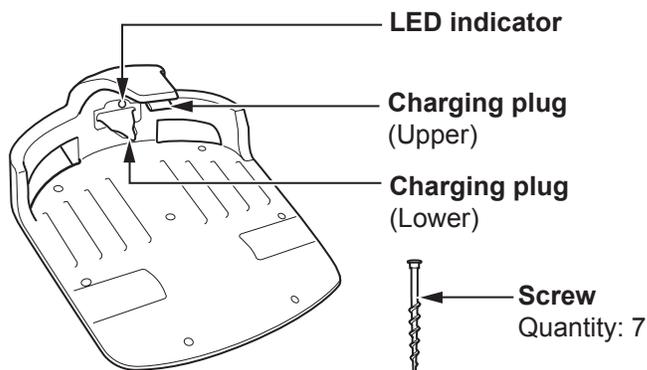
# 3 PREPARATION

## Component identification

### ● Body

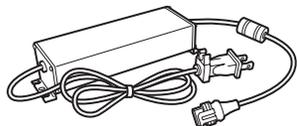


### ● Docking station



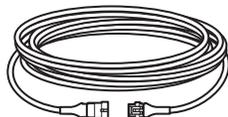
The lawn mower recharges at the docking station, and returns to the docking station when mowing is finished or the battery's charge becomes low. You can check the status of the boundary wire with the LED indicator (☞ page 56).

### ● Supplied items



#### AC adapter

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



#### Extension cord

If the power cord of the AC adapter is not long enough, you can extend it with the extension cord.  
Length: 32.8 ft



#### Boundary wire

Lay boundary wire around the area in which you want the lawn mower to operate.  
Length for HRM310: 656 ft  
Length for HRM520: 984 ft

\* 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

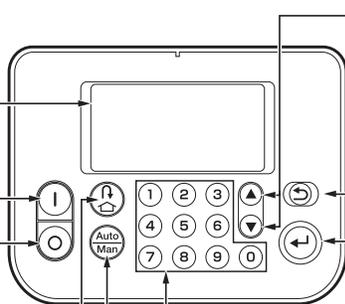
Press to turn off the power.

### 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.

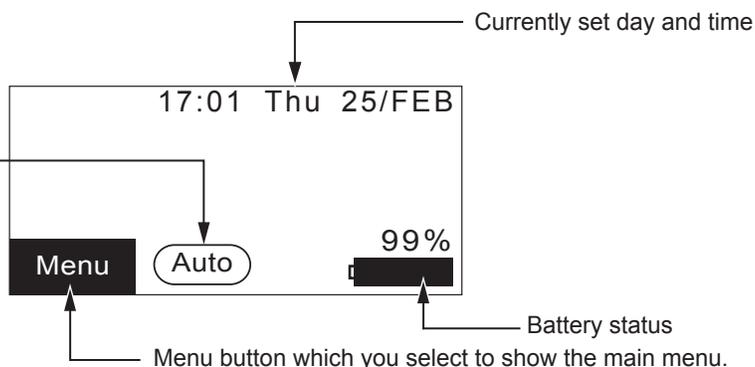
### Auto/Manual selection button

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 27).

## ● Home screen

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

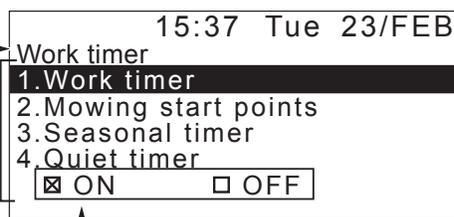
Icons	Description
	Auto mode is set.
	Manual mode is active and no timer is set.
	The lawn mower will return to the docking station.



## ● Item selection screen

Name of the first level menu

Selectable menu items and current setting status.



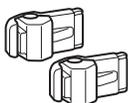
You can display the previous screen by pressing the button.

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



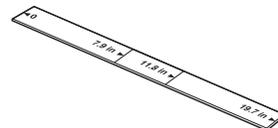
### Connectors for the boundary wire

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 having your robotic lawn mower installed by an authorized Honda dealer. Installation by an authorized Honda dealer will ensure that your system is working correctly. Only use the supplied items and bundled docking station.

## Checking conditions for installation

Confirm with the installing dealer that the docking station and boundary wire are installed according to the conditions listed below. After installation, periodically check that these conditions still are met. If they are not, contact the installing dealer. We recommend that the power outlet used to power the adapter be installed by a licensed electrician 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 bent or deformed.</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 the docking station will be installed directly on the lawn, cut the grass as short as possible where the docking station will be located.</li> <li>If the docking station is installed incorrectly, the lawn mower may not be able to charge.</li> </ul>								
<p style="text-align: center;"><b>Docking direction</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%;"><b>CW (Clockwise)</b></td> <td style="width: 50%;"><b>CCW (Counter-clockwise)</b></td> </tr> <tr> <td></td> <td></td> </tr> </table> <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>	<b>CW (Clockwise)</b>	<b>CCW (Counter-clockwise)</b>			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. 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.</li> </ul>
<b>CW (Clockwise)</b>	<b>CCW (Counter-clockwise)</b>								
Right side wire connector	Type 0								
Left side wire connector	Type 2								
<p style="text-align: center;"><b>Pattern A</b>                      <b>Pattern B</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>More than 6.6 ft      More than 3.3 ft</p> </div> <div style="text-align: center;"> <p>Corner</p> <p>0-7.9 in.      More than 3.3 ft</p> </div> </div> 	<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 from the station                      Pattern B: within 6.6 ft 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

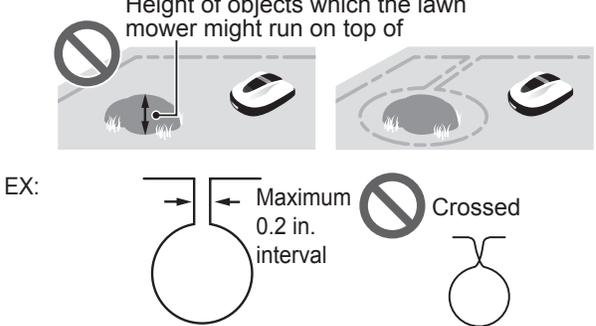
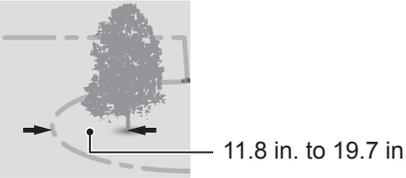
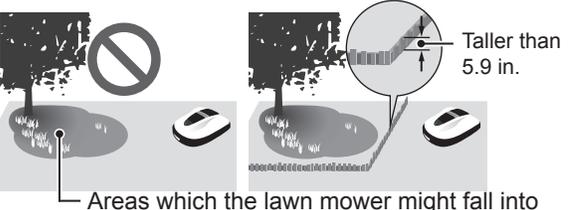
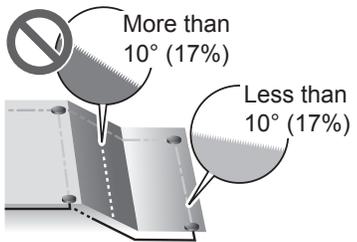
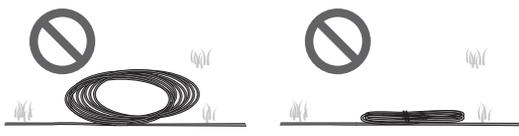
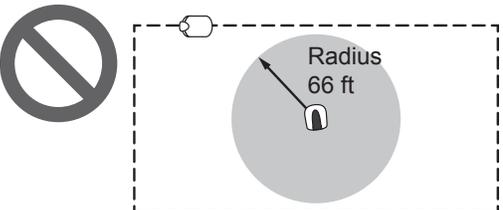
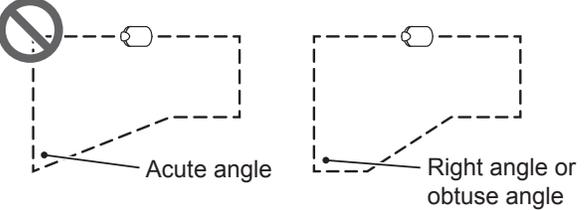
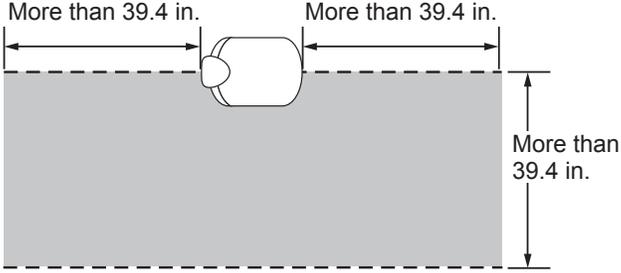
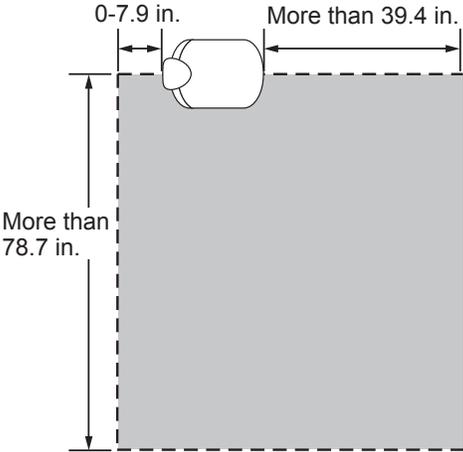
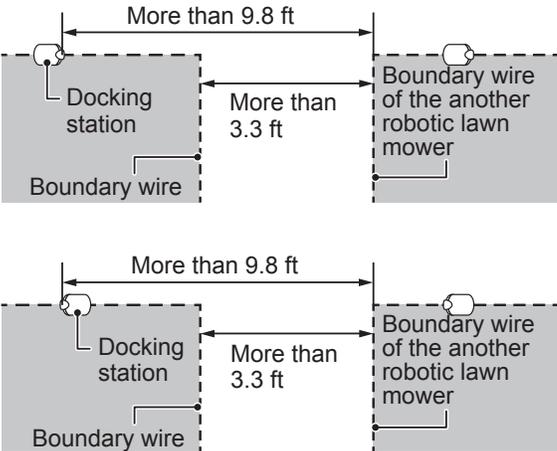
Image	Condition
<p>Height of objects which the lawn mower might run on top of</p>  <p>EX: Maximum 0.2 in. interval</p> <p>Crossed</p>	<p>Lay boundary wire around objects which the lawn mower might run on top of (e.g. rocks, tree roots, etc.).</p> <p>The boundary wire entry and exit points for a round area should be separated by no more than 0.2 in. (However, the boundary wire should not cross over itself.)</p>
 <p>11.8 in. to 19.7 in.</p>	<p>There must be 11.8 in. to 19.7 in. of space between the boundary wire and large objects. (This space can be reduced to as little as 11.8 in. if you set [Wire Overlap] to a low value. For details, consult your dealer.)</p>
 <p>Taller than 5.9 in.</p> <p>Areas which the lawn mower might fall into</p>	<p>Lay fencing taller than 5.9 in. 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</p>	<p>The lawn mower can detect the signal from the boundary wire within a 66 ft radius. If the lawn mower enters a space inside the work area with no boundary wire within a 66 ft 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>When installing the docking station at a corner</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.</li> </ul>
	<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 **(I)** (On) button to turn on the lawn mower.

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

### CAUTION:

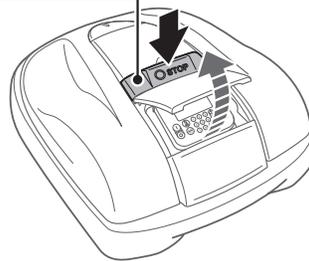
- The control panel may have sharp plastic edges.
- You can be cut, pinched, or injured if you attempt to pry the control panel open with your fingers.
- Always press the manual STOP button to open the control panel, instead of trying to lift up on the control panel itself.

1

**Press the manual STOP button.**

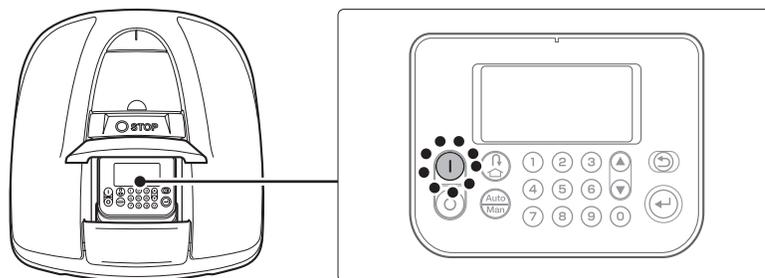
The control panel cover pops up.

Manual STOP button



2

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



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

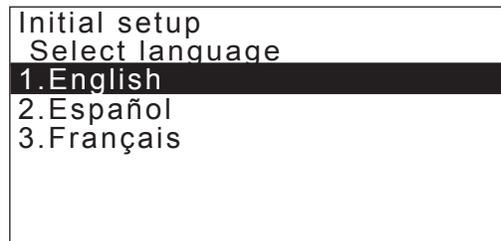
## Initial settings

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.**

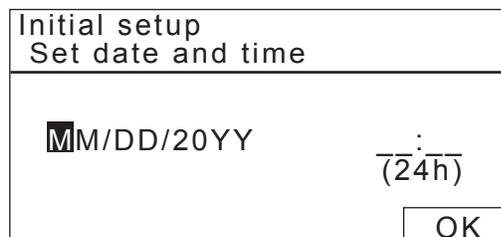
**1** Select your preferred language and press the **⏪** button.



