

Operator's manual Husqvarna Automower® 105

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 Introduction

Serial number:

Product number:

PIN code:

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

- Register your product on www.husqvarna.com. Enter the serial number of the product, the product number and the date of purchase to register your product.

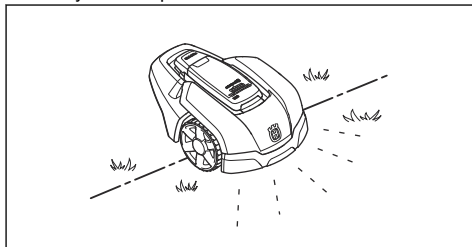
1.1 Support

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

1.2 Product description

Note: Husqvarna® regularly updates the appearance and function of the products. Refer to *Support on page 3*.

The product is a robotic lawn mower. The product has a battery power source and cuts the grass automatically. It continuously alternates between mowing and charging. The movement pattern is random, which means that the lawn is mowed evenly and with less wear. The boundary wire and the guide wire controls the movement of the product within the work area. Sensors in the product senses when it is approaching the boundary wire. The front of the product always passes the boundary wire by a specific distance before the product turns around. When the product hits an obstacle or approaches the boundary wire the product selects a new direction.



The operator selects the operation settings with the keys on the keypad. The display shows the selected and possible operation settings, and the operation mode of the product.

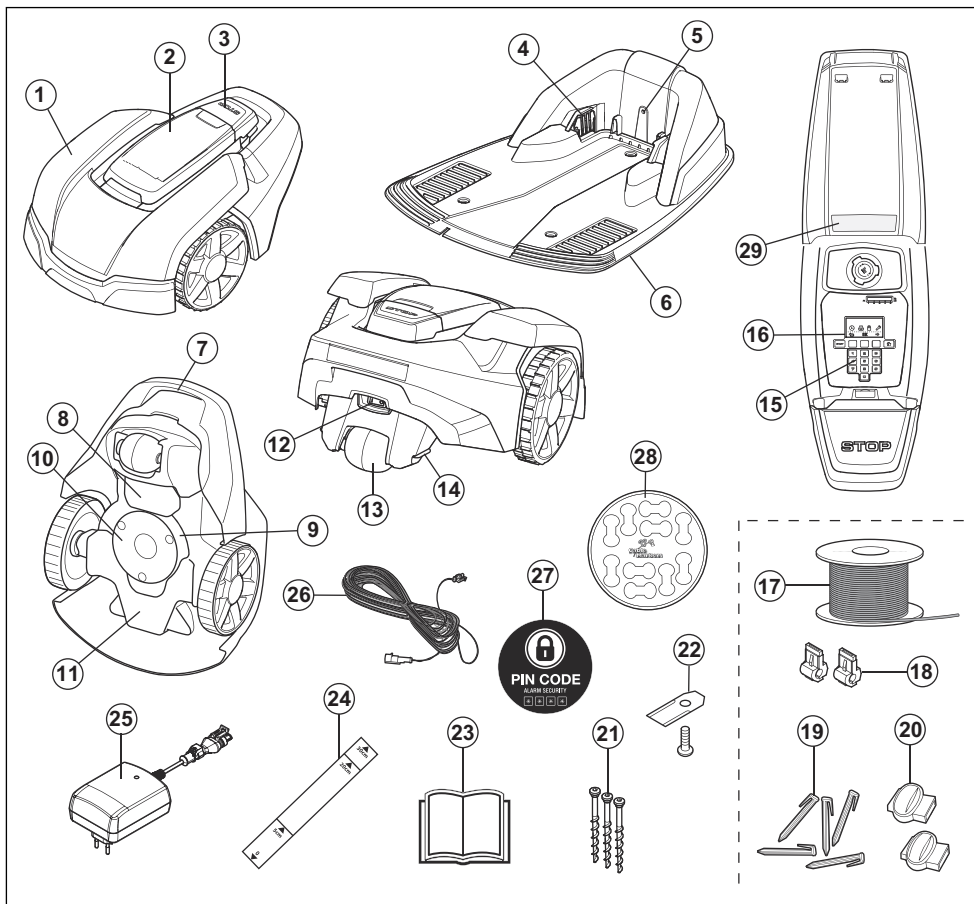
1.2.1 Mowing technique

The product is emission free, easy to use and saves energy. The frequent cutting technique improves the grass quality and decreases the use of fertilizers. Collection of grass is not necessary.

1.2.2 Find the charging station

The product operates until the battery state of charge is low, then the product starts to go to the charging station. The guide wire is put from the charging station to a remote part of the work area or through a narrow passage. The guide wire is connected with the boundary wire to make it easier and faster for the product to find the charging station.

1.3 Product overview



- | | |
|--|---|
| 1. Body | 14. Charging strip |
| 2. Hatch to display, keypad and cutting height adjustment | 15. Keypad |
| 3. Stop button | 16. Display |
| 4. Contact strips | 17. Loop wire for boundary loop and guide wire |
| 5. LED for operation check of the charging station, boundary wire and guide wire | 18. Connector for connecting the loop wire to the charging station |
| 6. Charging station | 19. Stakes |
| 7. Carry handle | 20. Coupler for the loop wire |
| 8. Battery cover | 21. Screws for securing the charging station |
| 9. Blade disc | 22. Extra blades |
| 10. Skid plate | 23. Operator's Manual and Quick Guide |
| 11. Chassis box with electronics, battery and motors | 24. Measurement gauge for help when installing the boundary wire (the measurement gauge is broken loose from the box) |
| 12. Main switch | |
| 13. Rear wheel | |

25. Power supply¹
26. Low voltage cable
27. Alarm decal
28. Cable markers
29. Rating plate (incl. product identification code)

1.4 Symbols on the product

These symbols can be found on the product. Study them carefully.



WARNING: Read the user instructions before operating the product.



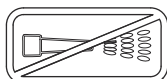
WARNING: Disable the product before working on or lifting the product.



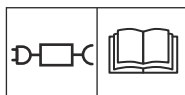
WARNING: Keep a safe distance from the product when operating. Keep your hands and feet away from the rotating blades.



WARNING: Do not ride on the product. Do not put your hands or feet close to or under the product.



Do not use a high-pressure washer or even running water to clean the product.



Use a detachable power supply as defined on the rating label next to the symbol.



This product complies with the applicable EU Directives.



This product complies with the applicable UK Directives.



It is not permitted to dispose this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.



The chassis contains components which are sensitive to electrostatic discharge (ESD). The chassis must also be resealed in a professional manner. For these reasons the chassis shall only be opened by authorized service technicians. A broken seal can result in the entire or parts of the guarantee no longer being valid.



The low-voltage cable must not be shortened, extended or spliced.
Do not use a trimmer nearby the low-voltage cable. Be careful when trimming edges where the cables are placed.

1.5 Symbols on the display



In the *Timer* menu you can set when the product will cut the lawn.



In the *Security* menu you can select between 3 security levels.



In the *Installation* menu you can set manual settings for the installation of the product.



In the *Settings* menu you can set the general product settings.



The product will not cut the grass due to the *Timer* function.



The battery indicator shows the charge level of the battery. When the product charges the symbol flashes.



The product is the charging station but do not charge the battery.



The product is set in *ECO-mode*.

¹ The appearance may differ depending on market

1.6 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.



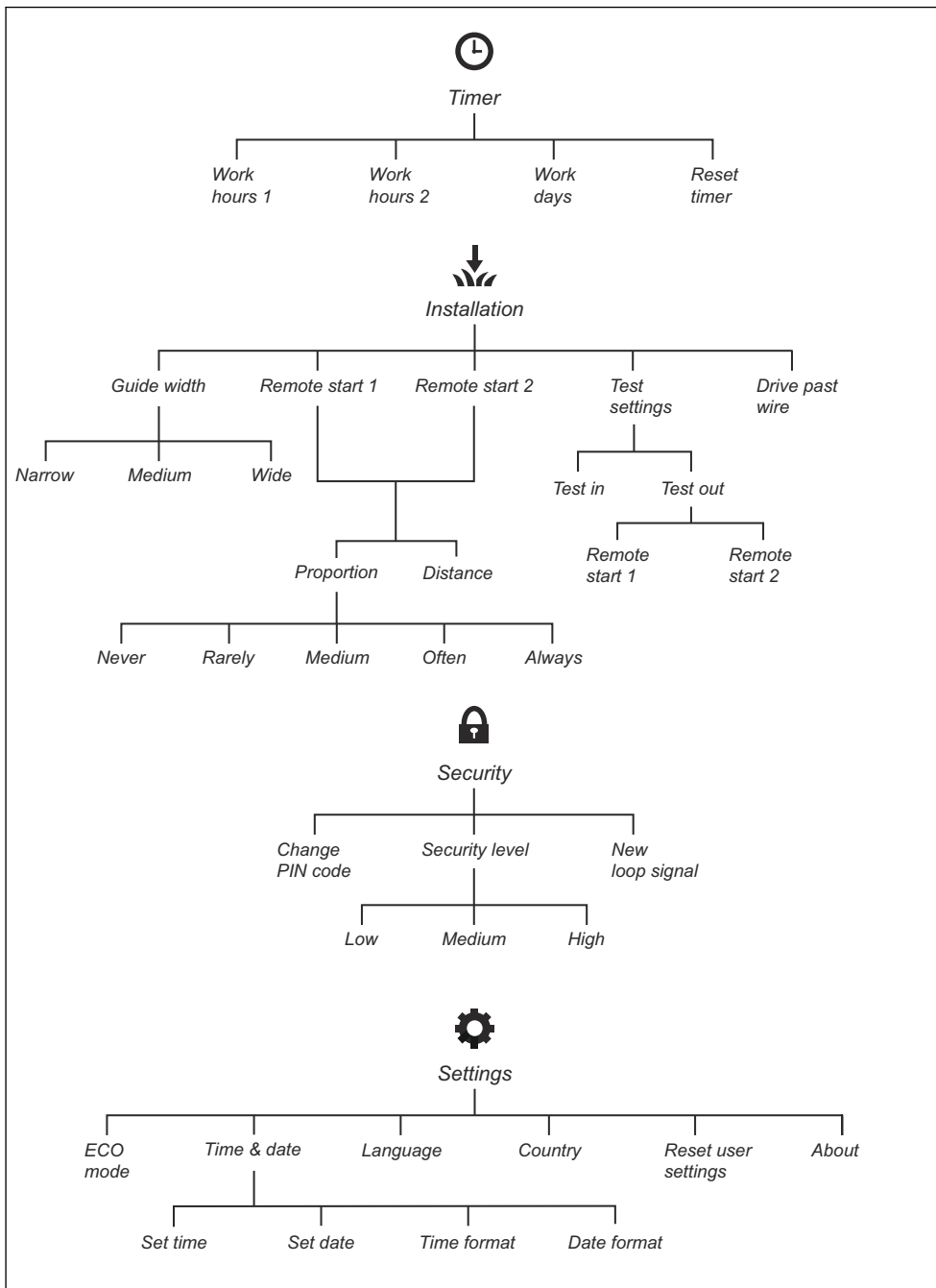
Do not immerse the battery into water.

1.7 General manual instructions

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

- Text written in *italics* is a text that is shown in the display or is a reference to another section in the Operator's Manual.
- Text written in **bold** is one of the buttons on the product.

1.8 Menu structure overview



1.9 Display

The display on the product shows information and settings of the product.

