

# greenworks®

## Greenworks Optimow 10/ Greenworks Optimow 15



EN	Robotic Lawnmower	OPERATOR'S MANUAL
DE	Rasenmäroboter	BEDIENUNGSHANDBUCH
ES	Cortacésped robótico	MANUAL DEL OPERARIO
IT	Gogo Tosaerba	MANUALE DI ISTRUZIONI
FR	Tondeuse à gazon robotique	MANUEL OPÉRATEUR
PT	Corta-relva robótico	MANUAL DO OPERADOR
NL	Robotmaaier	GEBRUIKERSHANDLEIDING
RU	Роботизированная газонокосилка	РУКОВОДСТВО ОПЕРАТОРА
FI	Robottiruohonleikkuri	KÄYTTÖOPAS
SV	Robotgräsklippare	ANVÄNDARHANDBOK
NO	Robotklipper	BRUKERHÅNDBOK
DA	Robotplæneklipper	BRUGERVEJLEDNING
PL	Robokosiarka	INSTRUKCJA OBSŁUGI
CS	Robotická sekačka na trávu	NÁVOD K OBSLUZE
SK	Robotická kosačka	NÁVOD NA OBSLUHU
SL	Robotska kosilnica	PRIROČNIK ZA UPRAVLJAVCA
HR	Robotska kosilica	PRIRUČNIK ZA RUKOVATELJE
HU	Robotfűnyíró	KEZELŐI KÉZIKÖNYV
RO	Robot de tuns iarba	MANUAL DE INSTRUCȚIUNI
BG	Роботизирана ливадна косачка	РЪКОВОДСТВО НА ОПЕРАТОРА
LT	Robotas vejapjovė	OPERATORIAUS VADOVAS
LV	Robotizēts zāles pļāvējs	LIETOTĀJA ROKASGRĀMATA
ET	Robotmuruniiduk	KASUTUSJUHEND



Original instructions/Übersetzung der ursprünglichen Anweisungen/Traducción de las instrucciones originales/Traduzione delle istruzioni originali/Traduction des instructions d'origine/Tradução das instruções originais/Vertaling van de originele gebruiksaanwijzing/Перевод оригинальных инструкций/Alkuperäisten käyttöohjeiden käänös/Översättning av originalanvisningarna/Oversettelse av den originale bruksanvisningen/Oversættelse af den originale instruktionsbog/Tłumaczenie oryginalnej instrukcji/Překlad originálního návodu/Preklad originálneho návodu/Prevod izvornih navodil/Prijevod izvornih uputa/Az eredeti utasítás fordítása/Traducere a instrucțiunilor originale/Превод на оригиналните инструкции/Originalių instrukcijų vertimas/Sākotnējā norādījuma tulkojums/Algse juhendi tõlge

The following pages contain important safety and operating instructions

Carefully read and review all safety instructions, warnings and cautions contained in this manual.

Failure to read and follow these instructions, warnings and cautionary statements may result in severe injury or death to persons and pets or damage to personal property.

The materials, technical data, and figures in this manual are provided for guidance only and are not binding. The manufacturer reserves the right to make any changes to the technical characteristics and all features of operation, materials, technical data, or figures without prior warning.

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As a complement to this operator manual, more information is available on the website:  
[www.greenworkstools.eu](http://www.greenworkstools.eu)

## EXPLANATION OF SYMBOLS ON THE MOWER



This is a dangerous power tool. Use care when operating and follow all safety instructions and warnings.

Read the operator manual carefully before operating the mower.



Remove the safety key before working on or lifting the mower.



Hazard of thrown objects during operation.

Keep a safe distance from the mower when operating and keep people, especially children, pets and bystanders away from the area where mower is being operated.



Do not ride on the mower.



Class III appliance

## READING THE OPERATOR MANUAL

The following symbols are important for reading and understanding the operating instructions.