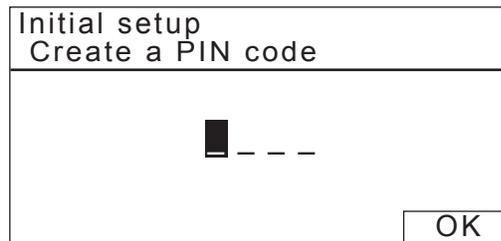
**2** Enter the date with the format {Month}/{Day}/{Year} and the time in 24-hour format.

**NOTE:**

- Please use following setting if you want to turn off daylight saving time (☞ page 52).



**3** Select [OK] and press the **⏪** button.



**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 82 to document your PIN.

**5** **Select [OK] and press the **⏪** button.**  
The message "Select install menu" is displayed. You can select the setup method.  
[1.Setup wizard] ... Step-by-step setup (☞ page 17)  
[2.Advanced setup] ... Set up the Mowing setting/Quiet timer only (☞ page 25)  
[3.Restart initial setup] ... Redo initial setup



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.	- Direction for the lawn mower to dock to the docking station - Length of the boundary wire - Lawn size - Existence of narrow passages
[2.Mowing start points]	For configuring the mowing start point settings to enable the lawn mower to start mowing from other areas.	- Direction of the mowing start points - Distance of the start points from the docking station - Ratio with which the lawn mower operates in each area
[3.Test start points]	For testing the start points configured in [2.Mowing start points] menu.	- Testing the setting of each start point
[4.Work timer]	For setting the work timer to operate the lawn mower according to the schedule.	- Work day and work time

### 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 27).

## 1. Setting the Lawn layout

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

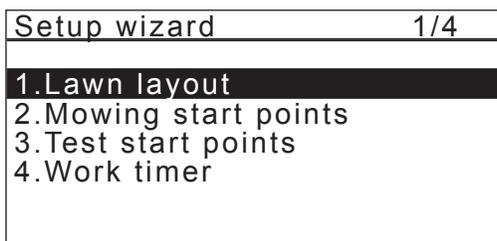
1-1

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



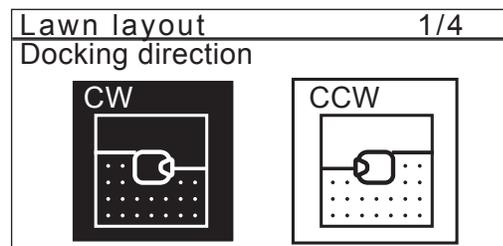
1-2

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



1-3

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



1-4

Select [NEXT] and press the  button.

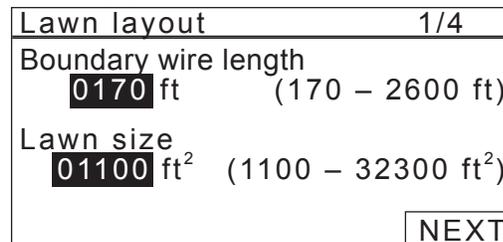
1-5

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.

EX: HRM520



1-6

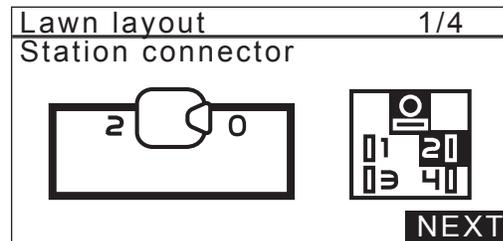
Select [NEXT] and press the  button.

1-7

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

**NOTE:**

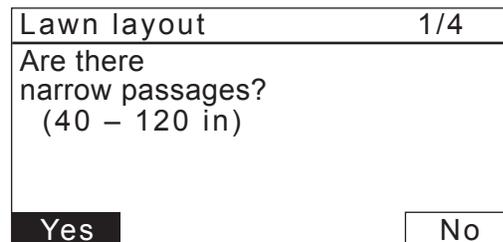
- For detail, see “Conditions for installing the docking station” (page 12).



1-8

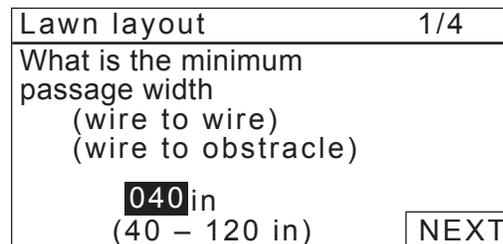
Select [Yes] or [No] to the question on the narrow passages, and press the  button.

Narrow passages have a passage width of 120 in. or less.  
 [YES] → Go to Step 1-9  
 [NO] → Go to “3.Setting the mowing start points” (page 19)



1-9

Check that the value is selected and press the  button, use the number buttons to input a value from 40 to 120 in.



1-10

When you are finished inputting a value, press the  button. [NEXT] will be selected. Press the  button again.

The configuration of lawn layout is completed.  
 The setup wizard top screen is displayed and [2.lawn layout] is checked.

## 2. Setting the mowing start points

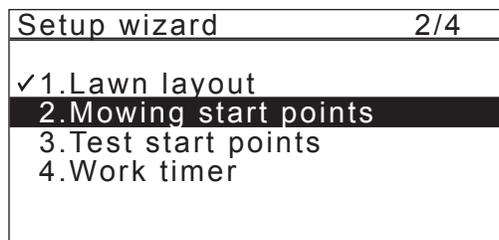
Through this setting, you can set the starting point to operate the lawn mower.

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.



2-2

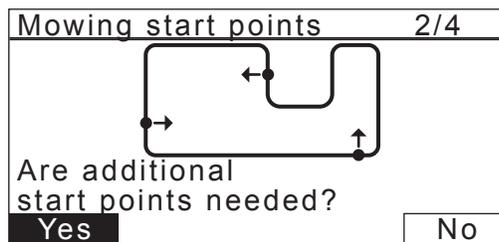
Select **[Yes]** or **[No]** to the question on the addition of the start points and press the **⊖** button.

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.



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 based on 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				2/4
Point	⌚ / ⌚	(0 - 2600 ft)		
1	<input type="checkbox"/> / <input type="checkbox"/>	0 ft	0 %	
2	<input type="checkbox"/> / <input type="checkbox"/>	0 ft	0 %	
3	<input type="checkbox"/> / <input type="checkbox"/>	0 ft	0 %	
4	<input type="checkbox"/> / <input type="checkbox"/>	0 ft	0 %	
5	<input type="checkbox"/> / <input type="checkbox"/>	0 ft	0 %	
				<b>NEXT</b>

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	3/4
✓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.

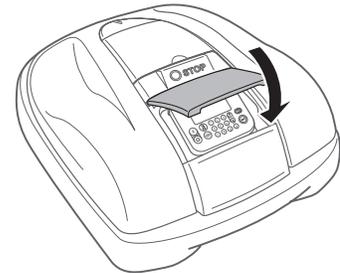
EX: HRM520

Test start points	3/4
Point  / 	
1 <input checked="" type="checkbox"/> / <input type="checkbox"/>	170 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	<b>NEXT</b>

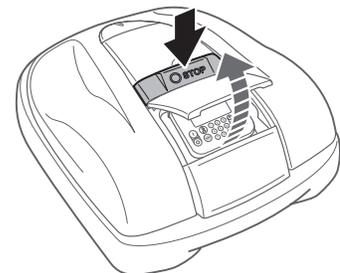
**3-3** Confirm the setting information of the selected start points.

Test start points	3/4
Point1	
Location	CW 170 ft
Passage width	2
Dock the mower in the station	

**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 “Do you want to modify the start point?” appears on the display.



**3-6** Select [Yes] or [No] to the question of the test result and press  button. If you select [Yes], the Mowing start points screen is displayed to configure the start point settings. If you select [No], go to step 3-7.

Test start points	3/4
Do you want to modify the start point?	
<b>Yes</b>	<b>No</b>

**NOTE:**

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

**3-7** Test the return home of the lawn mower to the docking station.  
Select [0 Home].

Test start points		3/4
Point		
1	<input checked="" type="checkbox"/> / <input type="checkbox"/>	164 ft
2	<input type="checkbox"/> / <input type="checkbox"/>	ft
3	<input type="checkbox"/> / <input type="checkbox"/>	ft
4	<input type="checkbox"/> / <input type="checkbox"/>	ft
5	<input type="checkbox"/> / <input type="checkbox"/>	ft
0	Home	NEXT

**3-8** Select [Clockwise (CW)] or [Counter-clockwise (CCW)] and press button.

Test return home		3/4
Select direction to home		
Clockwise (CW)		
Counter-clockwise (CCW)		

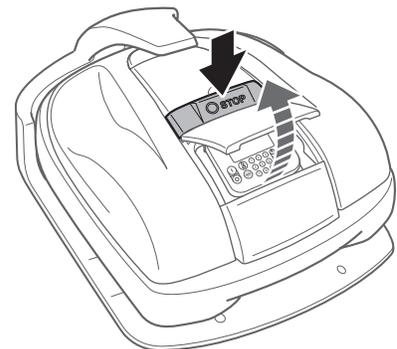
**3-9** Confirm the selecting information of the selected direction to home.

Test return home		3/4
Home		
Location	CW	
Close cover to start		

**3-10** Close the control panel cover.  
The lawn mower starts towards the the docking station.



**3-11** Once the lawn mower is docked, press the manual STOP button.  
The control panel cover pops up.  
The message "Test finished" appears on the display.



**3-12** Select [NEXT] and press the button.  
The configuration of testing start points is completed.  
The setup wizard top screen is displayed and [4. Test start points] is checked.

Test return home		3/4
Home		
Test finished		
		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	4/4
✓1.Lawn layout ✓2.Mowing start points ✓3.Test start points <b>4.Work timer</b>	

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	4/4
Recommended	66hrs/week
<b>1.Auto fill up timer</b>	
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 27).
- 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

Select the preferred time for when the lawn mower should automatically operate. After selecting, select [NEXT] and press the  button.

[Day]: Operates mostly in the morning or afternoon.  
 [Night]: Operates mostly at night.

Work timer	4/4
Preferred mowing time	
<input checked="" type="checkbox"/> Day <input type="checkbox"/> Night	
	NEXT

**4-4** Confirm the days that are automatically selected referring to the boundary wire length and lawn size. Select [NEXT] and press the  $\ominus$  button to proceed to the timer setting screen.

**NOTE:**

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

Work timer	4/4
Minimum days required	7
<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 checked="" type="checkbox"/> SAT <input checked="" type="checkbox"/> SUN <b>NEXT</b>

**4-5** 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  $\ominus$  button to change the work time of the lawn mower.

If you do not want to change the work time, select [OK] and press the  $\ominus$  button. Go to step 4-7.

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

OK	0	6	12	18	24
MON			■	■	
TUE			■	■	
WED			■	■	
<b>THU</b>			■	■	
FRI			■	■	
SAT					
SUN					

**4-6** 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  $\ominus$  button, you can copy the settings to the other days. For details on this operation, see "4 MENU SETTINGS" (page 27).

Work timer	4/4
<b>Monday</b>	
<b>1</b>	From To 09:00 - 12:00
<b>2</b>	From To 18:00 - 22:00
Copy to week	

**4-7** Press the  $\omin�$  button to return to the previous screen.

**4-8** Select [OK] and press the  $\ominus$  button.

**4-9** If desired, select start points to be used each day by pressing the  $\ominus$  button to select the start points.

**NOTE:**

- The check boxes which you configured in [3.Mowing start points] are displayed.
- When you are finished, select [NEXT] and press the  $\ominus$  button. You are returned to the screen in step 4-9.

OK	Timer1	Timer2
MON	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	
TUE	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2
WED	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	
THU	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2
FRI	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	
SAT	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2
SUN	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2	<input checked="" type="checkbox"/> 1 <input checked="" type="checkbox"/> 2

Set start points					
<b>Monday</b>					
1	<input checked="" type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	3	4	5
2	1	2	3	4	5
NEXT					

**4-10** Select [OK] and press the  $\ominus$  button.

4-11

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

If you select [NEXT], go to step 4-12.

If you select [No], go to step 4-5.

Work timer		4/4
Achieved		10hrs/week
Recommended		10hrs/week
No		<b>NEXT</b>

4-12

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

Setup wizard top screen is displayed and [5.Work timer] is checked.

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.

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

4-13

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

Initial setup is completed and Home screen is displayed.

Select install menu	
<b>1.Setup wizard</b>	
2.Advanced setup	
3.Restart initial setup	
	<b>Finish</b>

## ■ Configuring the settings through the advanced setup

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

Menu name	Settings
[1. Mowing settings]	<ul style="list-style-type: none"> <li>- Mowing pattern</li> <li>- Wire overlap</li> <li>- Edge cutting</li> <li>- Spiral cutting</li> </ul>
[2. Quiet timer]	<ul style="list-style-type: none"> <li>- Blade speed</li> <li>- Wheel speed</li> <li>- Timer</li> </ul>

### 1. Mowing setting

1-1

Select **[1. Mowing settings]** or **[2. Quiet timer]**.  
If you select [Mowing settings], go to step 1-2.  
If you select [Quiet timer], go to step 2-1.

Advanced setup
1. Mowing settings
2. Quiet timer

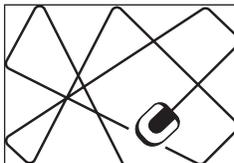
1-2

Select a start point and press the  button.  
If you select [NEXT], go to step 1-4.

Mowing settings
Mowing pattern
1. Point 1 : Random
2. Point 2 : Random
3. Point 3 : Random
4. Point 4 : Random
5. Point 5 : Random
<b>NEXT</b>

1-3

You can select **[Random]**, **[Directional]**, or **[Mixed]** for the mowing pattern.