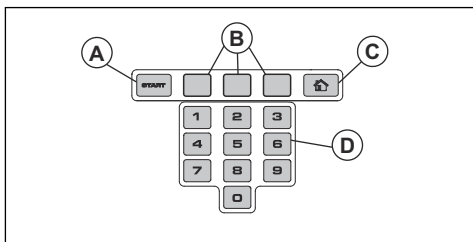
To access the display, push the **STOP** button.

1.10 Keypad

Use the keypad on the product to navigate in the menu.

To access the keypad, push the **STOP** button.

- Use the **START** button (A) to start the operation of the product.
- Use the 3 **multi-choice** buttons (B) to select the functions shown in the display above the buttons.
- Use the **operation selection** button (C) to select the operation mode of the product.
- Use the **number** buttons (D) to enter PIN code, time and date.



2 Safety

2.1 Safety information

2.1.1 IMPORTANT. READ CAREFULLY BEFORE USE. KEEP FOR FUTURE REFERENCE

The operator is responsible for accidents or hazards occurring to other people or property.

This appliance is not intended for use by persons (including children) 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.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Local regulations may restrict the age of the operator. Cleaning and maintenance shall not be made by children without supervision.

Never connect the power supply to an outlet if the plug or cord is damaged. Worn or damaged cord increase the risk of electric shock.

Only charge the battery in the included charging station. 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. Seek medical help if it comes in contact with the eyes.

Use only original batteries recommended by the manufacturer. Product safety cannot be guaranteed with other than original batteries. Do not use non-rechargeable batteries.

The appliance must be disconnected from the supply mains when removing the battery.



WARNING: The product can be dangerous if used incorrectly.



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.



WARNING: Do not use the product when persons, especially children, or animals are in the work area.



WARNING: Keep your hands and feet away from the rotating blades. Never put your hands or feet close to or under the product when it is switched on.



WARNING: In the event of an injury or accident seek medical help.

2.2 Safety definitions

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



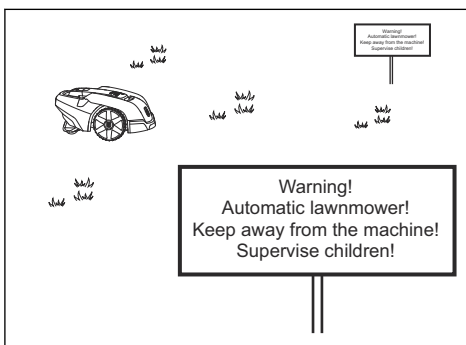
WARNING: Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.

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

2.3 Safety instructions for operation

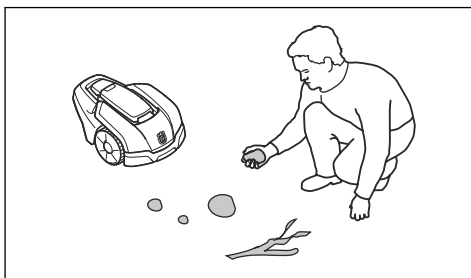
2.3.1 Use

- The product may only be used with the equipment recommended by the manufacturer. All other types of use are incorrect. The manufacturer's instructions with regard to operation/maintenance must be followed precisely.
- Warning signs shall be placed around the work area of the product if it is used in public areas. The signs shall have the following text:
Warning! Automatic lawnmower! Keep away from the machine! Supervise children!



- Use the **HOME** function or switch off the main switch when persons, especially children or animals, are in the work area. It is recommended to program the product for use during hours when the area is free from activity. Refer to *To do the timer settings on page 21*. Consider that certain species, e.g. hedgehogs, are active at night. They can potentially be harmed by the product.
- 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. Do not install the power supply unit in easily flammable surroundings. In case of malfunction, heating of the charging station and the power supply may occur and create a potential risk of fire.

- The product may only be operated, maintained and repaired by persons that are fully conversant with its special characteristics and safety regulations. Please read the Operator's Manual carefully and make sure you understand the instructions before using the product.
- It is not permitted to modify the original design of the product. All modifications are made at your own risk.
- Check that there are no stones, branches, tools, toys or other objects on the lawn that can damage the blades. Objects on the lawn can also lead to the product getting stuck. Help may be required to remove the object before the product can continue mowing. Always set the main switch in position 0 before clearing a blockage.



- Start the product according to the instructions. When the main switch is set to 1, make sure to keep your hands and feet away from the rotating blades. Never put your hands and feet under the product.
- Never touch moving hazardous parts, such as the blade disc, before it has come to a complete stop.
- Never lift up the product or carry it around when the main switch is in position 1.
- The product must never be allowed to collide with persons or other living creatures. If a person or other living creature comes in the way of the product, it shall be stopped immediately. Refer to *To stop the product on page 26*.
- Do not put anything on top of the product or its charging station.
- Do not allow the product to be used with a defective guard, blade disc or body. Neither should it be used with defective blades, screws, nuts or cables. Never connect a damaged cable, or touch a damaged cable before it is disconnected from the supply.
- Do not use the product if the main switch does not work.
- Always switch off the product using the main switch when the product is not in use. The product can only start when the main switch is set to 1 and the correct PIN code has been entered.
- The product must never be used at the same time as a sprinkler. Use the timer function so the

product and sprinkler never run simultaneously. Refer to *To do the timer settings on page 21*.

- Husqvarna® does not guarantee full compatibility between the product and other types of wireless systems such as remote controls, radio transmitters, hearing loops, underground electric animal fencing or similar.
- The built-in alarm is very loud. Be careful, especially if the product is handled indoors.
- Metal objects in the ground (for example reinforced concrete or anti-mole nets) can result in a stoppage. The metal objects can cause interference with the loop signal which then can lead to a stoppage.
- Operation and storage temperature is 0-50 °C / 32-122 °F. Temperature range for charging is 0-45 °C / 32-113 °F. Too high temperatures might cause damage to the product.

2.3.2 Battery safety



WARNING: 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.

For more information about the battery, refer to *Battery on page 28*

2.3.3 How to lift and move the product



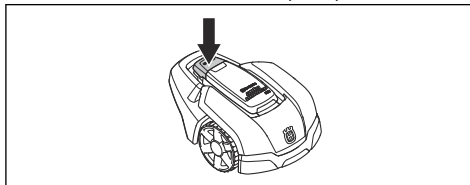
WARNING: The product must be switched off before lifting it. The product is disabled when the **Main switch** is in position 0.



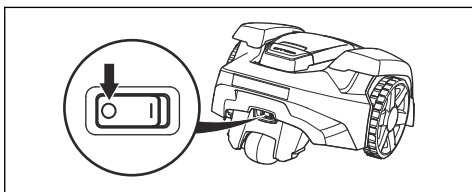
CAUTION: Do not lift the product when it is parked in the charging station. It can damage the charging station and/or the product. Push **STOP** and pull the product out of the charging station before lifting it.

To safely move from or within the work area:

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



2. Set the main switch in position 0.



3. Carry the product by the handle with the blade disc away from the body.

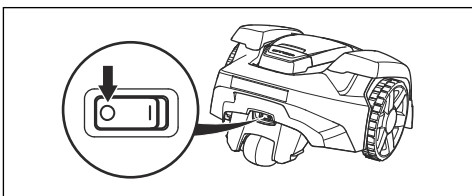


2.3.4 Maintenance



WARNING: When the product is turned upside down the main switch must always be in the *O* position.

The main switch should be set in the *O* position before all work on the chassis of the product, such as cleaning or replacing the blades.



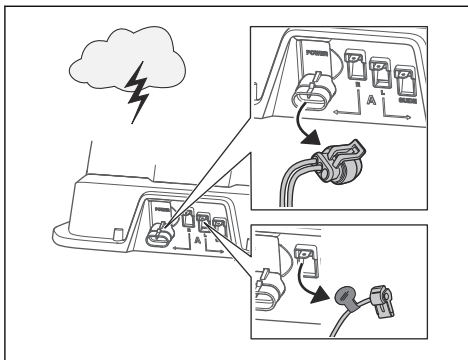
CAUTION: Never use a high-pressure washer or even running water to clean the product. Never use solvents for cleaning.



CAUTION: Use the plug to disconnect the charging station before any cleaning or maintenance of the charging station or the loop wire.

Inspect the product each week and replace any damaged or worn parts. Refer to *Maintenance on page 27*.

2.3.5 In the event of a thunderstorm



To reduce the risk of damage to electrical components in the product and the charging station, we recommend that all connections to the charging station are disconnected (power supply, boundary wire and guide wire) if there is a risk of a thunderstorm.

1. Mark the wires to simplify reconnecting. The charging station's connections are marked R, L and GUIDE.
2. Disconnect all connected wires and the power supply.
3. Connect all the wires and the power supply if there is no longer a risk of thunder. It is important that each wire is connected to the right place.

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 Main components for installation

The installation involves the following components:

- A robotic lawn mower that mows the lawn automatically.
- A charging station, which has 3 functions:
 - To send control signals along the boundary wire.
 - To send control signals along the guide wire so that the product can follow the guide wire to specific remote areas in the garden and can find its way back to the charging station.
 - To charge the product.
- A power supply, which is connected to the charging station and a 100-240V power outlet.
- Loop wire, which is laid around the work area and around objects and plants that the product must not run into. The loop wire is used both as boundary wire and guide wire.

3.3 General preparations



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

Note: Read through the Installation chapter before beginning the installation. How the installation is done affects how the product performs. It is therefore important to plan the installation carefully.

- Make a blueprint of the work area and include all obstacles. This makes it easier to see the ideal positions for the charging station, the boundary wire and the guide wire.
- Make a mark on the blueprint where to put the charging station, the boundary wire and the guide wire.

- Make a mark on the blueprint where the guide wire connects to the boundary wire. Refer to *To install the guide wire on page 19*.
- Fill in holes in the lawn.
- Cut the grass before you install the product. Make sure that the grass is maximum 4 cm / 1.6 in.

Note: The first weeks after installation the perceived sound level when cutting the grass may be higher than expected. When the product has cut the grass for some time, the perceived sound level is much lower.

3.4 Before the installation of the wires

You can select to attach the wires with stakes or bury them. You can use the 2 procedures for the same work area.

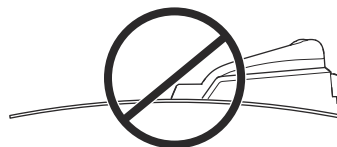
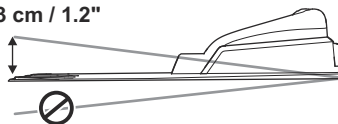


CAUTION: If you use a dethatcher in the work area, bury the boundary wire and the guide wire to prevent them from damage.

3.4.1 To examine where to put the charging station

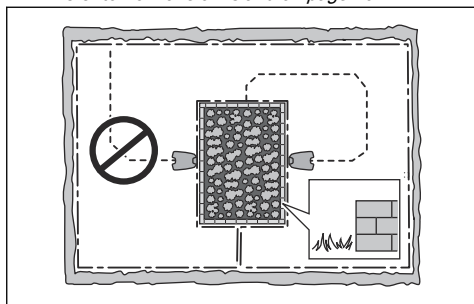
- Keep a minimum 3 m / 9.8 ft. of free space in front of the charging station. Refer to *To examine where to put the guide wire on page 17*.
- Keep a minimum of 1.5 m / 4.9 ft. of free space to the right and left of the center of the charging station.
- Put the charging station near a power outlet.
- Put the charging station on a level surface.
- The baseplate of the charging station must not be bent.

Max 3 cm / 1.2"



- Put the charging station in the lower section of the work area.

- Put the charging station in an area without an irrigation system.
- Put the charging station in an area with protection from the sun.
- If the charging station is installed on an island, make sure to connect the guide wire to the island. Refer to *To make an island on page 16*.



