



Operator's manual  
**HUSQVARNA CEORA™**

Read the operator's manual carefully and make sure that you understand the instructions before you use the product.



EN, English

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# 1 Safety

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## 1.1 Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



**WARNING:** Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.



**CAUTION:** Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

**Note:** Used to give more information that is necessary in a given situation.

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## 1.2 General safety instructions



**WARNING:** Read the warning instructions that follow before you use the product.

- Read the Operator's manual carefully and make sure you understand the instructions before you use the product. Keep for future reference.
- This appliance is not intended for use by children or persons with reduced physical, sensory or mental capabilities (that could affect a safe handling of the product), or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- The product must only be used with the equipment recommended Husqvarna. All other types of use are incorrect.
- Do not use the product when persons, especially children, or animals are in the work area.
- To prevent damage to the product and accidents to vehicles and persons, do not install work areas and transport paths across public pathways.
- Do not use the product in areas where persons are not aware of the product.
- Warning signs must be put around the work area of the product if it operates in public areas. The signs must have the text that follows: Warning! Automatic lawn mower! Keep away from the machine! Supervise children!
- Do not run when you operate the product manually with appDrive. Always walk, be sure on footing on slopes and make sure to have balance at all times. Always wear substantial footwear and long trousers when you operate the product with appDrive.
- Do not touch moving hazardous parts, such as the blade disc, before it has come to a complete stop.
- Set the product to OFF before you clear a blockage, do maintenance or examine the product, and if the product starts to vibrate abnormally. Examine the product for damage before you start the product again. Do not use the product if it is damaged.
- If an injury or accident occur get medical aid.
- Do not install the mains cable in an area where the product cuts. Follow the instructions to install the mains cable, refer to *Installation on page 14*. Installation must be done by service personnel.
- Do not connect a damaged cable or plug, or touch a damaged cable, before it is disconnected from the power outlet. Disconnect the plug from the power outlet if the cable becomes damaged while in operation. A worn or damaged cable increases the risk of electrical shock. A damaged cable must be replaced by service personnel.
- When you connect the mains cable to the power outlet, use a residual-current device (RCD) with a tripping current of maximum 30 mA.
- Only charge the product in the included charging station. For safe disposal of the battery, refer to *Disposal on page 50*. Incorrect use may result in electric shock, overheating or leaking of corrosive liquid from the battery. In the event of leakage of electrolyte, flush with water/neutralizing agent. Get medical aid if corrosive liquid comes in your eyes.
- Use only original batteries recommended by Husqvarna. Product safety cannot be guaranteed with other than original batteries. Do not use non-rechargeable batteries.
- Follow the installation instructions that includes to specify the work area and to attach the cutting deck or other attachments, refer to *Installation on page 14*.
- Follow the instructions about to start and operate the product, refer to *Operation on page 30*.
- If there is a risk of thunderstorm, Husqvarna recommends that the mains cable to the charging station and the power supply unit to the reference station are disconnected to decrease the risk of damage to electrical components. Connect the mains cable and the power supply again if there is no longer a risk of thunderstorm.
- Follow the maintenance instructions and if necessary use Husqvarna original spare parts, refer to *Maintenance on page 33*.



- For technical data such as weight, dimensions and noise emission values, refer to *Technical data on page 53*.
- The operator is responsible for accidents or dangers that occurs to other persons or property.
- The product must only be operated, maintained and repaired by persons that are fully conversant with its special characteristics and safety regulations.
- It is not permitted to change the initial design of the product.
- Obey national regulations about electrical safety.
- Husqvarna does not guarantee full compatibility between the product and other types of wireless systems such as remote controls, radio transmitters or equivalent.
- The built-in alarm is very loud. Be careful, especially if the product is handled indoors.
- Operation, charging and storage temperature is 0-45°C / 32-113 °F. Long-term storage temperature that is more than 1 month, must be 0-25 °C / 32-77 °F.
- Use the park mode or set the product to OFF when persons, especially children or animals are in the work area. Refer to *To set the product to OFF on page 31*. Husqvarna recommends to set the product to operate when the work area has no activity. The product can cause injury to animals at night in work area, for example hedgehogs. Refer to *Scheduled operation on page 30*.
- Make sure that there are no objects such as stones, branches, tools or toys on the lawn. The blades can be damaged if it hits an object.
- Do not lift the product or move it when it is set to ON.
- Do not to let the product collide with persons or animals. If a person or animal comes in the way of the product, stop the product immediately. Refer to *To stop the product on page 31*.
- Do not put objects on top of the product, the charging station or the reference station.
- Do not use the product if the **STOP** button does not work.
- Always set the product to OFF when it is not in operation. The product can only start when you enter the correct PIN code.
- Do not use the product at the same time as a pop-up sprinkler. Use the *Schedule* function so the product and pop-up sprinkler do not operate at the same time. Refer to *Scheduled operation on page 30*.
- Do not put a transport path where pop-up sprinklers are installed.
- Do not let the product operate when there is standing water in the work area. For example when heavy rain forms pools of water.

### 1.3 Safety instructions for installation



**WARNING:** Read the warning instructions that follow before you use the product.

- Do not install the charging station in an area where there is a risk that persons trip on it.
- Do not install the charging station, including any accessory, at a location that is below, or within 60 cm / 24 in. from, any combustible material. In case of malfunction, heating of the charging station and the power supply may occur and create a potential risk of fire.
- Install the charging station out of reach of pests such as ants.
- Applicable to USA/Canada. If power supply is installed outdoors: Risk of Electric Shock. Install only to a covered Class A GFCI receptacle (RCD) that has an enclosure that is weatherproof with the attachment plug cap inserted or removed.
- Do not install the charging station where there is a risk of standing water.

### 1.4 Safety instructions for operation



**WARNING:** Read the warning instructions that follow before you use the product.

- Keep your hands and feet away from the rotating blades. Do not put your hands or feet near or below the product when it is set to ON.

### 1.5 Safety instructions for maintenance



**WARNING:** Read the warning instructions that follow before you do maintenance on the product.

- Set the product to **OFF** when you do maintenance on the product.
- Do not use a high-pressure washer to clean the product. Do not use solvents to clean the product.
- Disconnect the plug to the charging station before you clean or do maintenance of the charging station.

### 1.6 Battery safety



**WARNING:** Read the warning instructions that follow before you use the product.

- Lithium-ion batteries can explode or cause fire if disassembled, short-circuited, exposed to water, fire, or high temperatures. Handle carefully, do not dismantle, open the battery or use any type of electrical/mechanical abuse. Avoid storage in direct sunlight.

## 1.7 To lift and move the product



**WARNING:** The product must be set to OFF before you lift the product.

- To safely move the product from or in the work area, lift it manually or operate it with appDrive. Refer to *To lift the product manually on page 6* and *appDrive on page 30*.

### 1.7.1 To lift the product manually



**WARNING:** Two persons are necessary to lift the product.

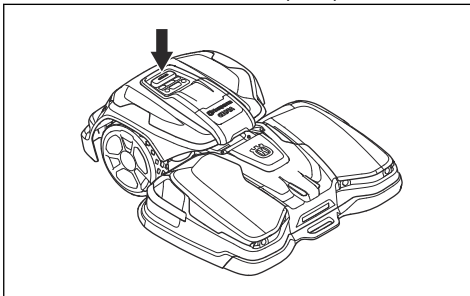


**CAUTION:** Do not lift the product when it is parked in the charging station. It can cause damage to the charging station and/or the product.

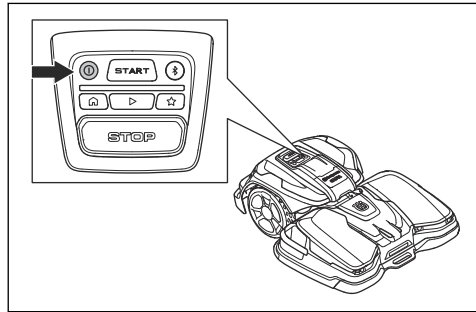


**CAUTION:** Do not lift the product by the front handle.

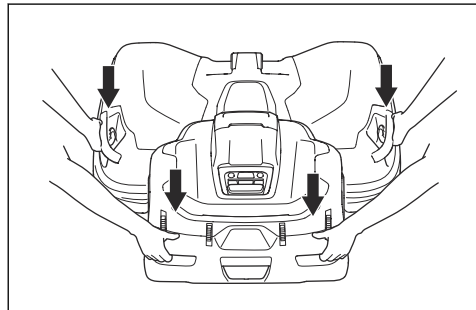
1. Push the **STOP** button to stop the product.



2. Set the product to OFF. Refer to *To set the product to OFF on page 31*.



3. Pull the product out of the charging station before you lift the product.
4. Lift the product by the handles on the sides of the cutting deck and the handles on the rear part of the drive unit.



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## 2 Introduction

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<b>Serial number:</b>
-----------------------

<b>PIN code:</b>
------------------

The serial number is on the product rating plate and on the product carton.

### 2.1 Support

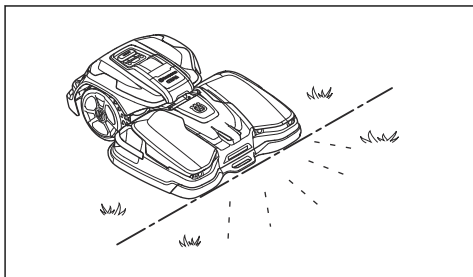
For support about the product, speak to your Husqvarna servicing dealer.

### 2.2 Product description

**Note:** Husqvarna regularly updates the appearance and function of the products. Refer to *Support on page 7*.

The product is a robotic lawn mower that contains a drive unit and a cutting deck. The product has a battery power source and operates automatically. The product operates until the battery state of charge is low or until the work area is cut, then the product starts to go to the charging station. The movement pattern of the product is systematic to satisfactorily cut large areas.

The work area in which the product operates is specified by the virtual boundary. The satellite receiver in the product senses when it goes near the virtual boundary.



### 2.3 System description

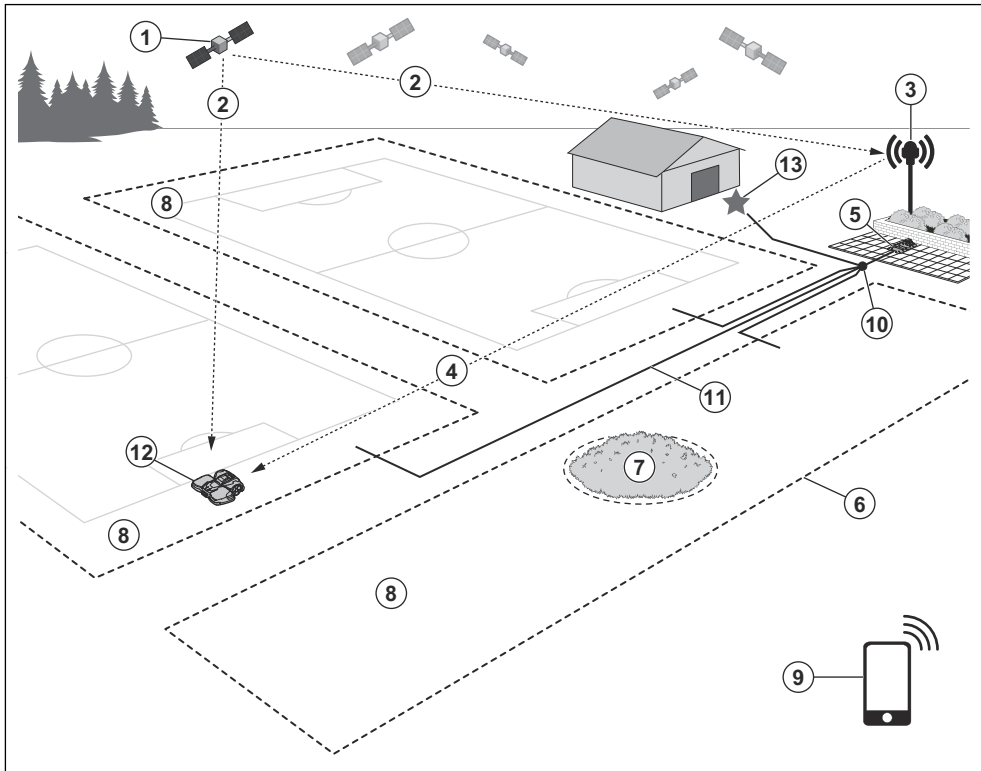
The system contains a CEORA™ robotic lawn mower, a charging station and a reference station. The robotic lawn mower and reference station uses the EPOS (Exact Positioning Operating System) technology with satellite signals to position the robotic lawn mower correctly, this means that boundary wires are not necessary. The reference station is stationary and sends correction data to the robotic lawn mower to get an accurate position of the robotic lawn mower. The virtual work area for the product is made in the Husqvarna Fleet Services™ app. The product is operated and waypoints are added to make a map in the app. The reference station can operate as a repeater to make a network of reference stations. You can use the repeaters on larger areas. Refer to *System overview on page 8*.

#### 2.3.1 Connectivity

Husqvarna Fleet Services™ is a cloud solution that is available as an app and on the web on [www.husqvarna.com](http://www.husqvarna.com). You can add all your products to Husqvarna Fleet Services™ to get an overview and control the products. Refer to *Husqvarna Fleet Services™ on page 21*.

Automower® Connect is an app that you can use to install the product and to select the operation settings of the product. Refer to *Automower® Connect on page 21*.

## 2.4 System overview

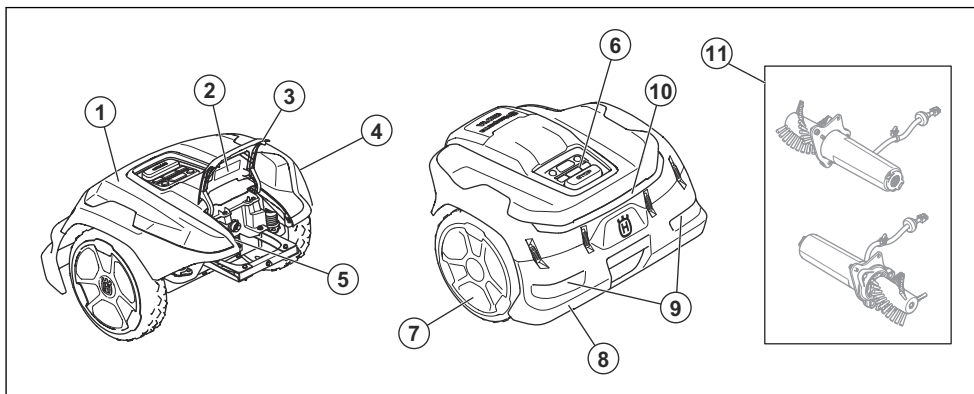


- |                                   |                               |
|-----------------------------------|-------------------------------|
| 1. Satellites                     | 8. Work area                  |
| 2. Satellite signals              | 9. Mobile device <sup>2</sup> |
| 3. Reference station <sup>1</sup> | 10. Docking point             |
| 4. Correction data                | 11. Transport path            |
| 5. Charging station               | 12. Robotic lawn mower        |
| 6. Virtual boundary               | 13. Maintenance point         |
| 7. Stay-out zone                  |                               |

<sup>1</sup> Not included.

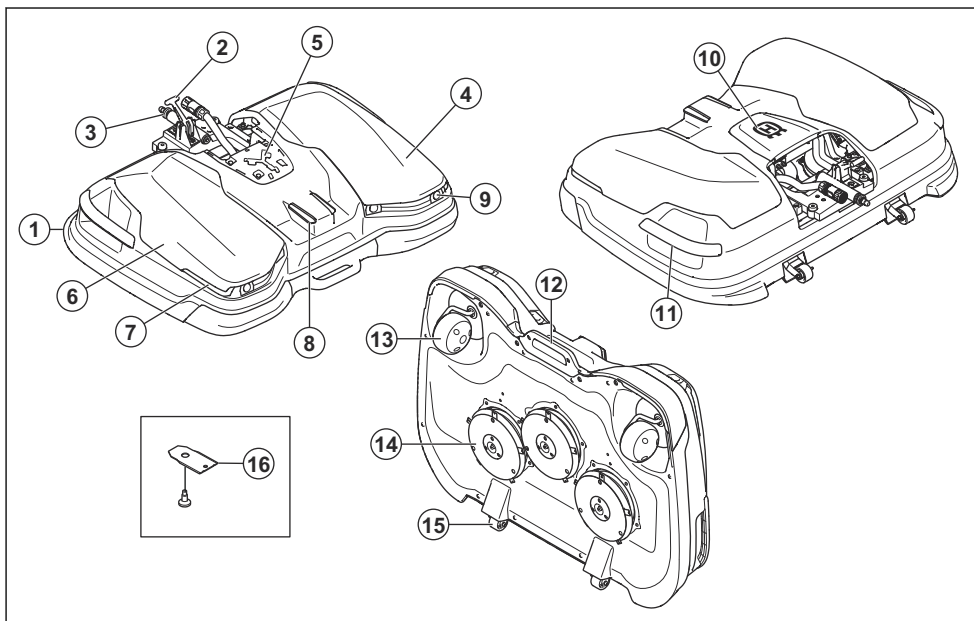
<sup>2</sup> Not included.

