Husqvarna









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

1.1 Safety definitions

Warnings, cautions, and notes are used to point out particularly 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.

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 let children less than 8 years of age be in the work area during operation. Children and animals must be supervised at all times during operation.
- Always keep a distance of minimum 3 m/10 ft from the product during operation. Children and animals must be supervised at all times during operation.
- The product is not a toy. The blades of the product can cause injury to persons and animals.
- 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 unless all persons in the work area knows that the product is in operation.
- 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 pants 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.
- To set the product to OFF, go behind the product and push the STOP button. and then push the ON/OFF button for 3 seconds to set the product to OFF. You can use the app to pause the product if it is applicable for your product. When the product is set to OFF, wait minimum 3 seconds before you move the product.
- 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 13*. 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 an outlet with a Class A ground fault circuit interrupter (GFCI) or a residual-current device (RCD) of maximum 30 mA.
- Only charge the product in the included charging station. For safe disposal of the battery, refer to *Disposal on page 47*. 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 13*.

- Follow the instructions about to start and operate the product, refer to *Operation on page 28*.
- 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 30*.
- For technical data such as weight, dimensions and noise emission values, refer to *Technical data on page 50*.
- 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.

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.
- 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 29*. 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 *Schedule on page 25*.
- 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 28*.
- 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 *Safety definitions on page 3*.
- 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.

1.5 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.
- Do not use a damaged battery. Dispose the battery if it is damaged. Refer to *Disposal on page 47*.

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 5*.

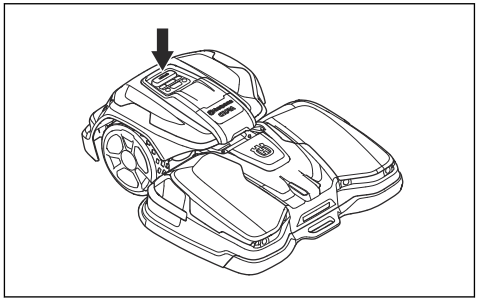
1.7.1 To lift the product manually

WARNING: Two persons are necessary to lift the product.

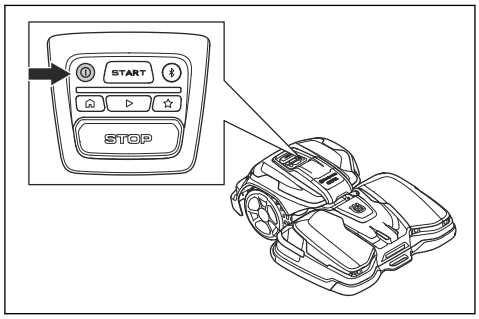
CAUTION: Do not lift the product when it is parked in the charging station. It can cause damage to the charging station and/or the product.

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

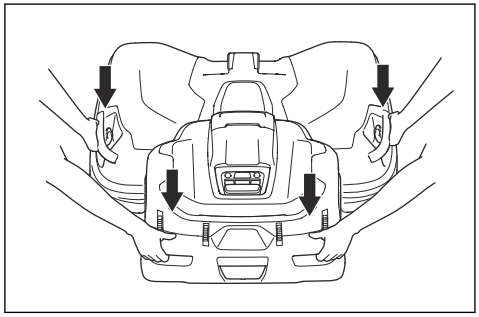
1. Push the **STOP** button to stop the product.



2. Set the product to OFF. Refer to *To set the product to OFF on page 29*.



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.



1.8 Cyber security

Security recommendations:

- Do not set up or operate the product on untrusted or public networks.
- At regular time intervals, do a check if there are firmware updates available to install to keep the system secure.

1.8.1 Bluetooth® interface

The Bluetooth® interface is enabled by default to help with set up, mobile device connection, local device control and configuration of the product with a mobile device. The Bluetooth® connection uses a PIN code or password that is different for each product through the app. All device connection are made safe with a standard BLE encryption. Use a strong, unique PIN to increase security.

1.8.2 Cellular interface

The cellular interface enables remote access through the companion app, supports firmware updates, and provides location services. The product uses industry-standard protocols to make cellular connections secure.

1.8.3 Location service

The location service uses GPS to show the product location. This is to enable the geofencing function (theft protection) and to let operators see the product location through the companion app.

1.8.4 External services

These services are available through the network interfaces:

- Backend Services: Enables secure management and configuration of the product through authenticated access with the app or web-based portal, as well as telemetry data exchange.
- Firmware update service: This service sends new firmware over the air (FOTA) to the product. These updates keep the product security and product functions up to date.
- Location service: This service shows the position of the product with GPS. You must enable this service in the app before you can use it.

2 Introduction

Serial number:
PIN code:

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

2.1 Support

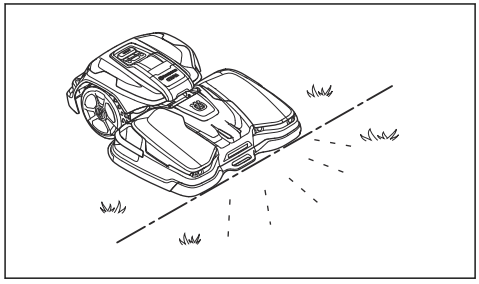
For support about the product, speak to your Husqvarna servicing dealer.

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.



2.2.1 Connectivity

Husqvarna Fleet Services™ is the digital tool to install, operate and monitor professional robotic mowers. Available on the web on www.husqvarna.com and as an mobile app, with support for Bluetooth® technology and remote control.

2.3 System description

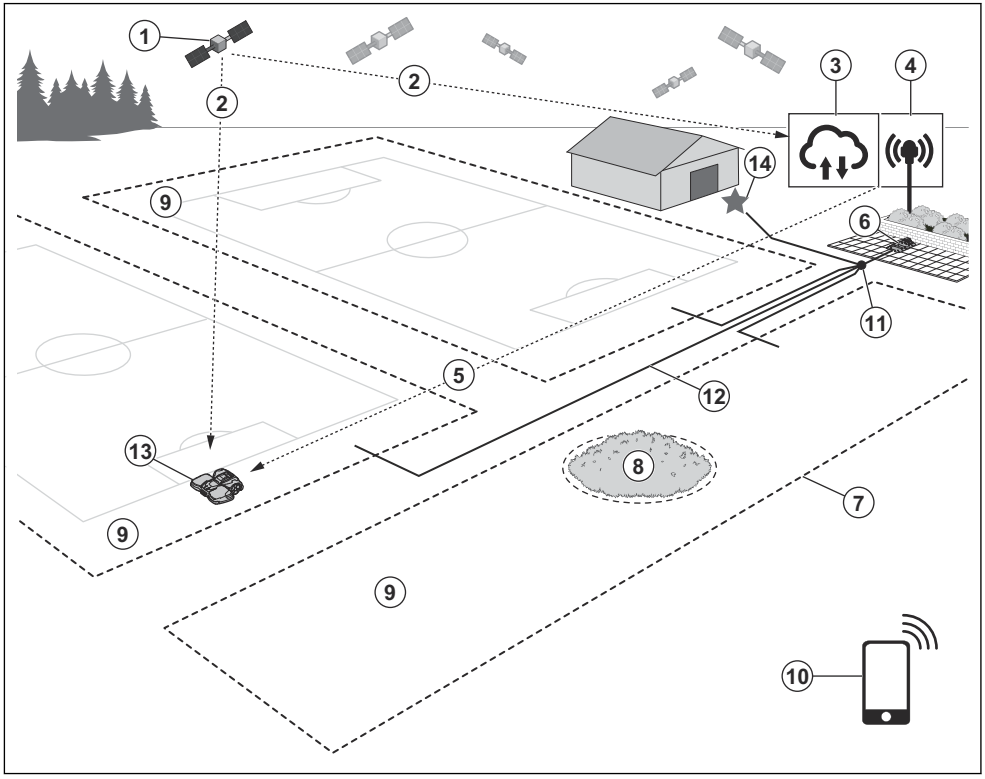
For installation of virtual boundaries with EPOS®, the product uses satellites and correction data to navigate. The correction data can be received through the Husqvarna® Cloud or a reference station. The reference station is an optional accessory that you can use if you cannot connect to the Husqvarna® Cloud.

There are 2 types of reference stations. The EPOS® RS 4G reference station uses cellular communication to send signals to the product. The maximum distance between the product and the EPOS® RS 4G reference station is 25 km/16 mi. The EPOS® RS5 reference station uses radio communication to send signals to the product. The maximum distance between the product and the EPOS® RS5 reference station is 500 m/1640 ft. The EPOS® RS5 reference station can used as a repeater. It can connect to other EPOS® RS5 reference stations. This connection increases the coverage area.

Note: All countries and regions do not support reference stations or correction data through the Husqvarna® Cloud. Speak to your local Husqvarna representative for information.

To make an installation the product is operated with appDrive in the app. Waypoints are added to make a map in the app. Work areas are the areas where the product operates and cuts grass. You can also create stay-out zones where the product cannot enter. In front of the charging station there is a docking point. It is used for the product to navigate to and from the charging station. Transport paths are necessary to navigate between the docking point and the work areas. The product does not cut grass when it operates along a transport path. Refer to *To make a transport path on page 22*.