3.4.2 To examine where to put the power supply



WARNING: Do not cut or extend the low-voltage cable. There is a risk of electrical shock.



CAUTION: Make sure that the blades on the product do not cut the low-voltage cable.



WARNING: The power supply cable and extension cable must be outside the work area to avoid damage to the cables.



CAUTION: Do not put the low-voltage cable in a coil or below the charging station plate. The coil causes interference with the signal from the charging station.



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

Low-voltage cables of different lengths are available as accessories.

3.4.3 To examine where to put the boundary wire



CAUTION: There must be a barrier of minimum 15 cm / 6 in. in height between the boundary wire and water bodies, slopes, precipices or public roads. This will prevent damage to the product.



CAUTION: Do not let the product operate on gravel.



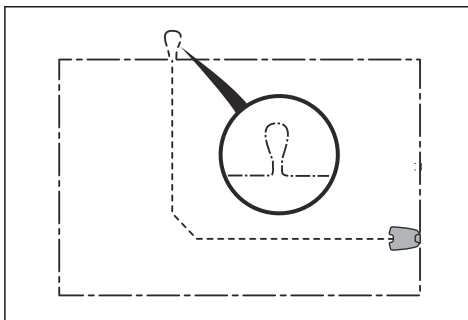
CAUTION: Do not make sharp bends when you install the boundary wire.



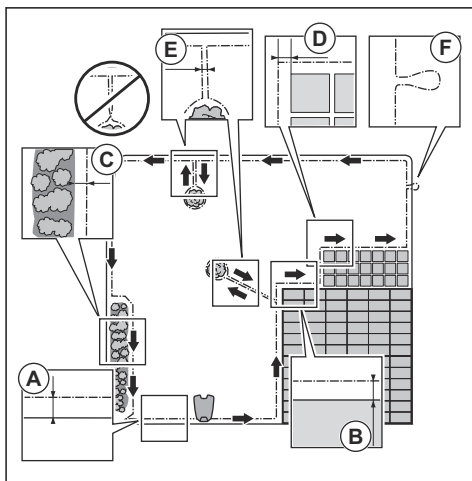
CAUTION: For careful operation without noise, isolate all obstacles such as trees, roots and stones.

The boundary wire should be put as a loop around the work area. Sensors in the product senses when the product approaches the boundary wire, and the product selects another direction. All parts of the work area must be maximum 15 m / 50 ft. from the boundary wire.

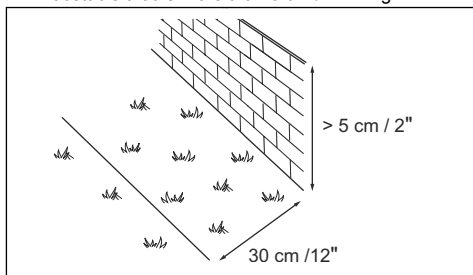
To make the connection easier between the guide wire and the boundary wire, it is recommended to make an eyelet where the guide wire will be connected. Make the eyelet with approximately 20 cm / 8 in. of the boundary wire.



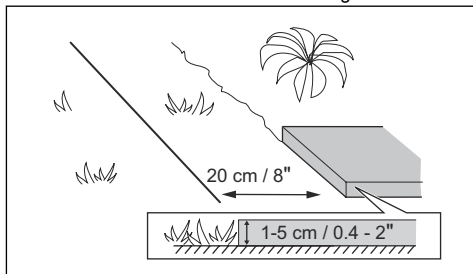
Note: Make a blueprint of the work area before you install the boundary wire and guide wire.



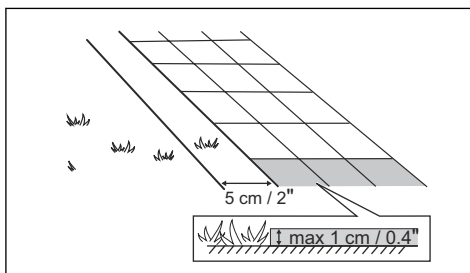
- Put the boundary wire around all of the work area (A). Adapt the distance between the boundary wire and obstacles.
- Put the boundary wire 30 cm / 12 in. (B) from an obstacle that is more than 5 cm / 2 in. high.



- Put the boundary wire 20 cm / 8 in. (C) from an obstacle that is 1-5 cm / 0.4-2 in. high.



- Put the boundary wire 5 cm / 2 in. (D) from an obstacle that is less than 1 cm / 0.4 in. high.



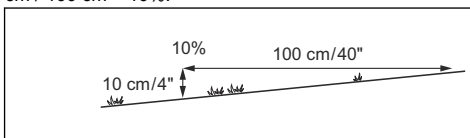
- If you have a paving stone path that is in level with the lawn, put the boundary wire below the paving stone.

Note: If the paving stone is minimum 30 cm / 12 in. wide, use the factory setting for the *Drive Past Wire* function to cut all the grass adjacent to the paving stone. Refer to *To set the Drive Past Wire function on page 23*.

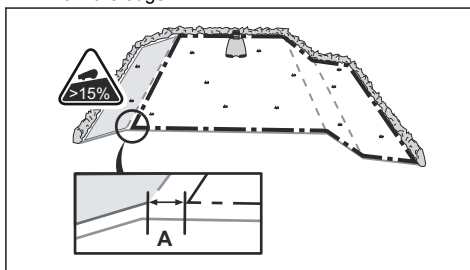
- If you make an island, put the boundary wire that runs to and from the island near together (E). Put the wires in the same stake. Refer to *To make an island on page 16*.
- Make an eyelet (F) where the guide wire is to be connected to the boundary wire.

3.4.3.1 To put the boundary wire in a slope

The product can operate in 25% slopes. Slopes that are too steep must be isolated with the boundary wire. The gradient (%) is calculated as height per m. Example: 10 cm / 100 cm = 10%.



- For slopes steeper than 25% inside the work area, isolate the slope with boundary wire.
- For slopes steeper than 15% along the outer edge of the lawn, put the boundary wire 20 cm / 8 in. (A) from the edge.



- For slopes adjacent to a public road, put a barrier of minimum 15 cm / 6 in. along the outer edge of

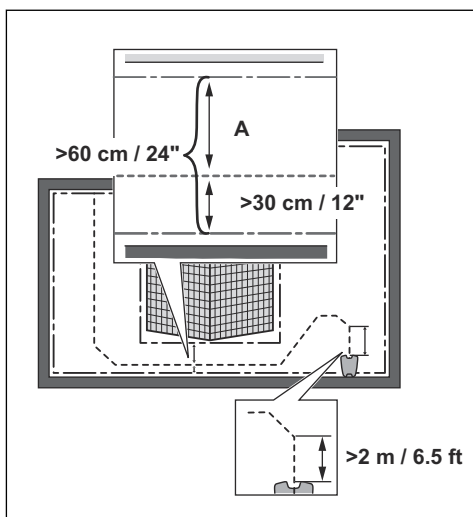
the slope. You can use a wall or a fence as a barrier.

3.4.3.2 Passages

A passage is a section that has boundary wire on each side and that connects 2 parts of the work area. The distance between the boundary wire on each side in the passage must be a minimum of 60 cm / 24 in.

Note: If a passage is less than 2 m / 6.5 ft. wide, install a guide wire through the passage.

The recommended minimum distance between the guide wire and the boundary wire is 30 cm / 12 in. The product always runs to the left of the guide wire as seen facing the charging station. It is recommended to have as much free area as possible to the left of the guide wire (A).



3.4.3.3 To make an island



CAUTION: Do not put a section of boundary wire across the other. The sections of boundary wire must be parallel.

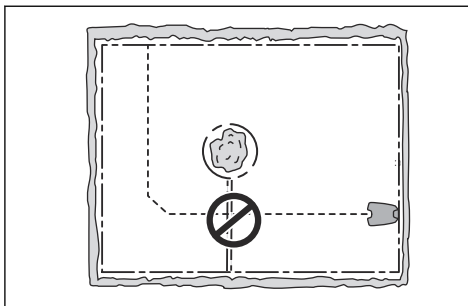


CAUTION: Do not put the guide wire across the boundary wire.



CAUTION: Isolate or remove obstacles that are less than 15 cm / 5.9 in. in height. Isolate or remove obstacles that slope slightly, for example, stones, trees or roots.

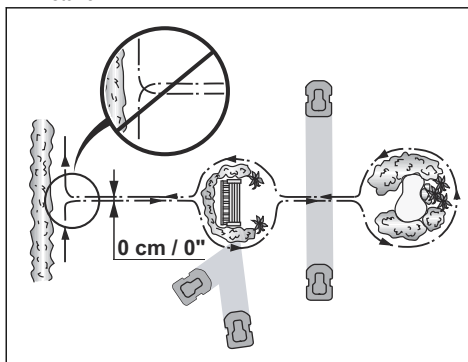
This will prevent damage to the blades of the product.



To make an island, isolate areas in the work area with the boundary wire. We recommend to isolate all stable objects in the work area.

Some obstacles are resistant to a collision, for example, trees or bushes that are more than 15 cm / 5.9 in. in height. The product will collide with the obstacle and then select a new direction.

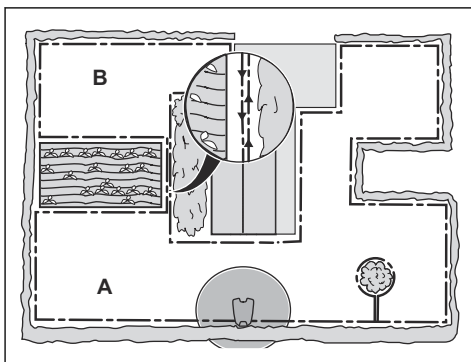
- Put the boundary wire to and around the obstacle to make an island.
- Put the 2 sections of boundary wire to and from the island close together. This will make the product run across the wire.
- Put the 2 sections of boundary wire in the same stake.



3.4.3.4 To make a secondary area

Make a secondary area (B) if the work area has 2 areas that are not connected with a passage. The work area with the charging station is the main area (A).

Note: The product must be manually moved between the main area and the secondary area.



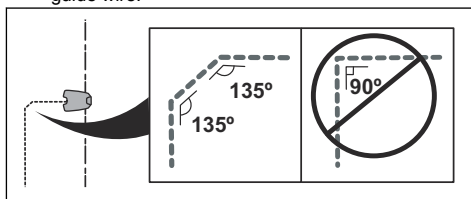
- Put the boundary wire around the secondary area (B) to make an island. Refer to *To make an island on page 16*.

Note: The boundary wire must be put as 1 loop around all of the work area (A + B).

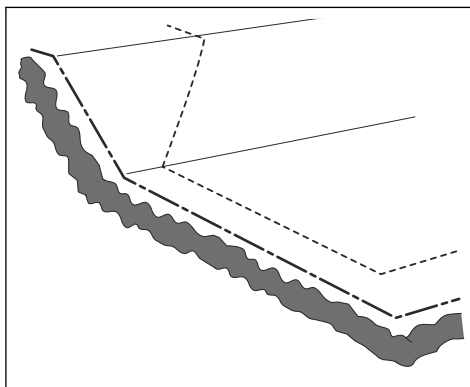
Note: When the product cuts grass in the secondary area, the *MAN* mode must be selected. Refer to *Operating modes on page 25*.