## 2.5 Product overview drive unit, CEORA™ 544/546 EPOS



- |                                |                                         |
|--------------------------------|-----------------------------------------|
| 1. Drive unit (DU)             | 7. Drive wheels                         |
| 2. Rating plate drive unit     | 8. Rear bumper                          |
| 3. Hatch                       | 9. Rear handles                         |
| 4. Drive unit body             | 10. Rear safety lights                  |
| 5. USB outlet for service tool | 11. Active wheel brush kit <sup>3</sup> |
| 6. Control panel               |                                         |

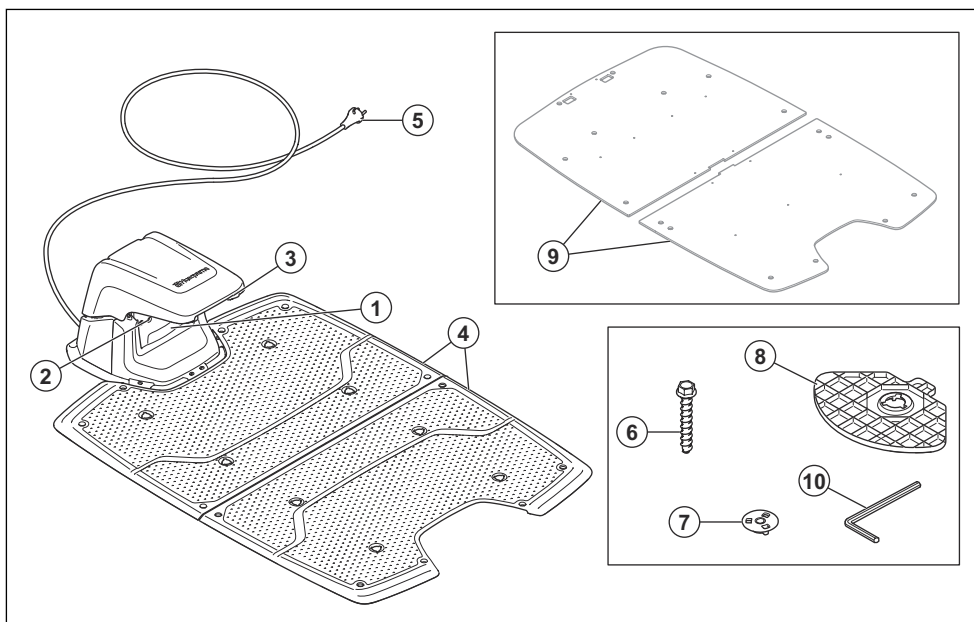
## 2.6 Product overview cutting deck, CEORA™ RZ 43L/43M



<sup>3</sup> Is included for some markets and models or is available as accessory.

- |                                                  |                                    |
|--------------------------------------------------|------------------------------------|
| 1. Cutting deck (CD)                             | 10. Center top cover               |
| 2. Lever                                         | 11. Side handles                   |
| 3. Shaft                                         | 12. Front handle                   |
| 4. Rating plate of the cutting deck <sup>4</sup> | 13. Front wheels                   |
| 5. Combi tool <sup>5</sup>                       | 14. Blade disc, blades, skid plate |
| 6. Cutting deck body                             | 15. Service wheels                 |
| 7. Front safety lights                           | 16. Blades and screws              |
| 8. Charging plates                               |                                    |
| 9. Ultrasonic sensors                            |                                    |

## 2.7 Product overview charging station, CEORA™ CS4



- |                                           |                                                |
|-------------------------------------------|------------------------------------------------|
| 1. Rating plate of the charging station   | 7. Coupling                                    |
| 2. LED indicators of the charging station | 8. Support plates                              |
| 3. Contact plates                         | 9. Support plate for soft surface <sup>7</sup> |
| 4. Baseplates                             | 10. Hex key                                    |
| 5. Mains cable <sup>6</sup>               |                                                |
| 6. Screws to attach the charging station  |                                                |

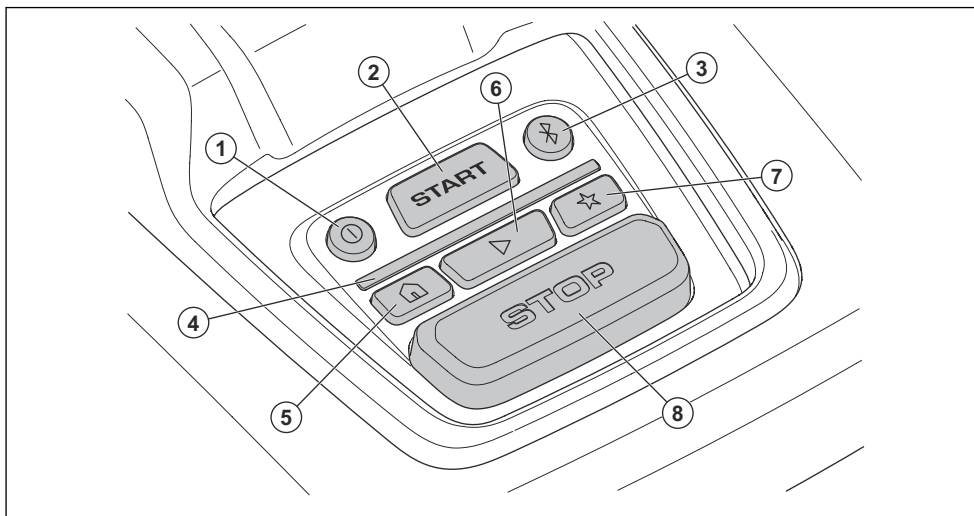
<sup>4</sup> Found below the top cover.

<sup>5</sup> Found below the center top cover.

<sup>6</sup> The appearance can be different for different markets.

<sup>7</sup> Is available as accessory.

## 2.8 Control panel overview



- |                      |                             |
|----------------------|-----------------------------|
| 1. ON/OFF button     | 6. Play button              |
| 2. START button      | 7. Maintenance point button |
| 3. Bluetooth® button | 8. STOP button              |
| 4. LED indicator     |                             |
| 5. Park button       |                             |

## 2.9 LED indicator on the product

The LED indicator on the control panel of the product shows the current product status:

LED Indicator light	Product status
Constant green	The product cuts the lawn or moves out of the charging station.
Pulsates green	The product is preparing to start its operation.
Flashes green	The product is in <i>Pause</i> mode.
Flashes red	The product stopped because of an error.
Constant yellow	The <b>STOP</b> button was pushed.
Flashes yellow	The PIN code must be entered to start the product.
Constant blue	The product moves to the charging station or a maintenance point.
	An app is connected to the product with Bluetooth®, the LED indicator is constant blue for 3 seconds.
Pulsates blue	The product charges in the charging station.
Flashes blue	The product is parked in charging station.
	Bluetooth® is enabled and you can connect to the product with Bluetooth®.

LED indicator light	Product status
Constant white	The product is in appDrive mode.
Pulsates white	The product sets to OFF.
	Firmware installation is in progress.
Flashes white	New firmware must be installed.

There is more information on [www.husqvarna.com](http://www.husqvarna.com). Speak to your approved servicing dealer for more information.

## 2.10 Symbols on the product

These symbols can be found on the product. Make sure that you understand them.



**WARNING:** Read the operator instructions before you operate the product.



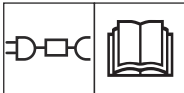
**WARNING:** Disable the product before maintenance or before you lift the product.



**WARNING:** Keep a safe distance from the product when it is in operation. Keep your hands and feet away from the rotating blades of the product.



**WARNING:** Do not sit on the product. Do not put your hands or feet near or below the product.



Use a detachable power supply as specified on the rating plate adjacent to the symbol.



This product complies with the applicable EU Directives.



This product complies with the applicable UK Directives.



It is not permitted to dispose the product as usual domestic waste. Obey national regulations and use the local recycling system.



The chassis contains components which are sensitive to electrostatic discharge (ESD). The chassis must only be opened and sealed by an authorized service technician. The warranty will not be applicable if the seal is broken.

**Note:** Other symbols/decals on the product refer to certification requirements for some markets.

## 2.11 Symbols on the battery



**WARNING:** Lithium-ion batteries can explode or cause fire if disassembled, short-circuited or handled roughly. Do not expose to water, fire or high temperature.



Read the user instructions.



Do not discard the battery into fire and do not expose the battery to a heat source.



Do not immerse the battery into water.

## 2.12 Symbols in the app



Shows the strength of the radio signal that the product receives from the reference station.



The status is *EPOS confirmed*. The product has an accurate position and direction. This is necessary to operate the product automatically and for the installation of map objects.



**EPOS** 

The status is *EPOS action is necessary*. The product has an accurate position but it is necessary to operate the product, manually or automatically, to get an accurate direction.

**EPOS** 

The status is *EPOS searching*. The product does not have an accurate position and is searching for the satellite signals and the correction data to get an accurate position.

## 2.13 General manual instructions

The following system is used in the Operator's Manual to make it easier to use:

- Text written in *italics* is a text that is in the Automower® Connect app, Husqvarna Fleet Services™ app or is a reference to another section in the Operator's manual.
- Text written in **bold** is one of the buttons on the product or in appDrive.

## 3 Installation

### 3.1 Introduction - Installation



**WARNING:** Read and understand the safety chapter before you install the product.



**CAUTION:** Use original spare parts and installation material.

**Note:** Refer to [www.husqvarna.com](http://www.husqvarna.com) for more information about installation.

### 3.2 Primary components for installation

The installation includes the components that follow:

- Robotic lawn mower that cuts the lawn automatically. It includes a cutting deck and a drive unit.
- Charging station, that charges the product. It includes a power supply, which is connected to an 100-240V power outlet.
- Reference station<sup>8</sup>, that receives satellite signals and sends correction data to the robotic lawn mower.
- Mobile device<sup>9</sup> with the Husqvarna Fleet Services™ and the Automower® Connect app to do the installation and the settings for the product.

### 3.3 To prepare for installation



**CAUTION:** Holes with water in the lawn can cause damage to the product.



**CAUTION:** Read the installation chapter before you start the installation.

- Make a blueprint of the work area and include all obstacles. This makes it easier to examine where to put the charging station, the reference station, and the virtual boundaries.
- Make a mark on the blueprint where to put the charging station, the reference station, the maintenance point, the transport paths and the virtual boundaries for the work areas and stay-out zones.
- Follow the instructions for distances between obscuring objects.

<sup>8</sup> Not included.

<sup>9</sup> Not included.

- Make the ground in the lawn flat. Make sure that there are no holes or bulges in the lawn.
- Cut the grass before you install the product. Make sure that the grass is maximum 5 cm / 2 in.

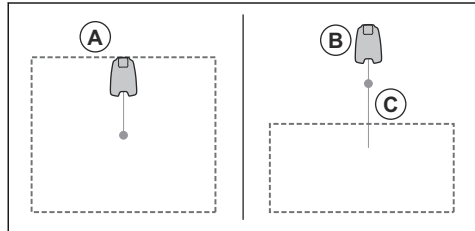
**Note:** The first weeks after installation the sound level when the product cuts the grass can be higher than usual. The sound level decreases after some time.

### 3.4 To examine where to put the reference station

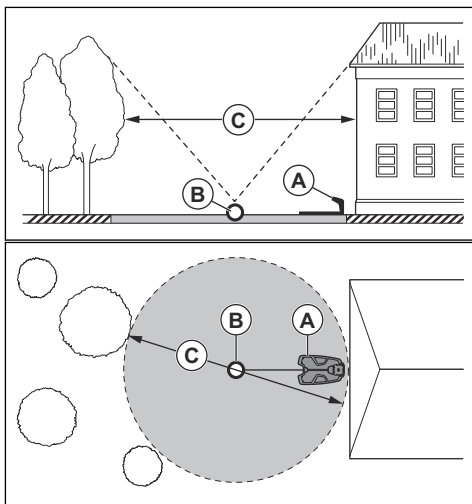
Read and understand the instructions about where to put the reference station. Refer to the Operator's manual for the reference station.

### 3.5 To examine where to put the charging station

- You can put the charging station in the work area or not in the work area. No transport path is necessary if the charging station is put in the work area (A). No transport path is necessary if the product is fully in the work area when it is at the charging station docking point. If the charging station and docking point (B) are not in the work area, you must install a transport path (C).

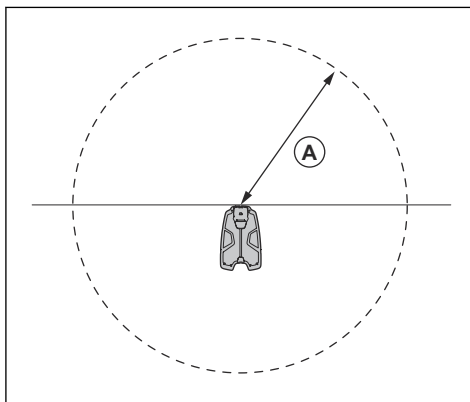
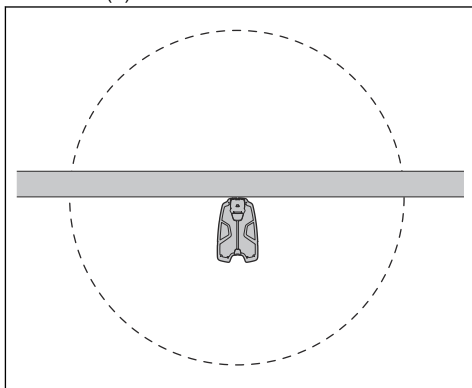


- Put the charging station (A) where the docking point (B) has unimpeded sky view. The charging station docking point (B) is where the product stops after reversing from the charging station. The reversing distance can be set to 130-220 cm / 51-87 in. Husqvarna recommends to have a minimum of 6 m / 19.6 ft. (C) free space in front of the charging station.



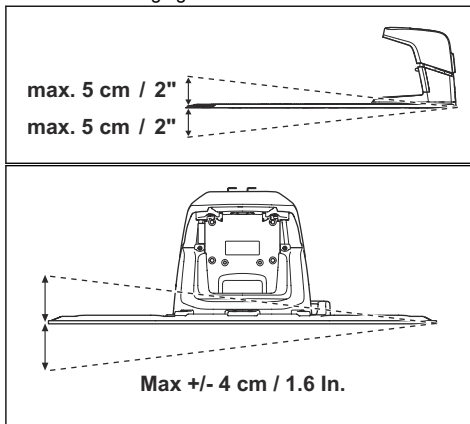
**Note:** Short reversing distance decreases the risk of track marks. A long reversing distance can be necessary to have good satellite signals at the docking point.

- If the product must not operate in a part of the docking area, put a protective wall that is minimum 15 cm / 6 in. in height. The docking area is a circular area around the charging station with a radius (A) of 3 m / 9.8 ft.

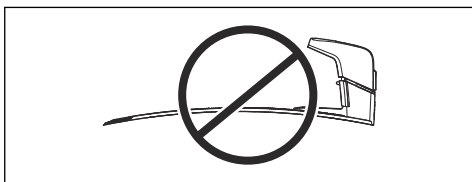


**Note:** The product uses the charging station signal to find the charging station when it is in the docking area.

- Put the charging station near a power outlet.
- Examine how to install the mains cable safely.
- Put the charging station on a flat surface, not on gravel.
- Husqvarna recommends to install the charging station on a hard surface, such as concrete or equivalent. To install the charging station on a soft surface, use the support plate accessory.
- Put the charging station on a level surface.



- The baseplate of the charging station must not be bent.



- Put the charging station in an area with good airflow.
- Put the charging station in an area with protection from the sun.
- Use a residual-current device (RCD) with a tripping current of maximum 30 mA when you connect the mains cable to the power outlet.



**CAUTION:** Do not install the charging station where there are metal objects in the ground. Metal objects can cause interference with the charging station signal.

### 3.6 To examine where to install the objects on the map



**CAUTION:** If the work area is adjacent to water bodies, slopes, precipices or a public road, the virtual boundary must have a protective wall. The wall must be minimum 15 cm / 6 in. in height.



**CAUTION:** Do not let the product operate on gravel.



**CAUTION:** For careful operation without noise, isolate all obstacles such as trees, roots and stones.

**Note:** Make a blueprint of the work area before you install the virtual boundaries.

- Make sure that the product can receive radio signals from the reference station in all parts of the work area.

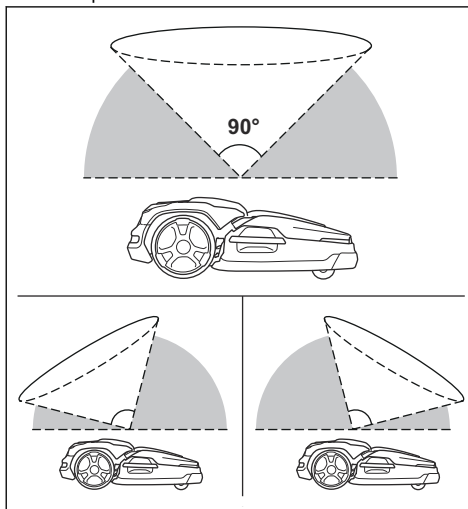
**Note:** The maximum distance decreases if there are objects between the reference station and product.