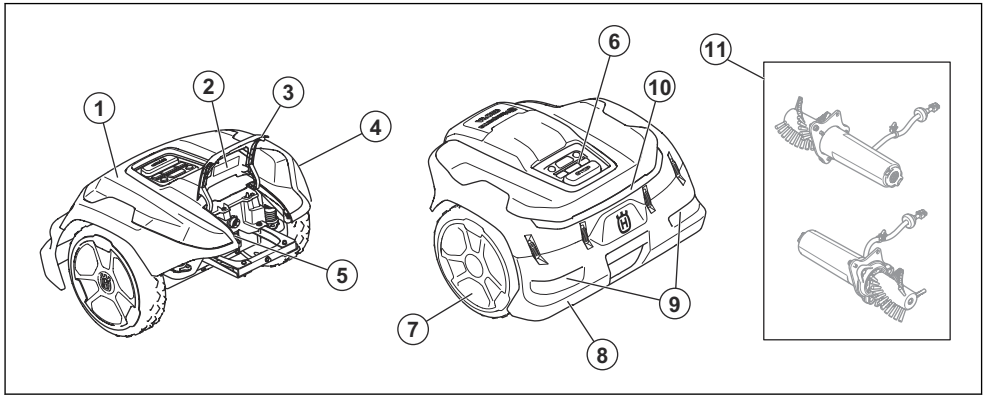
2.4 System overview



1. Satellites
2. Satellite signals
3. Husqvarna® Cloud
4. Reference station[1]
5. Correction data
6. Charging station
7. Virtual boundary
8. Stay-out zone
9. Work area
10. Mobile device[2]
11. Docking point
12. Transport path
13. Robotic lawn mower
14. Maintenance point

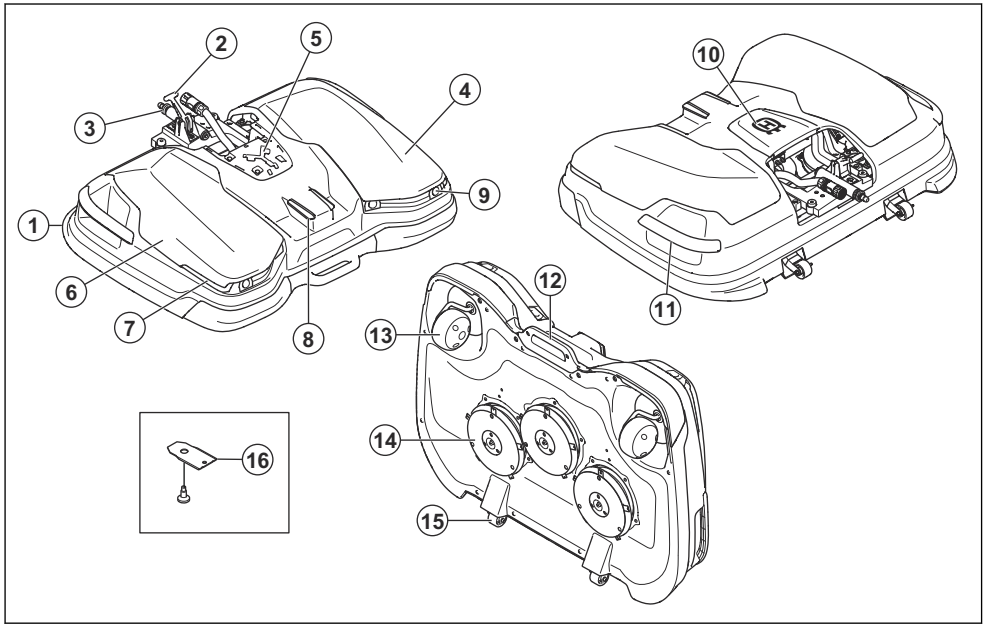
[1] Not included.
[2] Not included.

2.5 Product overview drive unit, CEORA® 544/546 EPOS®



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

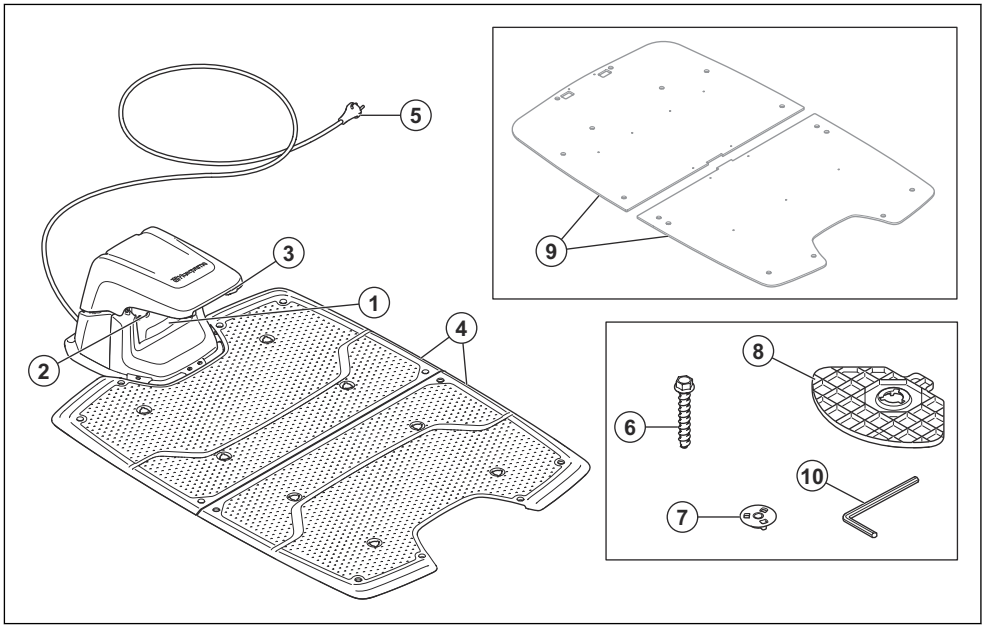
2.6 Product overview cutting deck, CEORA® RZ 43L/43M



[3] Is included for some markets and models or is available as accessory.

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

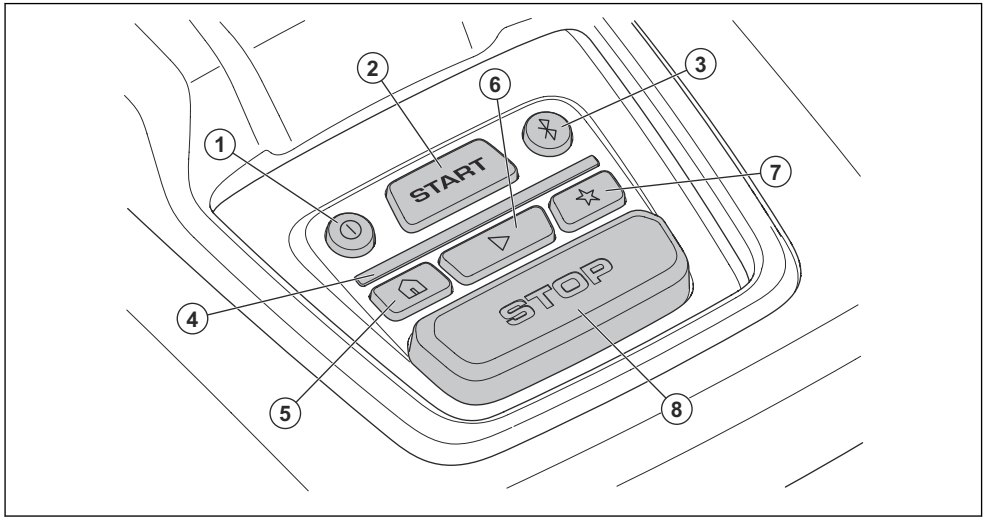
2.7 Product overview charging station, CEORA® CS4



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

[4] Found below the top cover.
[5] Found below the center top cover.
[6] The appearance can be different for different markets.
[7] Is available as accessory.

2.8 Control panel overview



1. ON/OFF button
2. START button
3. Bluetooth® button
4. LED indicator
5. Park button
6. Play button
7. Maintenance point button
8. STOP 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 *Pause* mode.
Flashes red	The product stopped because of an error.
Constant orange	The **STOP** button was pushed.
Flashes orange	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. 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.



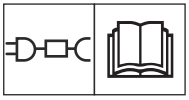
WARNING: Disable the product before maintenance or before you lift the product.



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.



The product is not domestic waste. Recycle the product at an approved disposal location for electrical and electronic equipment.



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 Product damage

We are not responsible for damages to our product if:

- the product is incorrectly repaired.
- the product is repaired with parts that are not from the manufacturer or not approved by the manufacturer.
- the product has an accessory that is not from the manufacturer or not approved by the manufacturer.
- the product is not repaired at an approved service center or by an approved authority.

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 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[8], that receives satellite signals and sends correction data to the robotic lawn mower.
- Mobile device with the Husqvarna Fleet Services™ 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.
- If you have an installation that uses EPOS® through Husqvarna® Cloud, make sure that the product can receive correction data in the complete work area.
- If you have an installation with a reference station, 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.

- Make sure that the work area where the product operates has unimpeded sky view.
- Fill in holes in the lawn to make it level.
- Cut the grass before you install the product. Make sure that the grass is maximum 5 cm / 2 in.

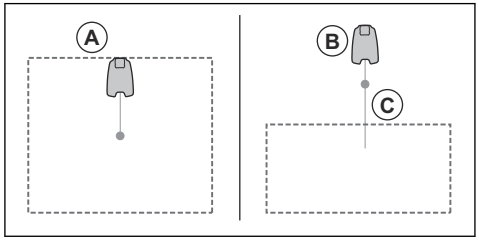
Note: The first weeks after installation the sound level when the product cuts the grass can be higher than usual. The sound level decreases after some time.

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

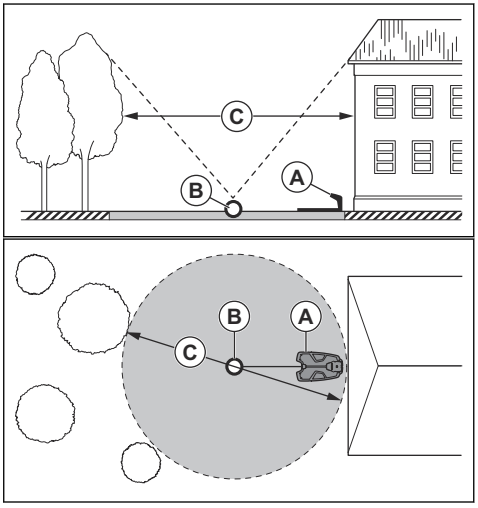
- You can put the charging station in the work area or not in the work area. No transport path is necessary if the charging station is put in the work area (A). No transport path is necessary if the product is fully in the work area when it is at the charging station docking point. If the charging station 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.

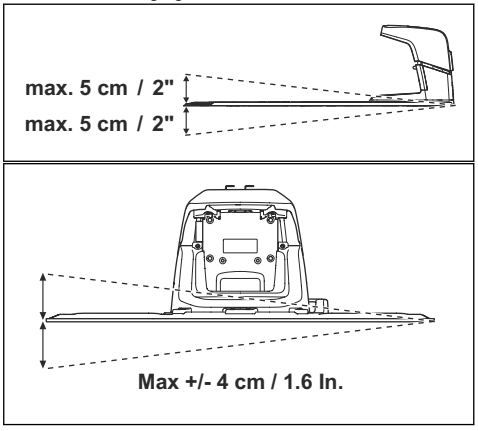
[8] Optional accessory which is purchased separately.