3.4.4 To examine where to put the guide wire

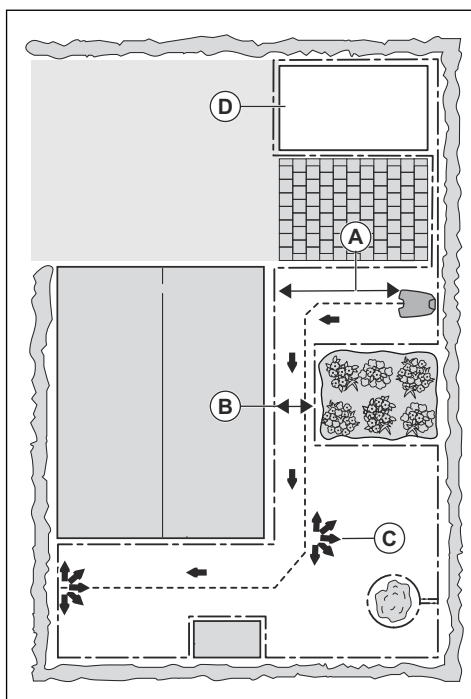
- Put the guide wire in a line at a minimum of 2 m / 7 ft. in front of the charging station.
- Make as much free area as possible to the left of the guide wire when facing the charging station. Refer to *Guide width on page 22*.
- Put the guide wire minimum 30 cm / 12 in. from the boundary wire.
- Do not make sharp bends when you install the guide wire.



- If the work area has a slope, put the guide wire diagonally across the slope.



3.4.5 Work area examples



- If the charging station is put in a small area (A), make sure that the distance to the boundary wire is at a minimum 3 m / 10 ft.
- If the work area has a passage (B), the minimum distance between the boundary wires is 2 m / 6.6 ft. if no guide wire is installed. With a guide wire installed through the passage, the minimum distance between the boundary wires is 60 cm / 24 in.

- If the work area has areas which are connected by a narrow passage (B), you can set the product to leave the guide wire after a certain distance (C). The settings can be changed in *Remote start 1* on page 22.
- If the work area includes a secondary area (D), refer to *To make a secondary area* on page 16. Put the product in the secondary area and select operating mode *Man*.

3.5 Installation of the product

3.5.1 Installation tools

- Hammer/plastic mallet: To simplify putting the stakes into the ground.
- Edge cutter/straight spade: To bury the boundary wire.
- Combination pliers: For cutting the boundary wire and pressing the connectors together.
- Adjustable plier: For pressing the couplers together.

3.5.2 To install the charging station



WARNING: Obey national regulations about electrical safety.



WARNING: The product is only to be used with the power supply unit supplied by Husqvarna®.



WARNING: Do not put the power supply at a height where there is a risk it can be put in water. Do not put the power supply on the ground.



WARNING: Do not encapsulate the power supply. Condensed water can harm the power supply and increase the risk of electrical shock.



WARNING: Risk of Electric Shock. Install only to a residual-current device (RCD) with a tripping current of maximum 30 mA when connecting the power supply to the power outlet. 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.



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



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



WARNING: The power supply cable and extension cable must be outside the work area to avoid damage to the cables.



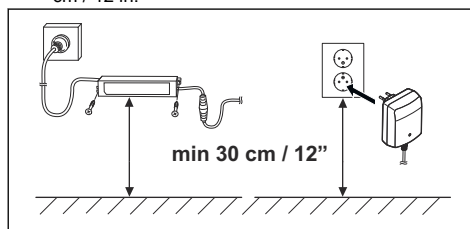
WARNING: Make sure that the plugs of the low-voltage cable and the power supply unit are clean and dry before you connect them.

When connecting the power supply, only use a power outlet that is connected to a residual-current device (RCD).

1. Read and understand the instructions about where to put the charging station. Refer to *To examine where to put the charging station* on page 13.
2. Put the charging station in the selected area.

Note: Do not attach the charging station with the screws to the ground until the guide wire is installed. Refer to *To install the guide wire* on page 19.

3. Connect the low-voltage cable to the charging station.
4. Put the power supply at a minimum height of 30 cm / 12 in.



5. Connect the power supply cable to a 100-240V power outlet.

Note: When the charging station is connected, it is possible to charge the product. Put the product in the charging station while the boundary and guide wires are being laid. Switch on the product to start charging the product. Refer to *Main switch* on page 25. Do not continue with any product settings before the installation is complete.

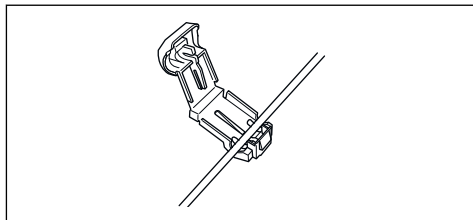
6. Put the low-voltage cable in the ground with stakes or bury the cable. Refer to *To put the wire into position with stakes on page 20* or *To bury the boundary wire or the guide wire on page 20*.
7. Connect the wires to the charging station after the installation of boundary wire and guide wire is complete. Refer to *To install the boundary wire on page 19* and *To install the guide wire on page 19*.
8. Attach the charging station to the ground with the supplied screws after the guide wire is installed. Refer to *To install the guide wire on page 19*.

3.5.3 To install the boundary wire

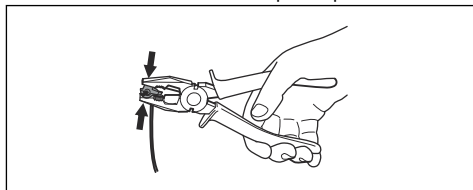


CAUTION: Do not put remaining wire in a coil. The coil causes interference with the product.

1. Put the boundary wire around all of the work area. Start and complete the installation behind the charging station.
2. Open the connector and put the boundary wire in the connector.



3. Close the connector with a pair of pliers.



4. Cut the boundary wire 1-2 cm / 0.4-0.8 in. above each connector.
5. Push the right connector onto the metal pin on the charging station with the mark "R".
6. Push the left connector onto the metal pin on the charging station with the mark "L".

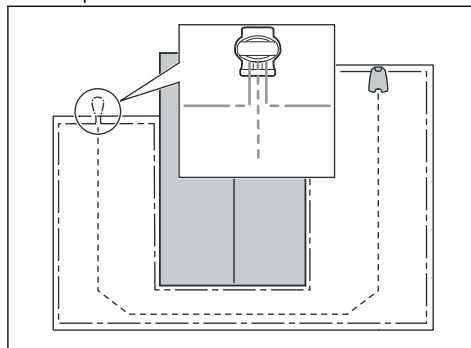
3.5.4 To install the guide wire



CAUTION: Twinned cables, or a screw terminal block that is insulated with insulation tape are not satisfactory splices.

Soil moisture will cause the wire to oxidize and after a time result in a broken circuit.

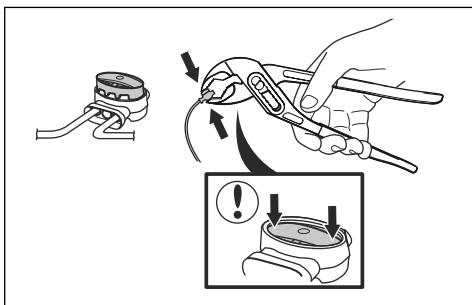
1. Open the connector and put the wire in the connector.
2. Close the connector with a pair of pliers.
3. Cut the guide wire 1-2 cm / 0.4-0.8 in. above each connector.
4. Push the guide wire through the slot in the charging station plate.
5. Push the connector onto the metal pin on the charging station with the mark "GUIDE".
6. Disconnect the charging station from the power outlet.
7. Put the end of the guide wire at the eyelet on the boundary wire.
8. Cut the boundary wire with a pair of wire cutters.
9. Connect the guide wire to the boundary wire with a coupler.



- a) Put the 2 ends of the boundary wire and the end of the guide wire into the coupler.

Note: Make sure that you can see the ends of the wires through the transparent area of the coupler.

- b) Push down the cover on the coupler with adjustable pliers to attach the wires in the coupler.



10. Attach the guide wire to the ground with stakes or bury the guide wire in the ground. Refer to *To put the wire into position with stakes on page 20* or *To bury the boundary wire or the guide wire on page 20*.
11. Connect the charging station to the power outlet.

3.6 To put the wire into position with stakes



CAUTION: Make sure that the stakes hold the boundary wire and the guide wire against the ground.



CAUTION: Cutting the grass too low right after installation can damage the wire insulation. Damage to the insulation may not cause disruptions until several weeks or months later.

1. Put the boundary wire and the guide wire on the ground.
2. Put the stakes at a maximum of 75 cm / 30 in. distance from each other.
3. Attach the stakes to the ground with a hammer or a plastic mallet.

Note: The wire is overgrown with grass and not visible after a few weeks.

3.7 To bury the boundary wire or the guide wire

- Cut a groove in the ground with an edge cutter or a straight shovel.
- Put the boundary wire or the guide wire 1-20 cm / 0.4-8 in. into the ground.

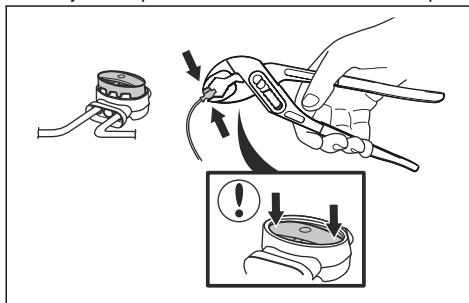
3.8 To extend the boundary wire or the guide wire

Note: Extend the boundary wire or the guide wire if it is too short for the work area. Use original spare parts, for example couplers.

1. Disconnect the charging station from the power outlet.
2. Cut the boundary wire or the guide wire with a pair of wire cutters where it is necessary to install the extension.
3. Add wire where it is necessary to install the extension.
4. Put the boundary wire or the guide wire into position.
5. Put the wire ends into a coupler.

Note: Make sure that you can see the ends of the boundary wire or the guide wire through the transparent area of the coupler.

6. Push down the cover on the coupler with adjustable pliers to attach the wires in the coupler.

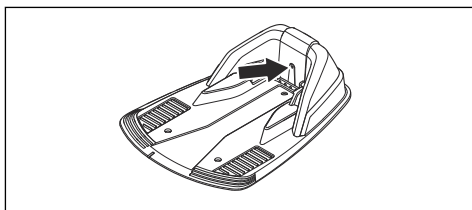


7. Put the boundary wire or the guide wire into position with stakes.
8. Connect the charging station to the power outlet.

3.9 After the installation of the product

3.9.1 To do a visual check of the charging station

1. Make sure that the indicator LED lamp on the charging station has a green light.



2. If the indicator LED lamp does not have a green light, do a check of the installation. Refer to *Indicator lamp in the charging station on page 35* and *To install the charging station on page 18*.

3.9.2 To do the basic settings

Before the product starts to operate for the first time, you must do the basic settings.

1. Put the product in the charging station.
2. Switch on the product.
3. Push the **arrow** buttons and the **OK** button. Select language, country, date, time and set a PIN code.

Note: For some models, a factory PIN code is necessary before you select a personal PIN code. It is not possible to use 0000 as PIN code.

4. Push the **Start** button and close the hatch to initiate a calibration process of the product.

Note: If the battery is too low, the product needs to charge the batteries fully before the calibration starts. Refer to *Calibration on page 21*.

Note: Make a note of the PIN code. Refer to *Introduction on page 3*.

3.9.3 Calibration

The calibration process is automatic. After the basic settings are done, the product moves away from the charging station and stops, while it calibrates some of the product settings. When the calibration is complete, the product starts to mow.

3.10 To do the product settings

Use the control panel to set all settings for the product. The control panel has a display and a keypad, you can access all functions through the menus. The functions have factory settings that is applicable for almost all work areas, but the settings can be adapted to the conditions for each work area.