- Husqvarna recommends a maximum distance from the charging station to the most remote part of the installation. The maximum distance is 1000 m / 3280 ft.

**Note:** The maximum distance decreases if there are slopes and high grass.

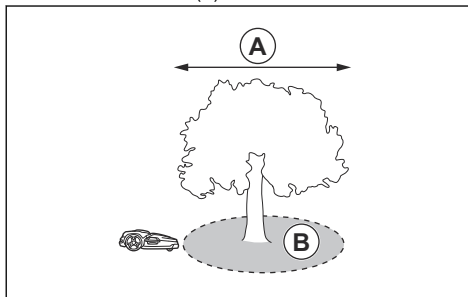
### 3.6.1 To install map objects near buildings and trees

- Make sure that 90° section of the sky is unimpeded.



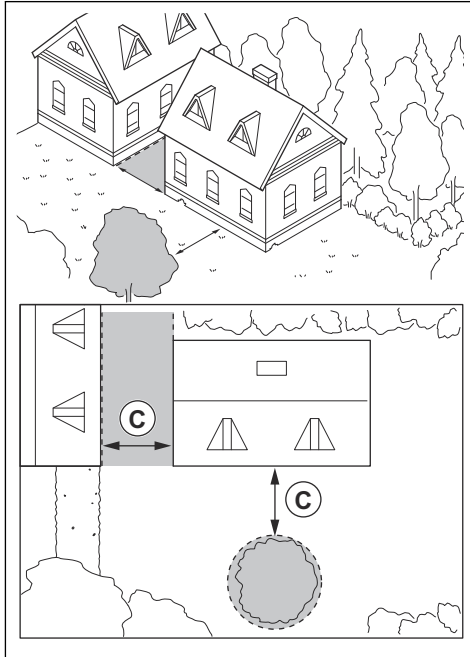
**Note:** The product cannot receive signals from the satellite for navigation if the sky is impeded.

- Make a stay-out zone (B) around trees or a group of trees with tree canopies that are more than 4 m / 13 ft. in diameter (A).

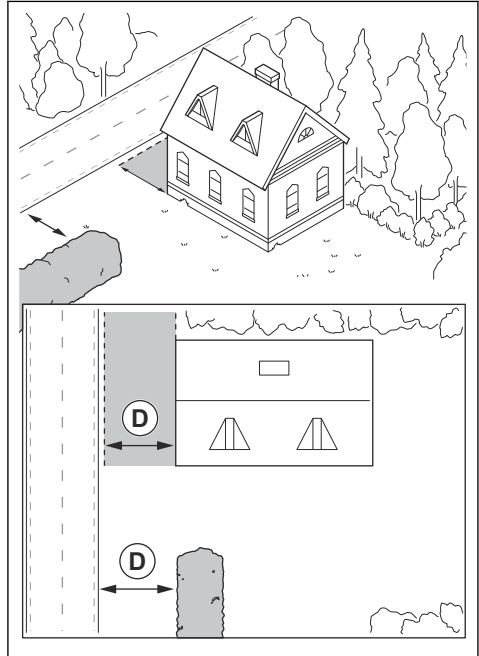


**Note:** Trees or a group of trees with tree canopies that are more than 4 m / 13 ft. in diameter (A) can cause temporary stops for the product. Smaller trees do usually not cause interference with the operation of the product.

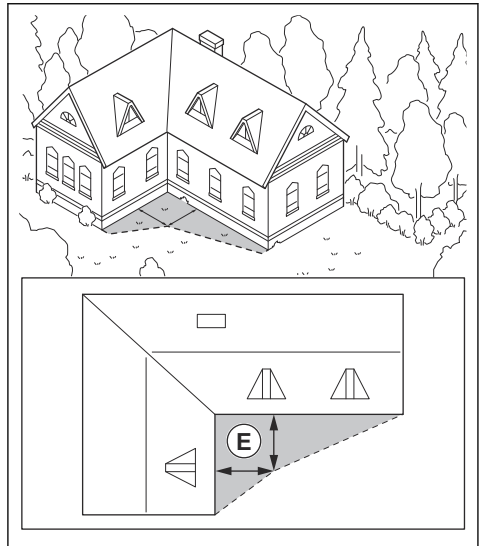
- Make sure that the areas between buildings or trees have a distance (C) of minimum 4 m / 13.1 ft.



- Make sure that a passage between 2 low objects or between 1 low object and 1 high object has a minimum width (D) of 3 m / 9.8 ft.

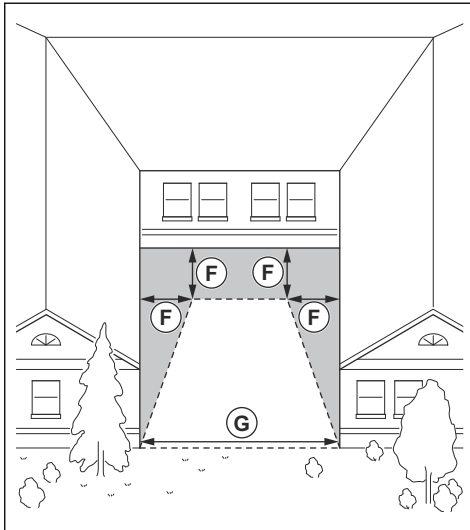


- For L-shaped buildings, install the virtual boundary at a minimum distance (E) of 1.5 m / 5 ft. from it.



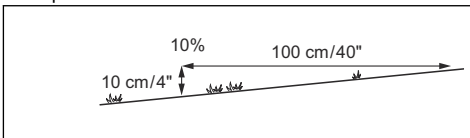
- To install virtual boundaries in an area with an U-shaped building, make sure that the distance (G) is minimum 6 m / 20 ft. If the building is higher than 3 m / 10 ft., make sure that the distance (G) is twice the height of the highest building. Install the virtual

boundary at a minimum distance (F) of 1.5 m / 5 ft. from the building.



### 3.6.2 To install the map objects in a slope

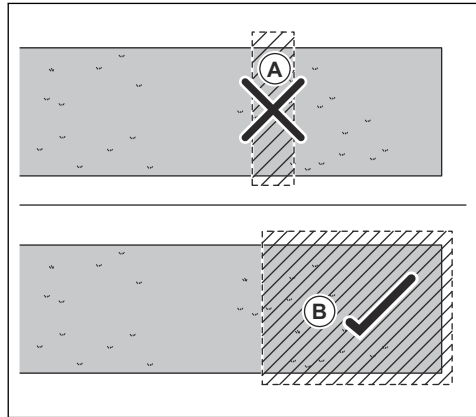
The product can operate in 20% slopes. Virtual boundaries can be installed in maximum 15% slopes. The slope (%) is calculated as height for each m.  
Example: 10 cm / 100 cm = 10%.



- For slopes more than 20% in the work area, isolate the slope with a stay-out zone.
- For slopes adjacent to a public road, put a fence or a protective wall of minimum 15 cm / 6 in. along the outer edge of the slope.
- Husqvarna recommends to set the direction of the systematic pattern straight up the slope to prevent wear on the grass.
- Install the virtual boundaries in slopes that are maximum 15%.

### 3.6.3 To examine where to make stay-out zones

- Make stay-out zones around objects that are larger than 2x2 m / 6.6x6.6 ft.
- Make sure that the stay-out zone includes the complete area where the product must not operate (B).



**Note:** Do not make a stay-out zone across the work area to prevent the product to enter parts of the work area (A).

- Make sure that the stay-out zone is minimum 30x30 cm / 1x1 ft.

## 3.7 Installation of the product

### 3.7.1 To install the product

Do the general steps that follow to install the product:

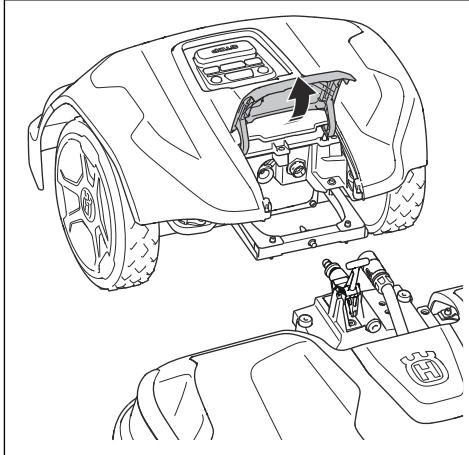
1. Attach the cutting deck to the drive unit. Refer to *To attach the cutting deck on page 19.*
2. Install the charging station. Refer to *Installation of the charging station on page 20.*
3. Install the reference station. Refer to the Operator's manual for the reference station.
4. Install the Husqvarna Fleet Services™ app and the Automower® Connect app on your mobile device. Refer to *Husqvarna Fleet Services™ on page 21.*
5. Do a pairing operation of the product and the Husqvarna Fleet Services™ app. Do the basic settings in the start up sequence in app. Refer to *Husqvarna Fleet Services™ on page 21.*
6. Make a map with work areas, stay-out zones, transport paths and maintenance points. Refer to *Installation of the map objects on page 21.*
7. Use Husqvarna Fleet Services™ app to do settings for the product. Refer to *Settings on page 27.*

### 3.7.2 Installation tools

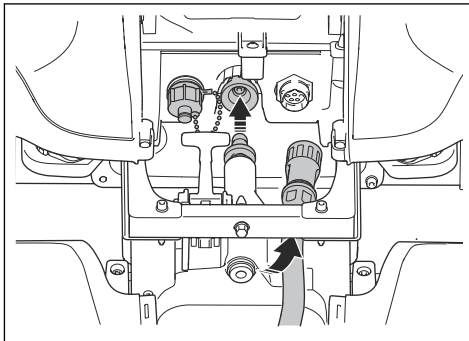
- 19 mm open end socket wrench.
- Hex key, 8 mm. Included with the charging station.
- Combi tool. Included with the cutting deck.
- 10 mm socket wrench.
- Drilling machine, 6 mm drill.
- Ratchet wrench or torque wrench, 10mm.

### 3.7.3 To attach the cutting deck

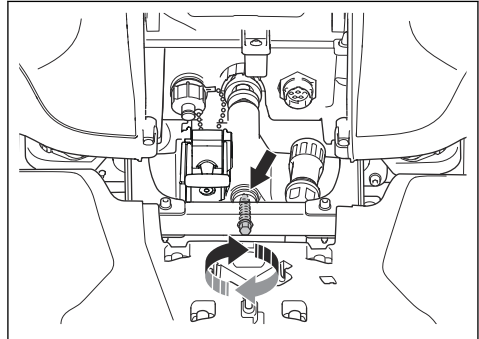
1. Set the drive unit to OFF. Refer to *To set the product to OFF on page 31*.
2. Put the cutting deck in front of the drive unit.
3. Open the hatch on the drive unit.



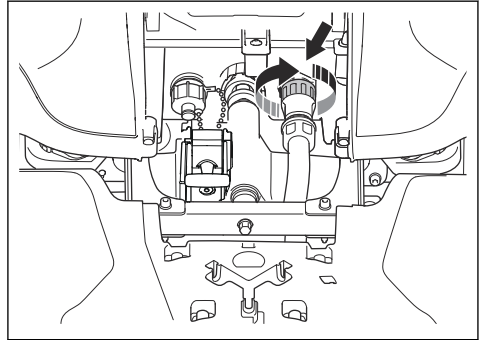
4. Remove the center top cover on the cutting deck.
5. Put the frame on the drive unit above the cutting deck and the cable.
6. Align the shaft with the hole in the drive unit.



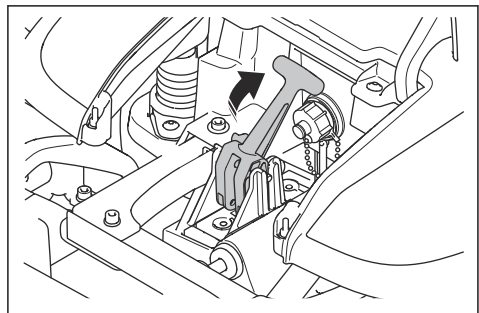
7. Align the shaft with the hole in the frame.



8. Install the screw with the ratchet wrench or torque wrench, 10 mm. Tightening torque 5 Nm.
9. Tighten the nut on the other side with a 19 mm open end socket wrench. Tightening torque 9 Nm.
10. Connect the cable to the drive unit. Make sure that the connection is aligned correctly.
11. Tighten the inner part of the connector clockwise.



12. Lift the rear part of the cutting deck and tilt the lever.



13. Install the center top cover on the cutting deck.
14. Close the hatch.

### 3.7.4 To remove the cutting deck

1. Set the drive unit to OFF. Refer to *To set the product to OFF on page 31*.
2. Open the hatch on the drive unit.
3. Remove the center top cover on the cutting deck.
4. Loosen the inner part of the connector counterclockwise and disconnect the cable.
5. Tilt the lever.
6. Loosen the nut with the 19 mm open end socket wrench and remove the screw with the Combi tool.
7. Remove the cutting deck from the drive unit. Put the covers on the 2 connectors.

### 3.7.5 Installation of the charging station

Read and understand the instructions about the charging station. Refer to *To examine where to put the charging station on page 14*.



**WARNING:** Read and understand the safety instructions for installation. Refer to *Safety on page 4*.



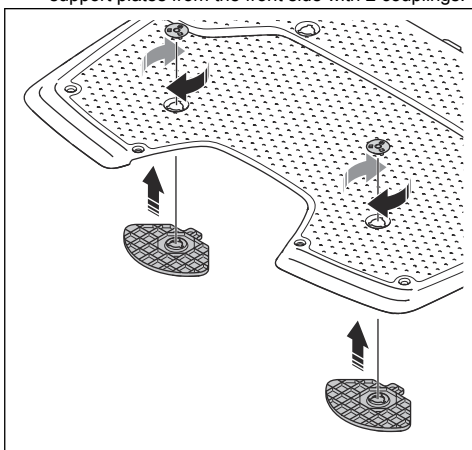
**CAUTION:** Do not make new holes in the charging station plate.



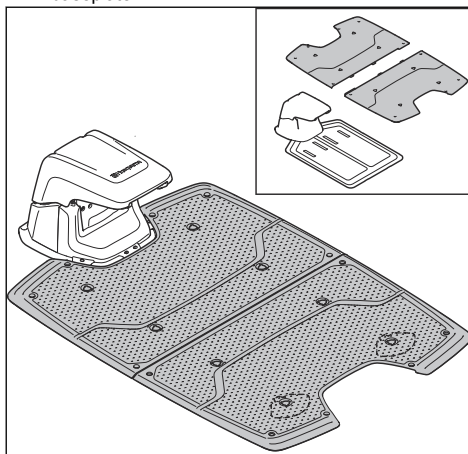
**CAUTION:** Do not put your feet on the baseplate of the charging station.

#### 3.7.5.1 To install the charging station

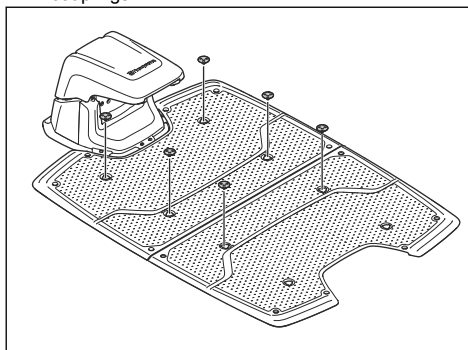
1. Put the charging station in the selected area.
2. Put the 2 support plates on the rear side of the top baseplate. Use an 8 mm hex key to attach the support plates from the front side with 2 couplings.



3. Put the 2 top baseplates on top of the lower baseplate.

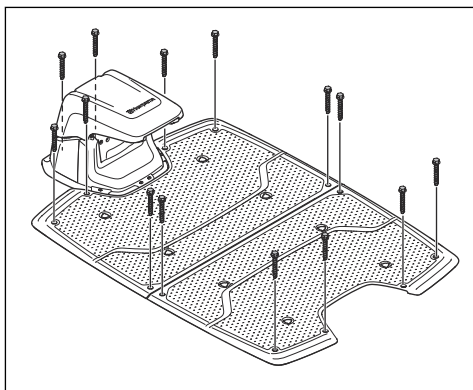


4. Attach the top baseplates to the lower baseplate with 6 couplings. Use a 8 mm hex key to attach the couplings.



5. Drill 14 holes in the ground with a 6 mm drill.
6. Attach the charging station to the ground with the 14 supplied screws. Use a 10 mm socket wrench to attach the screws.