Mowing settings
Mowing pattern
Point 1
<input checked="" type="checkbox"/> Random <input type="checkbox"/> Directional <input type="checkbox"/> Mixed


1-4

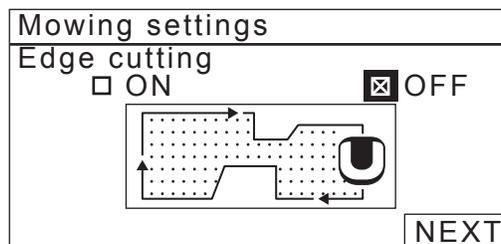
Enter the value from 8 to 18 in.  
Select [NEXT] and press the  button.

Mowing settings
Wire overlap
<b>08</b> in. (8 in. – 18 in.)

<b>NEXT</b>

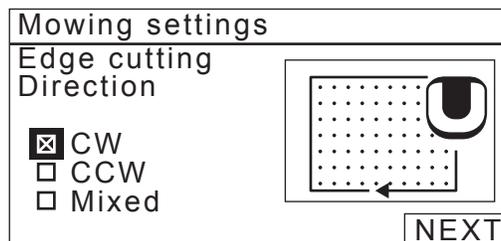
1-5

Select [ON] or [OFF] and press the button.  
If you select [ON], go to step 1-6.  
If you select [OFF], go to step 1-8.



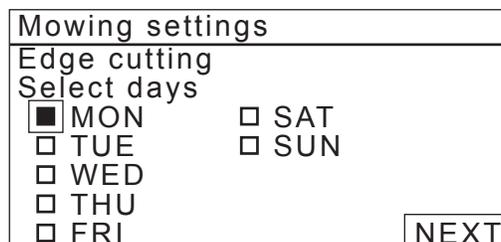
1-6

Select [CW], [CCW], or [Mixed] for the edge cutting direction.  
Select [NEXT] and press the button.



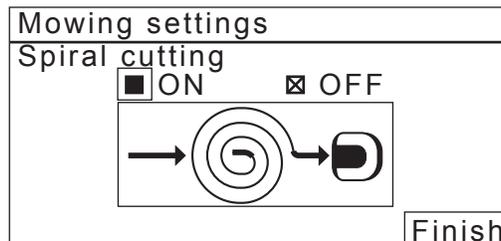
1-7

Select the day of the week on which you want the lawn mower to run with the edge cutting function, and press the button.  
Select [NEXT] and press the button.  
You can select up to two workdays per week.



1-8

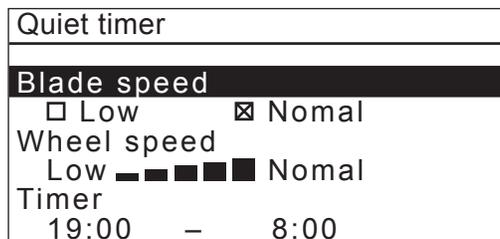
Select [ON] or [OFF] and press the button.  
If you select [Finish] and press the button, you will be returned to the screen in step 1-1.



## 2. Quiet timer

2-1

[Blade speed]: Select [Low] or [Normal] and press the button.



2-2

[Wheel speed]: Configure the wheel speed level with which you want the lawn mower to operate by pressing the buttons.  
Press the button.

2-3

[Timer]: Enter a start time and end time in 24-hour format using the number buttons.  
Press the button.

2-4

Press the button to return to the previous screen.

# 4 MENU SETTINGS

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

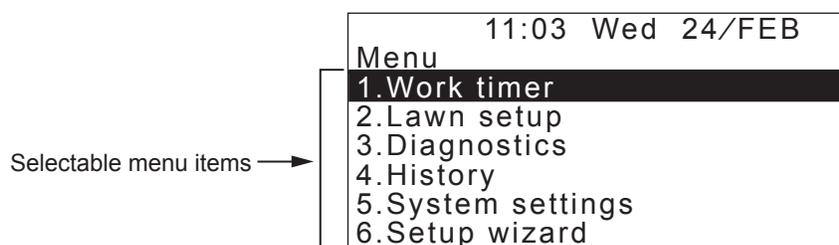
## Menu overview

### NOTE:

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

### ● Menu screen

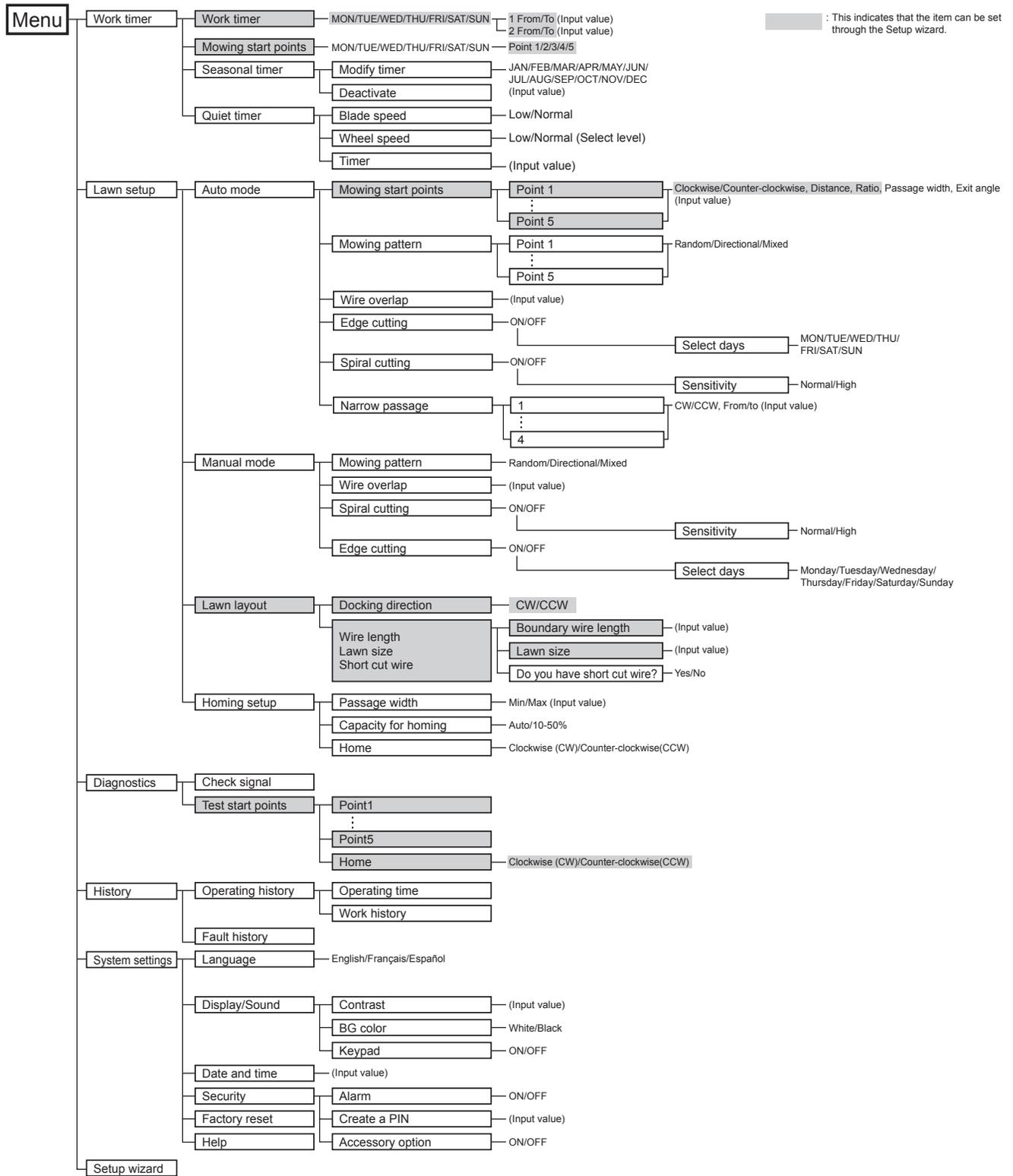
Selecting [Menu] in the home screen and press the ⏪ button, Menu screen is displayed as below:



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 29)
[2.Lawn setup]	For configuring the lawn mower to operate.	(☞ page 33)
[3.Diagnostics]	For diagnosing the lawn mower.	(☞ page 45)
[4.History]	For viewing operation and error history.	(☞ page 49)
[5.System settings]	For configuring system-related settings.	(☞ page 51)
[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".

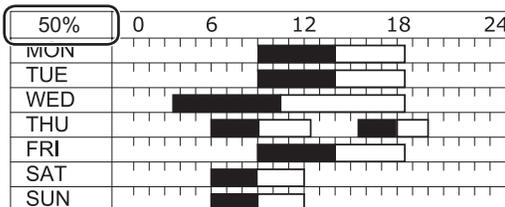
- 1 Select the day on which you want the lawn mower to operate.
- 2 Press the ⏪ button to proceed to the timer setting screen.
- 3 Enter a start time and an end time in 24-hour format for [Timer 1] using the number buttons.
- 4 If necessary, also enter a start time and an end time in 24-hour format for [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 31).



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 31).

Set the time.

Work timer  
 Monday  
 1 From 9:00 to 12:00  
 2 From 14:00 to 15:00  
 Copy to week

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

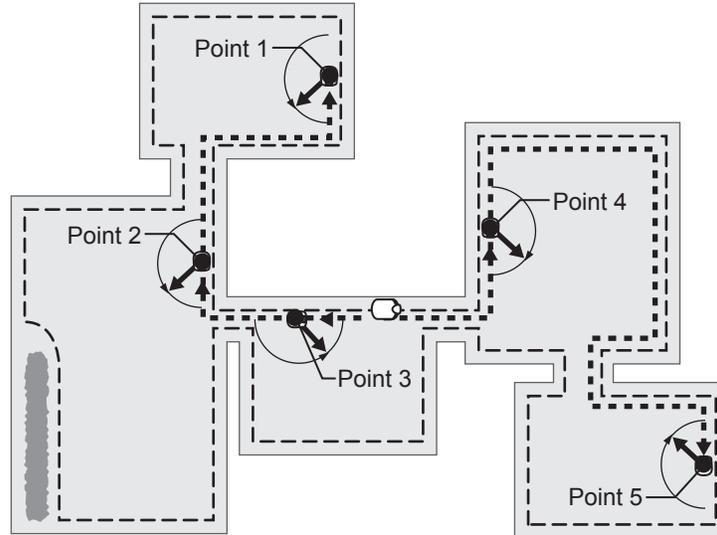
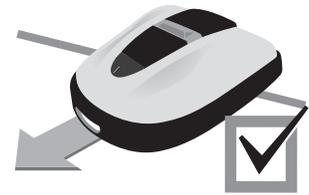
Work timer  
 Select days to copy  
 All  MON  TUE  
 WED  THU  FRI  
 SAT  SUN  
 Yes No

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:

	Timer1			Timer2	
MON	1	2	3		
TUE	1	2	3		
WED	1	2	3		
THU			3	4	5
FRI			3	4	5
SAI					
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.

Start points					
Monday					
1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NEXT					

Checkboxes are displayed only for configured start points. (In the screen on the left, 5 start points are configured.)

Menu screen  
 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.

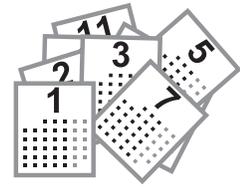
**NOTE:**

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

- 1 Select the day and press the ⏪ button.
- 2 Add a check to the box by pressing the ⏪ button to select the start points. Select [NEXT] and press the ⏪ button.
- 3 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.
- 4 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  $\ominus$  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]

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.

1

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

## ■ 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 **▲▼** 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

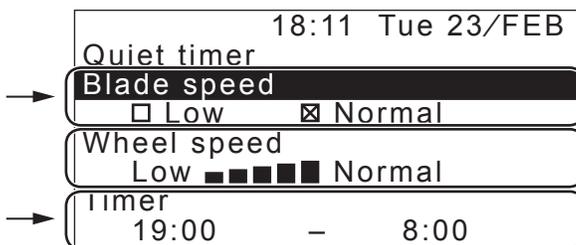
Press the **⊖** button.

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.



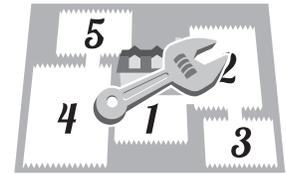
Configure the wheel speed of the lawn mower.

**TIPS** Decreasing the wheel speed may reduce the mowing distance in the set period and leave more grass uncut. In that case, extend the end time of the timer.

# 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 35)*

- 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 35)*

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

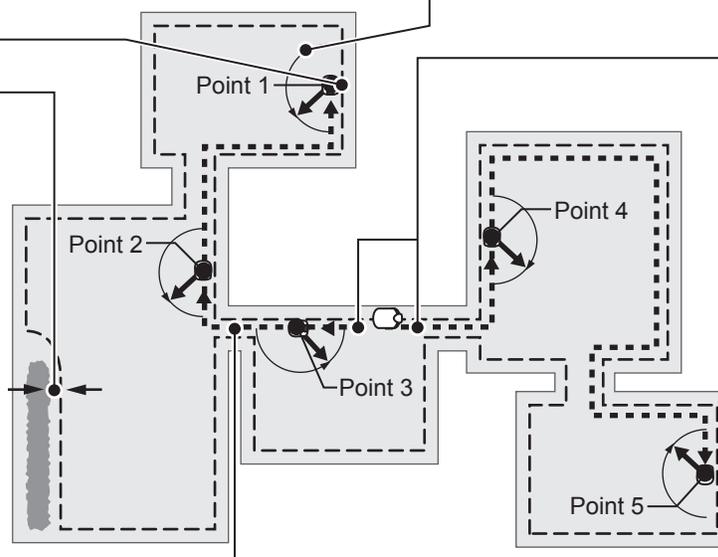
### Setting the overlap distance on the boundary wire

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

🔍 *[1.Wire Overlap] in [4.Advanced setting] (page 36)*

#### NOTE:

- To have the lawn mower smoothly turn from the boundary wire, the recommended value of the Wire overlap is 8 in.