3.10.1 Menu structure

The main menu contains:

- *Timer*

- *Installation*
- *Security*
- *Settings*

Refer to *Menu structure overview on page 7*.

3.10.2 To get access to the menu

1. Push the **STOP** button.
2. Enter the PIN code on the keypad.
3. Push the **multi-choice** button.

3.10.3 To do the timer settings



Note: Set the *Timer* if the work area is less than 600 m² / 0.15 acre to prevent wear on the lawn and wear on the product.

3.10.3.1 To set the timer

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure to select *Timer*.
3. Use the **multi-choice** buttons to select *Work hours 1* or *Work hours 2*.
4. Enter the time with the **number buttons**.
5. Push **OK**.
6. Use the **multi-choice** buttons to select *Work days*.
7. Use the **multi-choice** buttons to select the days that the product will operate.
8. Push **OK**.

3.10.3.2 Make an estimate of the necessary operating time

If the work area is less than maximum product capacity, the schedule must be set to decrease the wear on the lawn and the product. The product has a maximum cutting time each day. You can set the operating time of the product in the schedule. The operating time includes cutting, searching and charging. The operating time can be different because of many reasons, for example the layout of the work area, the grass growth and age of the battery. When the product has operated to the maximum cutting time in a day, the message *Today's mowing complete* is shown in the display of the app.

The recommended operating times for some work area examples are shown in the table below. If the result is not satisfactory, increase the operating time.

Area, m ²	Recommended operating time, h
300	6-7
600	12-13

3.10.3.3 To reset the timer setting

You can remove all timer settings and use the factory setting. The factory timer setting lets the product operate all hours each day of the week. Refer to *Make an estimate of the necessary operating time on page 21*.

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Timer > Reset timer*.
3. Push **OK**.

3.10.4 Installation



In the Installation menu it is possible to adapt the settings of the product for best mowing result.

3.10.4.1 Guide width

The guide width is a measure of how far from the guide wire the product is allowed to travel when it follows this to and from the charging station. The area beside the wire which the product uses is called the Corridor.

The product has a default setting for *Medium* wide corridors. To further reduce the risk of tracks forming, it is recommended to select as wide corridor as possible. The *Narrow* corridor setting is not normally recommended, but in a garden with one or many narrow passages, a narrow corridor may be the only option. The *Narrow* corridor setting increases the risk for tracks forming along the guide.

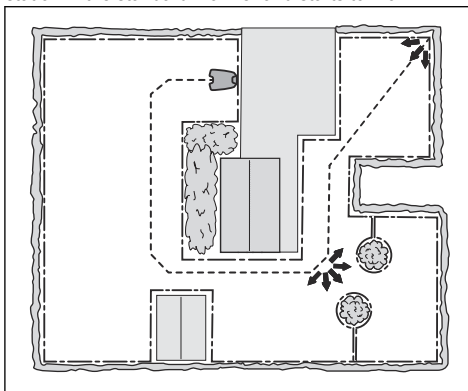
To set the guide width

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure to select *Installation > Guide width*.
3. Use the **multi-choice** buttons to select *Narrow*, *Medium* or *Wide*.
4. Push **OK**.

3.10.4.2 Remote start 1

The *Remote start* function is used to guide the product to remote parts of the work area. If the work area includes areas that are connected with narrow passages, the *Remote start* function is useful to be able to maintain a well-cut lawn in all parts of the yard. The product begins to mow when it reaches the *Remote start*

point. At all other times, the product leaves the charging station in the standard manner and starts to mow.



To set the Remote start function

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure to select *Installation > Remote start > Proportion*.
3. Select how often the *Remote start* function shall be used. There are 5 options:
 - Never (0%)
 - Rarely (approx. 20%)
 - Medium (approx. 50%)
 - Often (approx. 80%)
 - Always (100%)
4. Select the distance from the charging station to the *Remote start*.
5. Push **OK**.

3.10.4.3 Remote start 2

If the work area contains 2 remote areas, the guide wire should be installed so that it reaches both areas. *Remote start 1* and *Remote start 2* can then be combined to steer the product to each area.

The settings for *Proportion* and *Distance* are carried out in the same way as for *Remote start 1*. The factory setting is *Never*.

Note: The sum of *Proportion* for *Remote start 1* and *Remote start 2* cannot exceed 100%.

If you have for instance selected *Often* for *Remote start 1*, then you can only select *Never* or *Rarely* for *Remote start 2*.

To measure the distance from the charging station

1. Put the product in the charging station.
2. Do steps 1–3 in *To get access to the menu on page 21*.

- Use the **multi-choice** buttons to move through the menu structure *Installation > Remote start 1 or Remote start 2 > Distance*.
- Use the **number** buttons to set 100 m as a distance.
- Push **OK**.
- Use the **multi-choice** buttons to move through the menu structure *Installation > Test settings > Test OUT*.
- Push **OK**.
- Push the **STOP** button when the product is at the distance you select to measure. The distance shows in the display.

3.10.4.4 Test settings

In the *Test settings* menu, it is possible to test how the settings for *Remote start 1* and *Remote start 2* work in the work area in question.

To do a test of the Remote start function

- Put the product in the charging station.
- Do steps 1-3 in *To get access to the menu on page 21*.
- Use the **multi-choice** buttons to move through the menu structure *Installation > Test settings > Test OUT > Remote start 1 or Remote start 2*.
- Push **OK**.
- Push the **START** button.
- Close the hatch.
- Make sure the product can find the area.

3.10.4.5 To set the Drive Past Wire function

The front of the product always moves past the boundary wire by a specified distance before the product moves back into the work area. The factory setting is 25 cm. You can select a distance of 20-30 cm.

- Do steps 1-3 in *To get access to the menu on page 21*.
- Use the **multi-choice** buttons to move through the menu structure *Installation > Drive Past Wire*.
- Use the **number** buttons to set the distance in cm.
- Push the **BACK** button.

3.10.5 Security level



There are 3 security levels for the product.

Function	Low	Medium	High
Alarm			X
PIN request		X	X
Time lock	X	X	X

- Alarm** - An alarm goes off if the PIN-code is not entered within 10 seconds after the **STOP** button is pushed. The alarm also goes off when the product is lifted. The alarm stops when the PIN-code is entered.
- PIN-code** - The correct PIN-code must be entered to get access to the Menu structure of the product. If the incorrect PIN-code is entered 5 times, the product is locked for some time. The lock is extended for each new incorrect try.
- Time lock** - The product is locked if the PIN-code has not been entered in 30 days. Enter the PIN-code to get access to the product.

3.10.5.1 To change the PIN code

- Do steps 1-3 in *To get access to the menu on page 21*.
- Use the **multi-choice** buttons to move through the menu structure *Security > Change PIN code*.
- Enter the new PIN code.
- Push **OK**.
- Enter the new PIN code again.
- Push **OK**.
- Make a note of the new PIN code. Refer to *Introduction on page 3*.

3.10.5.2 To set the security level

Select 1 of 3 security levels for your product.

- Do steps 1-3 in *To get access to the menu on page 21*.
- Use the **multi-choice** buttons to move through the menu structure *Security > Security level*.
- Use the **multi-choice** buttons to select the level of security.
- Push **OK**.

3.10.5.3 To create a 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 two adjacent installations have a very similar signal.

- Place the product in the charging station.
- Do steps 1-3 in *To get access to the menu on page 21*.
- Use the **multi-choice** buttons to move through the menu structure *Security > New loop signal*.

4. Push **OK** and await confirmation that the loop signal has been generated. This normally takes about 10 seconds.

3.10.6 Settings



In settings you can change the general settings to your product.

3.10.6.1 ECO mode

ECO mode stops the signal in the boundary loop, the guide wire and the charging station, when the product is parked or is charging.

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

Note: Push the **STOP** button before you remove the product from the charging station. If not, the product can not be started in the work area.

To set the ECO mode

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Settings > ECO mode*.
3. Push **OK**.

3.10.6.2 To set the Time & Date

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Settings > Time & Date*.
3. Use the **number** buttons to set the time and then push **OK**.
4. Use the **number** buttons to set the date and then push **OK**.
5. Use the **multi-choice** buttons to set the time format and then push **OK**.
6. Use the **multi-choice** buttons to set the date format and then push **OK**.

3.10.6.3 To set the language

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Settings > Language*.
3. Use the **multi-choice** buttons to select language and then push **OK**.

3.10.6.4 To set the country

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Settings > Country*.
3. Use the **multi-choice** buttons to select country and then push **OK**.

3.10.6.5 To reset all user settings

1. Do steps 1–3 in *To get access to the menu on page 21*.
2. Use the **multi-choice** buttons to move through the menu structure *Settings > Reset user settings*.
3. Use the **multi-choice** buttons to select country and then push **OK**.
4. Enter the PIN code.
5. Push **OK** to reset all the user settings.

Note: *Security level, PIN code, Loop signal, Messages, Date & Time, Language and Country settings* are not reset.

3.10.6.6 The About menu

The *About* menu displays information about the product, for example serial number and firmware versions.

4 Operation

4.1 Main switch



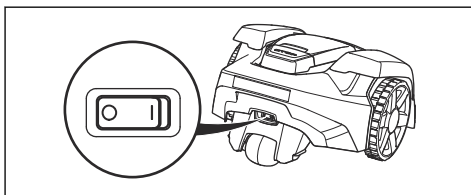
WARNING: Read the safety instructions carefully before you start the product.



WARNING: Keep your hands and feet away from the rotating blades. Do not put your hands or feet near to or below the product when the cutting motor is on.



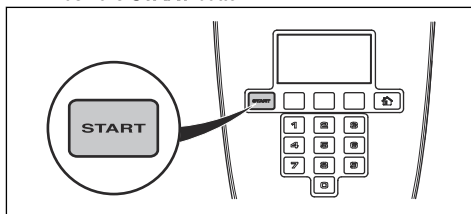
WARNING: Do not use the product when persons, especially children, or animals are in the work area.



- Set the **Main switch** in the **1** position to start the product.
- Set the **Main switch** in the **0** position when the product is not in use or before you do inspection or maintenance on the product.

4.2 To start the product

1. Press the **STOP** button to open the hatch.
2. Set the main switch to position **1**.
3. Enter the PIN code.
4. Push the **START** button.



5. Close the hatch.

Note: If the product is parked in the charging station, the product will only leave the charging station when

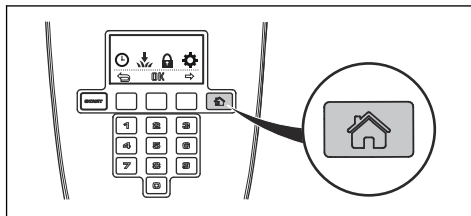
the battery is fully charged and if the timer allows the product to operate.

Note: Press the **START** button before closing the hatch to start the product. If the **START** button is not pressed, a message beep is heard and the product will not start.

4.3 Operating modes

Push the **Operation selection** button to select the following operating modes:

- *Home*
- *Auto*
- *Man*



4.3.1 Home mode

Operating mode *Home* means that the product remains in the charging station until a different operating mode is selected. The *Home* mode is also used to test if the product can follow the guide wire and dock with the charging station.

4.3.2 Auto mode

The *Auto* mode is the standard operating mode where the product mows and charges automatically.