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.

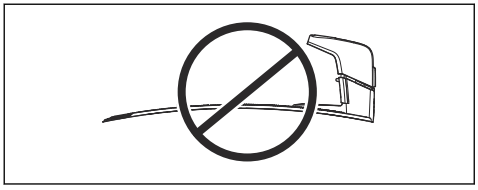


Note: Short reversing distance decreases the risk of track marks. A long reversing distance can be necessary to have good satellite signals at the docking point.

- 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 an outlet with a Class A ground fault circuit interrupter (GFCI) or a residual-current device (RCD) 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.

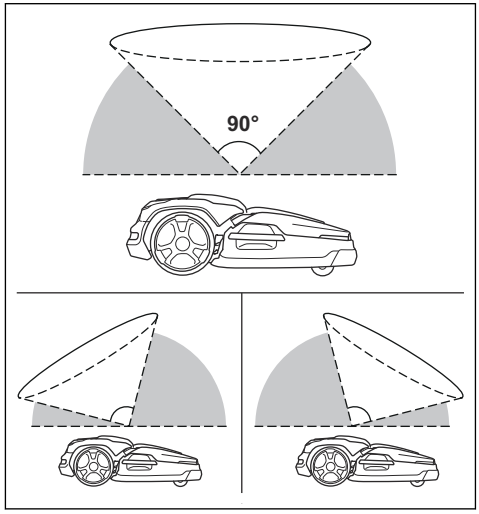
- Husqvarna recommends a maximum distance from the charging station to the most remote part of

the installation. The maximum distance is 1000 m / 3280 ft.

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

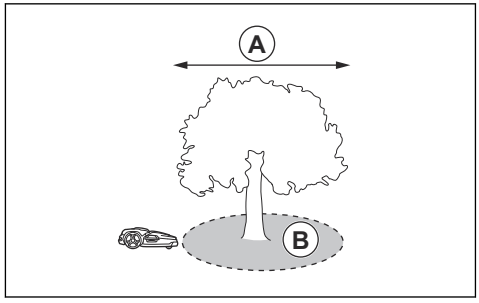
3.6.1 To install map objects near buildings and trees

- 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.

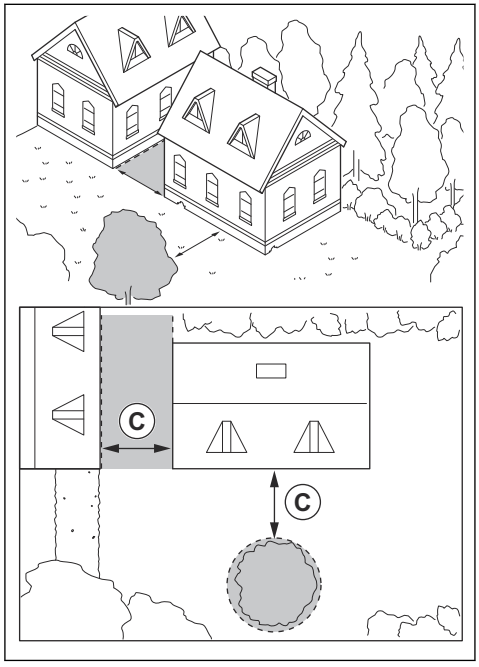
- Make a stay-out zone (B) around trees or a group of trees with tree canopies that are more than 4 m / 13 ft. in diameter (A).



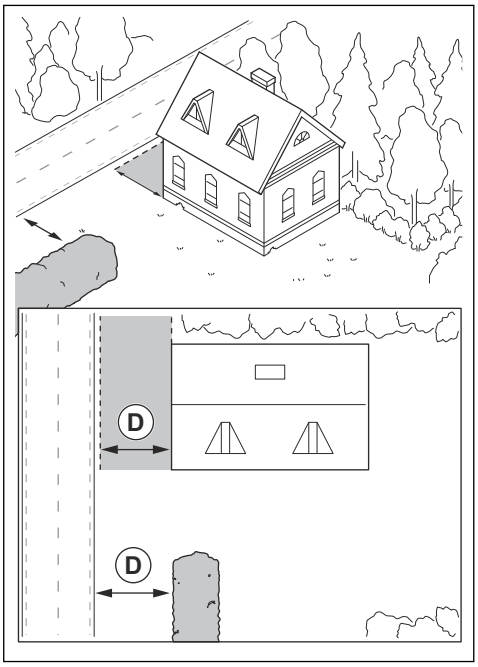
Note: Trees or a group of trees with tree canopies that are more than 4 m / 13 ft. in diameter (A) can cause temporary stops for the product.

Smaller trees do usually not cause interference with the operation of the product.

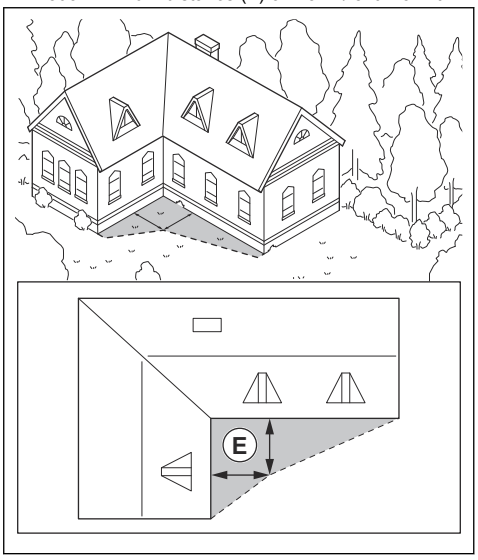
- Make sure that the areas between buildings or trees have a distance (C) of minimum 4 m / 13.1 ft.



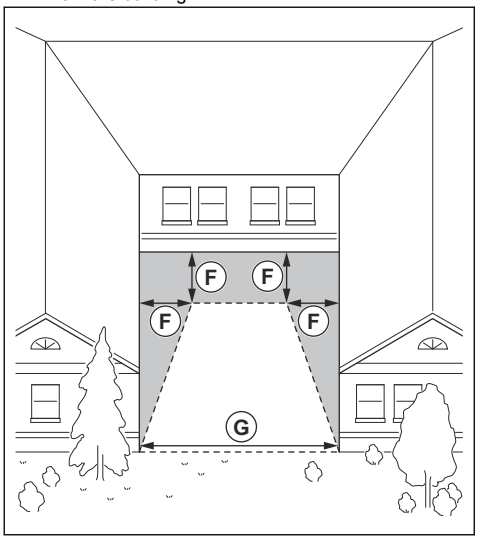
- Make sure that a passage between 2 low objects or between 1 low object and 1 high object has a minimum width (D) of 3 m / 9.8 ft.



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

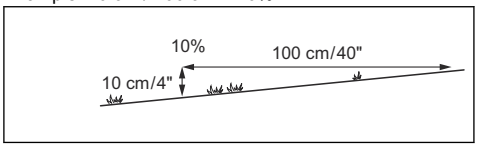


- To install virtual boundaries in an area with an U-shaped building, make sure that the distance (G) is minimum 6 m / 20 ft. If the building is higher than 3 m / 10 ft., make sure that the distance (G) is twice the height of the highest building. Install the virtual boundary at a minimum distance (F) of 1.5 m / 5 ft. from the building.



3.6.2 To install the map objects in a slope

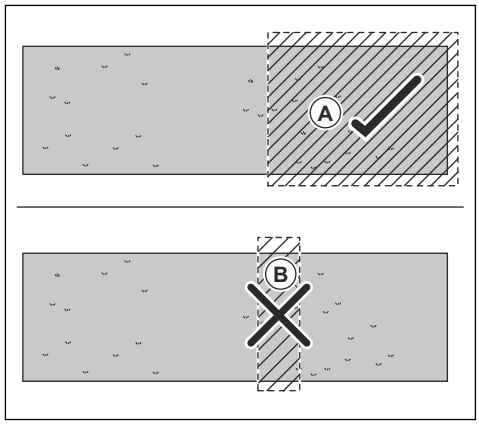
The product can operate in 20% slopes. Virtual boundaries can be installed in maximum 15% slopes. The slope (%) is calculated as height for each m. Example: 10 cm / 100 cm = 10%.



- 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 is minimum 30x30 cm / 1x1 ft.
- Make sure that the stay-out zone includes the complete area (A) where the product must not enter.



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

3.7 Installation of the product

3.7.1 To install the product

Do the general steps that follow to install the product:

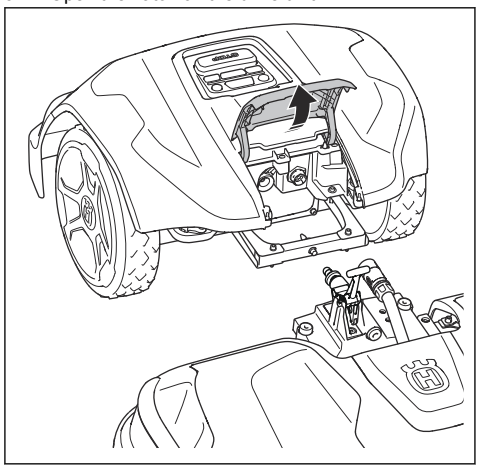
1. Attach the cutting deck to the drive unit. Refer to *To attach the cutting deck on page 17*.
2. Install the charging station. Refer to *Installation of the charging station on page 18*.
3. Install the reference station. Refer to the Operator's manual for the reference station.
4. Do a pairing operation of the product and the Husqvarna Fleet Services™ app. Refer to *To do a pairing operation with the Husqvarna Fleet Services™ on page 19*.
5. Make a map with work areas, stay-out zones, transport paths and maintenance points. Refer to *Installation of the product on page 17*.
6. Use Husqvarna Fleet Services™ app to do settings for the product. Refer to *Settings on page 25*.

3.7.2 Installation tools

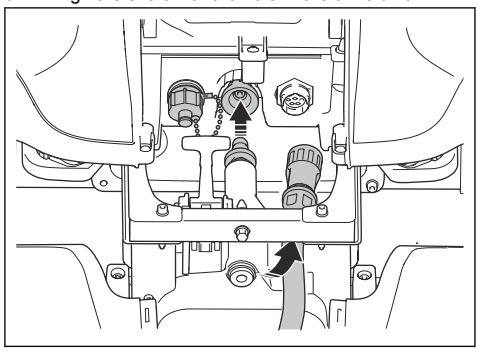
- 19 mm open end socket wrench.
- Hex key, 8 mm. Included with the charging station.
- Combi tool. Included with the cutting deck.
- 10 mm socket wrench.
- Drilling machine, 6 mm drill.
- Ratchet wrench or torque wrench, 10mm.