Wear protective gloves

The following system is used in the operator manual to make it easier to understand:

- **WARNING!** Warning texts alert users and consumers to the existence and nature of hazards so that they can prevent injury by appropriate conduct during use of the product.
- **CAUTION:** Caution texts alert users and consumers to the existence and nature of product risks so that they can prevent damaging the product by appropriate conduct during use of the product.
- **NOTE:** Notes inform users and consumers about additional information about product use.
- Text written in **bold italics** refers to another section in the operator manual.
- Text written in **bold** refers to settings on the mower.

## IMPORTANT

READ CAREFULLY BEFORE USE! KEEP FOR FUTURE REFERENCE!

### Training

**WARNING!** Automatic lawnmower! Keep away from the machine! Supervise children!

- Read the instructions carefully. Be familiar with the controls and the proper use of the machine.
- Never allow people unfamiliar with these instructions or children to use the machine. Local regulations may restrict the age of the operator.
- The operator or user is responsible for accidents or hazards occurring to other people or their property.

### Preparation

- Ensure the correct installation of boundary and guide wires as instructed.
- Periodically inspect the area where the machine is to be used and remove all stones, sticks, wires, bones, and other foreign objects.
- Periodically visually inspect to see that the blades, blade bolts and cutter assembly are not worn or damaged. Replace worn or damaged blades and bolts in sets to preserve balance.

### General

- Never operate the machine with defective guards, or without safety devices, for example the body, in place.
- Do not put hands or feet near or under rotating parts.
- Never pick up or carry an machine while the motor is running.
- Remove (or Operate) the disabling device from the machine
  - before clearing a blockage;
  - before checking, cleaning or working on the machine.
- Do not leave the machine to operate unattended if you know that there are pets, children or people in the vicinity.

### Maintenance and storage

- Keep all nuts, bolts, and screws tight to be sure the machine is in safe working condition.
- Replace worn or damaged parts for safety.
- Ensure that only replacement cutting means of the right type are used.
- Ensure that batteries are charged using the correct charger recommended by the manufacturer. 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/neutralizing agent, seek medical help if it comes into contact with the eyes, etc.
- Servicing of the machine should be according to manufacturers' instructions.

**WARNING!** For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.

**WARNING!** This appliance contains batteries that are only replaceable by a skilled persons.

## OPERATIONAL SAFETY

This operator manual contains all of the basic information concerning the safe operation and maintenance of the mower.



Carefully read all the safety precautions and instructions in this operator manual before operating the mower. Save this operator manual for future reference. Follow manufacturer instructions regarding installation, operation, maintenance, and repair.

This mower is designed to mow grass in open and level areas. Use only equipment recommended by the manufacturer. All other types of use are incorrect.



This mower conforms to CE safety standards and directives concerning electromagnetic compatibility, machines, and low voltage.



The mower is not intended for use by persons (including children) with reduced physical, sensory, or mental capabilities, 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.

Children should be supervised to ensure that they do not play with the appliance.

The mower must only be operated, maintained, and repaired by persons that fully understand its special characteristics and safety regulations.

Start the mower in accordance with the instructions. When the safety key is in the Enabled position, keep your hands and feet away from the rotating blades.

Never put your hands and feet under the mower.

Do not modify the original design of the mower. All modifications void the guarantee.

Switch off mower using the STOP button on the mower when persons, especially children, or pets are in the cutting area. It is recommended that the mower be programmed for use during hours when the area is free from persons or pets.

Remove objects from the operating area such as branches, toys, stones, tools that can damage the blades. The mower can fasten on objects in the operating area and help may be required to remove the object before the mower can continue mowing.

Never lift up the mower or carry it with the safety key inserted.

Always switch off the mower using the STOP button when the mower is not in use. The mower can only start when the safety key is inserted and the START button is pressed.

The built-in alarm is very loud. Be careful, especially if the mower is handled indoors.

Do not use the mower with a defective blade disc or body.

Do not let persons who do not know how the mower works and behaves use it.

Do not put anything on top of the mower or its charging station.



Always wear protective gloves when working with the mower's blades.