4.3.3 Manual mode

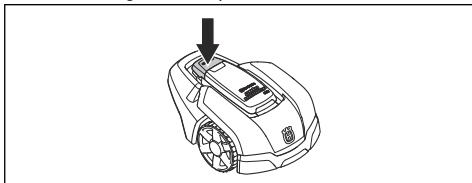
To mow secondary areas the operating mode *Man* must be chosen. In the *Man* mode, the operator must move the product manually between the main area and the secondary area. The product mows until the battery is empty.

When the battery is empty, the product stops and the message *Needs manual charging* shows in the product display. Put the product in the charging station to charge the battery. When the battery is charged, the product moves out of the charging station and stops. The product is now prepared to start operation, but needs confirmation from the operator first.

Note: If you want to cut the main area after the battery is charged, set the product to *Auto* mode before placing it in the charging station.

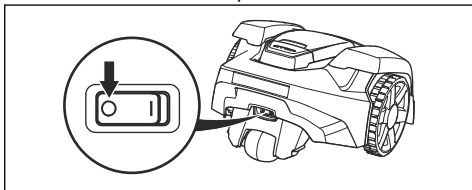
4.4 To stop the product

1. Push the **STOP** button to make the product and the cutting motor stop.



4.5 To switch off the product

1. Press the **STOP** button on top of the product.
2. Set the **Main switch** to position 0.



WARNING: Always switch off the product using the main switch if it requires maintenance, or if the product must be moved outside the work area.

4.6 To charge the battery



WARNING: Only charge the product using a charging station which is intended for it. Incorrect use may result in electric shock, overheating or leakage of corrosive liquid from the battery.

In the event of leakage of electrolyte flush with water and seek medical help if it comes in contact with the eyes etc.

When the product is new or has been stored for a long period, the battery can be empty and needs to be charged before starting. In the *Main area* mode, the product automatically alternates between mowing and charging.

1. Set the **Main switch** to position 1.
2. Place the product in the charging station. Slide the product in as far as possible to ensure proper contact between the product and the charging

station. Refer to contact and charging plates in *Product overview on page 4*

3. The display shows a message that charging is in progress.

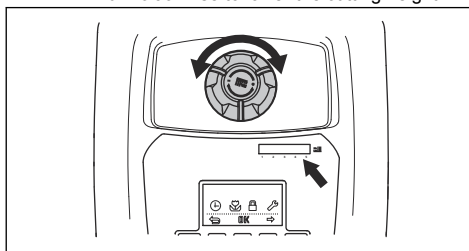
4.7 Adjust the cutting height

The cutting height can be varied from MIN (2 cm / 0.8 in.) to MAX (5 cm / 2 in.).

Note: During the first week after a new installation, the cutting height must be set to MAX to avoid damaging the loop wire. After this, the cutting height can be lowered step by step every second week until the desired cutting height has been reached.

4.7.1 To adjust the cutting height

1. Press the **STOP** button to stop the product and open the hatch.
2. Turn the height adjustment knob to the required position. The selected position is indicated by the orange column on the height adjustment indicator.
 - Turn counterclockwise to increase the cutting height.
 - Turn clockwise to lower the cutting height.



3. Close the hatch.

5 Maintenance

5.1 Introduction - maintenance



WARNING: The product must be switched off before any maintenance is done.



WARNING: Wear protective gloves.

For better operation and longer service life, make sure to clean the product regularly and replace worn parts. All maintenance and servicing must be done according to Husqvarna®'s instructions. Refer to *Warranty on page 43*.

When the product is first used, the blade disc and blades should be inspected once a week. If the amount of wear during this period has been low, the inspection interval can be increased.

It is important that the blade disc rotates easily. The edges of the blades should not be damaged. The lifetime of the blades varies immensely and depends for instance on:

- Operating time and size of the work area.
- Type of grass and seasonal growth.
- Soil, sand and use of fertilizers.
- The presence of objects such as cones, windfalls, toys, tools, stones, roots and the like.

The normal life is 4 to 7 weeks when used under favorable conditions. Refer to *Replacement of the blades on page 28* on how to replace the blades.

Note: Working with blunt blades gives a poorer mowing result. The grass is not cut cleanly and more energy is needed resulting in the product not mowing such a large area.

5.2 Clean the product



CAUTION: Never use a high-pressure washer to clean the product. Never use solvents for cleaning.

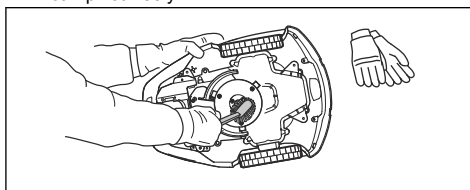
The product does not operate satisfactorily in slopes if the wheels are blocked with grass. Use a soft brush to clean the product.

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

5.2.1 Chassis and blade disc

Inspect the blade disc and blades once a week.

1. Push the **STOP** button.
2. Set the **Main switch** to position 0.
3. Lift the product onto its side.
4. Clean the blade disc and chassis using for example a dish brush. At the same time, check that the blade disc rotates freely in relation to the foot guard. Also, check that the blades are intact and can pivot freely.



5.2.2 To clean the wheels

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

- Use a soft brush to clean the wheels.

5.2.3 To clean the body of the product

- Use a moist cloth and a weak soap solution to clean the body of the product.

5.2.4 To clean the charging station



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



CAUTION: Do not use a high-pressure washer or running water to clean the charging station.

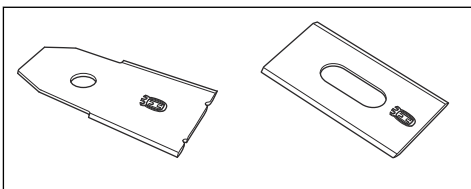
Note: The product cannot enter the charging station if there are objects in the charging station. Clean the charging station regularly.

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

5.3 Replacement of the blades



WARNING: Husqvarna® can only guarantee safety if you use Husqvarna® original blades with the embossed crowned H-mark logotype.

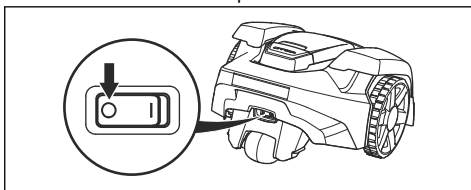


WARNING: You must replace the screws when you replace the blades. The used screws can wear quickly and make the blade come loose, this can cause serious injury.

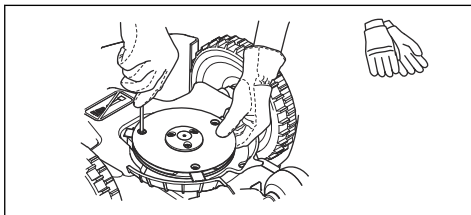
Replace worn or damaged blades for a safe operation. Replace the blades regularly for a satisfactory cut result and a low energy use. All 3 blades and screws must be replaced at the same time to get a balanced cutting system.

5.3.1 To replace the blades

1. Push the **STOP** button
2. Set the **Main switch** to position 0.



3. Turn the product upside down. Put the product on a soft and clean surface to avoid scratching the product.
4. Rotate the skid plate so that its holes align with the screws for the blade.
5. Remove the 3 screws with a screwdriver.



6. Remove the 3 blades.

7. Attach 3 new blades and screws.
8. Make sure that the blades can pivot freely.

5.4 Battery



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

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

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

5.5 Winter service

Take your product to your Husqvarna® central service for service prior to winter storage. Regular winter service will maintain the product in good condition and create the best conditions for a new season without any disruptions.

Service usually includes the following:

- Thorough cleaning of the body, the chassis, the blade disc and all other moving parts.
- Testing of the product's function and components.
- Checking and, if required, replacing wear items such as blades and bearings.
- Testing the product's battery capacity as well as a recommendation to replace battery if necessary.
- If new firmware is available, the product is updated.

6 Troubleshooting

6.1 Introduction - troubleshooting

In this chapter you can find information and help about faults and symptoms of the product. You can find more information and FAQ (Frequently Asked Questions) on www.husqvarna.com.

6.2 Fault messages

The fault messages in the table below are shown in the display of the product. Speak to your Husqvarna® representative if the same message shows frequently.

Message	Cause	Action
<i>Wheel motor blocked, left/right</i>	Grass or other object has wrapped around the drive wheel.	Check the drive wheel and remove the grass or other object.
<i>Cutting system blocked</i>	Grass or other object has wrapped around the blade disc.	Check the blade disc and remove the grass or other object.
	The blade disc lies in a pool of water.	Move the product and prevent the collection of water in the work area.
	The grass is too high.	Cut the grass before you install the product. Make sure that the grass is maximum 4 cm / 1.6 in.
<i>Trapped</i>	The product is stuck in a small area behind a number of obstacles.	Check if there are any obstacles which make it hard for the product to move on from this location. Remove the obstacles or create an island around the obstacles. Refer to <i>To make an island on page 16</i> .
<i>Outside working area</i>	The boundary wire connections to the charging station are crossed.	Check that the boundary wire is connected correctly.
	The boundary wire is too close to the edge of the work area.	Check that the boundary wire has been laid according to the instructions. Refer to <i>To install the boundary wire on page 19</i> .
	The work area slopes too much by the boundary loop.	
	The boundary wire is laid in the wrong direction around an island.	
	Disturbances from metal objects (fences, reinforcement steel) or buried cables close by.	Try moving the boundary wire.
	The product finds it hard to distinguish the signal from another product installation close by.	Put the product in the charging station and generate a new loop signal.

Message	Cause	Action
<i>Empty battery</i>	The product cannot find the charging station.	Change the position of the guide wire. Refer to <i>To install the guide wire on page 19</i> .
	The battery is spent.	Replace the battery. Refer to <i>Battery on page 28</i> .
	The charging station's antenna is defective.	Check if the indicator lamp in the charging station flashes red. Refer to <i>Indicator lamp in the charging station on page 35</i> .
	The charging plates on the product or contact plates on the charging station are corroded.	Clean the charging and contact plates using a fine grade emery cloth. If the problem stays speak to your authorized service technician.
<i>Wrong PIN code</i>	Wrong PIN code has been entered. Five attempts are permitted, and the keypad is then blocked for a period of time.	Enter the correct PIN code. Contact Husqvarna® customer service if you forget the PIN code.
<i>No drive</i>	The product has got caught in something and has been slipping.	Free the product and rectify the reason for the lack of drive. If it is due to wet grass, wait until the lawn has dried before using the product.
	The work area includes a steep slope.	Steep slopes should be isolated. Refer to <i>To examine where to put the boundary wire on page 14</i> .
	The guide wire is not laid diagonally in the slope.	Make sure that the guide wire is installed diagonally across the slope. Refer to <i>To examine where to put the guide wire on page 17</i> .
<i>Wheel motor overloaded, left/right</i>	Grass or other object is wrapped around the drive wheel.	Check the drive wheel and remove grass or object.
<i>Collision sensor problem, rear</i>	The product body can not move freely around its chassis.	Check that the product body can move freely around its chassis. If the problem stays speak to your authorized service technician.
<i>Alarm! Mower switched off</i>	The alarm is activated because the product had been switched off.	Adjust the security level in the <i>Security</i> menu. Refer to <i>Security level on page 23</i> .
<i>Alarm! Mower stopped</i>	The alarm is activated because the product has been stopped.	
<i>Alarm! Mower lifted</i>	The alarm is activated because the product has been lifted.	
<i>Alarm! Mower tilted</i>	The alarm is activated because the product has been tilted.	