3.7.3 To attach the cutting deck

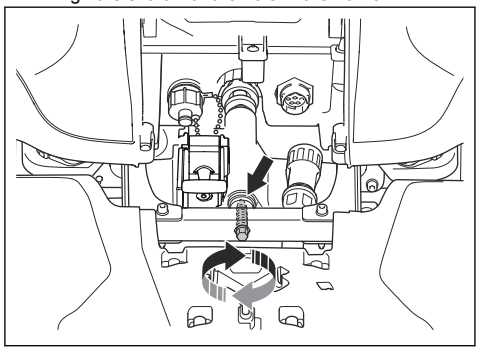
1. Set the drive unit to OFF. Refer to *To set the product to OFF on page 29*.
2. Put the cutting deck in front of the drive unit.
3. Open the hatch on the drive unit.



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.

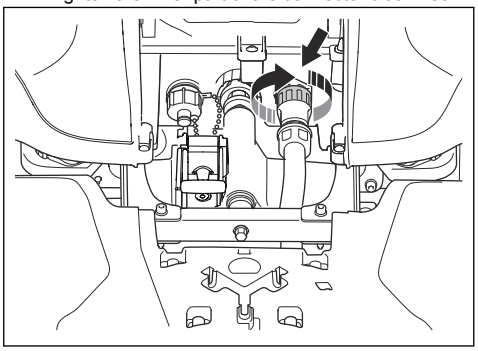


7. Align the shaft with the hole in the frame.

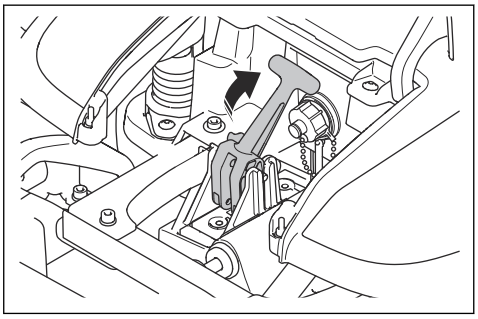


8. Install the screw with the ratchet wrench or torque wrench, 10 mm. Tightening torque 5 Nm.

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 29*.
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 13*.

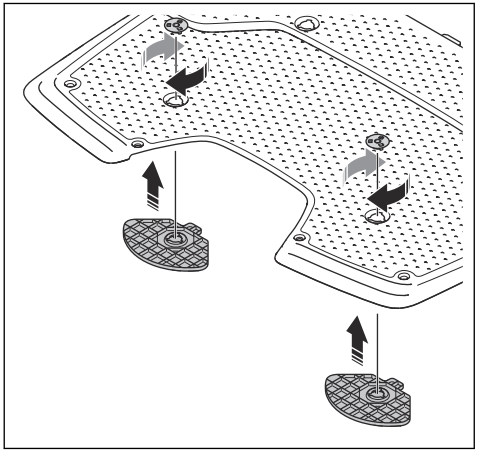
WARNING: Read and understand the safety instructions for installation. Refer to *Safety on page 3*.

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

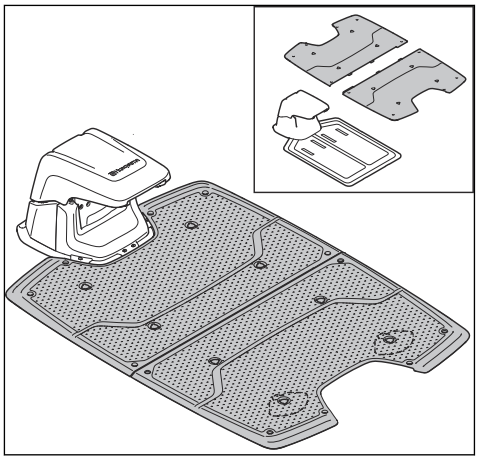
CAUTION: Do not put your feet on the baseplate of the charging station.

3.7.5.1 To install the charging station

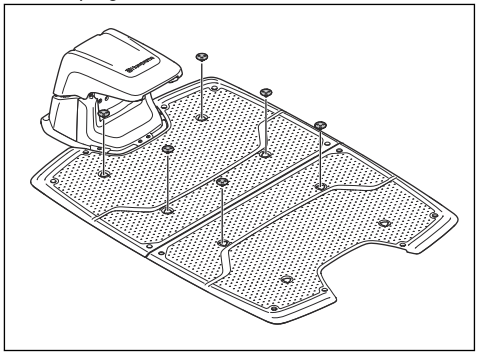
1. Put the charging station in the selected area.
2. Put the 2 support plates on the rear side of the top baseplate. Use an 8 mm hex key to attach the support plates from the front side with 2 couplings.



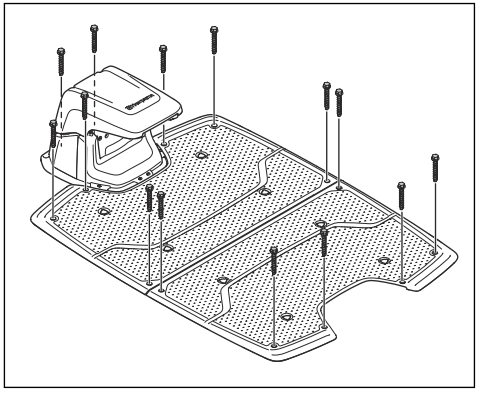
3. Put the 2 top baseplates on top of the lower baseplate.



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.

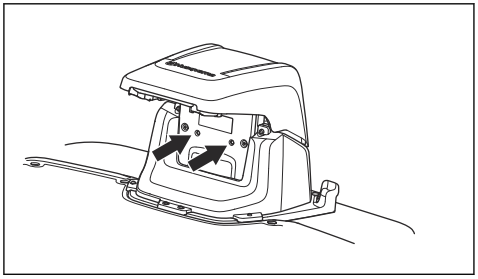


CAUTION: Do not tighten the screws too much.

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 29*.

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 44* and *To install the charging station on page 18*.

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 To do a pairing operation with the Husqvarna Fleet Services™

1. Download the Husqvarna Fleet Services™ 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.
5. Push the Bluetooth® button on the product to enable the Bluetooth®.

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.

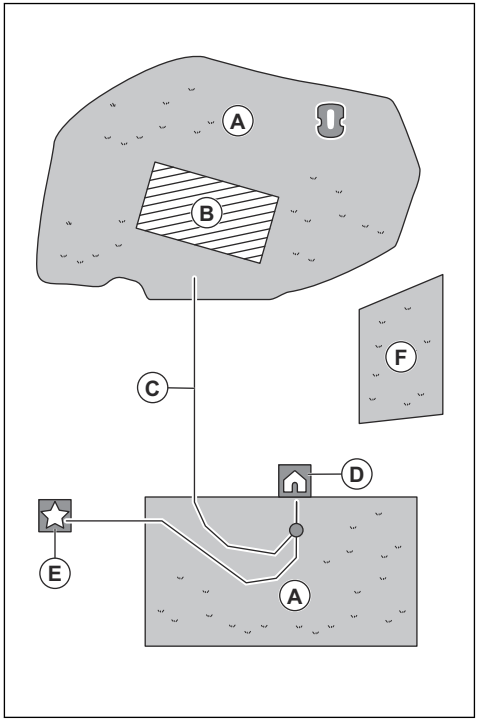
6. Select *Add robotic mower* in the app to add your product and follow the instructions in the app.

3.7.8 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 14*.

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)
- *Work area (Secondary area)* (F)

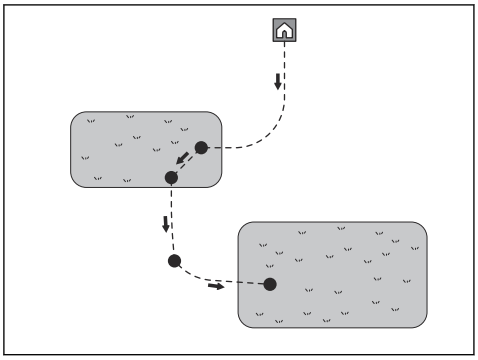


A work area is specified by virtual boundaries. Maximum 20 work areas and secondary areas can be installed on a map. Work areas can temporarily be enabled and disabled in the app.

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 work areas. 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. One transport path can be used to guide the product to multiple areas. At least one waypoint for the transport path needs to be put inside the work area.



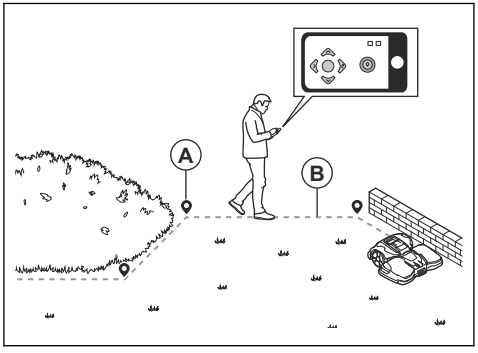
Stay-out zones can be made if there are areas where the product must not operate. A stay-out zone is specified by virtual boundaries. Stay-out zones can temporarily be enabled and disabled in the app.

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 20*.

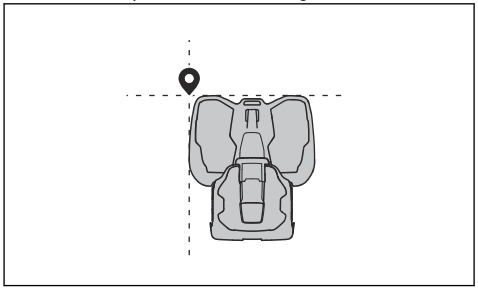
3.7.8.1 To install objects on the map

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.

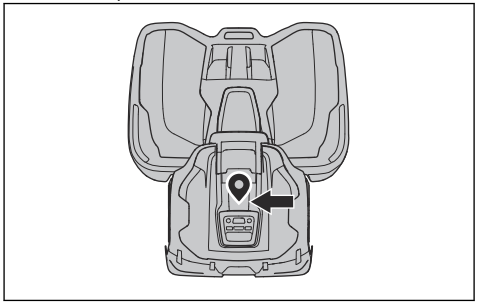


CAUTION: Do not lift and move the product between the waypoints when you install the map objects. Use appDrive for a correct installation.