### 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 35)*

### 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 35)*

🔍 *[4.Narrow passage] in [4.Advanced setting] (page 39)*

#### 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 43).

### 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 35)*

#### NOTE:

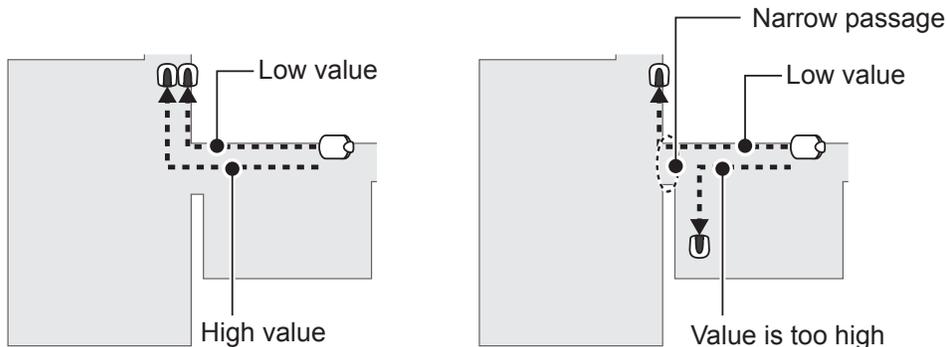
- You can configure the following start points for each model:  
HRM310: 3 start points  
HRM520: 5 start points

#### NOTE:

- If you want to operate the lawn mower with [Auto mode], see "Operating the lawn mower with the Auto mode." (page 58).

## 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.



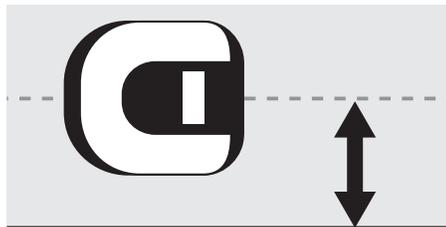
**NOTE:**

- 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.
1	10 in.
2	12 in.
3	14 in.
4	16 in.
5	18 in.
6	20 in.
7	24 in.
8	28 in.
9	32 in.
10	36 in.
11	40 in.
12	44 in.

Passage width: From boundary wire to middle of the lawn mower



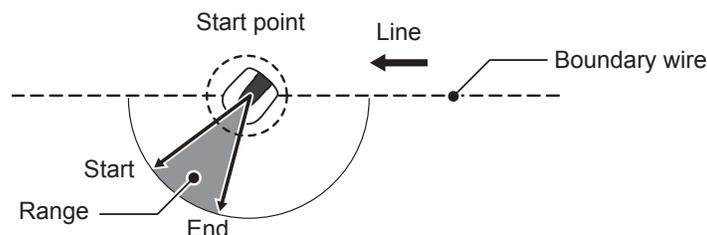
**NOTE:**

- 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 (Default value is from 10° to 170°):



**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 → **Menu 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.
- 4 Press the ⏪ button to return to the previous screen.

**NOTE:**

- By selecting [TEST], you can check the settings of each start point before mowing. For details, see "Test start point" (page 46).

EX: HRM520

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

Point	⌚ / ⌚	(0 - 170 ft)	
1	☒ / ☐	0 ft	40 %
2	☒ / ☐	0 ft	20 %
3	☐ / ☒	0 ft	10 %
4	☒ / ☐	0 ft	10 %
5	☐ / ☒	0 ft	20 %
			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.

Point	Width	Angle
1	3 - 10	10 - 170
2	3 - 10	10 - 170
3	3 - 10	10 - 170
4	3 - 10	10 - 170
5	3 - 10	10 - 170
TEST	(0 - 15)	(10' - 170')

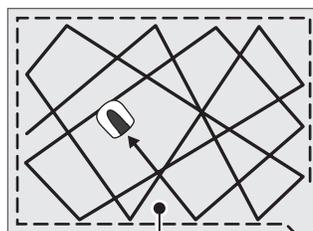
When leaving the boundary wire, set the minimum and maximum angle to turn from the boundary wire.

 **Home screen** → **Menu 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:

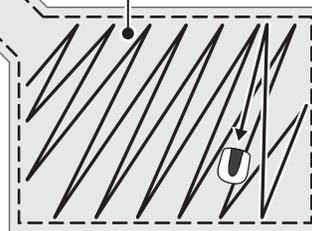
**[Random]**

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.

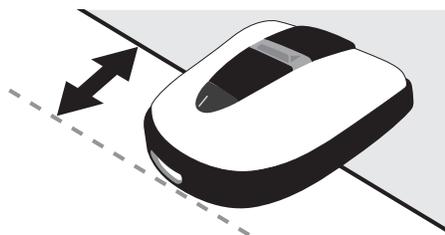
3

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

 **Home screen** → **Menu screen** → **[2.Lawn setup]** → **[1.Auto mode]** → **[3.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.

**Wire overlap:** From boundary wire to front of the lawn mower.



**NOTE:**

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

1

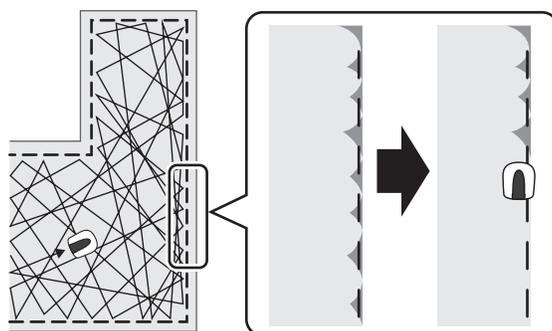
Enter a value from 8 to 18 (in.).

2

Press the **⊖** button.

Home screen → **Menu screen** → [2.Lawn setup] → [1.Auto mode] → [4.Edge cutting]

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



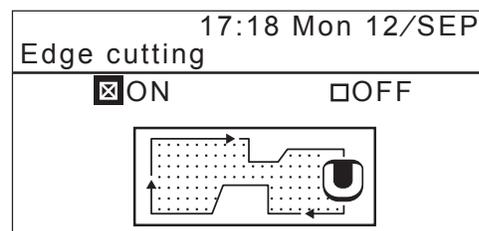
← If the edge cutting setting is enabled, the lawn mower goes around your lawn along the boundary wire to mow the edge before starting the usual mowing.

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.

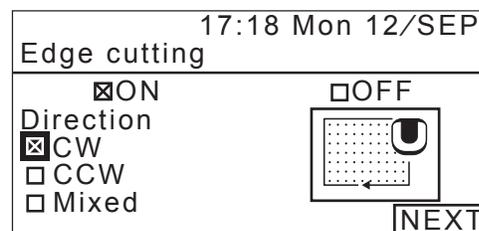
If select [ON], go to step2. The unmown part along the boundary wire will be neatly-mowed. If select [OFF], you will return to the previous screen. You can select [OFF] to operate the lawn mower with reduced battery consumption.



2

Select [CW], [CCW], or [Mixed] for the edge cutting direction. Then select [NEXT] and press the **⏪** button.

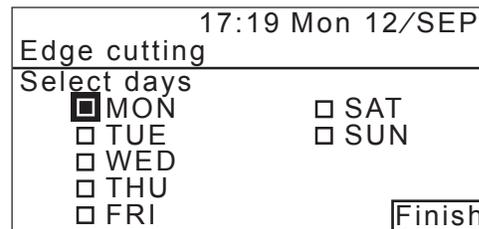
[CW]: Proceed clockwise  
 [CCW]: Proceed counter-clockwise  
 [Mixed]: Alternate between CW and CCW



3

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

You can select up to two workdays per week.

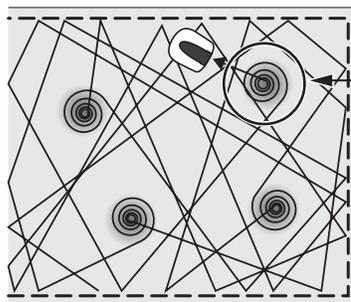


4

Select [Finish] and press the  $\ominus$  button.

 **Home screen** → Menu screen → **[2.Lawn setup]** → **[1.Auto mode]** → **[5.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 mows there spirally.

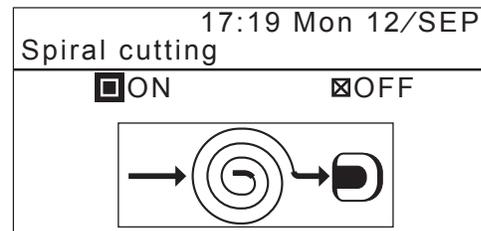
1

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

Select [ON] or [OFF] for configuring the spiral cutting, and press the  $\ominus$  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.

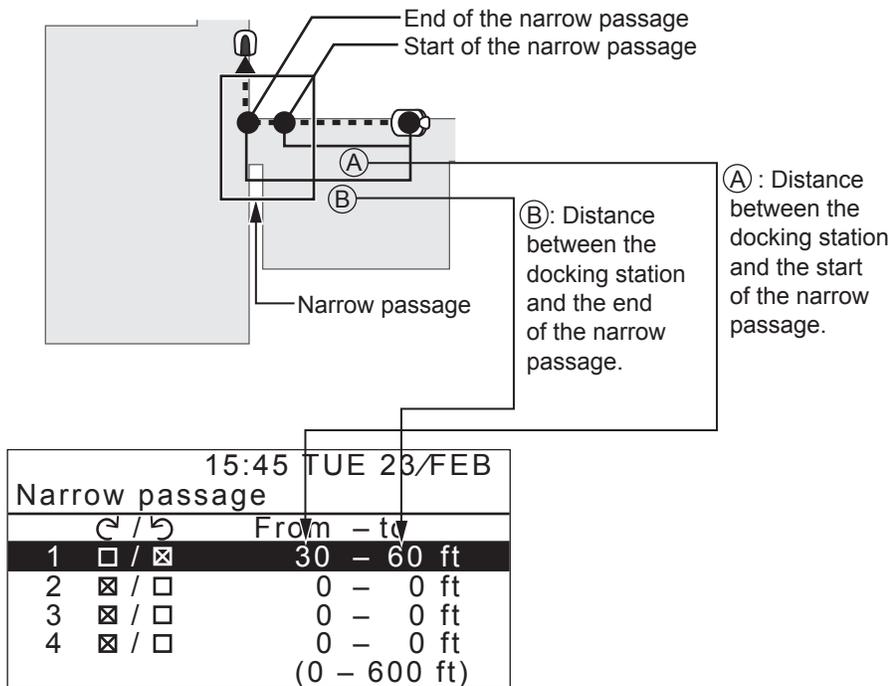


2

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

 **Home screen** → **[2.Lawn setup]** → **[1.Auto mode]** → **[6.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 43).

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

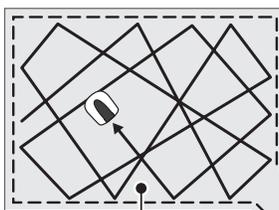
- If you want to operate the lawn mower with [Manual mode], see “Operating the lawn mower with the Manual mode” (📖 page 76)

## Mowing pattern

You can select from 3 mowing patterns below:

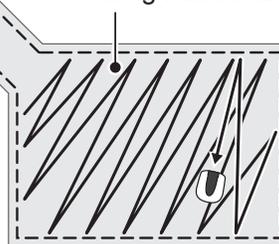
### [Random]

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.

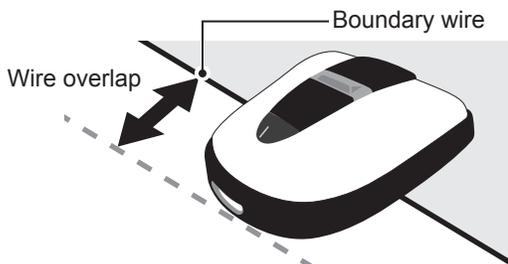


### [Mixed]

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

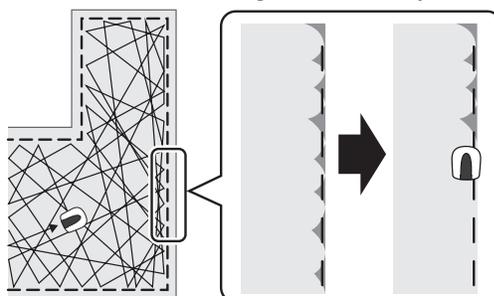
## Wire overlap

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



## Edge cutting:

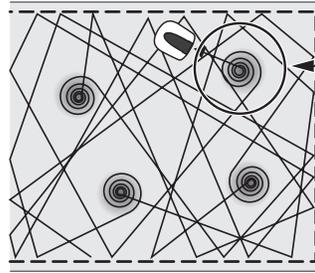
With this function, you can mow the unmowed area along the boundary wire.



← 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.

## ● 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.



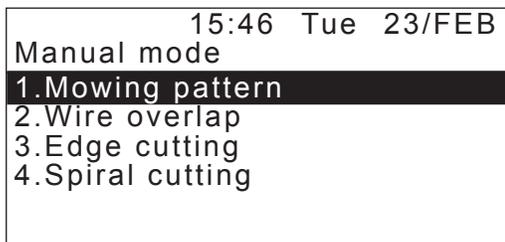
Menu screen

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

You can adjust how the lawn mower moves while mowing.