Message	Cause	Action
<i>Charging station blocked</i>	The contact between the charging plates on the product on the and contact plates on the charging station may be poor and the product has made a number of attempts to charge.	Put the product in the charging station and check that the charging plates and contact plates make good contact.
	An object is in the way of the product that prevents it to enter the charging station.	Remove the object.
	The charging station is tilted or bent.	Put the baseplate on level ground.
	The guide wire is not installed correctly.	Check if the guide wire is installed according to the instructions. Refer to <i>To install the guide wire on page 19</i> .
<i>Stuck in charging station</i>	There is an object in the way of the product preventing it from leaving the charging station.	Remove the object.
<i>Upside down</i>	The product is leaning too much or has turned over.	Turn the product the right way up.
<i>Needs manual charging</i>	The product is set to the <i>MAN</i> operating mode.	Put the product in the charging station.
<i>Next start hh:mm</i>	The timer setting prevents the product from operating.	Change the timer settings. Refer to <i>To do the timer settings on page 21</i> .
	The rest period is in progress. The product has an inbuilt standby period according to the Standby time table.	This behavior is normal and no action is required.
	The clock or date in the product is not correct.	Set the time. Refer to <i>To set the Time & Date on page 24</i> .
<i>Today's mowing completed</i>	The product has an inbuilt standby period according to the Standby time table.	This behavior is normal and no action is required. Refer to <i>Make an estimate of the necessary operating time on page 21</i> .
<i>Lifted</i>	The lift sensor has been activated as the product has been lifted.	Check that the product body can move freely around its chassis. Remove or create an island around objects that can cause the chassis to be lifted. If the problem stays speak to your authorized service technician.
<i>Wheel drive problem, right/left</i>	Grass or other object is wrapped around the drive wheel.	Clean the wheels and around the wheels.
<i>Electronic problem</i>	Temporary electronic or firmware related issue in the product.	Restart the product. If the problem stays speak to your authorized service technician.
<i>Loop sensor problem, front/rear</i>		
<i>Tilt sensor problem</i>		
<i>Temporary problem</i>		
<i>Invalid sub-device combination</i>		
<i>Temporary battery problem</i>		

Message	Cause	Action
<i>Charging system problem</i>	Incorrect type of battery.	Use original batteries recommended by the manufacturer.
<i>Battery problem</i>	Temporary battery or firmware related issue in the product.	Restart the product. If the problem stays speak to your authorized service technician.
	Incorrect type of battery.	Use original batteries recommended by the manufacturer.
<i>Battery temperature outside limits</i>	The temperature in the battery is too high or too low to start operation.	No action. The product will start to operate when the temperature is in limits.
<i>Charging current too high</i>	Wrong or faulty power supply unit.	Restart the product. If the problem stays speak to your authorized service technician.
<i>Connectivity problem</i>	Potential problem on the connectivity circuit board in the product.	Restart the product. If the problem stays speak to your authorized service technician.
<i>Connectivity settings restored</i>	The connectivity settings was restored due to a fault.	Check and change the settings if needed.
<i>Poor signal quality</i>	The connectivity circuit board in the product is assembled upside down, or the product itself is tilted or upside down.	Make sure that the product is not upside down or tilted. If the problem stays speak to your authorized service technician.

Message	Cause	Action
<i>No loop signal</i>	The power supply or low-voltage cable is not connected.	If the LED status indicator on the charging station is not lit, it shows that there is no power. Examine the power outlet connection and the residual-current device. Make sure that the low-voltage cable is connected to the charging station.
	The power supply or low-voltage cable is damaged or not connected.	Replace the power supply or low-voltage cable.
	The boundary wire is not connected to the charging station.	Check that the boundary wire connectors are fitted properly to the charging station. Replace connectors if damaged. Refer to <i>To install the boundary wire on page 19</i> .
	The boundary wire is broken.	Do a check of the LED status indicator on the charging station. If it shows break in the boundary wire, replace the damaged section with a new loop wire and splice using an original coupler.
	<i>ECO mode</i> is activated and the product has attempted to start outside the charging station.	Put the product in the charging station, start the product and close the hatch.
	The boundary wire is crossed on its way to and from an island.	Check that the boundary wire is laid according to instructions, e.g. in the right direction around the island. Refer to <i>To install the boundary wire on page 19</i> .
	The pairing between the product and the charging station is lost.	Put the product in the charging station and generate a new loop signal. Refer to <i>To create a New loop signal on page 23</i> .
	Disturbances from metal objects (fences, reinforcement steel) or buried cables close by.	Try to move the boundary wire and/or make islands in the work area to increase the signal strength.
	The product is too far from the boundary wire.	Redo the installation of the boundary wire so that all parts of the work area is maximum 15 m / 50 ft. from the boundary wire.
<i>Mower tilted</i>	The product is tilted more than the maximum angle.	Move the product to a flat area.
<i>Connection NOT changed</i>	Failed to change loop signal.	Try to create a <i>New loop signal</i> several times. Refer to <i>To create a New loop signal on page 23</i> . If the problem stays speak to your authorized service technician.

6.3 Information messages

The information messages in the table below are shown in the display of the product. Speak to your Husqvarna® representative if the same message shows frequently.

Message	Cause	Action
<i>Low battery</i>	The product cannot find the charging station.	Change the position of the guide wire. Refer to <i>To install the guide wire on page 19</i> .
	The battery is at the end of its life cycle.	Replace the battery. Refer to <i>Battery on page 28</i> .
	The antenna of the charging station is defective.	Do a check if the indicator lamp in the charging station flashes red. Refer to <i>Indicator lamp in the charging station on page 35</i> .
	The charging plates on the product or contact plates on the charging station are defective because of corrosion.	Clean the charging plates and contact plates. If the problem stays speak to your Husqvarna® service.
<i>Settings restored</i>	A <i>Reset all user settings</i> has been done.	Usual operation of the product.
<i>Guide 1 not found</i>	The guide wire is not connected to the charging station.	Connect the guide wire to the charging station. Refer to <i>To install the guide wire on page 19</i> .
	Damage in the guide wire.	Replace the damaged section with new guide wire.
	The guide wire is not connected to the boundary loop.	Connect the guide wire correctly to the boundary loop. Refer to <i>To install the boundary wire on page 19</i> .
<i>Guide calibration failed</i>	The product has not calibrated the guide wire because of an error.	Install the guide wire correctly. Refer to <i>To install the guide wire on page 19</i> .
<i>Guide calibration done</i>	The product has calibrated the guide wire.	Usual operation of the product.
<i>Connection changed</i>	New loop signal changed.	Usual operation of the product.

6.4 Indicator lamp in the charging station

The indicator lamp in the charging station must show a solid or flashing green light for a correct installation. If not, follow the instructions in the troubleshooting guide below.

You can also find information on www.husqvarna.com. Speak to your Husqvarna® customer service for more information.

Light	Cause	Action
<i>Green solid light</i>	Good signals.	No action required.
<i>Green flashing light</i>	The signals are good and <i>ECO mode</i> is activated.	No action required. For more information on <i>ECO mode</i> , Refer to <i>ECO mode on page 24</i> .
<i>Blue flashing light</i>	The boundary loop is not connected to the charging station.	Check that the boundary wire connector is fitted properly to the charging station. Refer to <i>To install the boundary wire on page 19</i> .
	Break in the boundary loop.	Find out where the break is. Replace the damaged section of the boundary wire with a new loop wire and splice using an original coupler. Refer to <i>Find breaks in the loop wire on page 37</i> .
<i>Yellow flashing light</i>	The guide wire is not connected to the charging station.	Check that the guide wire connector is properly connected to the charging station. Refer to <i>To install the guide wire on page 19</i> .
	Break in the guide wire.	Find out where the break is. Replace the damaged section of the guide wire with a new loop wire and splice using an original coupler.
<i>Red flashing light</i>	Interruption in the charging station's antenna.	Contact your local Husqvarna® representative.
<i>Red solid light</i>	Fault in the circuit board or incorrect power supply in the charging station. The fault should be rectified by an authorized service technician.	Contact your local Husqvarna® representative.

6.5 Symptoms

If your product does not work as expected, follow the symptoms guide below.

There is a FAQ (Frequently Asked Questions) on www.husqvarna.com which provides more detailed answers to a number of standard questions. Contact Husqvarna® customer service if you still cannot find the reason for the fault.

Symptoms	Cause	Action
The product has difficulty docking.	The guide wire is not laid in a long straight line that is far enough out from the charging station.	Check that the charging station has been installed according to the instructions in <i>To examine where to put the guide wire on page 17</i>
	The guide wire is not inserted in the slot under the charging station.	It is absolutely critical for operation that the guide wire is perfectly straight and is in the correct position under the charging station. Therefore make sure that the guide wire is always in its slot in the charging station. Refer to <i>To install the guide wire on page 19</i> .
	The charging station is on a slope.	Place the charging station on a surface that is entirely level. Refer to <i>To examine where to put the charging station on page 13</i> .
The product runs at the wrong time	The product clock needs to be set.	Set the clock. Refer to <i>To set the Time & Date on page 24</i> .
	The start and stop times for mowing are incorrect.	Reset the start time and stop time settings for mowing. Refer to <i>To reset the timer setting on page 22</i> .
The product vibrates.	Damaged blades lead to imbalance in the cutting system.	Inspect the blades and screws and replace them if necessary. Refer to <i>Replacement of the blades on page 28</i> .
	Too many blades in the same position lead to imbalance in the cutting system.	Check that only one blade is fitted at each screw.
	Different versions (thickness) of Husqvarna® blades are used.	Check if the blades are of different versions.
The product runs, but the blade disc does not rotate.	The product searches for the charging station, or is driving to the starting point.	No action. The blade disc does not rotate when the product is searching for the charging station.
The product mows for shorter periods than usual between charges.	Grass or other foreign object blocks the blade disc.	Remove and clean the blade disc. Refer to <i>Chassis and blade disc on page 27</i> .
	The battery is spent.	Replace the battery. Refer to <i>To remove the battery on page 40</i> .
Both the mowing and charging times are shorter than usual.	The battery is spent.	Replace the battery. Refer to <i>To remove the battery on page 40</i> .
The product is parked for hours in the charging station.	The product has an inbuilt standby period according to the Standby time table. Refer to <i>Make an estimate of the necessary operating time on page 21</i> .	No action.
	The STOP button has been activated.	Open the hatch, enter the PIN code and confirm with the OK button. Press the Start button and then close the hatch.

Symptoms	Cause	Action
Uneven mowing results.	The product works too few hours per day.	Increase the mowing time. Refer to <i>Make an estimate of the necessary operating time on page 21.</i>
	The shape of the work area requires the use of the <i>Remote start</i> function for the product to find its way to all remote areas.	Steer the product to a remote area. Refer to <i>Remote start 2 on page 22.</i>
	The <i>Proportion</i> setting is incorrect in relation to the layout of the work area.	Check that the correct <i>Proportion</i> value is selected.
	Work area too large.	Try limiting the work area or extending the work time. Refer to <i>To do the timer settings on page 21.</i>
	Dull blades.	Replace all the blades. Refer to <i>Replacement of the blades on page 28.</i>
	Long grass in relation to the set cutting height.	Increase the cutting height and then successively lower it.
	Accumulation of grass by the blade disc or around the motor shaft.	Check that the blade disc rotates freely and easily. If not, screw off the blade disc and remove grass and foreign objects. Refer to <i>Chassis and blade disc on page 27.</i>

6.6 Find breaks in the loop wire

Breaks in the loop wire are usually the result of unintentional physical damage to the wire such as when gardening with a shovel. In countries with ground frost, also sharp stones that move in the ground can damage the wire. Breaks can also occur due to the wire being stretched excessively during installation.