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.



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.



- Make sure that you are near the product and connected to the product with the app with Bluetooth®.
- Select the object you want to install and use the buttons in the appDrive installation to operate the product.

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

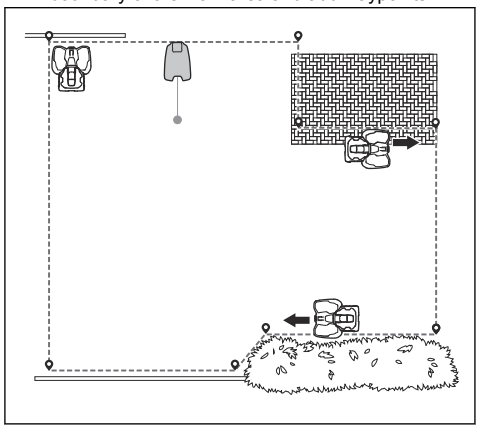
- Use the joystick to move and rotate the product in any direction.
- Use the **waypoint** button to add a waypoint in the map.

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

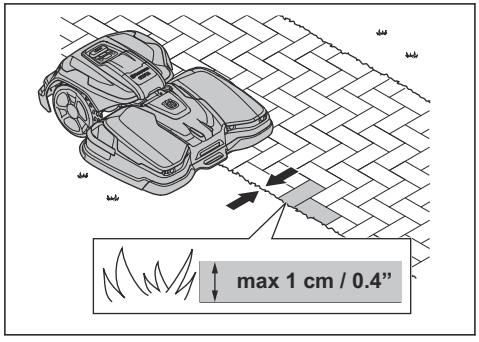
To make a work area

Minimum 3 waypoints are necessary to make a work area.

- Operate the product clockwise around the boundary of the work area and add waypoints.

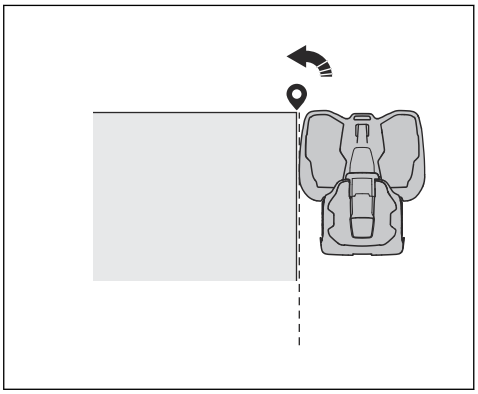


- Add a waypoint to make the product cut the grass at the edge between the lawn and the stone path. Make sure that you straddel the edge of the lawn when you add a waypoint.

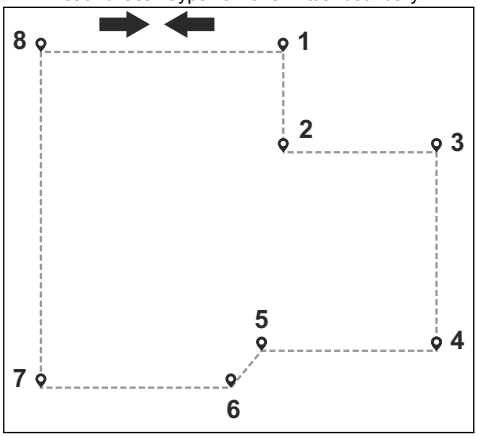


Note: The product can straddel the edge if the height of the stone path is maximum 1 cm / 0.4 in. in relation to the lawn

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



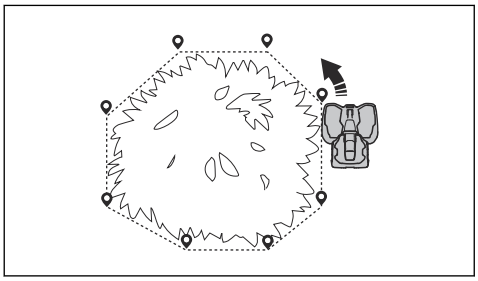
- Do not set waypoints that make a virtual boundary go across itself in the same work area.
- Save the work area to automatically connect the first and last waypoint with a virtual boundary.



To make a stay-out zone

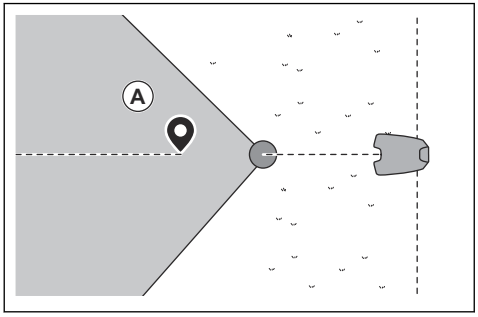
Minimum 3 waypoints are necessary to make a stay-out zone.

- Operate the product counterclockwise around the boundary of the stay-out zone, or select a set shape from the app.
- 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.

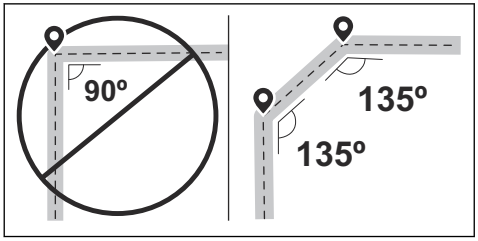


To make a transport path

- Operate the product and add waypoints on the map to install a transport path. Start either from the work area or near the charging station.
- Set the first or last waypoint in the work area at a minimum distance of 1 m / 3.3 ft. from the virtual boundary.
- Put the first or last waypoint on a transport path (A) in an angle of +/-45 degrees seen from the docking point.

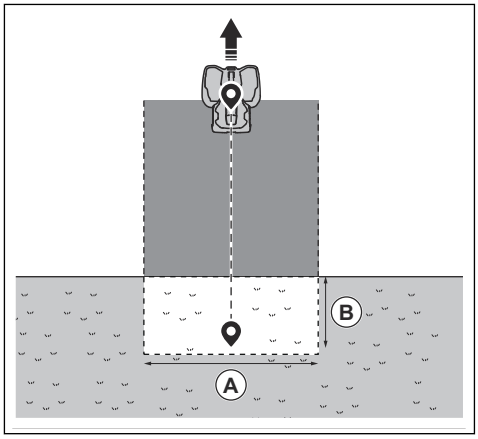


- Install the transport path perpendicular to the virtual boundary of the work area.
- Do not install a transport path across a stay-out zone.
- Do not set waypoints that make the transport path go across the same transport path.
- Do not make sharp bends when you install the transport part. Husqvarna recommends to add more waypoints to make smoother curves.



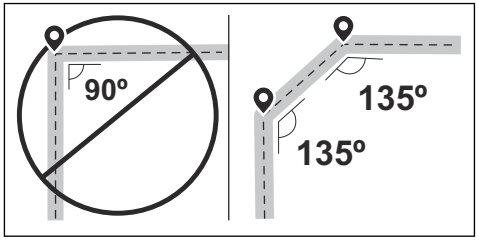
- Operate the product and add waypoints to connect the transport path to the docking point. Put a minimum of one waypoint in each work area to guide the product to the work area.

- Save the transport path to automatically connect the transport path to the docking point.
- Set the corridor width (A) for the transport path. The corridor width can be set to 2–5 m / 6.6–16.4 ft.

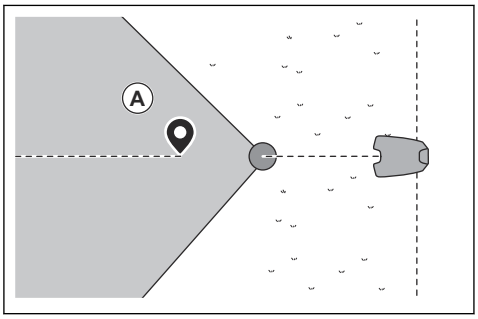


To make a maintenance point

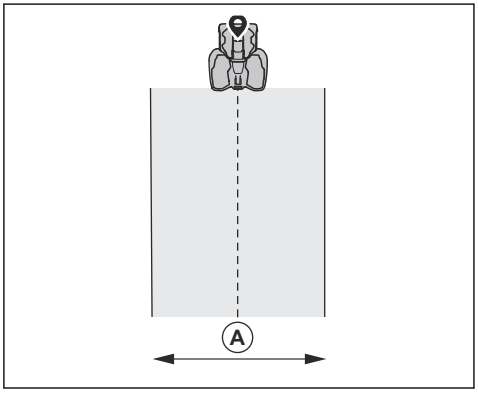
- Operate the product and add waypoints on the map. Start to add waypoints at the position where you install the maintenance point. The first waypoint specifies the maintenance point.
- Do not make sharp bends when you install a transport part. Husqvarna recommends to add more waypoints to make smoother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



- 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 +/-45 degrees seen from the docking point.



- 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 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.

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

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

4.1 Areas



4.1.1 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

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). Applicable to well-managed, lush, and dense turfs, as well as turfs mowed at a 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).

4.1.1.1 To set the schedule for systematic mowing

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

  Note: After the product has cut the full work area, it goes back to the charging station. When the next session starts, the product cuts the full work area again.

  Note: If the product has not cut the full work area before the session ends, it goes back to the charging station. When the next session starts, the product continues to cut from where it stopped.

- 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.
- Make sure that the product completes to cut each work area in less than 24 hours. If the product must cut a work area for more than 24 hours, divide the work area into smaller work areas.

4.1.2 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.

4.1.3 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.

4.2 Configuration



4.2.1 General settings

4.2.1.1 Object avoidance

The product decreases its speed when it senses an object in its path. This helps the product from hitting the object too hard. When the *Object avoidance* function is enabled, the product stops in front of the object to prevent a collision. Then, the product turns and continues to cut in a different direction.

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 used when the product operates in work areas, not when it is in a transport path.

4.2.1.2 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.

4.2.1.3 Warning lights

There are 4 different settings that control when the warning lights are on:

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

The warning lights can be set to *Strobe amber light* or to *Amber light*.

Note: Husqvarna recommends to use the warning lights especially at night time.

4.2.1.4 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.

4.2.2 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.

4.2.3 Security settings

4.2.3.1 Alarm duration

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

4.2.3.2 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.

4.2.3.3 Carried away

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

4.2.3.4 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.