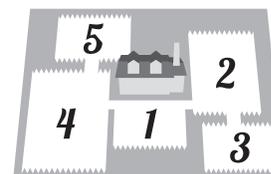
### NOTE:

- 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 55).
- 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 [1.Mowing pattern] and press the .
- 2 Select [Random], [Directional] or [Mixed] for configuring the mowing pattern, and press the .
- 3 Select [2.Wire overlap] and enter the values of the wire overlap from 8 to 18 (in.), and press the .
- 4 Select [3.Edge cutting] and press the .
- 5 Select [ON] or [OFF] and press the button. If you select [ON], go to step 6. If you select [OFF], go to step 8.
- 6 Select [CW] or [CCW] and press the .
- 7 Select [Finish] and press the .
- 8 Select [4.Spiral cutting] and press the .
- 9 Select [ON] or [OFF] and press the .
- 10 Select [Normal] or [High] for configuring the sensitivity of detecting the density of lawn, and press the .

## Lawn layout



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

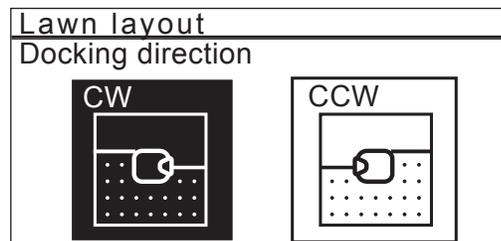
You can set the direction for the lawn mower to move in relation to the docking station.

**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.

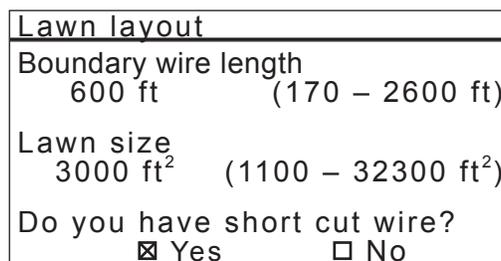
**NOTE:**

- 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 82).

EX: HRM520



2

Press the button.

**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.

## ■ Homing setup



 Home screen → <sup>Menu screen</sup> [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 35).

### Passage width sample table

Setup level	Passage width
0	4 in.
1	10 in.
2	12 in.
3	14 in.
4	16 in.
5	18 in.
6	20 in.
7	24 in.
8	28 in.
9	32 in.
10	36 in.

- 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.

17:21 Mon 12/SEP

Passage width (0-10)

Min 01 — Max 10

1

Input a value (0 – 10) for [Min] and [Max].

2

Press the  button.

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

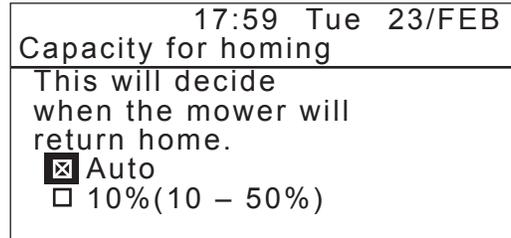
You can set the percentage of remaining amount of the battery when the lawn mower starts to go back to the docking station.

**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.

 **Home screen** → Menu screen → **[2.Lawn setup]** → **[4.Homing setup]** → **[0.Test return home]**

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

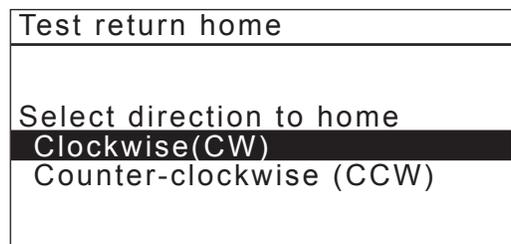
**NOTE:**

- 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.

Confirm the selecting information of the selected direction to home.

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.

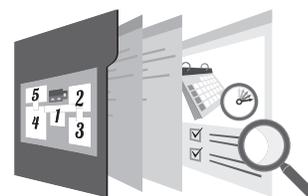


Home screen → <sup>Menu screen</sup> [3.Diagnostics] → [1.Check signal]

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

**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.

4

**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.

5

**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).

 **Home screen** → Menu 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 "Test finished" appears on the display.

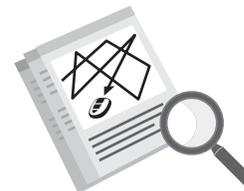
**NOTE:**

- For details on the homing settings, see "Homing setup" (⌘ page 43).

# 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.

	15:41 Wed 24/FEB
	Operating time
This is the total cutting time. →	Cutting 180h55min
This is the total charging time. →	Charging 141h37min

## Work history



Home screen → <sup>Menu screen</sup> [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 ▲▼ arrow buttons to scroll the menu.

2

Press the ⏪ button to return to the previous screen.

Each time indicates how long the lawn mower was mowing (time when the blades were rotating). The most recent entry is [01], and the oldest entry is [10].

15:41 Wed 24/FEB		
Work history		
Cutting history		
01: 22 min	1	06: 43 min 3
02: 60 min	2	07: 67 min 4
03: 53 min	3	08: 33 min 5
04: 12 min	1	09: 59 min 1
05: 62 min	2	10: 45 min 2

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

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

This displays the time taken to return to the docking station after mowing is finished. A new entry is added to the history list every time the lawn mower returns.

15:41 Wed 24/FEB		
Work history		
Return history		
01: 5 min	06: 7 min	
02: 8 min	07: 10 min	
03: 10 min	08: 5 min	
04: 5 min	09: 8 min	
05: 8 min	10: 10 min	

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

15:41 Wed 24/FEB		
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	

## 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 ▲▼ arrow buttons.

**2** Press the ⏪ button. Fault information is displayed. For details on faults, see "6 TROUBLESHOOTING" (page 62).

**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.

13:33 Fri 15/JUL		
Fault history		
1.3A121	28.08.14	11:23
2.3A152	28.08.14	10:58
3.3A124	28.08.14	10:42
4.3A113	28.08.14	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.

13:33 Fri 15/JUL		
Fault history		
03:Obstruction sensor		
Caution		
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.

1

Select your preferred language.

2

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 ▲ ▼ arrow buttons.

2

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 ▲ ▼ arrow buttons.

2

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 ▲▼ arrow buttons.
- 2 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.

**NOTE:**

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

- 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 Select [ON] or [OFF] of daylight saving time and press the ⏪ button.
- 4 Press the ⏩ button to return to the previous screen.

	17:01	Fri	15/JUL
Date and 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** → <sup>Menu screen</sup> **[5.System settings]** → **[4.Security]** → **[1.Alarm]**

### NOTE:

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

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] or [OFF] by pressing the ▲ ▼ buttons.
- 2 Press the ← button to return to the previous screen.

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

### NOTE:

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

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.

 **Home screen** → <sup>Menu screen</sup> **[5.System settings]** → **[4.Security]** → **[3.Accessory option]**

### NOTE:

- Before selecting [3.Accessory option], you will need to input your PIN. If you forget your PIN, contact your dealer.
- Consult your dealer about accessory option.

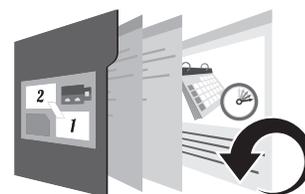
- 1 Select [ON] or [OFF] by pressing the ▲ ▼ buttons.
- 2 Press the ← button to return to the previous screen.

### NOTE:

- Write down your PIN in the space provided. See "DEALER CHECKSHEET" (☞ page 82).

## Factory reset

You can reset all settings to the factory defaults.




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




<sup>Menu screen</sup> **Press and hold number button "0"**

EX: HRM520

11:04 Wed 24/FEB	
Help	
Honda Power Equipment	
Miimo	:HRM520 K2
	:MBDF-2XXXXXX
Software version	
Main ECU	: 1.0.0
Display ECU	: 1.0.0

This is the software version. →

← This is the model name.

← This is the frame serial number.

**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:**

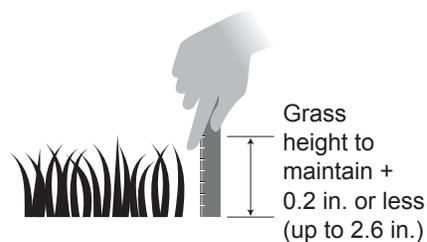
- If there are any holes in the mowing area, fill them in so that the mowing area is level. Periodically check the mowing area for holes.



Adjust the height of the grass and blades as follows.

**NOTE:**

- If the grass height is 0.2 in. 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. at a time. Adjust the height of the lawn mower so that the mowing length is within 0.2 in. (see page 59).



## Connecting to a power source

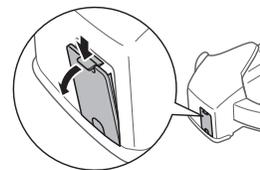
Follow the steps below when connecting to a power source.  
Follow these steps in reverse when disconnecting from a power source.  
For details on moving the AC adapter or changing to a different power outlet, contact your dealer.

**NOTE:**

- Connect the station only to a supply circuit protected by a ground-fault circuit interrupter (GFCI) 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 AC adapter to a power outlet last.
- Preferably, the primary side (Power outlet side) cable of the AC adapter should not be extended.
- Do not damage the body or cable when securing the AC adapter.
- Push in the connectors of the AC adapter and extension cable until the hook is locked in place.

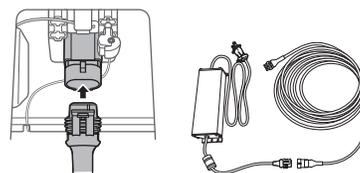
1

Remove the connector cover from the station.



2

If the power cord of the AC adapter is not long enough, connect the extension cord.  
Connect the power cord connector to the station's internal connector.



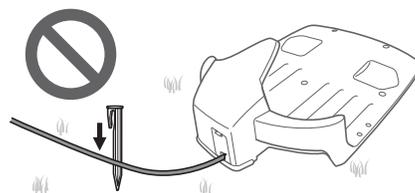
**NOTE:**

- When disconnecting the connectors, make sure to lift the clip.
- When the length of the cord is not enough even if you use an extension cord, extend the building's power outlet side.

- 3** Attach the connector cover to the station.  
(The power cord and boundary wire should go through the notch in the connector cover.)

**CAUTION:**

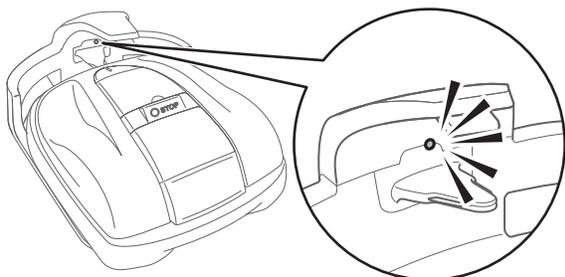
Do not secure the power cord with the pegs used to secure the boundary wire. Doing so may damage the power cord.



- 4** Connect the AC adapter 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)	<p><b>[One flash every 5 seconds]</b> Station is in power saving mode, this is normal situation after charging.</p> <p><b>[One flash every second]</b> - If lawn mower is in station: communication error between lawn mower and Docking Station.</p> <p><b>[One flash every 0.5 seconds]</b> - If lawn mower is not in the docking station: boundary wire signal issue happened. Wire is maybe cut or disconnected. Contact your dealer.</p>
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.

**CAUTION:**

- 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 **(I)** (On) button to turn on the lawn mower. The **(I)** (On) button is located on the control panel at the rear side of the lawn mower.

**CAUTION:**

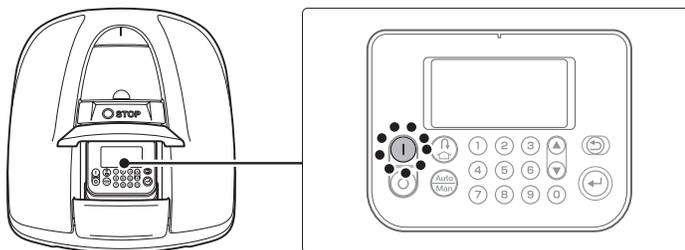
- When stopping the lawn mower, approaching the lawn mower from the front or sides may cause you to trip, fall, or the lawn mower can run into you.
- You can become injured if you fall or come in contact with the moving lawn mower.
- When stopping the lawn mower, always approach the lawn mower from behind it.

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

2

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

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



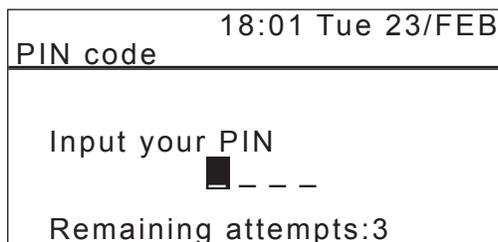
## ● Entering your PIN (Personal Identification Number)

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 27).



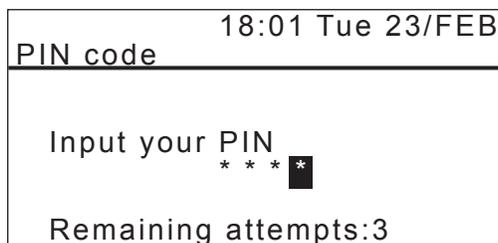
2

**Press the  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 62).



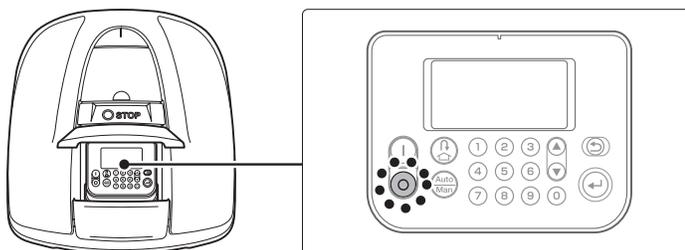
## ● Turning off the power

1

**Press the manual STOP button.**

The control panel cover pops up.

2

**Press the  (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

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 27).