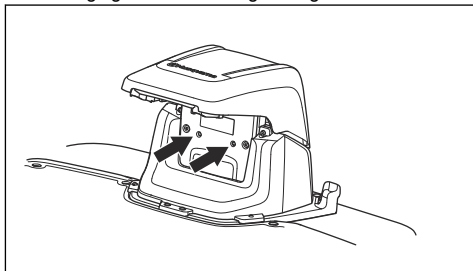


**CAUTION:** Do not tighten the screws too much.

7. Connect the mains cable to a 100-240V power outlet.
8. Put the product in the charging station. Push the **ON/OFF** button on the product for 3 seconds to charge the product. Refer to *To charge the battery on page 31*.

#### 3.7.5.2 To do a visual check of the charging station

1. Make sure that the LED indicator lamps on the charging station have a green light.



2. If the LED indicator lamps do not have a green light, do a check of the installation. Refer to *LED indicator lamps on the charging station on page 47* and *To install the charging station on page 20*.

#### 3.7.6 Installation of the reference station

Install the reference station according to the instructions in the Operator's manual for the reference station.

#### 3.7.7 Husqvarna Fleet Services™

Husqvarna Fleet Services™ is a cloud solution that gives the commercial fleet manager an overview of all products. It also gives the fleet manager the possibility to control all products remotely. Husqvarna Fleet Services™ is available as a web service and as an app. When you use the Husqvarna Fleet Services™ app

you will be redirected to the Automower® Connect app. For more information about Husqvarna Fleet Services™, refer to [www.husqvarna.com](http://www.husqvarna.com).

**Note:** All countries do not support cellular connection because of regional specified cellular systems. The included lifetime service only applies if there is a third part sub-supplier of 2G/4G available in the operational area.

#### 3.7.8 Automower® Connect

Automower® Connect is a free app for your mobile device. Use the app for installation, settings and operation of your product. You can also find more information for example about alarm and statistics in the Automower® Connect app.

The app gives 2 modes of connectivity: Long-range cellular connectivity and Short-range Bluetooth® connectivity.

#### 3.7.9 To do the basic settings

When the product is set to ON for the first time, there are some basic settings to do before the product can start to operate.

1. Download the Husqvarna Fleet Services™ app and Automower® Connect app to your mobile device.
2. Log on to the Husqvarna Fleet Services™ app.
3. Set the product to ON.
4. Start Bluetooth® on your mobile device.

**Note:** The Bluetooth® pairing operation mode of the product is enabled for 3 minutes. If the pairing operation between the product and the mobile device is not completed correctly, push the Bluetooth® button on the product to enable Bluetooth® again.

**Note:** Other devices with Bluetooth® enabled can cause interference with the pairing operation. Disable Bluetooth® on the other devices if it causes interference with the pairing operation.

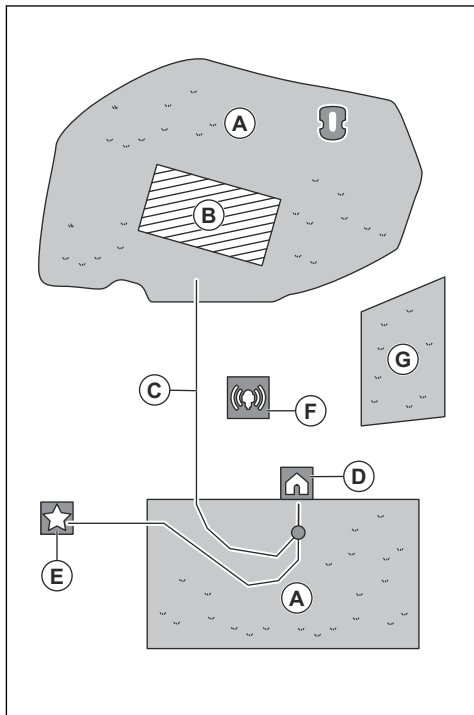
5. Select *Add robotic mower* in the app to add your product and follow the instructions in the app.
6. Do a pairing operation of the product and the reference station.
7. Do a pairing operation of the product and the charging station. Select to enable GeoFence or not and set the reversing distance.

#### 3.7.10 Installation of the map objects

Read and understand the instructions about where to install the map objects. Refer to *To examine where to install the objects on the map on page 16*.

On the map you can install the objects that follow in the app:

- *Work areas (A)*
- *Stay-out zones (B)*
- *Transport path (C)*
- *Charging station (D)*
- *Maintenance point (E)*
- *Reference station (F)*
- *Work area (Secondary area) (G)*



For a complete map installation, you must install a work area and a charging station on the map.

A work area is specified by virtual boundaries. Maximum 20 work areas and secondary areas can be installed on a map.

There are two types of work areas:

- A work area that has a charging station in it or connected to it with a transport path where the product operates automatically.
- A secondary area is a work area with no charging station and no transport path. The product must be moved manually to and from the work area.

A transport path is a specified path between the docking point in front of the charging station and a work area. The product can operate automatically in this path, but

does not cut grass. A transport path can temporarily be enabled and disabled in the app.

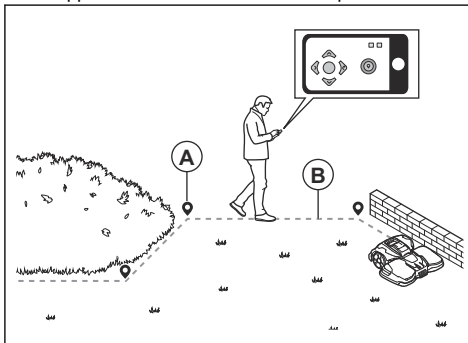
Stay-out zones can be made if there are areas where the product must not operate. A stay-out zone is specified by virtual boundaries. Stay-out zones can temporarily be enabled and disabled in the app.

A maintenance point is a specified position where the product can be parked at. This can for example be used for a service point where maintenance of the product is done. The maintenance point is connected to the docking point with a path.

To install objects on the map, operate the product with the appDrive installation to add waypoints on the map. Refer to *To install objects on the map on page 22*.

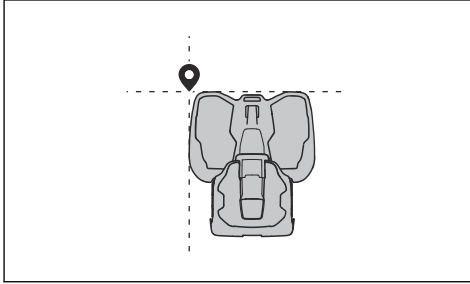
### 3.7.10.1 To install objects on the map

The waypoints (A) are positions that makes the virtual boundaries and paths (B). The lines are straight between the waypoints. It is recommended to use as few waypoints as possible. For each work area and the related stay-out zones and transport path the total maximum number of waypoints are 800. Husqvarna recommends to add maximum 1000 waypoints for the complete installation of the map. To make smooth curves use several waypoints. Husqvarna recommends to set the minimum distance of 30 cm / 1 ft. between the waypoints. You can adjust the positions of the waypoints in the app after the installation of the map.

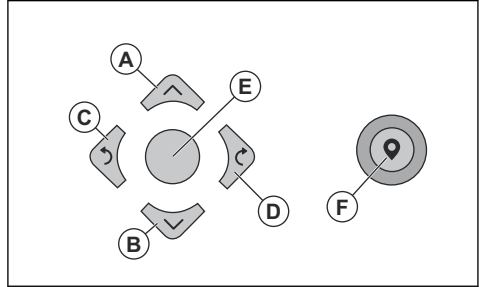


**CAUTION:** Do not lift and move the product between the waypoints when you install the map objects. Use appDrive for a correct installation.

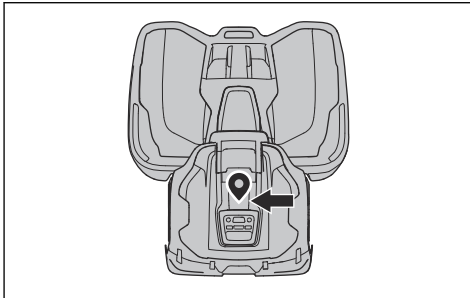
**Note:** The position of the waypoint when you install a work area or a stay-out zone is in the front left corner of the product. The virtual boundaries specifies the area where the product operates. The product does not cut the grass that is adjacent to the virtual boundary because of the position of the cutting disc.



- Use the left **arrow** button (C) to rotate the product to the left.
- Use the right **arrow** button (D) to rotate the product to the right.
- Use the **center** button (E) as a joystick to move and rotate the product in any direction.
- Use the **waypoint** button (F) to add a waypoint in the map.



**Note:** The position of the waypoint when you install a transport path or a path to a maintenance point is in the middle of the product between the drive wheels.

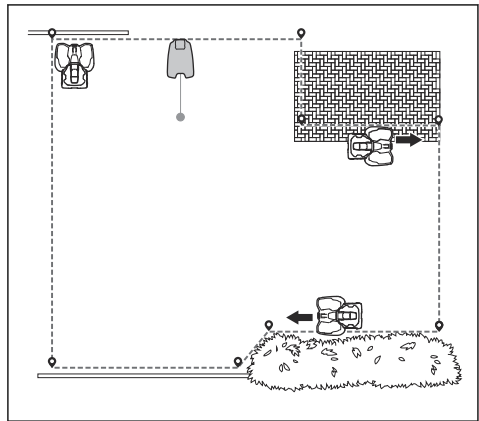


**Note:** Walk 2-3 m / 6.5-9.8 ft. behind the product when you operate the product with appDrive.

#### To make a work area

Minimum 3 waypoints are necessary to make a work area.

- Operate the product clockwise around the boundary of the work area.
- Add waypoints on the map. Add the waypoints minimum 3 cm / 1 in. from obstacles.

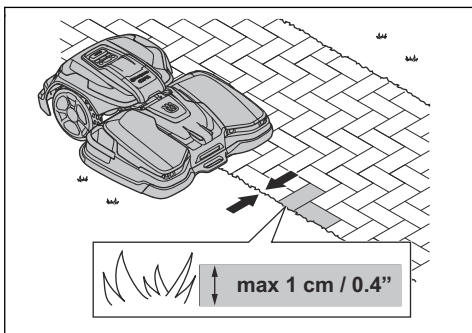


- Add a waypoint to make the product cut the grass at the edge between the lawn and the stone path. Make sure that you straddle the edge of the lawn and the stone path when you add a waypoint. The product can straddle the edge if the height of the stone path is maximum 1 cm / 0.4 in. in relation to the lawn.

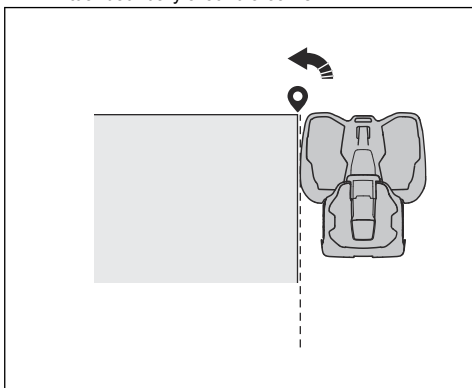
- Make sure that you are near the product and connected to the product with the app with Bluetooth®.
- Make sure that the status is *EPOS confirmed* in the appDrive.

**Note:** A game controller with Bluetooth® can be used together with appDrive to operate the product.

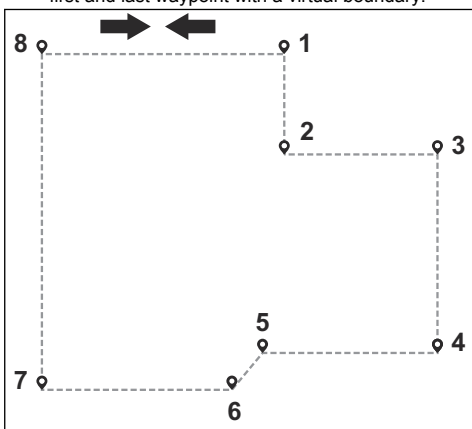
- Make sure that the radio signal strength from the reference station is good. The symbol for the strength of the radio signal must be fully filled.
- Select the object you want to install and use the buttons in the appDrive installation to operate the product.
- Use the **up** button (A) to move the product forward.
- Use the **down** button (B) to move the product rearward.



- Add the waypoint at the outer corner to install the virtual boundary around a corner.



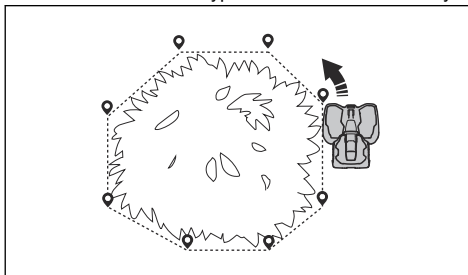
- Do not set waypoints that make a virtual boundary go across itself in the same work area.
- Save the work area to automatically connect the first and last waypoint with a virtual boundary.



#### To make a stay-out zone

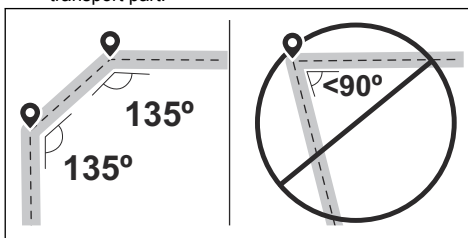
Minimum 3 waypoints are necessary to make a stay-out zone.

- Operate the product counterclockwise around the boundary of the stay-out zone.
- Add waypoints on the map. Add the waypoints minimum 3 cm / 1 in. from obstacles.
- Do not set waypoints that make a virtual boundary go across itself in the same stay-out zone.
- Save the stay-out zone to automatically connect the first and last waypoint with a virtual boundary.

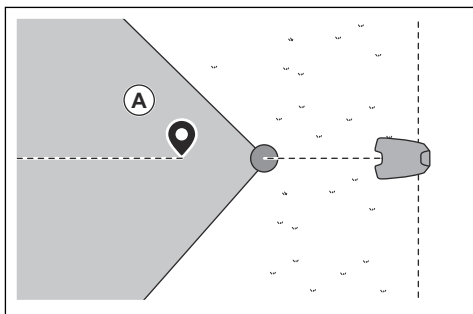


#### To make a transport path

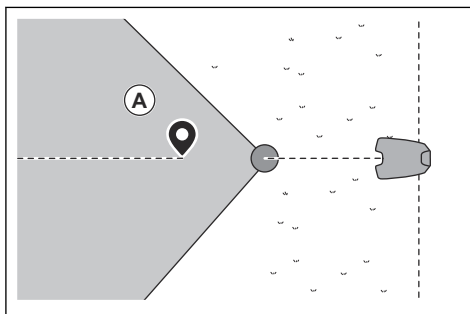
- Operate the product and add waypoints on the map to install a transport path. Start in a work area minimum 1 m / 3.3 ft. from the virtual boundary.
- Install the transport path perpendicular to the virtual boundary of the work area.
- Do not install a transport path across a stay-out zone.
- Do not set waypoints that make the transport path go across the same transport path.
- Do not make sharp bends when you install the transport path.



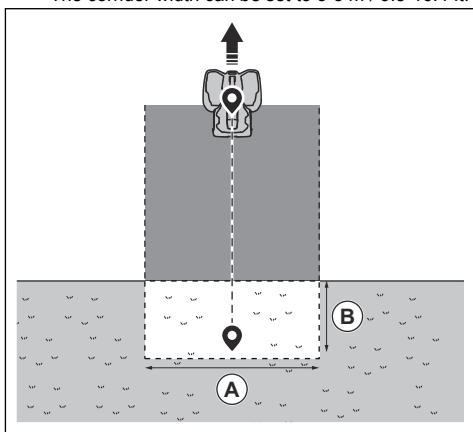
- Operate the product and add waypoints to connect the transport path to the docking point.
- Put the last waypoint on a transport path (A) in an angle of  $\pm 45$  degrees seen from the docking point.



- Save the transport path to automatically connect the last waypoint to the docking point.
- Set the corridor width (A) for the transport path. The corridor width can be set to 3-5 m / 9.8-16.4 ft.

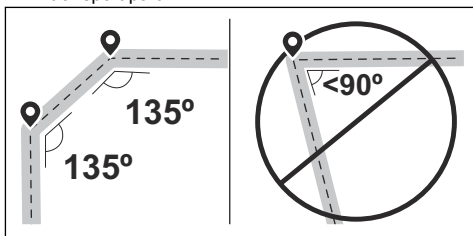


- Save the maintenance point to automatically connect the last waypoint to the docking point.
- Set the corridor width (A) for the maintenance point. The corridor width can be set to 3-5 m / 9.8-16.4 ft.

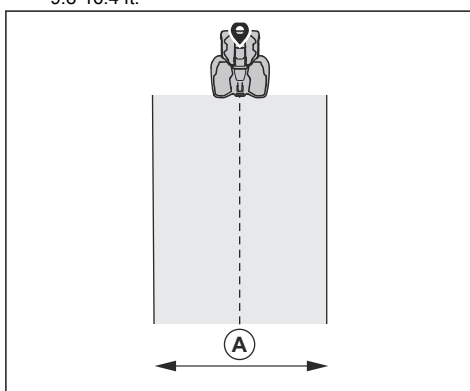


#### To make a maintenance point

- Operate the product and add waypoints on the map. Start to add waypoints at the position where you install the maintenance point. The first waypoint specifies the maintenance point.
- Do not make sharp bends when you install a transport path.