4.2.4 Installation settings

4.2.4.1 New loop signal

The loop signal is randomly selected to create a unique link between the product and the charging station. In rare cases, there may be a need to generate a new signal, for instance if 2 adjacent installations have a very similar signal.

4.3 Bluetooth® menu

The Bluetooth® menu is only accessible in the app version of Husqvarna Fleet Services™. For safety and

security reasons, some menus are only available with Bluetooth® connection.

To connect to the product with Bluetooth®, you must be within Bluetooth® range of the product, approximately 30 m / 100 ft. Push the Bluetooth® icon in the app to connect with Bluetooth®.

4.3.1 Security settings

4.3.1.1 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*.

4.3.2 General

4.3.2.1 Time & date

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

4.4 Error log

In this menu the previous fault messages can be found. There are also tips and advice to help to rectify the fault. If the same message is repeated several times, this may indicate that an adjustment to the installation or the product is required.

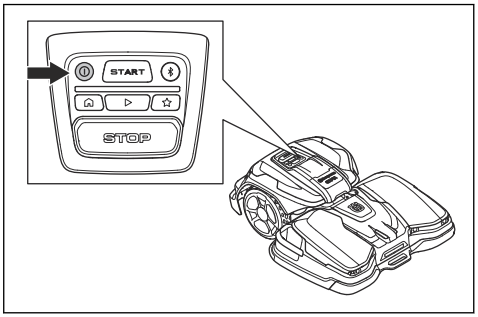
4.5 Download firmware over the air (Firmware over the air FOTA)

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.

5.1 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 Operate according to schedule

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

5.2.1 To select scheduled operation in the app

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

5.2.2 To select scheduled operation in the control panel

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

5.3 Mow a selected work area or override schedule

You can select to mow a specified work area in the app. For work areas with irregular pattern you can set for how long the product operates. For work areas with systematic pattern, the products mows the full work area one time and then park.

5.3.1 To select the work area in the app

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

5.4 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.

5.4.1 To select 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.

5.4.2 To select 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.

5.5 Park at Maintenance point

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

5.5.1 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.

5.5.2 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.

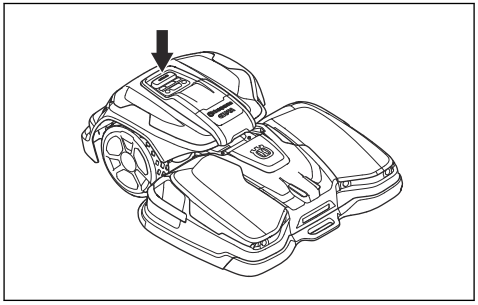
5.6 To start the product

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.

5.7 To stop the product

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

The product stops and the cutting motor stops.



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

5.8 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.

5.9 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.

5.10 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 30*.

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 33* 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 *Clean the product on page 33*.	X		
Examine the product for damage and wear.	X		
Do an update of the firmware for the drive unit and cutting deck. Refer to *Download firmware over the air (Firmware over the air FOTA) on page 27*.		X	
Do an update of the firmware for the charging station.		O	
Do a check of the servicing messages for recommended upgrades.		O	

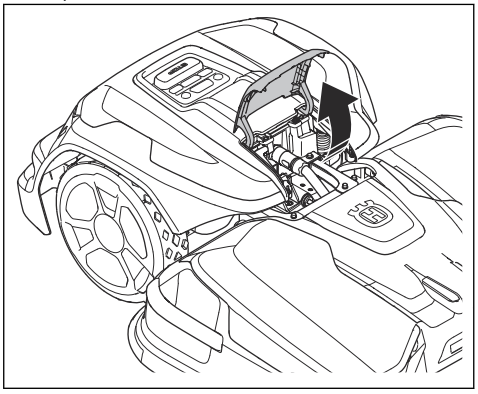
Servicing	Weekly	Every year	Every third year
Drive unit			
Remove the wheel covers and clean the wheels. Refer to *To clean the drive unit on page 33*.		X	
Examine if the cap for the USB outlet is attached correctly.		X	
Charge the battery fully before you put the product into storage. Refer to *To charge the battery on page 29*.		X	
Adjust the position of the wheel brushes if it is necessary or replace them if they are worn. Refer to *Adjustment of the wheel brushes on page 35*.	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
Cutting deck			
Examine the blades and replace the blades and blade screws if it is necessary. Refer to *Replacement of the blades and blade discs on page 33*.	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.			O
Examine the charging cable and connector.			O
Charging station			
Examine and polish the contact plates on the charging station.		X	
Examine the mains cable, power supply unit, charging cable and connectors.		O	
Open the charging station and replace the gasket.		O	

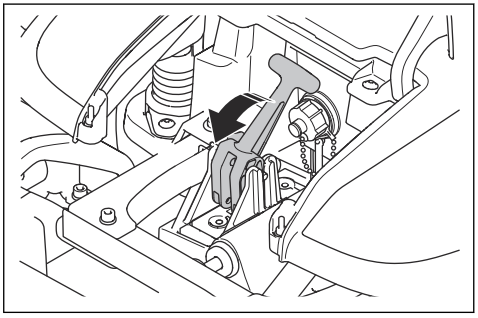
Last step	Weekly	Every year	Every third year
Use a software service tool to do a function test of the functions of the product.		O	

6.3 To put the cutting deck in service position

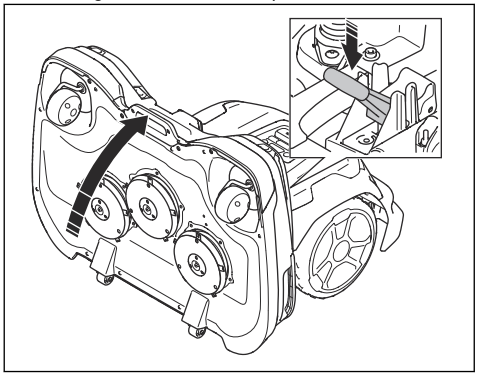
1. Set the product to OFF. Refer to *To set the product to OFF on page 29*.
2. Open the hatch on the drive unit.



3. Tilt the lever.

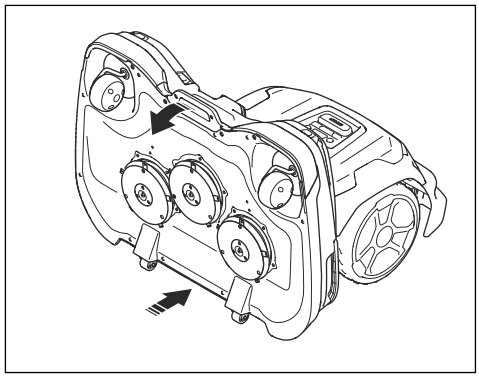


4. Push down the lever and lift up the front of the cutting deck by the handle. Make sure that the cutting deck is in a vertical position.



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

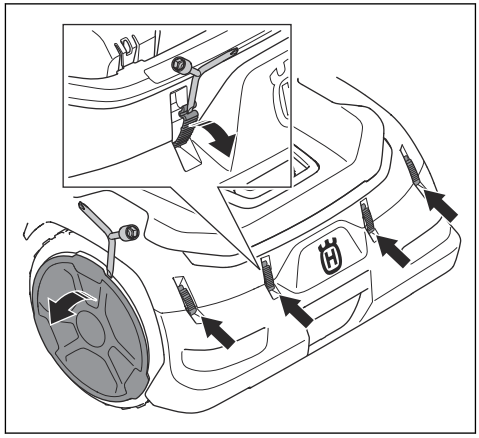
Husqvarna recommends to use a special cleaning and maintenance kit, available as an accessory. Speak to your Husqvarna representative for more information.

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

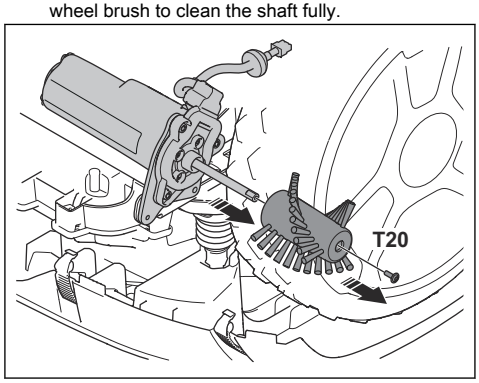
6.5.1 To clean the drive unit

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 32*.
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

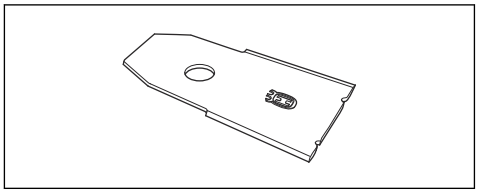
WARNING: Disconnect the mains cable from the power outlet before maintenance, or when you clean the charging station.

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 50*.

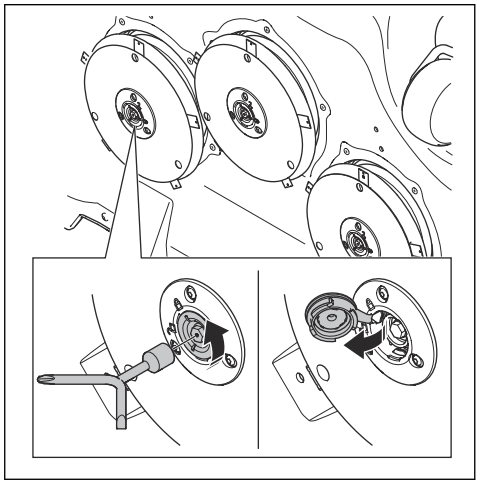


WARNING: You must replace the screws when you replace the blades. The used screws can wear quickly and make the blade come loose, this can cause serious injury.

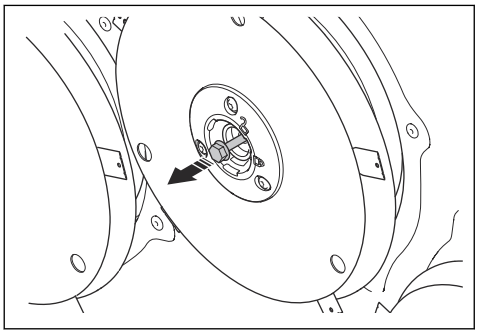
Replace worn or damaged blades for a safe operation. Replace the blades regularly for a satisfactory cut result and a low energy use. All 5 blades and screws must be replaced at the same time to get a balanced cutting system. After half the lifetime of the blades, the left and right cutting disc must 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 32*.
4. Remove the coupling on the blade disc with the Combi tool.