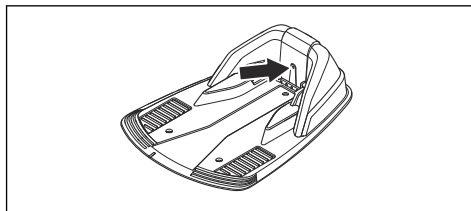
Mowing the grass too low right after the installation can damage wire insulation. Damage to the insulation may not cause disruptions until several weeks or months later. To avoid this, always select the maximum cutting height the first weeks after installation and then lower the height one step at a time every second week until the desired cutting height has been reached.

A defective splicing of the loop wire can also lead to disruptions several weeks after the splice was done. A faulty splice can, for example, be the result of the coupler not being pressed together hard enough with a pair of pliers, or that a coupler of lower quality than the original coupler has been used. Please first check all known splices before further troubleshooting is done.

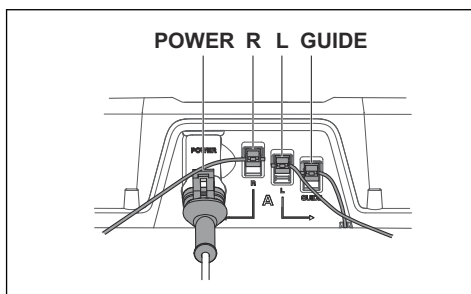
A wire break can be located by gradually halving the distance of the loop where the break may have occurred until there is only a very short section of the wire left.

The following method does not work if *ECO mode* is activated. Make sure first that *ECO mode* is switched off. Refer to *ECO mode on page 24.*

1. Check that the indicator lamp in the charging station flashes blue, which indicates a break in the boundary loop. Refer to *Indicator lamp in the charging station on page 35.*



2. Check that the boundary wire connections to the charging station are properly connected and not damaged. Check that the indicator lamp in the charging station is still flashing blue.

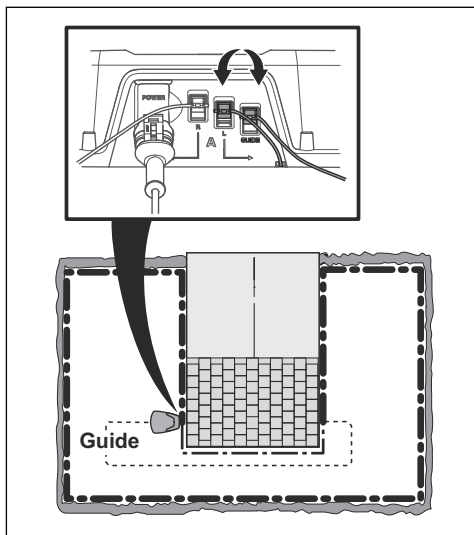


3. Switch the connections between the guide wire and the boundary wire in the charging station.

Start by switching connection L and GUIDE.

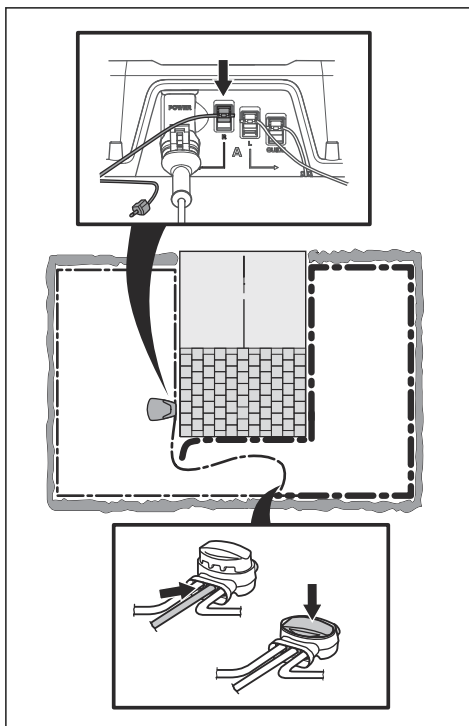
If the indicator lamp is flashing yellow, then the break is somewhere on the boundary wire between

L and the point where the guide wire is connected to the boundary wire (thick black line in the illustration).

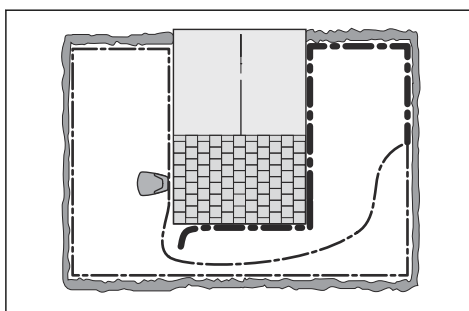


To rectify the fault you will need boundary wire, connector(s) and coupler(s):

- a) If the suspected boundary wire is short then the easiest way is to exchange all of the boundary wire between L and the point where the guide wire is connected to the boundary wire (thick black line).
- b) If the suspected boundary wire is long (thick black line) then do as follows: Put L and GUIDE back to their original positions. Then disconnect R. Connect a new loop wire to R. Connect the other end of this new loop wire at the middle of the suspected wire section.

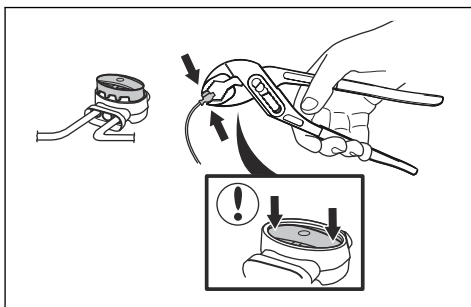


If the indicator lamp now is flashing yellow, then the break is somewhere in the wire between the disconnected end to the point where the new wire is connected (thick black line below). In that case, move the connection for the new wire closer to the disconnected end (roughly at the middle of the suspected wire section) and check again if the indicator lamp is green.



Continue until only a very short section of the wire remains which is the difference between a solid green light and a flashing blue light. Then follow instruction in step 5 below.

4. If indicator lamp still flashes blue in step 3 above: Put L and GUIDE back in their original positions. Then switch R and GUIDE. If indicator lamp now is lit with a solid green light then disconnect L and connect a new boundary wire to L. Connect the other end of this new wire at the middle of the suspected wire section. Follow the same approach as in 3a) and 3b) above.
5. When the break is found, the damaged section must be replaced with a new wire. Always use original couplers.

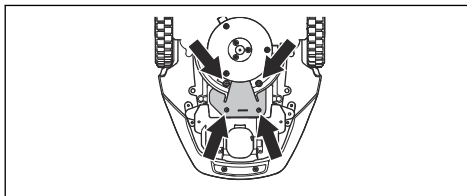


7 Transportation, storage and disposal

7.1 Transportation

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.



7.2 Storage

- Fully charge the product. Refer to *To charge the battery on page 26*.
- Switch off the product. Refer to *To switch off the product on page 26*.
- Clean the product. Refer to *Clean the product on page 27*.
- Keep the product in a dry, frost free space.
- Keep the product with all wheels on level ground during storage, or use an original wall hanger if available.
- If you keep the charging station indoors, disconnect and remove the power supply and all the connectors from the charging station. Put the end of each connector wire in a container with grease.

6. Remove the screw of the battery retaining bracket and remove the bracket.
7. Pull out the battery by pulling on the strap.

Note: If you keep the charging station outdoors, do not disconnect the power supply and the connectors.

7.3 Disposal

- Obey the local recycling requirements and applicable regulations.
- For questions about how to remove the battery, refer to *To remove the battery on page 40*.

7.3.1 To remove the battery

Follow these steps for removal of the battery from the product.

1. Set the **Main switch** in position 0.
2. Set the cutting height to its lowest position.
3. Turn the product upside down.
4. Clean around the battery cover.
5. Remove the 4 screws to the battery cover (Torx 20) and remove the battery cover.

8 Technical data

8.1 Technical data

Dimensions	Automower® 105
Length, cm / in	55 / 21.7
Width, cm / in	39 / 15.4
Height, cm / in	25 / 9.8
Weight, kg / lbs	6.9 / 15
Electrical system	Automower® 105
Battery, Lithium-Ion 18.5 V/2.1 Ah Art. No.	586 57 62-02
Battery, Lithium-Ion 18 V/2.0 Ah Art. No.	586 57 62-03, 586 57 62-05
Battery, Lithium-Ion 18.25 V/2.0 Ah Art. No.	586 57 62-04
Power supply (28V DC), V AC	100-240
Low-voltage cable length, m / ft	5 / 16.4
Mean energy consumption at maximum use	5 kWh/month in a 600 m ² / 0.15 acre work area
Charge current, A DC	1.3
Type of Power Supply Unit	ADP-40BR XX, ADP 40EW XX, FW7313/28/D/XX/Y/1.3/PI, FW7313/28/D/XX/Y/1.3
Average mowing time, min	65
Average charging time, min	50
Boundary wire antenna	Automower® 105
Operating Frequency Band, Hz	100-80000
Maximum magnetic field ² , dBuA/m	82
Maximum Radio-frequency power ³ , mW @60m	<25

² Measured according to EN 303 447.

³ Maximum active output power to antennas in the frequency band in which the radio equipment operates.

Sound data⁴	Automower® 105
Sound level, perceived dB (A)	65
Measured sound power noise level, dB (A)	58
Noise emissions uncertainties, KWA dB (A)	3
Guaranteed sound power noise level, dB (A)	61
Sound pressure noise level at the operator's ear ⁵ , dB (A)	47

Mowing	Automower® 105
Cutting system	3 pivoted cutting blades
Cutting motor speed, rpm	2900
Power consumption during cutting, W +/- 20 %	20
Cutting height, cm / in.	2-5 / 0.8-2
Cutting width, cm / in.	17 / 6.7
Narrowest possible passage, cm / in.	60 / 24
Maximum angle for work area, %	25
Maximum angle for boundary wire, %	15
Maximum length boundary wire, m / ft.	400 / 1300
Maximum length guide loop ⁶ , m / ft.	200 / 650
Maximum distance to boundary wire m / ft.	15 / 50
Working capacity, m ² / acre +/- 20%	600 / 0.15

IP-classification	Automower® 105
Robotic lawn mower	IPX4
Charging station	IPX1
Power supply	IPX4/IP44

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

⁴ 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.

⁵ Sound pressure noise uncertainties K_{pA}, 2-4 dB (A)

⁶ The guide loop is the loop that if formed by the guide wire and the part of the boundary wire from the junction with the guide wire to the right connection in the charging station.

9 Warranty

9.1 Warranty terms

Husqvarna® warranty covers this product's functionality for a period of 2 years from date of purchase. The warranty covers serious faults relating to materials or manufacturing faults. Within the warranty period, we will replace the product or repair it at no charge if the following terms are met:

- The product and the charging station may only be used in compliance with the instructions in this Operator's Manual. This manufacturer's warranty does not affect warranty entitlements against the dealer/retailer.
- End-users or non-authorized third parties must not attempt to repair the product.

Examples of faults which are not included in the warranty:

- Damage caused by water seepage from using a high-pressure washer, or from being submerged under water, for example when heavy rain forms pools of water.
- Damage caused by lightning.
- Damage caused by improper battery storage or battery handling.
- Damage caused by using a battery that is not a Husqvarna® original battery.
- Damage caused by not using Husqvarna® original spare parts and accessories, such as blades and installation material.
- Damage to the loop wire.
- Damage caused by non-authorized changing or tampering with the product or its power supply.

The blades and wheels are seen as disposable and are not covered by the warranty.

If an error occurs with your Husqvarna® product, please contact Husqvarna® customer service for further instructions. Please have the receipt and the product's serial number at hand when contacting Husqvarna® customer service.



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Original instructions

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