**NOTICE**

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

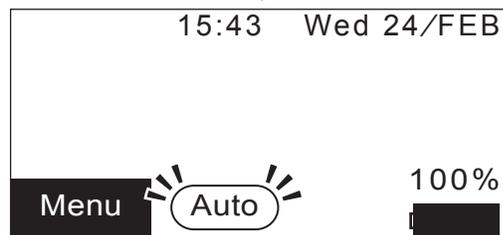
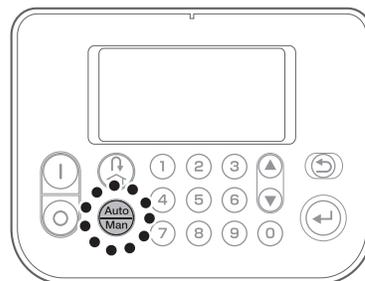
1

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  (Auto / Manual) 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 27).

**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

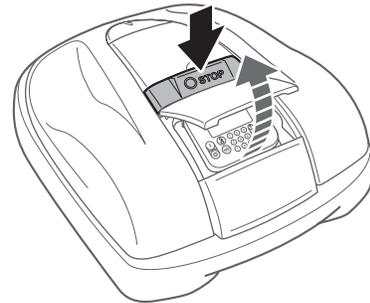
- Make sure to press the manual STOP button before performing the following procedure.

### CAUTION:

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

1

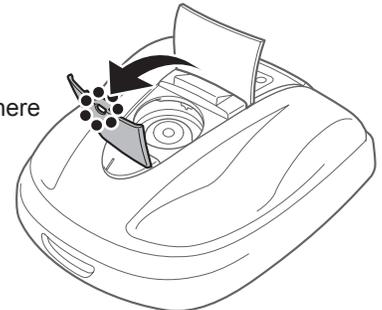
Press the manual STOP button.  
The control panel cover pops up.



2

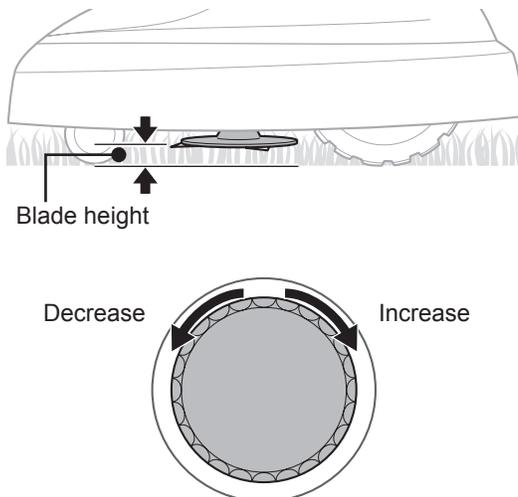
Open the height adjustment dial cover with your finger.

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.

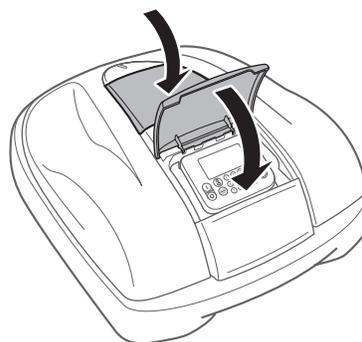


Approximate blade heights for each dial position:

Position	Approximate blade height
1	0.8 in.
2	1.2 in.
3	1.6 in.
4	2.0 in.
5	2.4 in.

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 65).

### ● 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 65).

## Carrying the lawn mower

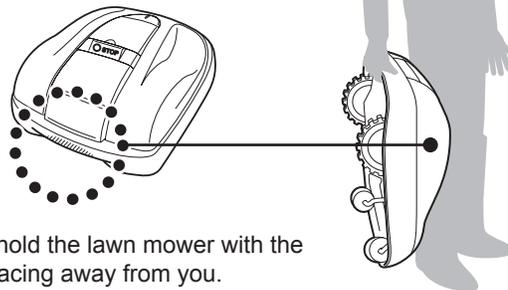
When carrying the lawn mower, observe the following points.

### ⚠ WARNING

- Do not carry the lawn mower with the blades pointed toward you.
- Make sure to press the manual STOP button and press the ⏻ (Off) button to turn the power 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.

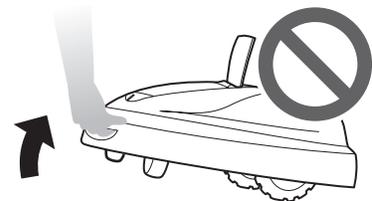
Lift the lawn mower with one hand from the rear side with the blades pointed away from you.



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

### CAUTION:

- Incorrectly carrying the lawn mower can cause you to touch the cutting blades or the charging socket.
- The sharp edges of the cutting blades and metal contacts inside the charging socket can cut or injure you.
- Always carry the lawn mower using the rear handle, with the cutting blades facing away from your body.



### 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 → <sup>Menu screen</sup> [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) 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 43). 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 46). 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 - 35deg 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 35deg 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.	- Timers were not set up correctly. Check the timer settings. See "4 MENU SETTINGS" (☞ page 27). - The Date and Time are incorrect. Check the clock (☞ page 52). - The manual STOP button was pressed, but the ⏪ button was not pressed before closing the control panel cover. - The lawn mower is in inactive mode. Another cause could be that the machine is in "Home" mode. - 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.
Poor mowing results.	- 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. - Check the condition of the blades (☞ page 72).
Lawn mower does not work inside the boundary wire.	- 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. - 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. * * The lawn mower will return to the docking station if the battery residual capacity is low.
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 tyre condition when the lawn mower goes out of the boundary wire. Clean up the tyre 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 39).

# 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 72)
Blade disc <sup>*1</sup>	Check	○		(☞ page 72)
Drain hole	Check or clean	○	○ <sup>*2</sup>	(☞ page 66)
Charge socket	Check or clean	○		(☞ page 71)
Manual stop button	Check		○	(☞ page 67)
Body parts <sup>*1</sup>	Clean	○		(☞ page 66)
	Check		○ <sup>*2</sup>	—
Docking station	Clean	○		(☞ page 67)
	Check		○	(☞ page 68)
Docking station Screws	Check or tightness	○ <sup>*3</sup>		(☞ page 69)
Rear (drive) wheels <sup>*1</sup>	Clean	○		(☞ page 66)
	Check		○ <sup>*2</sup>	—
Rear wheels axle	Grease		○ <sup>*2</sup>	—
Front (caster) wheels <sup>*1</sup>	Clean	○		(☞ page 66)
	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	Clean	○		(☞ page 67)
	Check		○	(☞ page 68)
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 65).

### ▲ WARNING

- Certain components of the lawn mower, such as the cutting blades, blade disc, and metal charging contacts, are sharp.
- Touching any sharp edges with your bare hands can cut or injure you.
- Before performing any maintenance procedures, put on a pair of work gloves, press the manual STOP button, and then press the Ⓞ (Off) button to ensure the power to the lawn mower is off.

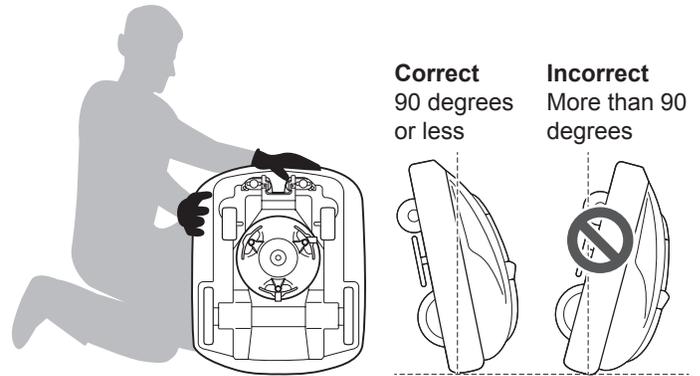
### NOTE:

- 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.



## ■ Cleaning

### ▲ WARNING

- Certain components of the lawn mower, such as the cutting blades, blade disc, and metal charging contacts, are sharp.
- Touching any sharp edges with your bare hands can cut or injure you.
- Before cleaning the underside of the lawn mower, put on a pair of work gloves, press the manual STOP button, and then press the Ⓞ (Off) button to ensure the power to the lawn mower is off.

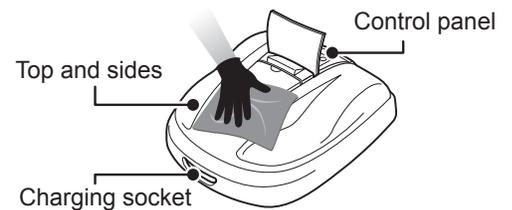
### NOTICE

- 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.

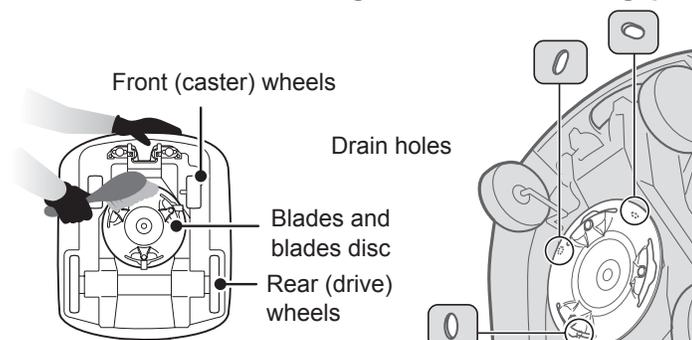


## ● Removing the grass clippings

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

### CAUTION:

- 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

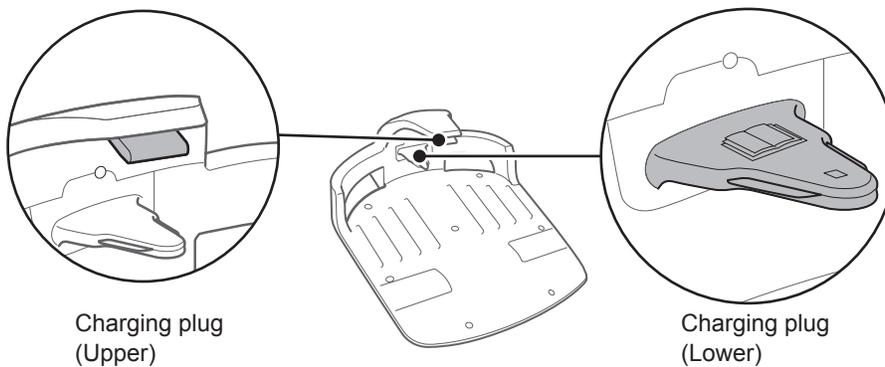
- The docking station and AC adapter are energized when plugged into a power outlet.
- You can be electrocuted, burned, or seriously injured if you attempt to clean the docking station or AC adapter while they are still plugged in.
- Always unplug the AC adapter from the building's power outlet before cleaning the adapter or docking station.

### NOTICE

- Do not wash the docking station with water. The docking station may be damaged.

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 plugs area:**



Charging plug  
(Upper)

Charging plug  
(Lower)

## ■ 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.

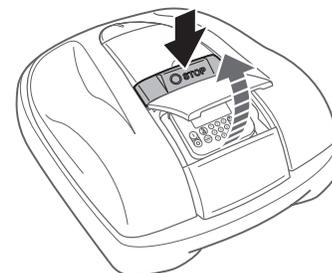
Check item(s)		Action
Manual STOP button and control panel cover	Normal operation of the manual STOP button (and the control panel cover)	While performing a test operation of the lawn mower, press the manual STOP button. If the lawn mower does not stop (and the control panel cover does not open), consult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

1

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

2

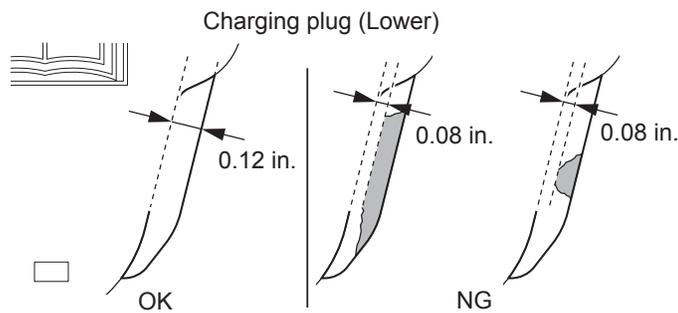
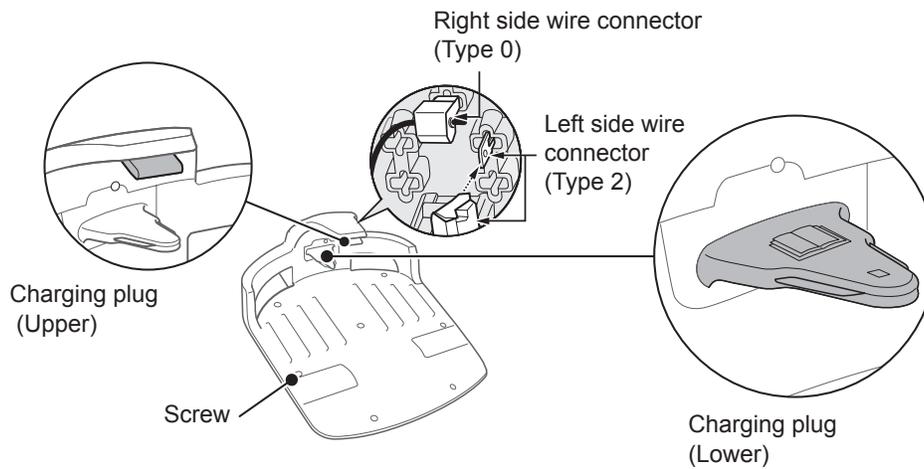
Test a start point (▣ page 46). When the lawn mower is moving, press the manual STOP button and check that the lawn mower stops.