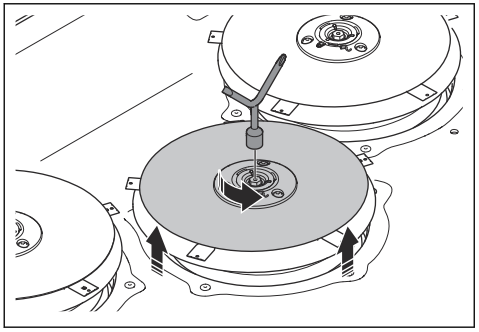
5. Loosen the screw with the Combi tool.



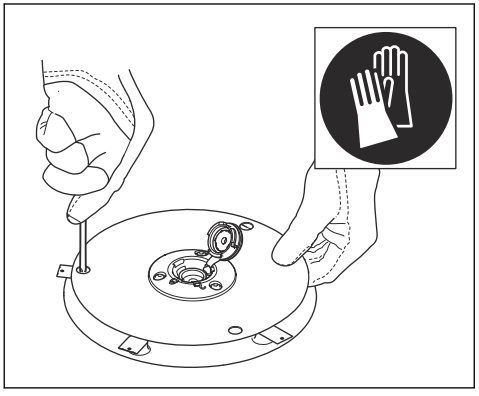
6. Remove the blade disc.
7. Clean the shaft and hub if it is dirty.
8. Install the blade disc in opposite sequence.

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.

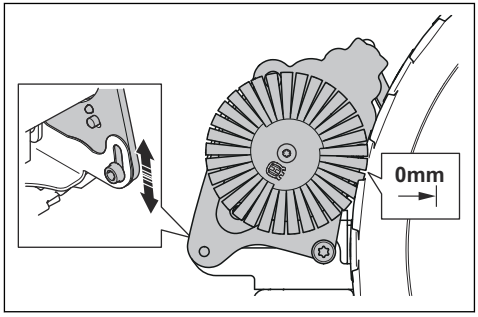
4. Install 5 new blades and screws.
5. Make sure that the blades can pivot freely.
6. If the skid plate was removed, install the skid plate and the screw. Tightening torque 8 Nm.

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 frequently.

7 Troubleshooting

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.

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
Cutting system blocked	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.
Trapped	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
No charging station signal	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.
	ECO mode is enabled and the LED indicator of the charging station flashes green. The product was started manually in the work area but the **STOP** 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 *ECO mode on page 26*.	Put the product in the charging station. Start the product. Refer to *To start the product on page 28*.
	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 *To reinstall the charging station on the map on page 23*.
	The charging station in not installed correctly.	Install the charging station correctly. Refer to *Installation of the charging station on page 18*.
	Interference from metal objects such as fences, reinforcement steel or buried cables near the charging station.	Change the position of the charging station.
Outside work area	The work area slopes too much by the virtual boundary.	Make sure that the virtual boundary is installed correctly. Refer to *To install map objects near buildings and trees on page 15*.
	The transport path or the path to the maintenance point slopes too much.	Make sure that the transport path is installed correctly. Refer to *To install map objects near buildings and trees on page 15*.
	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 *To reinstall the charging station on the map on page 23*.
	Interference from metal objects such as fences, reinforcement steel or buried cables near the charging station.	Change the position of the charging station.

Message	Cause	Action
Empty battery	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 *Battery on page 35*.
	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.
Slipped	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 *To install the map objects in a slope on page 16*.
Charging station blocked	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.
Stuck in charging station	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.
Charging station communication problem	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.
Upside down	The product tilts or the body of the product is with the top down.	Put the product in the correct position.
Mower tilted	The product tilts more than the maximum angle.	Move the product to an area that has level ground.

Message	Cause	Action
Lifted	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.
Collision	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.
Wheel motor blocked right/ left	The wheel is blocked by grass or other objects.	Examine the wheel and remove grass or other objects.
Alarm! Mower stopped	The alarm was started because the product was stopped.	Adjust the security settings in the *Security* menu. Refer to *Security settings on page 26*.
Alarm! Mower outside Geofence	Alarm was started because the product was moved out of the GeoFence area.	
Alarm! Mower was moved	The alarm was started because the product was moved.	
Electronic problem	Temporary electronic or firmware problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.
Loop sensor problem		
Charging system problem		
Tilt sensor problem		
Temporary problem		
Invalid sub-device combination		
Collision sensor problem		
Lift sensor problem		
Invalid system configuration		
Safety function faulty		
Docking sensor problem		
Cutting motor problem		
Cutting deck folding sensor problem		
Internal voltage problem		
Internal communication problem		
Internal problem		

Message	Cause	Action
Battery problem	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.
Battery temperature outside limits	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.
Charging current too high	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.
Map problem	There is no specified work area.	Make a work area in the Husqvarna Fleet Services™ app. Refer to *To make a work area on page 21*.
	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.
Work area tampered	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.
Wheel drive problem, right/ left	The wheel is blocked by grass or other objects.	Examine the drive wheel and remove grass or other objects.
No power in charging station	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.

Message	Cause	Action
Searching for satellites	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 *To make a work area on page 21*
No accurate position from satellites	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 *To make a work area on page 21*

Message	Cause	Action
Reference station communication problem	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 *Installation of the map objects on page 19*.
		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.
Unexpected cutting height adj	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.
Limited cutting height range		
Cutting height problem		
Cutting height blocked		
Cutting deck not in correct position	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.
Too many waypoints	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
Destination blocked	The way to the destination is blocked by an obstacle.	Remove the obstacle that blocks the way to the destination.
	The way to the destination is blocked by a stay-out zone.	Edit or remove the stay-out zone or make a new installation of the work area.
	There is no transport path to the work area.	Make a transport path to the work area.
Destination not reachable	The product cannot reach the destination because there is a stay-out blocking the way to the work area.	Edit or remove the stay-out zone or make a new installation of the work area.
	There is no transport path to the work area.	Create a transport path to the work area.
	The way back to the charging station is blocked by an obstacle.	Remove the obstacle.
	The way to the maintenance point is blocked by an obstacle.	
Too high battery current	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.
Too high internal current		
High internal power loss		
High charging power loss	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.
High internal temperature	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.
High temperature in cutting motor, right/center/left		
Multiple reference stations	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.
Invalid firmware configuration	The firmware in the product is not updated.	Update the firmware to the latest version.

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
Cutting system imbalance	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.
Connectivity problem	Problem with the cellular connectivity.	Restart the product. If the problem stays, speak to your local approved servicing dealer.
Wrong PIN code	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.
GPS navigation problem	Temporary electronic or firmware related problem in the product.	Restart the product. If the problem stays, speak to your approved servicing dealer.
Ultrasonic problem	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. 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 *ECO mode* is activated. Refer to *ECO mode on page 26*.
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 *To examine where to put the charging station on page 13*.
	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 *Time & date on page 27*.
	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 *Schedule on page 25*.
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 *Replacement of the blades and blade discs on page 33*.
	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.
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 *To clean the cutting deck and blade discs on page 33*.
	The battery is at the end of its life cycle.	Replace the battery. Refer to *Battery on page 35*.
	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 *Battery on page 35*.
The product is parked for hours in the charging station.	The product is parked because of the set schedule setting, or because *Park until further notice* 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.

Symptoms	Cause	Action
The cut result is not satisfactory.	The product operates for a short period.	Increase the operation time. Refer to *Schedule on page 25*.
	The work area is too large.	Set a limit to the work area, or extend the operation time. Refer to *Schedule on page 25*.
	Blunt blades.	Replace all the blades. Refer to *To replace the blades on the blade disc on page 34*.
	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 *To clean the cutting deck and blade discs on page 33*.
	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 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.
There was cellular connection before, but there is no cellular connection at this time.	There is a problem with the cellular connection.	• Make sure that you have cellular coverage in the area. • Restart the product. • If a new firmware is available in the app, install it to make sure that you have the newest firmware. • Make sure that you have the newest version of the Husqvarna Fleet Services™ app. • If the problem stays, speak to your dealer.

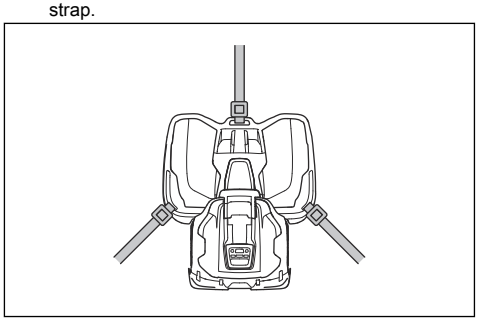
8 Transportation, storage and disposal

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 47*.

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 29*.
- Set the product to OFF. Refer to *To set the product to OFF on page 29*.
- Clean the product. Refer to *Clean the product on page 33*.
- 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

The symbol means that the product is not domestic waste. Recycle it through your local collection system for electrical and electronic equipment. This contributes to proper end of life waste management. Contact local authorities, domestic waste services, your dealer or retailer for information. Incorrect disposal may have potential negative effects on the environment and human health, due to the potential presence of hazardous substances.



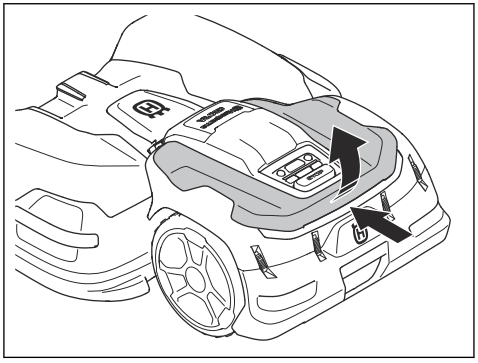
Note: The symbol shows on the product or package of the product.

8.5 To remove the battery

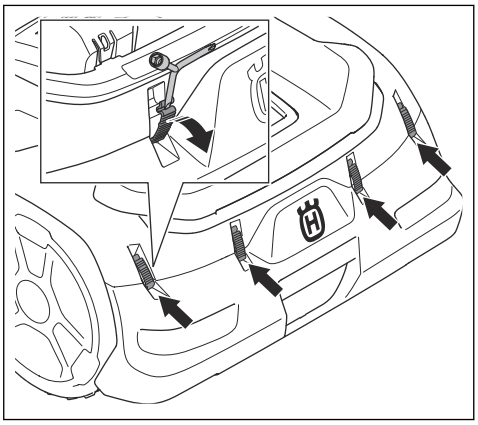
WARNING: Use protective gloves and protective shoes.