- Operate the product and add waypoints to make a path to the charging station.
- Put the last waypoint on a transport path (A) in an angle of  $\pm 45$  degrees seen from the docking point.



#### To reinstall the charging station on the map

Reinstall the charging station on the map if you move or replace the charging station. You can also reinstall it if the robotic lawn mower cannot dock or connect to the charging station.

1. Select *map objects > Charging station* in the app.
2. Select *Reinstall charging station* and follow the instructions.

**Note:** Other devices with Bluetooth® enabled can cause interference with the pairing operation. Disable Bluetooth® on the other devices if it causes interference with the pairing operation.

#### To reinstall the reference station on the map

Reinstall the reference station on the map if you move or replace the reference station.

1. Select *Map objects > Reference station* in the app.
2. Select *Reinstall reference station* and follow the instructions.

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**Note:** If you move the reference station, you must make a factory reset and install all the maps again.

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## 4 Settings

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The product has factory settings but the settings can be adapted to each work area.

### 4.1 Schedule



In the *Schedule* menu you can change the schedule settings for the product. You can set separate schedule settings for each work area. *Secondary areas* cannot be scheduled. The schedule function controls which hours the product is permitted to operate. When the product does not operate, it is parked in the charging station.

The shape of the work area, number of obstacles and slopes decreases the mowing capacity.

	Systematic mowing
Area capacity – sports 24	Mowing every day
Area capacity – standard 48	Mowing every second day
Area capacity – max 72	Mowing every third day

The maximum area capacity for the product varies with the type of application and turf quality.

- Area capacity – sports 24: This is the maximum area capacity for sports fields and golf fairways that need to be mowed every day (24 hours). Valid for well managed, lush and dense turf mowed at low cutting height.
- Area capacity – standard 48: This is the maximum area capacity for most turfs, such as facility areas and golf roughs that need to be mowed systematically every second day (48 hours). With irregular pattern, mowing every day is needed. Valid for standard turf quality mowed at medium cutting height.
- Area capacity – max 72: This is the maximum area capacity for facility areas, that can be mowed systematically every third day (72 hours). With irregular pattern, mowing every day is needed. Valid for turf with slower grass growth mowed at high cutting height.

### 4.2 To use systematic mowing

- Set the schedule to let the product operate for as long time as possible.

**Note:** When the product has cut the work area it goes to the charging station. The product is parked in the charging station until the next schedule starts. If the work area is not fully cut, the product

continues to cut the work area with the next schedule.

- To cut a work area 2 times a day, you can set 2 different schedules. Set the schedule for the product to have sufficient time to cut the complete work area.
- With 2 or more parallel schedules, the product starts to cut where it has not cut for the longest time.

### 4.3 Cutting height



**Note:** Soil type, grass type and surface type can cause different cutting heights. For convex surfaces the cutting height becomes lower than the average cutting height. For concave surfaces the cutting height becomes higher than the average cutting height. There is a risk of scalping on convex surfaces.

The cutting height is set individually for each work area.

### 4.4 Pattern



The settings for the systematic cutting is set for each work area. You can do these settings:

- Set the pattern for how the product operates.
- For some patterns you can set the direction of the pattern.
- For some patterns you can set the type of the *Border mowing*. With *Fixed border mowing* the product always operates in the same paths to keep a sharp border around the work area. With *Variable border mowing*, the product operates in different paths to decrease the risk of track marks along the virtual boundary.
- Set a pattern that includes a number of directions in work areas that includes many obstacles and stay-out zones.

### 4.5 Operation



In the *Operation* menu you can change the settings of the *Object avoidance* and *ECO mode*.

### 4.5.1 Object avoidance

The *Object avoidance* function makes the product decrease speed when it comes near an obstacle to avoid to collide with it.

**Note:** This can cause that the grass is not cut around the obstacle. This function can cause the product to not cut high grass satisfactorily.

**Note:** *Object avoidance* is only enabled when the product operates in work areas, not when it is in a transport path.

### 4.5.2 ECO mode

*ECO mode* disables the signal in the charging station when the product is parked or is charging. The LED indicator of the charging station flashes green when the loop signal is disabled.

**Note:** Use *ECO mode* to save energy and to prevent interference with other equipment, for example hearing loops or garage doors.

**Note:** To start the product manually in the work area you must first enable the loop signal.

#### 4.5.2.1 To enable the loop signal

1. Set the product to ON.
2. Put the product in the charging station.
3. Push the **STOP** button.
4. Wait 2 seconds and then remove the product from the charging station.
5. Make sure that the LED indicator of the charging station is solid green.
6. Put the product where you want it to start to cut.

## 4.6 Accessories



### 4.6.1 Headlights

There are 4 different headlight settings that control when the headlights are on:

- *Always on*
- *Evening only (19:00-00:00)*

- *Evening and night (19:00-07:00)*
- *Always off*

The headlight can be set to flash or to have a constant light. The headlights can also be set to flash if there is an error.

**Note:** Husqvarna recommends to use the headlights at night time.

### 4.6.2 Avoid collisions with the mower house

The wear on the baseplate of the charging station decreases when you use *Avoid house collisions*. Use *Avoid house collisions* if the cutting height of the product is set to 30 mm or less. If you select *Avoid house collisions* it can result in grass that is not cut around the charging station.

## 4.7 General (Bluetooth® only)



This function is used to set time and date, or to reset to default settings.

### 4.7.1 Time & date

The time and date can be changed manually, or by using the time and date from the mobile device.

### 4.7.2 Reset to factory settings

The user settings can be reset to factory settings. All map objects and the schedules will be deleted.

**Note:** *PIN code*, *Loop signal*, *Messages* and *Date & Time* will not be reset.

## 4.8 Security



The security settings controls the PIN code, the GeoFence and other security functions. The correct PIN-code must be entered to get access to the *Security* menu.

This menu is only available when your mobile device is connected to the product with Bluetooth®.

### 4.8.1 Change PIN code

You can change the PIN code. Make a note of the new PIN code in Memo. Refer to *Introduction on page 7*.



## 4.8.2 Theft protection

In the *Theft protection* menu it is possible to set the alarm duration and also what events should trigger the alarm. The factory setting is to require PIN code and the alarm duration is 1 min.

### 4.8.2.1 Alarm duration

There is a possibility to set how long the alarm signal should last. A setting between 1 and 10 minutes is possible.

### 4.8.2.2 STOP button pressed

If the alarm "*STOP button pressed*" is enabled, the alarm goes off if someone presses the **STOP** button and the PIN code is not entered within 30 seconds.

### 4.8.2.3 Carried away

If the alarm *Carried away* is enabled, the product senses unexpected motions, and the alarm goes off.

## 4.8.3 GeoFence

GeoFence is a GPS-based theft protection that makes a virtual fence for the product. If the product is more than a set distance away from the center position the product will be disabled and an alarm will start. The center position sets to the current position of the product when GeoFence is enabled. The PIN code is necessary to stop the alarm and to start the product again. The GeoFence is only enabled when the product is set to ON.

## 4.9 Automower® Connect (Bluetooth® only)



In *Automower® Connect* you can enable or disable the Automower® Connect module. You can also see the signal strength, connectivity status, initiate new pairing or remove the product from the paired accounts.

## 4.10 Messages

In this menu the previous fault and information messages can be found. For some of the messages, there are tips and advice to help to rectify the fault.

If the product is disrupted in any way, for example it is trapped or the battery is low, a message is saved relating to the disruption and the time it happened.

If the same message is repeated several times, this may indicate that an adjustment to the installation or the product is required. Refer to *Installation on page 14*.

## 4.11 Mowing profiles

You can save different sets of settings in the *Mowing profiles*. Use this function when you use one product for more than one location or to have different settings on the same location. In the *Mowing profiles* the product settings, map objects and their settings are saved.

## 4.12 Download firmware over the air (Firmware over the air FOTA)

The product has a function that automatically downloads new firmware. When a new firmware is available, a notification shows in the app where you can select to install the new firmware. In the factory setting this function is enabled. Husqvarna recommends you to update the firmware when new firmware is available.

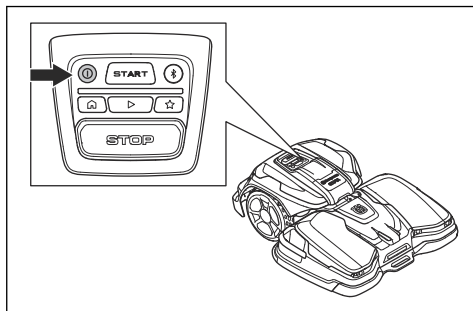
## 5 Operation

### 5.1 To set the product to ON



**WARNING:** Read and understand the safety chapter before you use the product.

- Push the **ON/OFF** button for 3 seconds to set the product to ON. Make sure that the LED indicator comes on.



### 5.2 To start the product

1. Push the **ON/OFF** button for 3 seconds to set the product to ON.
2. Open the Husqvarna Fleet Services™ app.
3. Enter the PIN code.
4. Push the **START** button on the product.

### 5.3 To select operation mode

#### 5.3.1 Scheduled operation

The product operates to the set schedule in the work area where it cuts the grass and charges automatically.

##### 5.3.1.1 To select scheduled operation in the app

1. Open the app on your mobile device.
2. Select *Start > Resume Schedule*.

##### 5.3.1.2 To select scheduled operation in the control panel

1. Push the **STOP** button.
2. Push the **Play** button.
3. Push the **START** button.

### 5.4 appDrive

Use the appDrive to operate the product manually.

#### 5.4.1 To use appDrive

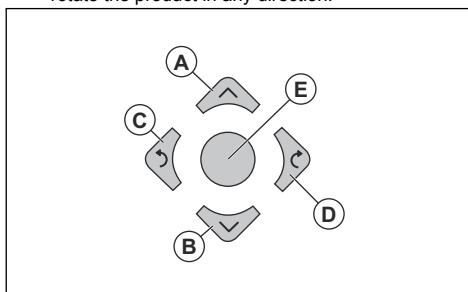
1. Open the app on your mobile device.

2. Select *Start > appDrive*.

#### 5.4.2 To operate the product with appDrive

Use the buttons to operate the product:

- Use the **up** button (A) to move the product forward.
- Use the **down** button (B) to move the product rearward.
- Use the left **arrow** button (C) to rotate the product to the left.
- Use the right **arrow** button (D) to rotate the product to the right.
- Use the **center** button (E) as a joystick to move and rotate the product in any direction.



**Note:** Walk 2-3 m / 6.5-9.8 ft. behind the product when you operate the product with appDrive.

### 5.5 Work area selection

This function lets the product temporarily operate in a selected work area. When the selected work area is cut, the product continues to operate to the set schedule.

For the product to operate in a secondary area, you must move the product manually to and from the secondary area. The product operates until the work area is cut or until the battery is empty.

#### 5.5.1 To select the work area in the app

1. Open the app on your mobile device.
2. Select *Start*.
3. Select the work area.

### 5.6 Operation mode Park

The operation mode *Park* means that the product goes back to the charging station. The product stays in the charging station for a selected period of time or until you select a new operation mode.

### 5.6.1 To select operation mode Park in the app

1. Open the app on your mobile device.
2. Select *Park*.
3. Select for how long the product must stay in the charging station.

### 5.6.2 To select operation mode Park on the control panel

1. Push the **STOP** button.
2. Push the **Park** button.
3. Push the **START** button.

The product stays in the charging station for 3 hours and then it continues to operate to the set schedule.

## 5.7 Operation mode Park at Maintenance point

You can park the product at the maintenance point to do maintenance on the product.

### 5.7.1 To park the product at the maintenance point with the app

1. Open the app on your mobile device.
2. Select *Park > Maintenance point*.

The product is parked at the maintenance point until you select a new operation mode.

### 5.7.2 To park the product at the maintenance point with the control panel

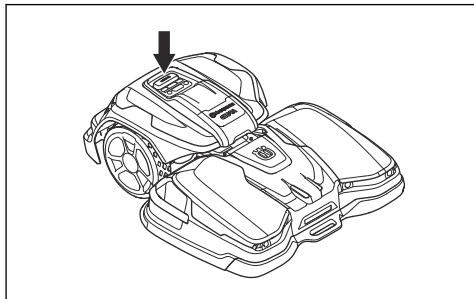
1. Push the **STOP** button.
2. Push the **Maintenance point** button.
3. Push the **START** button.

The product is parked at the maintenance point until you select a new operation mode.

## 5.8 To stop the product

1. Push the **STOP** button on top of the product.

The product stops and the cutting motor stops.



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**Note:** When you push the **Play** and **START** button again, the product continues to operate in the operating mode *Resume Schedule*.

---

## 5.9 To set the product to OFF

1. Push the **STOP** button on top of the product.
2. Connect the product with Bluetooth® short-range in the app.

**Note:** The product cannot be set to OFF if it is not connected to the app with Bluetooth®.

3. Push the **ON/OFF** button for 3 seconds to set the product to OFF. Make sure that the LED indicator goes out.

## 5.10 To charge the battery



**WARNING:** Read and understand the safety instructions for the battery before you use the product. Refer to *Battery safety on page 5*.

---

When the product is new or after long-term storage, the battery can be empty. Charge the battery before you start the product.

1. Push the **ON/OFF** button for 3 seconds to set the product to ON.
2. Put the product into the charging station until the charging plates touch the contact plates. Refer to charging plates and contact plates in *Product overview charging station, CEORA™ CS4 on page 10*.
3. Make sure that the charging is in progress in the Husqvarna Fleet Services™ app or that the LED indicator pulsates blue.

**Note:** If the charging does not start automatically, disconnect and connect the mains cable to the charging station to restart it. The charging starts automatically when you restart it.

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## 5.11 To release the wheel brakes and move the product

You can release the wheel brakes and push the product forward to move it manually as an alternative of to lift it.

1. Push and hold the **STOP** button. The wheel brakes are released after 3 seconds.

**Note:** The wheel brakes enables again when you release the **STOP** button.

---

2. Keep the **STOP** button pushed and push the product forward to move it.

## 6 Maintenance

### 6.1 Introduction - maintenance



**WARNING:** Set the product to OFF before you do maintenance on the product.



**WARNING:** Use protective gloves.

For better operation and lifetime of the product, make sure to clean the product regularly and replace worn parts. Obey the instructions in *Maintenance schedule on page 33*.

When the product is new, examine the blade discs and blades each week. If the wear is low, you can increase the interval for the next time you examine the blade discs and blades. If there is much wear, you can decrease the interval.

It is important that the blade disc rotates easily and that the edges of the blades are not damaged. The usual lifetime of the blades are 1 to 4 weeks. The conditions that follow can increase or decrease the lifetime of the blades:

- Operation time and dimension of the work area.
- Length and thickness of the grass.
- Soil, sand and use of fertilizers.
- Objects such as cones, tools, stones and roots in the work area.

**Note:** The cut result can be unsatisfactory if the blades are blunt. Refer to *Replacement of the blades and blade discs on page 36* on how to replace the blades.

### 6.2 Maintenance schedule

The maintenance schedule shows how to do servicing and maintenance on the product. Follow the maintenance schedule for a better operation and to increase the lifetime of the product.

X = Maintenance can be done by the operator.

O = The instructions are not given in this operator's manual. Speak to your approved servicing dealer.