## ● Checking the docking station

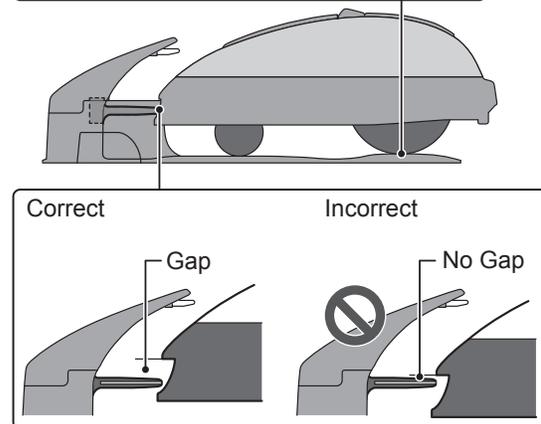
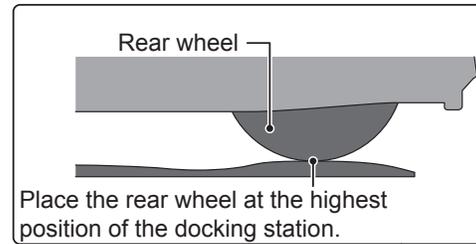
Check the docking station for problems.

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.
Charging plug	Condition of the charging plug	Visually inspect the metal contacts on the charging plug for corrosion, which can be identified by a greenish discoloration on the contacts. Carefully brush the contacts to remove the corrosion and recheck operation. If the lawn mower still does not charge, contact a servicing dealer.



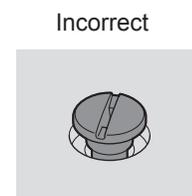
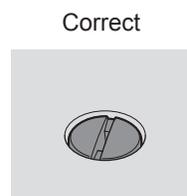
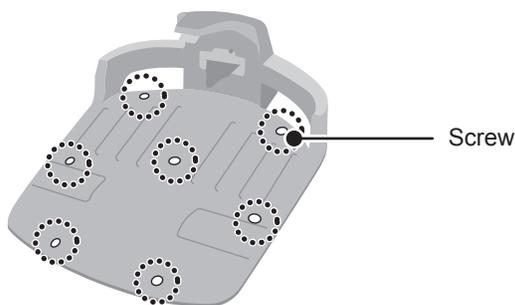
Check item(s)		Action
Docking station	Gap between the docking station's charging plug and the lawn mower's charging socket	Check if there is a gap between the docking station's charging plug and the lawn mower's charging socket. If there is not, adjust the docking station.

- 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.



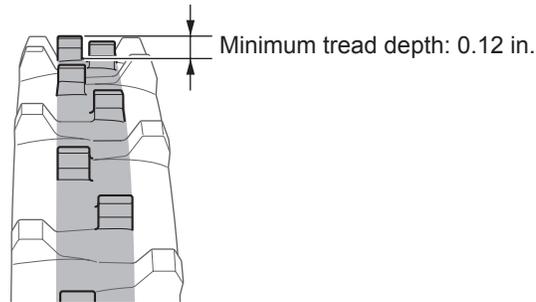
### ● Checking the docking station screws

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.



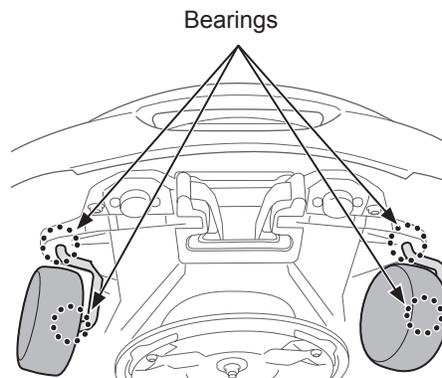
## ● Checking the rear (drive) tire tread depth

Check item(s)		Action
Rear (drive) tire	Tread depth of the rear (drive) tire	Measure the depth of the treads at the center of the tire. If they are 0.12 in. or less, contact a service dealer.



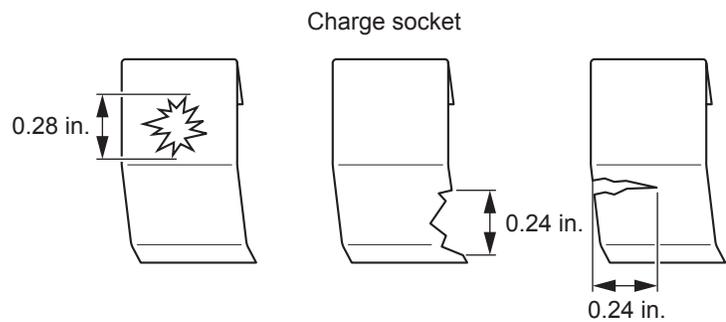
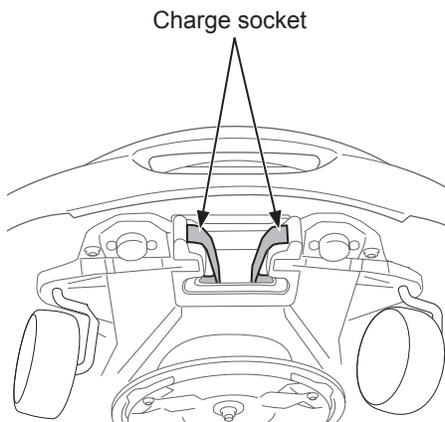
## ● Checking the front (caster) wheel and bearings

Check item(s)		Action
front (caster) wheel	Front (caster) wheel damage	Visually inspect the front (caster) wheel. If it is damaged, contact a service dealer.
wheel bearings	Bearing movement	Move the front (caster) wheel with your hands and check if it moves smoothly. If it does not move smoothly, contact a service dealer.



## ● Checking the charge socket

Check item(s)		Action
Charge socket	Charge socket clogged with grass clippings.	Visually inspect the metal parts of the charge socket. If the charge socket is clogged with grass, remove the grass clippings.
	Condition of the charge socket	Visually inspect the metal contacts of the charge socket for wear, corrosion, or damage. If there are wear holes larger than 0.28 in. in diameter or there are cracks longer than 0.24 in., contact a servicing dealer for repairs.



## ● Checking the blades and blade disc

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

### Lifetime of the blades

In order to have good cutting performance, maintain the sharp cutting edge on the blades. Typically, the lifetime of the blades is 160 hours. (2 weeks to 2 months) Because the lifetime 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 lifetime of the blades is 2 weeks.

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

### ▲ WARNING

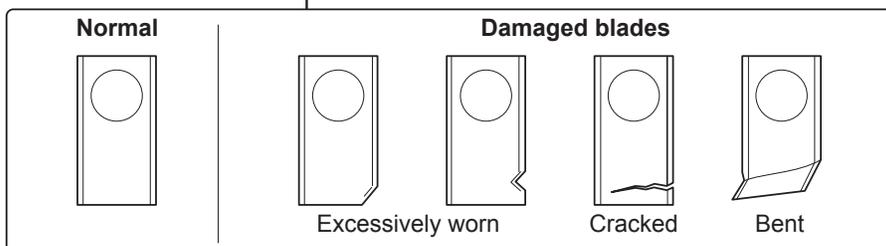
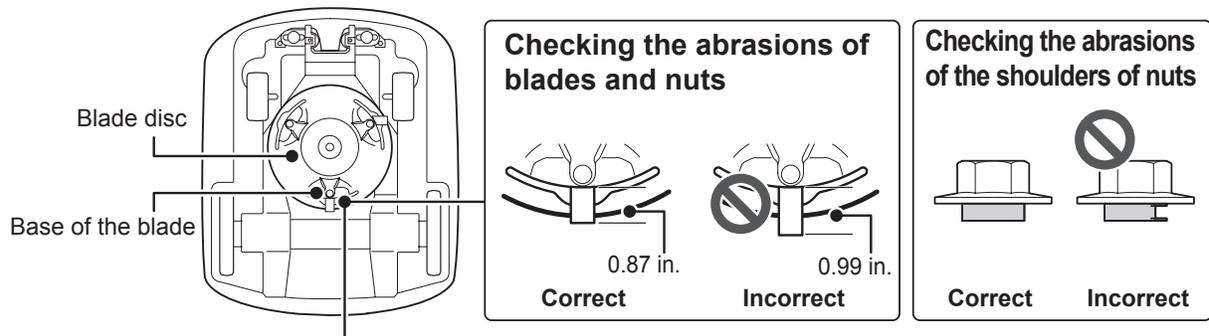
- The cutting blades and blade disc are sharp.
- Touching the blades or blade disc with your bare hands can cut or injure you.
- Put on a pair of work gloves, then press the manual STOP button, and then the Ⓞ (Off) button to turn the lawn mower off when checking the condition of the blades and blade disc.

### 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 73).
	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 73).
	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 73).
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

- The cutting blades and blade disc are sharp.
- Touching the blades or blade disc with your bare hands can cut or injure you.
- Put on a pair of work gloves, then press the manual STOP button, and then the Ⓞ (Off) button to turn the lawn mower off when checking the condition of the blades and blade disc.

### 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 66) .
- 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. 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. 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. 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.

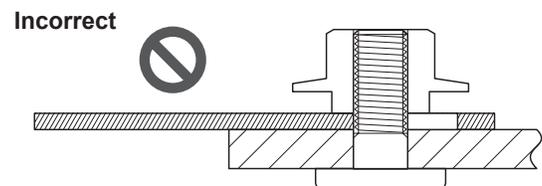
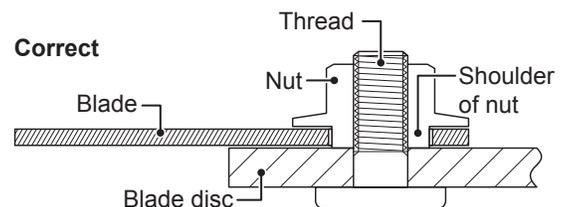
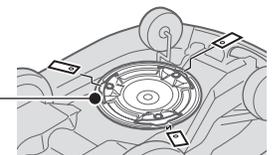
**3.2~4.4 lbf • ft (4.4~6.0 N • m, 0.45~0.60 kgf • m)**

### 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.



# 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 AC adapter 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 AC adapter, 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	HRM310K2	HRM520K2
Description code	MBEF	MBDF
Type	EAA	
Length	25.4 in.	
Width	21.7 in.	
Height	10.8 in.	
Weight	25.6 lbs (11.6 kg)	26.2 lbs (11.9 kg)
<b>Electrical system</b>		
Battery	Li-ion 21.6 V / 1900 mAh	Li-ion 21.6 V / 3800 mAh
AC adapter	Input	AC 120V
	Output	DC 30.0 V / 2.3 A
<b>Mowing</b>		
Blade motor speed	2500 rpm (Normal) / 2200 rpm (Low)	
Cutting height	0.8-2.4 in.	
Cutting width	8.7 in.	
<b>Boundary wire</b>		
Boundary wire length (Comes with the product)	656 ft	984 ft
Maximum possible length	1,310 ft	2,600 ft

**NOTE:**

Specifications are subject to change without notice due to improvements.

# 10 APPENDIX

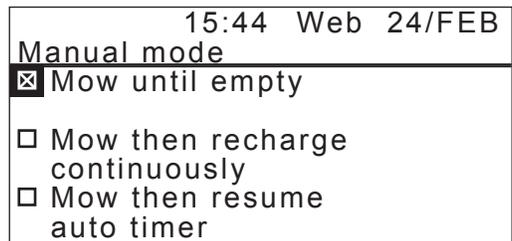
## Operating the lawn mower with the Manual mode

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 40) 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 61).
- 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.



- 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	You can specify how many times the lawn mower works and charges (1 – 10 times). After the specified number of times, the lawn mower switches to Auto mode and resumes the timer.

**10** Press the  button.

**11** 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.



Items	Description
Restart on next timer	The lawn mower goes back home, then switches automatically to Auto mode and resumes the timer.
Pause mowing at home for specified time.	You can set the standby time of the lawn mower to 1 – 24 hours. After the standby time has passed, the lawn mower switches to Auto mode.
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

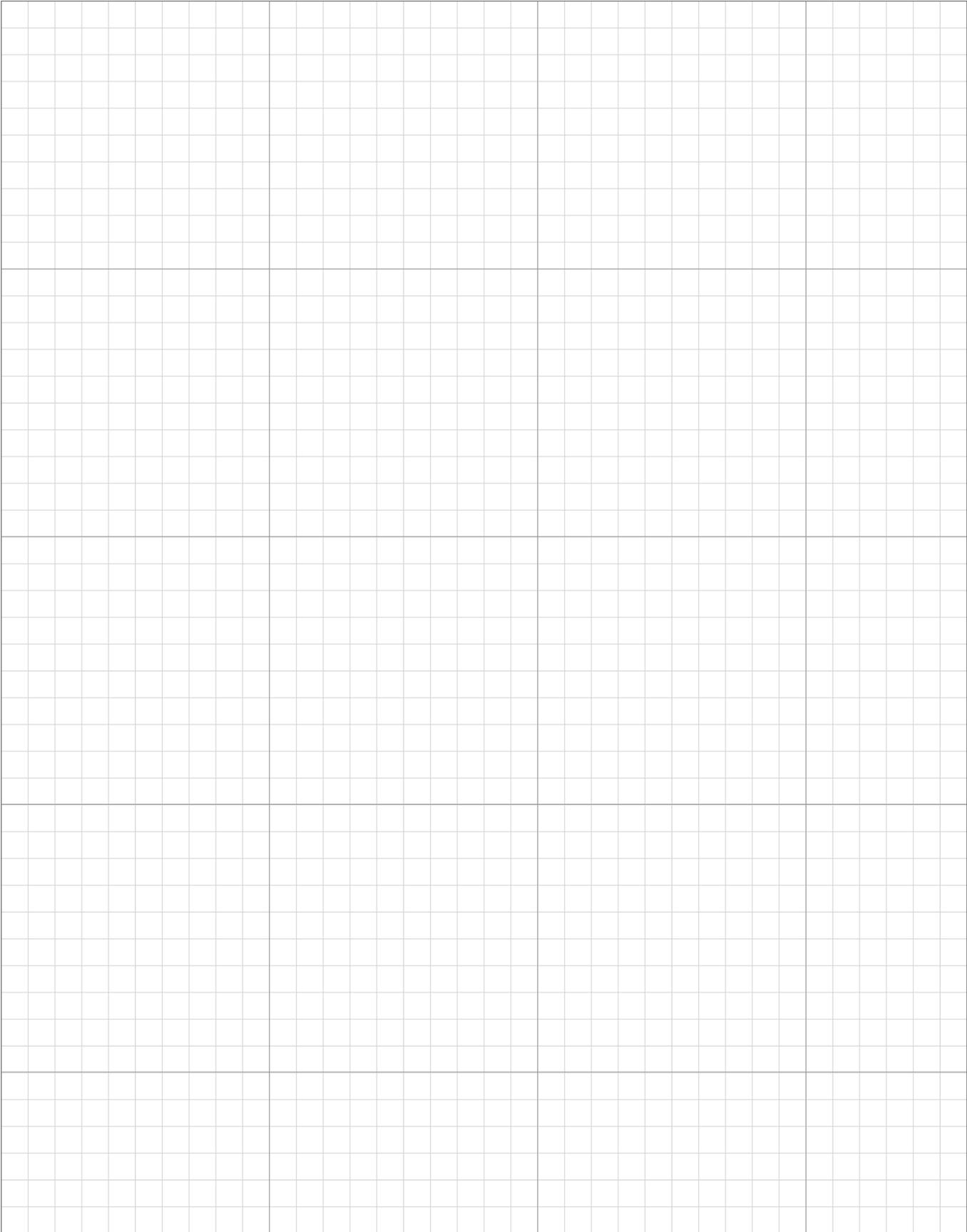
**Close the control panel cover.**

The lawn mower returns to the docking station.