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

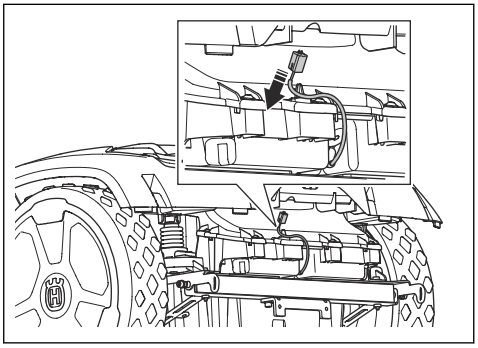
1. Remove the top cover.



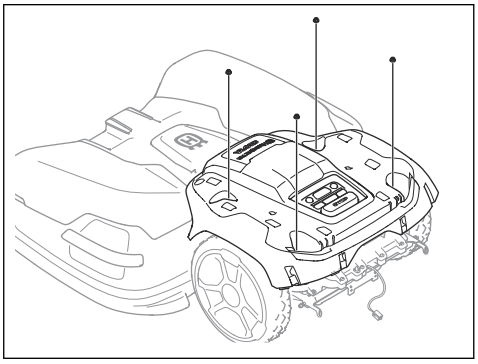
2. Loosen the clips with the flat screwdriver on the Combi tool and remove the rear bumper.



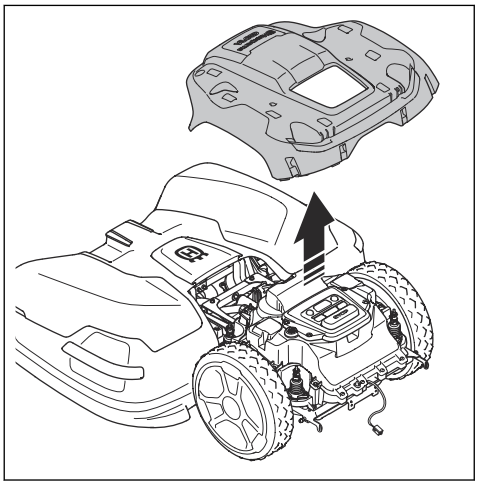
3. Disconnect the cable.



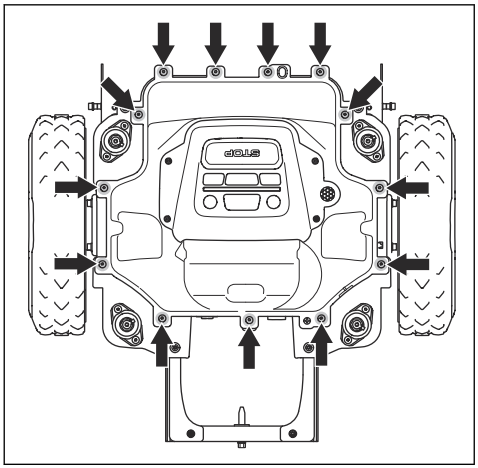
4. Remove the 4 nuts.



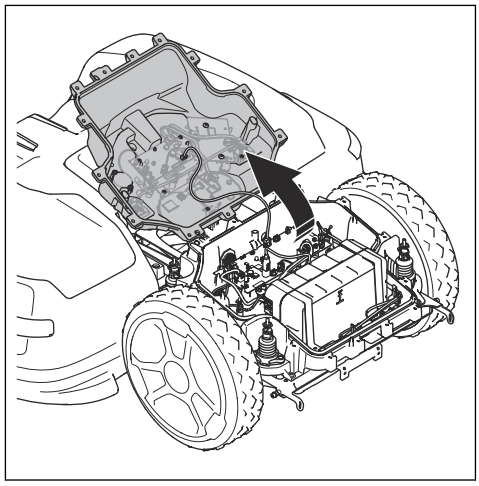
5. Remove the body of the product.



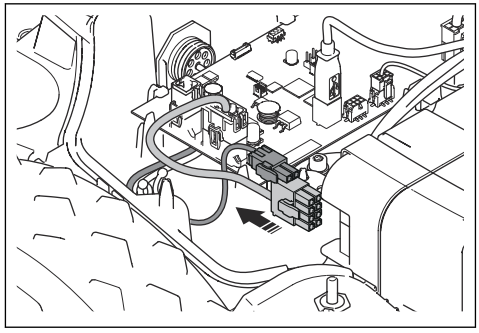
6. Remove the 13 screws.



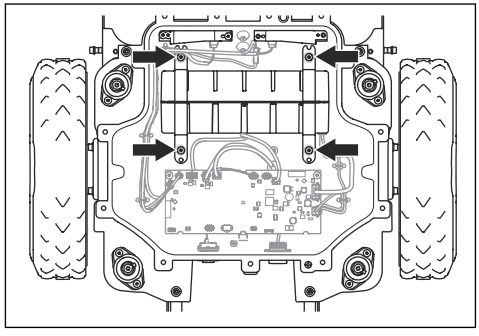
7. Fold the top of the chassis carefully.



8. Disconnect the 2 cables from the battery.



9. Remove the 4 screws for the battery bracket.



10. Remove the battery from the product.

9.1 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
Dimensions, drive unit and cutting deck				
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[9], kg/lb	73/161	72/160	73/161	72/160
Mowing [10]				
Area capacity - Standard 48, m^2/acre(s), pro quality	38000/9.4	40000/9.9	48000/11.9	50000/12.4
Area capacity - Sports 24, m^2/acre(s), pro sport quality	19000/4.7	20000/4.9	24000/5.9	25000/6.2
Area per hour, no charging, m^2/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

[9] Some products have wheel brushes that has a weight of 2 kg/4.4 lb.

[10] 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%.

System	CEORA® 544 EPOS®		CEORA® 546 EPOS®	
	CEORA® CS4		CEORA® CS4	
	CEORA® RZ 43L	CEORA® RZ 43M	CEORA® RZ 43L	CEORA® RZ 43M
Sound data [11]				
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[12], dB (A)	62	60	62	61

Drive unit	CEORA® 544 EPOS®	CEORA® 546 EPOS®
Dimensions		
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[13], kg/lb	38/84	38/84
Battery		
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 54-04, 593 78 54-03	593 78 54-04, 593 78 54-03
Product data		
Speed km/h / mph	2.7/1.7	3.6/2.2
IP code	IPX5	IPX5

[11] 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.
[12] Sound pressure noise uncertainties K_{pA}, 2-4 dB (A).
[13] Some products have wheel brushes that has a weight of 2 kg/4.4 lb.

Cutting deck	CEORA® RZ 43L	CEORA® RZ 43M
Dimensions		
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
Cutting system		
Cutting system	3 discs with 5 pivoting blades	3 discs with 5 pivoting blades
Cutting height[14], mm/in.	10-60/0.4-2.4	20-70/0.8-2.8
Cutting width, cm/in.	68/26.8	68/26.8
IP code	IPX5	IPX5
Blades	Automower® standard blades, Automower® Enhance HSS blades	Automower® standard blades, Automower® Enhance HSS blades

Charging station	CEORA® CS4
Dimensions	
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
Electrical system	
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[15]	ADP-500BR XX
IP code charging station	IPX4
IP code power supply unit	IPX44
Charging station wire antenna	
Operating Frequency Band, Hz	100-80000
Maximum magnetic field, dBuA/m	82
Maximum Radio-frequency power[16], mW @60m	<25 mW @60m

[14] Soil type, grass type and surface type can cause different cutting heights.
[15] XX, YY can be any alphanumeric characters or blank for marketing purpose only, no technical differences. The "XX" specifies the country version, such as JP, and the "Y" specifies the product revision, such as V.
[16] Maximum active output power to antennas in the frequency band in which the radio equipment operates.

Frequency Band Support	
Bluetooth® Frequency range	2400.0-2483.5 MHz
Cellular connectivity 2G	GSM 850 MHz, E-GSM 900 MHz, DCS 1800 MHz, PCS 1900 MHz
Cellular connectivity 4G	Band 1 (2100 MHz), Band 2 (1900 MHz), Band 3 (1800 MHz), Band 4 (1700 MHz), Band 5 (850 MHz), Band 8 (900 MHz), Band 12 (700 MHz), Band 13 (700 MHz), Band 18 (850 MHz), Band 19 (850 MHz), Band 20 (800 MHz), Band 25 (1900 MHz), Band 26 (850 MHz), Band 27 (850MHz), Band 28 (700 MHz), Band 66 (1700 MHz), Band 71 (600 mHz), Band 85 (700 MHz)
SRD868 (Europe)	863-870 MHz
SRD915 (North America)	902-928 MHz
SRD915 (Australia)	915-928 MHz
SRD915 (New Zealand)	915-928 MHz

Power Class		
Bluetooth® Output power	8 dBm	
Cellular connectivity 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
Cellular connectivity 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 Applicable to US/CA market

10.1 Supplier's Declaration of Conformity

Responsible party: Husqvarna Professional Product, Inc. 9335 Harris Corners Parkway Charlotte, NC 28269. Tel: +1 704 597 5000, www.husqvarna.com/us/support/e-mail/.

10.2 Compliance requirements

FCC ID: MCQ-XBSX (Short range device 915 MHz).

FCC ID: ZASHQ-BLE-1F (Bluetooth® module in the robotic lawn mower).

FCC ID: XMR202005BG95M5 (Cellular connectivity 2G/4G).

FCC ID: ZASHQ-BLE-1E (Bluetooth® module for the charging station).

The Bluetooth® modules are located on the application circuit board (PCBA) in the lower chassis of the drive unit and on the charging station circuit board in the charging station. All circuit boards in the mower using radio are located in the upper chassis of the drive unit. They must only be accessed by an authorized service technician.

WARNING: To comply with RF exposure requirements, please maintain a separation distance of at least 20 cm/7 inches from any part of the product.

Note: Changes or modifications made to this equipment not expressly approved by Husqvarna may void the FCC or ISED authorization to operate this equipment.

Note: This device complies with Part 15 of the FCC Rules and with Innovation, Science and Economic Development Canada's licence-exempt RSS standard(s). Operation is subject to the following two conditions: this device may not cause harmful interference, and this device must accept any interference received, including interference that may cause undesired operation.

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

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

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

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Original instructions



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