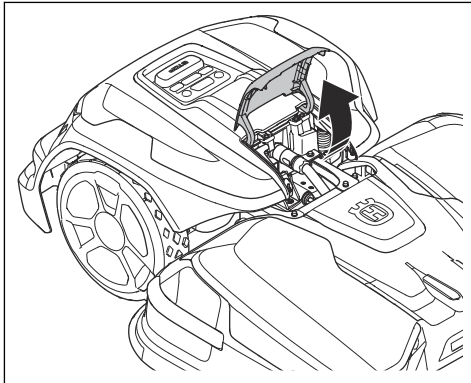
To prepare	Weekly	Every year	Every third year
Clean the product. Refer to <i>Clean the product on page 36</i> .	X		
Examine the product for damage and wear.	X		
Do an update of the firmware for the drive unit and cutting deck. Refer to <i>Download firmware over the air (Firmware over the air FOTA) on page 29</i> .		X	
Do an update of the firmware for the charging station.		O	
Do a check of the servicing messages for recommended upgrades.		O	

<b>Servicing</b>	<b>Weekly</b>	<b>Every year</b>	<b>Every third year</b>
<b>Drive unit</b>			
Remove the wheel covers and clean the wheels. Refer to <i>To clean the drive unit on page 36.</i>		X	
Examine if the cap for the USB outlet is attached correctly.		X	
Charge the battery fully before you put the product into storage. Refer to <i>To charge the battery on page 31.</i>		X	
Adjust the position of the wheel brushes if it is necessary or replace them if they are worn. Refer to <i>Adjustment of the wheel brushes on page 38.</i>	X		
Examine the rubber grommets on the chassis to make sure that it is sealed correctly.		O	
Examine and clean the collision columns.		O	
Do a check of the tightening torque of chassis screws. Examine the thread inserts.		O	
Open the motor lid and do a check if there is leakage.		O	
Examine and clean the airflow filter.		O	
Replace the airflow filter.			O
Open the chassis and replace the sealing strip.			O
Open the motor lid and replace the gasket.			O
<b>Cutting deck</b>			
Examine the blades and replace the blades and blade screws if it is necessary. Refer to <i>Replacement of the blades and blade discs on page 36.</i>	X		
Examine and polish the charging plates.		X	
Examine bellows for cutting discs and for the front wheels.		X	
Examine the ultrasonic sensors and tighten the screws.		O	
Examine the rubber grommets in the electronic boxes.		O	
Examine and clean the collision columns.		O	
Remove the protection plate and clean the inner side.		O	
Examine the skid plate and skid plate bearing.		O	
Lubricate the cutting height adjustment motors.		O	
Examine the wheels for wear.		O	
Examine the bearings in the front wheels and wheel holders.		O	
Lubricate the interface between the drive unit and the cutting deck and examine them for wear.		O	
Calibrate the cutting height.		O	
Examine and clean the airflow filter.		O	

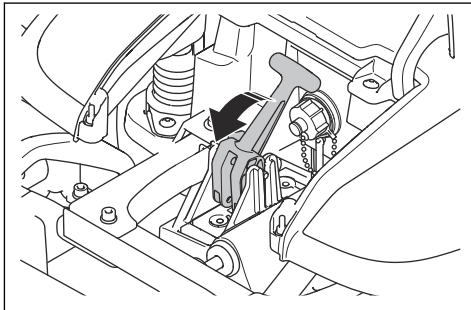
Servicing	Weekly	Every year	Every third year
Replace the airflow filter.			○
Examine the charging cable and connector.			○
Charging station			
Examine and polish the contact plates on the charging station.		X	
Examine the mains cable, power supply unit, charging cable and connectors.		○	
Open the charging station and replace the gasket.		○	
Last step	Weekly	Every year	Every third year
Use a software service tool to do a function test of the functions of the product.		○	

### 6.3 To put the cutting deck in service position

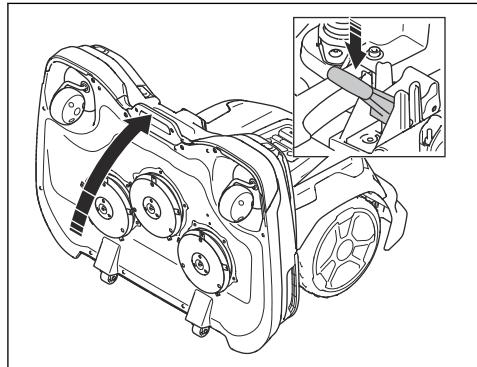
1. Set the product to OFF. Refer to *To set the product to OFF on page 31.*
2. Open the hatch on the drive unit.



3. Tilt the lever.

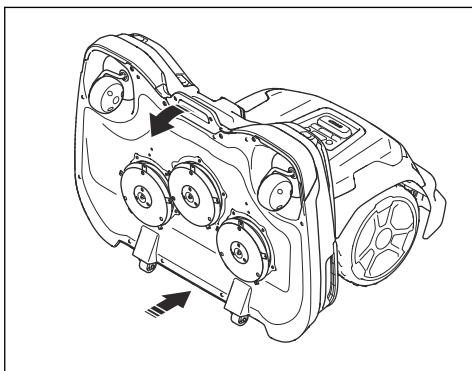


4. Push down the lever and lift up the front of the cutting deck by the handle. Make sure that the cutting deck is in a vertical position.



### 6.4 To put the cutting deck in cut position

1. Use the front handle on the cutting deck to fold down the cutting deck.



2. Lift the rear part of the cutting deck and tilt the lever.
3. Close the hatch.

## 6.5 Clean the product

Husqvarna recommends to use a special cleaning and maintenance kit, available as an accessory. Speak to your Husqvarna representative for more information.

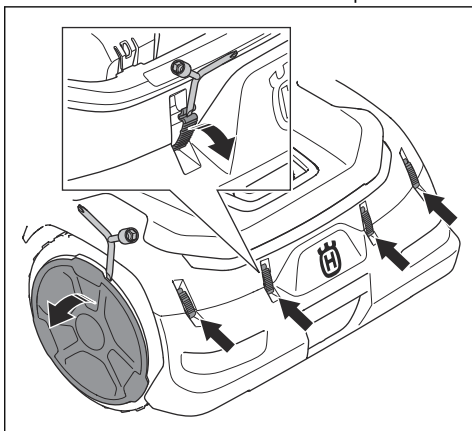


**CAUTION:** Do not use a high-pressure washer to clean the product and the charging station. Do not use solvents for cleaning.

### 6.5.1 To clean the drive unit

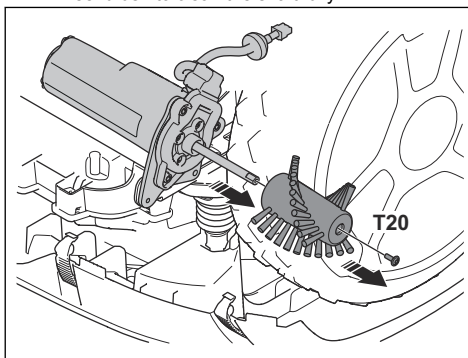
The product does not operate satisfactorily in slopes if the wheels are blocked with grass.

1. Loosen the clips with the flat screwdriver on the Combi tool and remove the rear bumper.



2. Remove the wheel cover with the flat screwdriver on the Combi tool.

3. Clean the body of the product, wheels and chassis with a brush, compressed air or running water.
4. Examine and clean the wheel brushes. If necessary, remove the screw and remove the wheel brush to clean the shaft fully.



### 6.5.2 To clean the cutting deck and blade discs

Examine the blade discs and blades weekly.

1. Put the product in service position. Refer to *To put the cutting deck in service position on page 35.*
2. Clean the blade discs, protection plate and the wheels with a brush, compressed air and running water.
3. Make sure that the blades are not damaged and that the blades and blade discs can rotate freely.

### 6.5.3 To clean the charging station



**WARNING:** Disconnect the mains cable from the power outlet before maintenance, or when you clean the charging station.

**Note:** The product cannot go into the charging station if there are objects in the charging station.

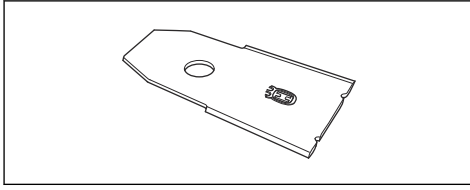
- Clean the charging station regularly from grass, twigs and other objects.

## 6.6 Replacement of the blades and blade discs



**WARNING:** Husqvarna can only guarantee safety with the specified Husqvarna original blades. Refer to *Technical data on page 53.*



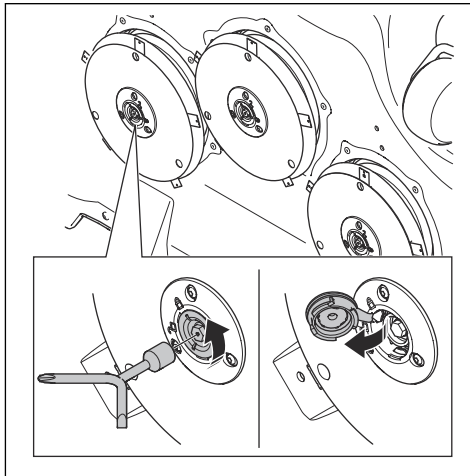


**WARNING:** You must replace the screws when you replace the blades. The used screws can wear quickly and make the blade come loose, this can cause serious injury.

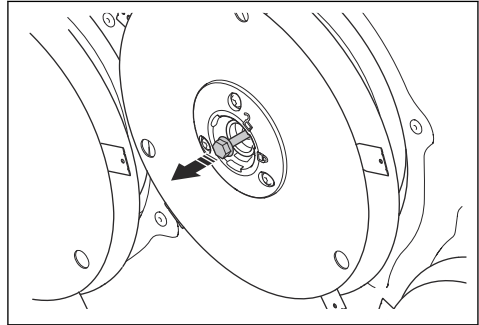
Replace worn or damaged blades for a safe operation. Replace the blades regularly for a satisfactory cut result and a low energy use. All 5 blades and screws must be replaced at the same time to get a balanced cutting system. After half the lifetime of the blades, the left and right cutting disc must switch positions to wear the blades equally. The blades can be replaced when the blade discs are installed on the product. You can also remove the blade discs and then replace the blades.

### 6.6.1 To replace the blade discs

1. Push the **STOP** button.
2. Set the product to OFF.
3. Put the cutting deck in service position. Refer to *To put the cutting deck in service position on page 35.*
4. Remove the coupling on the blade disc with the Combi tool.



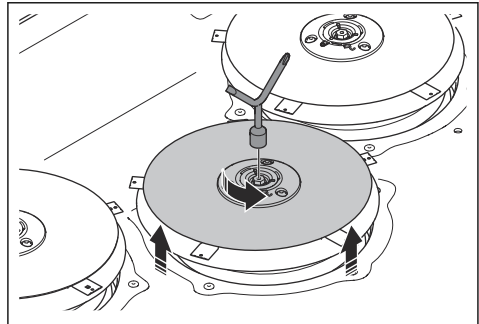
5. Loosen the screw with the Combi tool.



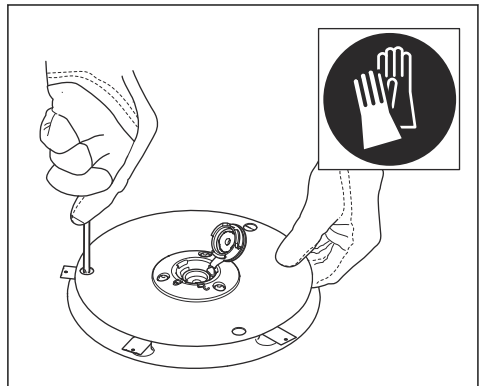
6. Remove the blade disc.
7. Clean the shaft and hub if it is dirty.
8. Install the blade disc in opposite sequence.

### 6.6.2 To replace the blades on the blade disc

1. If there are no holes in the skid plate, remove the skid plate:
  - a) Lift up the skid plate and remove the screw with the Combi tool to remove the skid plate.



2. Remove the 5 screws.



3. Remove the 5 blades.

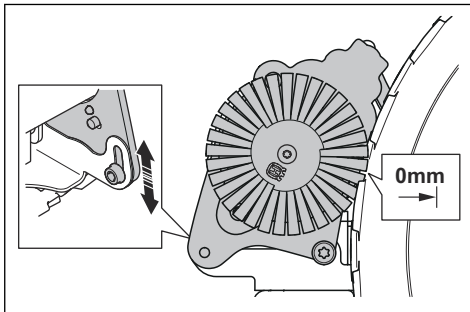
4. Install 5 new blades and screws.
5. Make sure that the blades can pivot freely.
6. If the skid plate was removed, install the skid plate and the screw. Tightening torque 8 Nm.

## 6.7 Adjustment of the wheel brushes

The wheel brushes must be adjusted if they are worn.

### 6.7.1 To adjust the wheel brushes

1. Push the **STOP** button.
2. Set the product to OFF.
3. Loosen the clips with the flat screwdriver on the Combi tool and remove the rear bumper.
4. Loosen the screw with a T27 screwdriver to adjust the wheel brushes. Make sure that the brushes touches the bottom of the wheel threads.



## 6.8 Battery



**CAUTION:** Charge the battery fully before you put the product into storage. If the battery is not fully charged it can cause damage to the battery.

If the operating time of the product is shorter than usual between charges, this means that the battery is at the end of its life cycle. Replace the battery to extend the operating time.

**Note:** The battery life is related to the length of the season and how many hours a day the product operates. A long season or many hours of operation a day means that the battery must be replaced more regularly.

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## 7 Troubleshooting

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### 7.1 Introduction - troubleshooting

You can find all the troubleshooting messages in the *Messages* menu in Husqvarna Fleet Services™. You can find more information on [www.husqvarna.com](http://www.husqvarna.com).

### 7.2 Fault messages

The fault messages in the table below are shown in the Husqvarna Fleet Services™ app. Speak to your approved servicing dealer if the same message shows frequently.

Message	Cause	Action
<i>Cutting system blocked</i>	The cutting motor is blocked by grass or other objects.	Examine the cutting motor and remove grass or other objects.
	The blade disc is in water.	Move the product and prevent the collection of water in the work area.
	The grass is too high.	Adjust the cutting height to the height of the grass.
Adjust the schedule settings to increase the operation time.		
<i>Trapped</i>	The product is behind a number of obstacles in a small area.	Examine the area and remove the obstacles which make it hard for the product to move away from this location.

Message	Cause	Action
<i>No loop signal</i>	The mains cable is not connected.	If the LED indicator on the charging station is out, it shows that there is no power. Examine the power outlet connection and the residual-current device. Make sure that the mains cable is connected to the charging station.
	The mains cable is damaged.	Replace the mains cable.
	<i>ECO mode</i> is enabled and the LED indicator of the charging station flashes green. The product was started manually in the work area but the <b>STOP</b> button was not pushed before the product was moved from the charging station. The charging station signal is disabled and the product cannot enter the charging station. Refer to <i>ECO mode</i> on page 28.	Put the product in the charging station. Start the product. Refer to <i>To start the product</i> on page 30.
	The product does not find the loop signal from the charging station.	Put the product in the charging station and make a new loop signal. Refer to <i>To reinstall the charging station on the map</i> on page 25.
	The charging station is not installed correctly.	Install the charging station correctly. Refer to <i>Installation of the charging station</i> on page 20.
	Interference from metal objects such as fences, reinforcement steel or buried cables near the charging station.	Change the position of the charging station.
<i>Outside work area</i>	The work area slopes too much by the virtual boundary.	Make sure that the virtual boundary is installed correctly. Refer to <i>To install map objects near buildings and trees</i> on page 16.
	The transport path or the path to the maintenance point slopes too much.	Make sure that the transport path is installed correctly. Refer to <i>To install map objects near buildings and trees</i> on page 16.
	The product can not find the correct loop signal because of interference with a loop signal from a different product installation nearby.	Put the product in the charging station and make a new loop signal. Refer to <i>To reinstall the charging station on the map</i> on page 25.
	Interference from metal objects such as fences, reinforcement steel or buried cables near the charging station.	Change the position of the charging station.

<b>Message</b>	<b>Cause</b>	<b>Action</b>
<i>Empty battery</i>	The product cannot find the charging station.	The product has no accurate position and cannot find the charging station. There is an obstacle that prevents the product to find the charging station.
	The battery is at the end of its life cycle.	Replace the battery. Refer to <i>Battery on page 38</i> .
	The product cannot enter the charging station because the antenna in the baseplate of the charging station is damaged.	If the LED indicator on the charging station flashes red, the antenna of the charging station is damaged. Speak to your authorized service center.
<i>Slipped</i>	The product hit an obstacle and stopped or the wheels cannot move on the wet grass.	Move the product and correct the cause of problem. If it is because of wet grass, wait until the lawn is dry before you use the product.
	The work area includes a steep slope.	Maximum slope is 45%. Isolate steep slopes. Refer to <i>To install the map objects in a slope on page 18</i> .
<i>Charging station blocked</i>	The connection between the charging plates on the product and the contact plates on the charging station is not good. The product made a number of tries to charge.	Put the product in the charging station and make sure that the charging plates and contact plates are connected. Clean the contact plates on the charging station and the charging plates on the product.
	An object prevents the product to enter the charging station.	Remove the object.
	The charging station tilts or is bent.	Put the baseplate on level ground. If you install the charging station on a soft surface, use the support plate accessory.
<i>Stuck in charging station</i>	The product cannot move out from the charging station because it is blocked. The baseplate has a wet or dirty surface that prevents the product to move out from the charging station.	Examine why the product cannot move out from the charging station. Remove objects and clean the baseplate of the charging station.
<i>Charging station communication problem</i>	Make a new charging station signal a number of times. If the problem stays, speak to your authorized service center.	The signal of the charging station was not changed.
	Do a pairing operation between the product and the charging station. If the problem stays, speak to your authorized service center.	The product is not connected to the charging station.
	Power failure.	Examine and correct the cause of the power failure.
<i>Upside down</i>	The product tilts or the body of the product is with the top down.	Put the product in the correct position.
<i>Mower tilted</i>	The product tilts more than the maximum angle.	Move the product to an area that has level ground.