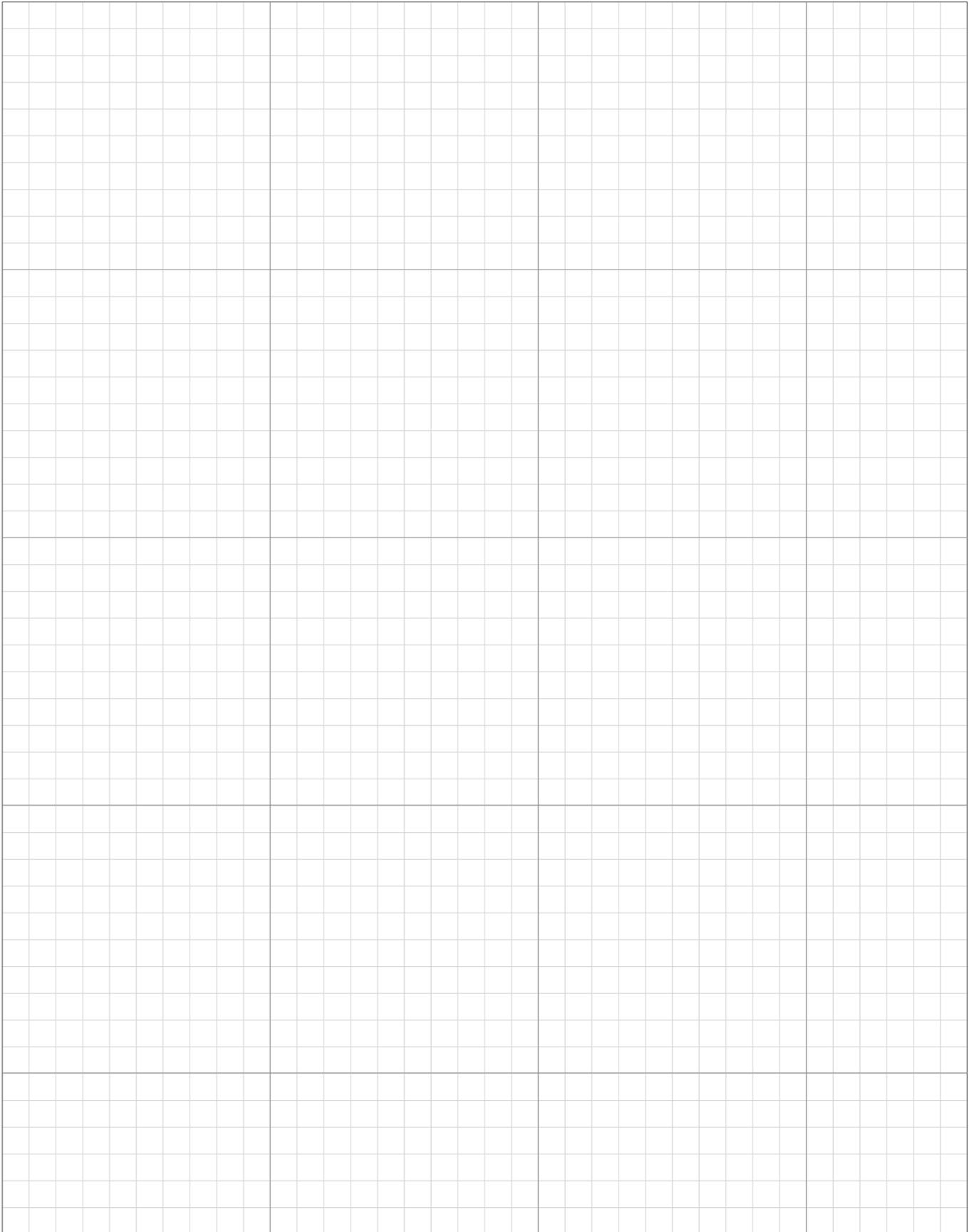
# LCD MENU INDEX

Menu name	Step	Page
<b>A</b> Alarm	System settings → Security	P.53
Auto mode	Lawn setup → Auto mode	P.33
<b>B</b> BG color	System settings → Display/Sound	P.51
<b>C</b> Capacity for homing	Lawn setup → Homing setup	P.44
Check signal	Diagnostics	P.45
Contrast	System settings → Display/Sound	P.51
Create a PIN	System settings → Security	P.53
<b>D</b> Date and time	System settings	P.52
Docking direction	Lawn setup → Lawn layout	P.42
<b>E</b> Edge cutting	Lawn setup → Auto mode	P.37
Edge cutting	Lawn setup → Manual mode	P.40
<b>F</b> Factory reset	System settings	P.54
Fault history	History	P.50
<b>H</b> Help	System settings	P.54
History	History	P.48
Home	Lawn setup → Homing setup	P.44
Homing setup	Lawn setup → Homing setup	P.43
<b>K</b> Keypad	System settings → Display/Sound	P.52
<b>L</b> Language	System settings	P.51
Lawn layout	Lawn setup	P.42
<b>M</b> Manual mode	Lawn setup → Manual mode	P.40
Mowing pattern	Lawn setup → Auto mode	P.36
Mowing pattern	Lawn setup → Manual mode	P.40
Mowing start points	Lawn setup → Auto mode → Mowing start points	P.35
Mowing start points	Work timer	P.30
<b>N</b> Narrow passage	Lawn setup → Auto mode	P.39
<b>O</b> Operating time	History → Operating history	P.48
Operation history	History	P.48
<b>P</b> Passage width	Lawn setup → Homing setup	P.43
<b>Q</b> Quiet timer	Work timer	P.32
<b>S</b> Seasonal timer	Work timer	P.31
Security	System settings	P.53
Setup wizard	Setup wizard	P.15
Sound	System settings	P.51
Spiral cutting	Lawn setup → Auto mode	P.38
Spiral cutting	Lawn setup → Manual mode	P.41
<b>T</b> Test start points	Diagnostics → Test start points	P.46
<b>W</b> Wire length	Lawn setup → Lawn layout → Wire length...	P.42
Wire overlap	Lawn setup → Auto mode	P.36
Wire overlap	Lawn setup → Manual mode	P.40
Work history	History → Operating history	P.49
Work timer	Work timer	P.29

# LAWN DIAGRAM



# LAWN DIAGRAM



# DEALER CHECKSHEET

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

## Basic setting information (pages 16, 53)

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 35, 39, 42, 43)

#### 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] → [6.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]

MIN: \_\_\_\_ MAX: \_\_\_\_

### Useful features information (pages 32, 37, 38)

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

Quiet timer: ON / OFF From \_\_ : \_\_ to \_\_ : \_\_

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

Edge cutting: ON / OFF  
Spiral cutting: ON / OFF

### System setup (Docking station) (page 42)

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

Loop Direction: CW / CCW

Your dealer's contact information is below:

Dealer:

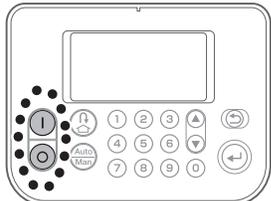
Tel:

Mail:

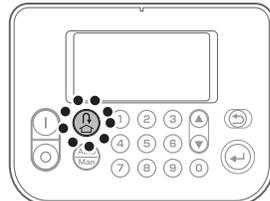
# QUICK GUIDE

## Fundamentals

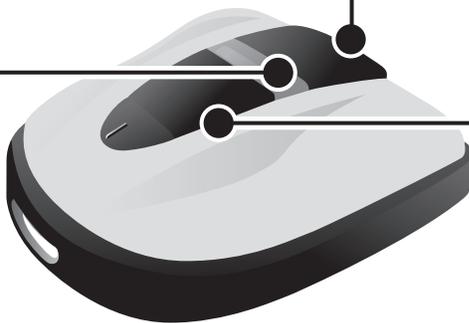
Turning on / off the power  
(☞ page 11, 56)



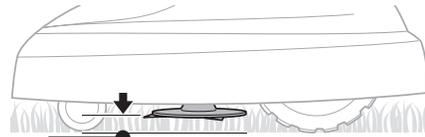
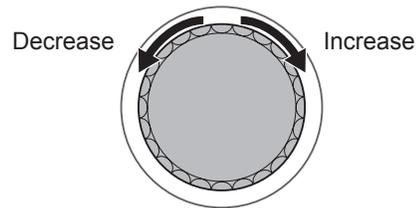
Sending back home  
(☞ page 11)



Stopping the lawn mower  
(☞ page 10)



Adjusting the cutting height  
(☞ page 59)



Blade height

Position	Approximate blade height
1	0.8 in.
2	1.2 in.
3	1.6 in.
4	2.0 in.
5	2.4 in.

## Daily use

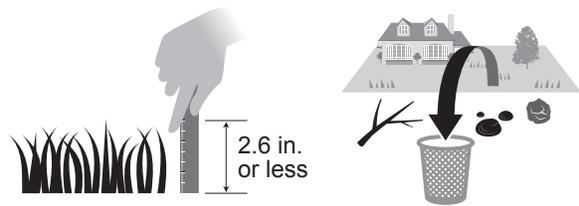
### 1 Menu settings



Configure the operation mode, timer, and other settings.

- Work settings for the lawn
  - Mowing start point settings (☞ page 30)
  - Narrow passage settings (☞ page 35)
  - Mowing pattern settings (☞ page 40)
- Timer settings (☞ page 29)
- Useful settings (☞ page 31, 32, 41)
- Operation checks (☞ page 45)
- Setup wizard (☞ page 15)

### 2 Check the lawn



Maintain the area before the lawn mower starts mowing.

- Checking the lawn (☞ page 55)
- Removing foreign objects from the area (☞ page 55)

## Technical tips

### Mowing mode

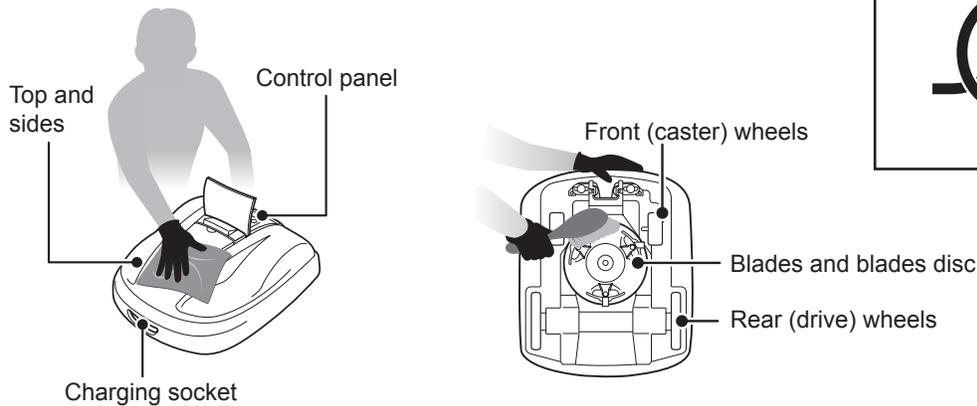
You can select from 2 modes of operation (available in “Menu Settings”).

- **Auto mode** (☞ page 33)  
The lawn mower automatically mows according to inputted time and lawn settings.
- **Manual mode** (☞ page 40)  
Start mowing anytime without timer settings.

### Cleaning the lawn mower (☞ page 66)

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

Remove dirt and grass from the following areas:



#### NOTICE

- 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 59)
- Checking the “Paused” state (☞ page 56)
- Checking the docking station connections (☞ page 55)

## 4 Weekly check



Regularly check the lawn mower for assurance.

- Checking the standby status (☞ page 56)
- Checking the docking station connections (☞ page 68)
- Blade conditions (☞ page 72)
- Checking the parts (☞ page 65, 67)

## 5 Storage



Store properly for next use.

- Cleaning and replacing the blades (☞ page 74)
- Cleaning the lawn mower (☞ page 66)
- Cleaning the docking station (☞ page 68)
- Disconnecting the AC adapter and power cable (☞ page 55)

# 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.