<b>Message</b>	<b>Cause</b>	<b>Action</b>
<i>Lifted</i>	The lift sensor was enabled because the product was lifted.	Make sure that the body of the product can move freely around its chassis. Remove or make a stay-out zone around objects that can cause the body of the product to be lifted. If the problem stays, speak to your authorized service center.
<i>Collision</i>	The body of the product cannot move freely around its chassis.	Remove dirt or object between the chassis and the body of the product. Make sure that the body of the product can move freely around its chassis.
	The product cannot move forward or rearward.	Remove the object that prevents the product from operation.
<i>Wheel motor blocked right/left</i>	The wheel is blocked by grass or other objects.	Examine the wheel and remove grass or other objects.
<i>Alarm! Mower stopped</i>	The alarm was started because the product was stopped.	Adjust the security settings in the <i>Security</i> menu. Refer to <i>Security on page 28</i> .
<i>Alarm! Mower outside Geo-fence</i>	Alarm was started because the product was moved out of the GeoFence area.	
<i>Alarm! Mower was moved</i>	The alarm was started because the product was moved.	
<i>Electronic problem</i>	Temporary electronic or firmware problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.
<i>Loop sensor problem</i>		
<i>Charging system problem</i>		
<i>Tilt sensor problem</i>		
<i>Temporary problem</i>		
<i>Invalid sub-device combination</i>		
<i>Collision sensor problem</i>		
<i>Lift sensor problem</i>		
<i>Invalid system configuration</i>		
<i>Safety function faulty</i>		
<i>Docking sensor problem</i>		
<i>Cutting motor problem</i>		
<i>Cutting deck folding sensor problem</i>		
<i>Internal voltage problem</i>		
<i>Internal communication problem</i>		

<b>Message</b>	<b>Cause</b>	<b>Action</b>
<i>Battery problem</i>	Temporary battery or firmware problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.
	Incorrect type of battery.	Use original batteries recommended by the manufacturer.
	The battery is damaged or do not operate correctly.	Replace the battery, speak to your authorized service center.
<i>Battery temperature outside limits</i>	The product cannot start because the temperature in the battery is too high or too low.	The product will start to operate when the temperature of the battery has decreased. Make sure that the charging station is put in an area with protection from the sun.
<i>Charging current too high</i>	Incorrect or damaged power supply unit.	Examine that the power supply unit and charging station are not damaged. Make sure that you use the correct power supply unit and charging station. Restart the product. If the problem stays, speak to your authorized service center.
<i>Map problem</i>	There is no specified work area.	Make a work area in the Husqvarna Fleet Services™ app. Refer to <i>To make a work area on page 23</i> .
	The map object file is incorrect.	Do a check of the map in the app. Adjust the map and save it.
		Delete the map and do a new installation.
<i>Work area tampered</i>	The charging station or the reference station was moved.	Move the charging station or the reference station to their initial positions.
		Do a new installation of the map.
<i>Wheel drive problem, right/left</i>	The wheel is blocked by grass or other objects.	Examine the drive wheel and remove grass or other objects.
<i>No power in charging station</i>	The power supply unit is incorrect or damaged.	Examine the power supply unit. Replace it if necessary.
	Power failure.	Examine and correct the cause of the power failure.
	The product cannot charge because the contact plates and the charging plates are not connected.	Make sure that the charging plates and the contact plates are connected. Clean the contact plates and charging plates.

<b>Message</b>	<b>Cause</b>	<b>Action</b>
<i>Searching for satellites</i>	Weak satellite signal to the reference station.	The satellite signal is temporary weak. The product will start to operate when the satellite signals are good.  Examine the installation of the reference station. Refer to the Operator's manual for the Reference station.
	Weak satellite signal to the product.	The satellite signal is temporary weak. The product will start to operate when the satellite signal are good.  Examine if there is an object between the product and the sky that cause interference with the satellite signal. Remove the object or do a new installation to not include these parts in the work area. Refer to <i>To make a work area on page 23</i>
<i>No accurate position from satellites</i>	Weak satellite signal to the reference station.	Examine the installation of the reference station. Refer to the Operator's manual for the Reference station.
	Weak satellite signal to the product.	Examine if there is an object between the product and the sky that cause interference with the satellite signal. Remove the object or do a new installation to not include these parts in the work area. Refer to <i>To make a work area on page 23</i>



<b>Message</b>	<b>Cause</b>	<b>Action</b>
<i>Reference station communication problem</i>	There is no radio signal between the product and the reference station.	Do a pairing operation between the product and the reference station.
	The reference station is not installed correctly.	Examine the installation of the reference station. Refer to the Operator's manual for the Reference station.
	The product does not receive the radio signal from the reference station in all of the work area.	Examine if the product has radio signal from the reference station in the full work area. If not, make a new installation of the reference station or a new installation of the map. Refer to <i>Installation of the map objects on page 21</i> .
		Install a second reference station to operate as a repeater. Make sure that the product can receive the radio signal. Speak to your Husqvarna representative for more information.
	Power failure.	Examine and correct the cause for the power failure of the reference station.
		Install a second reference station to operate as a repeater. Speak to your Husqvarna representative for more information.
There is an error in the reference station and the LED indicator flashes red.	Disconnect the power to the reference station and connect it again to restart the reference station. If the problem stays, speak to your approved servicing dealer.	
<i>Unexpected cutting height adj</i>	The cutting height adjustment cannot move.	Examine the cutting height adjustment and remove grass or other objects. If the problem stays, speak to your approved servicing dealer.
<i>Limited cutting height range</i>		
<i>Cutting height problem</i>		
<i>Cutting height blocked</i>		
<i>Cutting deck not in correct position</i>	The cutting deck is not attached correctly.	Make sure that the cutting deck is attached correctly and that the lever is in the correct position. If the problem stays, speak to your authorized service center.
	The cutting deck is in service position.	Make sure that the cutting deck is in cut position. If the problem stays, speak to your authorized service center.
<i>Destination not reachable</i>	There is no transport path between the charging station and the work area or maintenance point.	Make a transport path between the charging station and the work area or maintenance point.
	The transport path is blocked and the product cannot go to the work area, charging station or maintenance point.	Make sure that the transport path is not blocked, or delete the transport path and make a new transport path.
<i>Too many waypoints</i>	There are too many waypoints in the current work area.	Make a new the work area, stay-out zone and transport path and use less waypoints. Divide the current work area into more work areas.

Message	Cause	Action
<i>Too high battery current</i>	The product has stopped because it has operated on too high or thick grass or in a too steep slope.	Put the product on a level surface with short grass and start the product. If the problem stays, speak to your authorized service center.
<i>Too high internal current</i>		
<i>High internal power loss</i>		
<i>High charging power loss</i>	The contact between the charging plates on the cutting deck and the contact plates on the charging station is not good.	Polish the charging plates on the cutting deck and the contact plates on the charging station.
	Temporary electronic or firmware problem in the product.	Start the product. If the problem stays, speak to your authorized service center.
<i>High internal temperature</i>	The product has operated in too high temperature, too high or thick grass, or in too steep slopes.	Put the product in an area with protection from the sun and wait. Put the product on a level surface with short grass and start the product. If the problem stays, speak to your authorized service center.
<i>High temperature in cutting motor, right/center/left</i>		
<i>Multiple reference stations</i>	There is more than one reference station near the work area. This can cause interference for the product from a different reference station.	Speak to your approved servicing dealer if the same problem occurs frequently.
<i>Invalid firmware configuration</i>	The firmware in the product is not updated.	Put the product in the charging station and update the firmware. If the problem stays, speak to your dealer.

### 7.3 Information and warning messages

The information messages in the table below are shown in the *Messages* menu in the Husqvarna Fleet Services™ app. Speak to your approved servicing dealer if the same message shows frequently.

Message	Cause	Action
<i>Cutting system imbalance</i>	The product senses vibrations in the cutting disc.	Examine the blades and screws for damages and wear. Make sure that all blades are correctly installed and that there is only one blade attached in each position on the blade disc.
<i>Connectivity problem</i>	Problem with the Automower® Connect module.	Restart the product. Disable Automower® Connect in the app and enable it again. Wait 1 hour and try again. If the problem stays, speak to your local approved servicing dealer.
<i>Wrong PIN code</i>	An incorrect PIN code was entered. 5 tries are permitted, and the product is then blocked for a period of time.	Enter the correct PIN code. If the PIN code is incorrect, use the web address in the app to send the PIN code to your registered e-mail address. If you have not registered the e-mail address, speak to your approved servicing dealer.
<i>GPS navigation problem</i>	Temporary electronic or firmware related problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.
<i>Ultrasonic problem</i>	The ultrasonic sensor is dirty or blocked.	Clean the ultrasonic sensor.
	Temporary electronic or firmware related problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.

## 7.4 LED indicator lamps on the charging station

For a fully functional installation, the indicator lamps in the charging station must show a solid or flashing green light. If another color shows, follow the troubleshooting guide below.

There is more help on [www.husqvarna.com](http://www.husqvarna.com). If you still need help, speak to your approved servicing dealer.

Light	Status
Green solid light	Good signals.
Green flashing light	The signals are good and <i>ECO mode</i> is activated. Refer to <i>ECO mode on page 28</i> .
Red flashing light	Interruption in the charging station's antenna. Speak to your approved servicing dealer.
Red solid light	Fault in the circuit board or incorrect power supply in the charging station. The fault must be correct by an authorized service technician. Speak to your approved servicing dealer.

## 7.5 Symptoms

If the product does not operate correctly, refer to the symptoms table below.

Symptoms	Cause	Action
The product cannot go into the charging station.	The charging station is not put on a level surface.	Put the charging station on level surface. Refer to <i>To examine where to put the charging station on page 14</i> .
	The charging station is put too far from the work area.	Make a new work area or move the charging station.
The product operates at the incorrect time.	The time and date of the product must be set.	Set the time and date. Refer to <i>Time &amp; date on page 28</i> .
	The time and date of the product is not set correctly.	
	The start and stop time for operating are incorrect.	Change the schedule settings. Refer to <i>Schedule on page 27</i> .
There is vibration in the product.	The cutting system is not in balance because of damaged blades.	Examine the blades and screws and replace them if it is necessary. Refer to <i>Replacement of the blades and blade discs on page 36</i> .
	The cutting system is not in balance because of too many blades in the same position.	Make sure that only 1 blade is attached to each screw.
	Blades of different thickness are installed on the product.	Examine if the blades are of different thickness and replace the blades if necessary.
The product operates, but the blade disc does not rotate.	The product goes to the charging station.	Usual operation for the product. The blade disc does not rotate when the product goes to the charging station.

Symptoms	Cause	Action
The product operates for shorter periods than usual between charges.	Grass or other object causes a blockage to the blade disc.	Remove and clean the blade disc. Refer to <i>To clean the cutting deck and blade discs on page 36.</i>
	The battery is at the end of its life cycle.	Replace the battery. Refer to <i>Battery on page 38.</i>
	The grass is high and thick.	Increase the cutting height and then decrease it when the grass is shorter.
Operation and charging times are shorter than usual.	The battery is at the end of its life cycle.	Replace the battery. Refer to <i>Battery on page 38.</i>
The product is parked for hours in the charging station.	The product is parked because of the set schedule setting, or because <i>Park until further notice</i> is selected.	Change the schedule settings, or start the product.
	The product does not operate if the battery temperature is too high or too low.	The product starts to operate again when the temperature is between the set limits and the schedule settings lets the product operate. Make sure that the charging station is put in an area with protection from the sun.
The cut result is not satisfactory.	The product operates for a short period.	Increase the operation time. Refer to <i>Schedule on page 27.</i>
	The work area is too large.	Set a limit to the work area, or extend the operation time. Refer to <i>Schedule on page 27.</i>
	Blunt blades.	Replace all the blades. Refer to <i>To replace the blades on the blade disc on page 37.</i>
	Long grass in relation to the set cutting height.	Increase the cutting height and then decrease it when the grass is shorter.
	Collection of grass on the blade disc or around the motor shaft.	Remove the collection of grass and clean the product. Refer to <i>To clean the cutting deck and blade discs on page 36.</i>
	The cutting deck is not calibrated.	Speak to your authorized service center.
The product is in the charging station but does not charge the battery.	The product is not connected to the charging station.	Make a pairing operation to connect the charging station and the product.
	The charging station does not charge.	Disconnect and connect the mains cable to the charging station to restart it and to automatically start the charging. If the problem stays, speak to your dealer.
You cannot connect with the product with an additional mobile device.	Only one mobile device can be connected to the product with Bluetooth® at the same time.	Close the Automower® Connect app in all other connected devices. If the problem stays, set the connected mobile device to OFF and start it again. If the problem stays, speak to your dealer.

Symptoms	Cause	Action
<p>There was cellular connection before, but there is no cellular connection at this time.</p>	<p>There is a problem with the cellular connection.</p>	<ul style="list-style-type: none"> <li>• Make sure that you have cellular coverage in the area.</li> <li>• Disable Automower® Connect in the app and enable it again. Wait 1 hour and try again.</li> <li>• Restart the product.</li> <li>• If a new firmware is available in the app, install it to make sure that you have the newest firmware.</li> <li>• Make sure that you have the newest version of the Husqvarna Fleet Services™ app and the Automower® Connect app installed.</li> <li>• If the problem stays, speak to your dealer.</li> </ul>

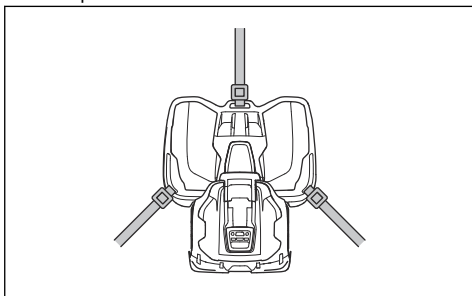
## 8 Transportation, storage and disposal

### 8.1 Safety instructions for transportation

- Use an approved transport vehicle for transportation of the product.
- A markets national or local regulations can set limit to the transportation of the product.
- The operator of the transport vehicle is responsible to attach the product safely during transport. Refer to *To safely attach the product for transport on page 50.*

#### 8.1.1 To safely attach the product for transport

- Attach the product with 3 straps, one on the front handle and one on each side handle of the product. The maximum force is 300 N for each strap.



### 8.2 To put the product into storage

- Charge the product fully. Refer to *To charge the battery on page 31.*
- Set the product to OFF. Refer to *To set the product to OFF on page 31.*
- Clean the product. Refer to *Clean the product on page 36.*
- Put the product in a dry, frost-free area.
- Put the product with all wheels on level ground.

**Note:** If you keep the charging station outdoors, do not disconnect the cable.

### 8.3 Transportation of batteries

The supplied Li-ion batteries obey the Dangerous Goods Legislation requirements.

- Obey all applicable national regulations.
- Obey the special requirement on package and labels for commercial transportations, including by third parties and forwarding agents.

### 8.4 Disposal

- Obey the local recycling requirements and applicable regulations.
- For questions about how to remove the battery, refer to *To remove the battery on page 50.*

#### 8.4.1 To remove the battery

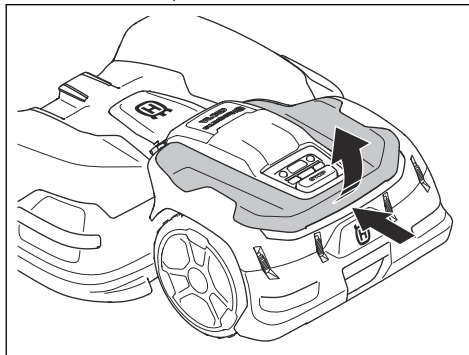


**WARNING:** Use protective gloves and protective shoes.

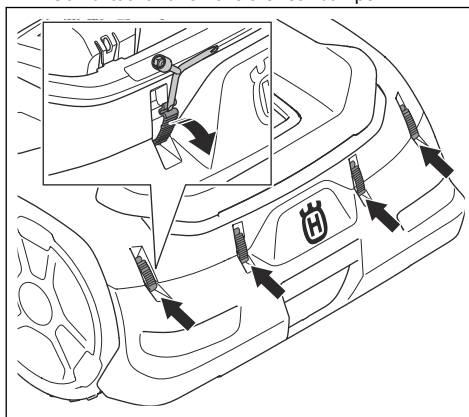


**CAUTION:** Only remove the batteries when you dispose the product. The Husqvarna warranty is not applicable if you remove the warranty seal.

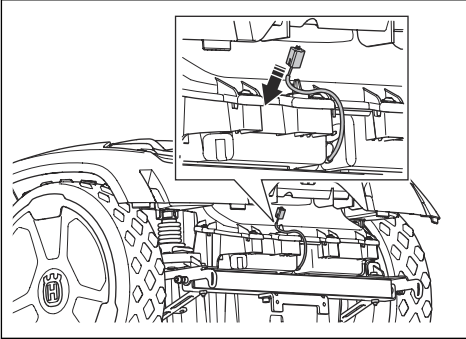
1. Remove the top cover.



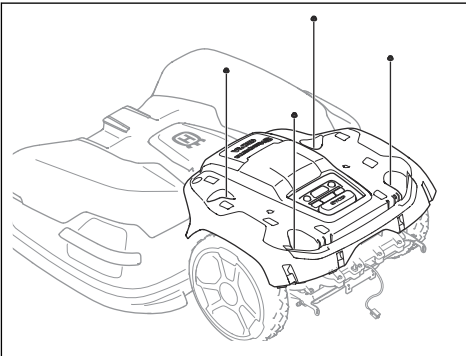
2. Loosen the clips with the flat screwdriver on the Combi tool and remove the rear bumper.



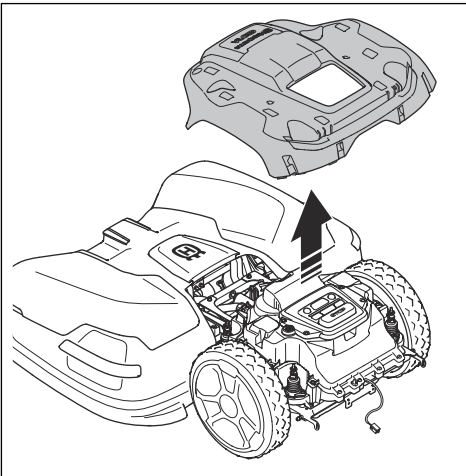
3. Disconnect the cable.



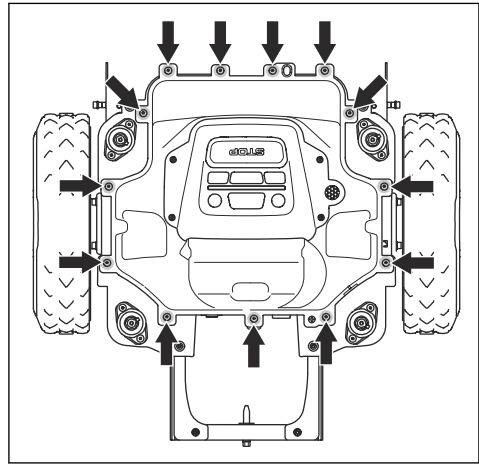
4. Remove the 4 nuts.



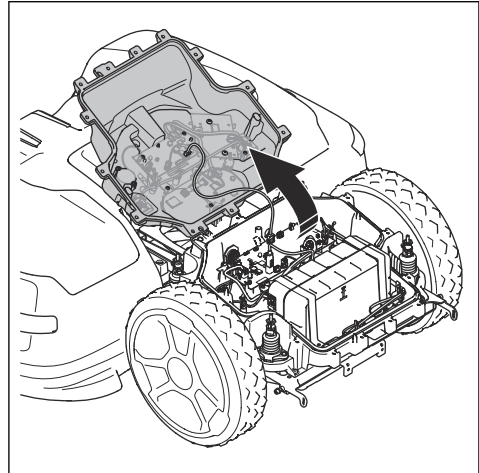
5. Remove the body of the product.



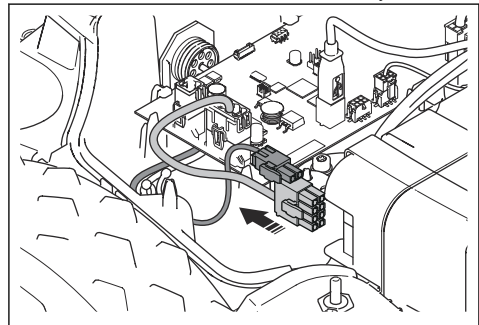
6. Remove the 13 screws.



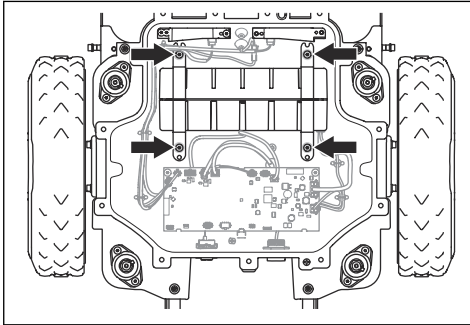
7. Fold the top of the chassis carefully.



8. Disconnect the 2 cables from the battery.



9. Remove the 4 screws for the battery bracket.



10. Remove the battery from the product.



## 9 Technical data

### 9.1 Technical data

System	CEORA™ 544 EPOS		CEORA™ 546 EPOS	
	CEORA™ CS4		CEORA™ CS4	
	CEORA™ RZ 43L	CEORA™ RZ 43M	CEORA™ RZ 43L	CEORA™ RZ 43M
<b>Dimensions, drive unit and cutting deck</b>				
Length, cm/in.	124/48.8	124/48.8	124/48.8	124/48.8
Width, cm/in.	108/42.5	108/42.5	108/42.5	108/42.5
Height, cm/in.	44/17.3	44/17.3	44/17.3	44/17.3
Weight <sup>10</sup> , kg/lb	73/161	72/160	73/161	72/160
<b>Mowing<sup>11</sup></b>				
Area capacity - Max 72, m <sup>2</sup> /acre(s), regular quality	57000/14.1	60000/14.8	72000/17.8	75000/18.5
Area capacity - Standard 48, m <sup>2</sup> /acre(s), pro quality	38000/9.4	40000/9.9	48000/11.9	50000/12.4
Area capacity - Sports 24, m <sup>2</sup> /acre(s), pro sport quality	19000/4.7	20000/4.9	24000/5.9	25000/6.2
Area per hour, no charging, m <sup>2</sup> /acre(s)	1350/0.33	1350/0.33	1800/0.44	1800/0.44
Power consumption during cutting, average, W	270	210	310	250
Maximum blade motor speed, rpm	2800	2800	3000	3000
Mean energy consumption at maximum use, kWh/month	140	115	150	130
Mowing time, average, min	225	300	200	250
Charging time, average, min	150	150	150	150
Narrowest possible passage, m/ft.	3/9.8	3/9.8	3/9.8	3/9.8
Maximum slope inside installation, %	20	20	20	20
Maximum slope for virtual boundary, %	15	15	15	15
<b>Sound data<sup>12</sup></b>				

<sup>10</sup> Some products have wheel brushes that has a weight of 2 kg/4.4 lb.

<sup>11</sup> The type and condition of the blades, growth and moisture of the grass can have an effect on the area capacity. If the cutting height is lower than 25 mm, the area capacity is decreased by approximately 10%.

<sup>12</sup> Determined according to Directive 2006/42/EC and standard EN 50636-2-107. Except Sound level, perceived that is measured according to ISO 11094:1991.

System	CEORA™ 544 EPOS		CEORA™ 546 EPOS	
	CEORA™ CS4		CEORA™ CS4	
	CEORA™ RZ 43L	CEORA™ RZ 43M	CEORA™ RZ 43L	CEORA™ RZ 43M
Sound level perceived, dB (A)	72	69	72	72
Measured sound power noise level, dB (A)	70	68	70	69
Noise emissions uncertainties $K_{WA}$ , dB (A)	2	1	5	1
Sound pressure noise level at the operator's ear <sup>13</sup> , dB (A)	62	60	62	61

Drive unit	CEORA™ 544 EPOS	CEORA™ 546 EPOS
<b>Dimensions</b>		
Length, cm/in.	67/26.4	67/26.4
Width, cm/in.	72/28.3	72/28.3
Height, cm/in.	44/17.3	44/17.3
Weight <sup>14</sup> , kg/lb	38/84	38/84
<b>Battery</b>		
Battery, Lithium-Ion 36.3V, 49 Ah, Art. No	593 78 54-01	593 78 54-01
Battery, Lithium-Ion 36.9V, 48 Ah, Art. No	593 78 54-02, 593 78 54-03	593 78 54-02, 593 78 54-03
<b>Product data</b>		
Speed km/h / mph	2.7/1.7	3.6/2.2
IP code	IPX5	IPX5

Cutting deck	CEORA™ RZ 43L	CEORA™ RZ 43M
<b>Dimensions</b>		
Length, cm/in.	78/30.7	78/30.7
Width, cm/in.	108/42.5	108/42.5
Height, cm/in.	34/13.4	34/13.4
Weight, kg/lb	35/77	34/75
<b>Cutting system</b>		
Cutting system	3 discs with 5 pivoting blades	3 discs with 5 pivoting blades
Cutting height <sup>15</sup> , mm/in.	10-60/0.4-2.4	20-70/0.8-2.8
Cutting width, cm/in.	68/26.8	68/26.8

<sup>13</sup> Sound pressure noise uncertainties  $K_{pA}$ , 2-4 dB (A).

<sup>14</sup> Some products have wheel brushes that has a weight of 2 kg/4.4 lb.

<sup>15</sup> Soil type, grass type and surface type can cause different cutting heights.

Cutting deck	CEORA™ RZ 43L	CEORA™ RZ 43M
IP code	IPX5	IPX5
Blades	Automower® standard blades, Automower® Enhance HSS blades	Automower® standard blades, Automower® Enhance HSS blades

Charging station	CEORA™ CS4
<b>Dimensions</b>	
Length, cm/in.	151/59.4
Width, cm/in.	98/38.6
Height, cm/in.	33/13.0
Weight, kg/lb	15.5/34.2
<b>Electrical system</b>	
Power supply (36V DC), V AC	100-240
Mains cable for charging station, length m/ft	3/9.8
Charging current, A DC	12
Type of Power Supply Unit for charging station <sup>16</sup>	ADP-500BR XX
IP code charging station	IPX4
IP code power supply unit	IPX44
<b>Charging station wire antenna</b>	
Operating Frequency Band, Hz	100-80000
Maximum magnetic field, dBuA/m	82
Maximum Radio-frequency power <sup>17</sup> , mW @60m	<25 mW @60m

Frequency Band Support	
Bluetooth® Frequency range	2400.0-2483.5 MHz
Automower® Connect 2G	GSM 850 MHz, E-GSM 900 MHz, DCS 1800 MHz, PCS 1900 MHz
Automower® Connect 4G	Band 12 (700 MHz), Band 17 (700 MHz), Band 13 (700 MHz), Band 20 (800 MHz), Band 26 (850 MHz), Band 5 (850 MHz), Band 19 (850 MHz), Band 8 (900 MHz), Band 4 (1700 MHz), Band 3 (1800 MHz), Band 2 (1900 MHz)
SRD868 (Europe)	863-870 MHz
SRD915 (North America)	902-928 MHz
SRD915 (Australia)	915-928 MHz
SRD915 (New Zealand)	915-928 MHz

<sup>16</sup> XX, YY can be any alphanumeric characters or blank for marketing purpose only, no technical differences.

<sup>17</sup> Maximum active output power to antennas in the frequency band in which the radio equipment operates.

<b>Power Class</b>		
Bluetooth® Output power	8 dBm	
Automower® Connect 2G	Power Class 4 (GSM/E-GSM)	33 dBm
	Power Class 1 (DCS/PCS)	30 dBm
	Power Class E2 (GSM/E-GSM)	27 dBm
	Power Class E2 (DCS/PCS)	26 dBm
Automower® Connect 4G	Power Class 3	23 dBm
SRD868 (Europe)	13 dBm	
SRD915 (North America)	13 dBm	
SRD915 (Australia)	13 dBm	
SRD915 (New Zealand)	13 dBm	

Full compatibility cannot be guaranteed between the product and other types of wireless systems such as remote controls, radio transmitters, hearing loops, buried electric animal fencing or similar.

The products are made in England or the Czech Republic. See information on the rating plate. Refer to *Introduction on page 7*.

## 9.2 Registered trademarks

The *Bluetooth®* word mark and logos are registered trademarks owned by *Bluetooth SIG, inc.* and any use of such marks by Husqvarna is under license.

# 10 Declaration of Conformity

## 10.1 Original EU Declaration of Conformity

### EU Declaration of Conformity

ROB-CEORA EPOS-22-4E

We, Husqvarna AB, SE 561 82 Huskvarna, SWEDEN, Tel. +46 36 146500 declare on our sole responsibility that the products:

Description	Robotic lawn mower
Brand	HUSQVARNA
Type / Model	HUSQVARNA AUTOMOWER® CEORA 544 EPOS and CEORA 546 EPOS
Identification	Serial numbers dating from 2023 week 2

complies fully with the following EU directives and regulations:

Directive/Regulation	Description
2006/42/EC	"relating to machinery"
2014/53/EU	"relating to radio equipment"
2011/65/EU	"restriction of use of certain hazardous substances"

and that the following standards and/or technical specifications are applied;

IEC 60336-1:2010+A1:2013+A2:2016 (EN 60335-1:2012+AC:2014+A11:2014+A13:2017)

IEC 60335-2-107:2017+A1:2020 (EN 50636-2-107:2015+A1:2018+A2:2020)

EN ISO 12100:2010

EN IEC 63000:2018

EN 61000-6-1:2007

EN 61000-6-3:2007+A1:2011+AC:2012

ETSI EN 301 489-1 V2.2.3

ETSI EN 301 489-3 V2.1.1

ETSI EN 301 489-17 V3.1.1

ETSI EN 301 489-19 V2.1.1

ETSI EN 301 489-52 V1.1.0

ETSI EN 303 447 V1.3.1

ETSI EN 300 328 V2.2.2

ETSI EN 300 220-1 V3.1.1

ETSI EN 300 220-2 V3.1.1

ETSI EN 301 908-1 V15.1.1

ETSI EN 301 908-13 V13.1.1

ETSI EN 301 511 V.12.5.1

ETSI EN 303 413 V1.2.1

*Manne Alzén*

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Manne Alzén

Huskvarna

Director Pro Robotics R&D  
Husqvarna AB, Husqvarna Division  
Responsible for technical documentation



## 10.2 Translated EU Declaration of Conformity

We, Husqvarna AB, SE 561 82 Huskvarna, SWEDEN,  
Tel. +46 36 146500 declare on our sole responsibility  
that the product:

<b>Description</b>	<b>Robotic lawn mower</b>
<b>Brand</b>	Husqvarna
<b>Type/Model</b>	HUSQVARNA CEORA™ 544/546 EPOS
<b>Identification</b>	Serial numbers dating from 2023 week 2

complies fully with the following EU directives and  
regulations:

<b>Directive/Regulation</b>	<b>Description</b>
2006/42/EC	"Relating to machinery"
2014/53/EU	"Relating to radio equipment"
2011/65/EU	"Restriction of use of certain hazardous substances"

and that the following standards and/or technical  
specifications are applied;

- IEC 60336-1:2010+A1:2013+A2:2016 (EN 60335-1:2012+AC:2014+A11:2014+A13:2017)
- IEC 60335-2-107:2017+A1:2020 (EN 50636-2-107:2015+A1:2018+A2:2020)
- EN ISO 12100:2010
- EN IEC 63000:2018
- EN 61000-6-1:2007
- EN 61000-6-3:2007+A1:2011+AC:2012
- ETSI EN 301 489-1 V2.2.3
- ETSI EN 301 489-3 V2.1.1
- ETSI EN 301 489-17 V3.1.1
- ETSI EN 301 489-19 V2.1.1
- ETSI EN 301 489-52 V1.1.0
- ETSI EN 303 447 V1.3.1

- ETSI EN 300 328 V2.2.2
- ETSI EN 300 220-1 V3.1.1
- ETSI EN 300 220-2 V3.1.1
- ETSI EN 301 908-1 V15.1.1
- ETSI EN 301 908-13 V13.1.1
- ETSI EN 301 511 V.12.5.1
- ETSI EN 303 413 V1.2.1

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## 10.3 Original UK Declaration of Conformity

### Declaration of Conformity

ROB-CEORA EPOS-22-1U

We, Husqvarna AB, SE 561 82 Huskvarna, SWEDEN, Tel. +46 36 146500 declare on our sole responsibility that the product:

Description	Robotic lawn mower
Brand	HUSQVARNA
Type / Model	HUSQVARNA AUTOMOWER® CEORA 544 EPOS and CEORA 546 EPOS
Identification	Serial numbers dating from 2023 week 2

complies fully with the following UK regulations:

Description
The Supply of Machinery (Safety) Regulations 2008 The Radio Equipment Regulations 2017 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

and that the following standards and/or technical specifications are applied;

IEC 60336-1:2010+A1:2013+A2:2016 (EN 60335-1:2012+AC:2014+A11:2014+A13:2017)  
IEC 60335-2-107:2017+A1:2020 (EN 50636-2-107:2015+A1:2018+A2:2020)  
EN ISO 12100:2010  
EN IEC 63000:2018  
EN 61000-6-1:2007  
EN 61000-6-3:2007+A1:2011+AC:2012  
ETSI EN 301 489-1 V2.2.3  
ETSI EN 301 489-3 V2.1.1  
ETSI EN 301 489-17 V3.1.1  
ETSI EN 301 489-19 V2.1.1  
ETSI EN 301 489-52 V1.1.0  
Draft ETSI EN 303 447 V1.3.1  
ETSI EN 300 328 V2.2.2  
ETSI EN 300 220-1 V3.1.1  
ETSI EN 300 220-2 V3.1.1  
ETSI EN 301 908-1 V15.1.1  
ETSI EN 301 908-13 V13.1.1  
ETSI EN 301 511 V.12.5.1  
ETSI EN 303 413 V1.2.1

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Original instructions



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