In case there is risk of a lightning storm where the mower is installed, please take the following actions:

- Disconnect both boundary wires and guide wires from the charging station.
- Disconnect the charging station from the power socket.
- Place the mower indoors if possible.

When the risk of lightning is over reconnect all boundary and guide wires to the charging station. Connect power supply to the wall socket and place the mower in the charging station.

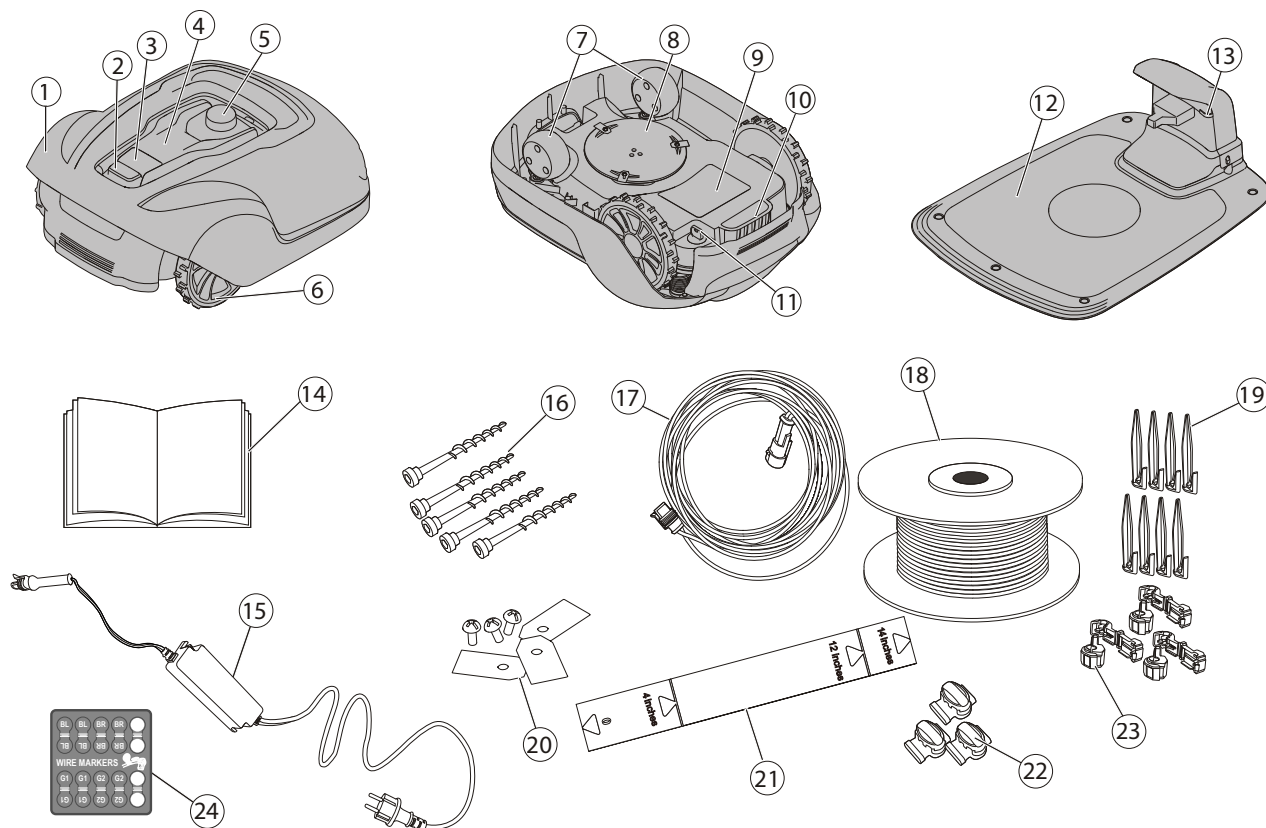
When a mower is operating in a public area the operating area shall be surrounded with clearly visible warning signs. The warning signs shall have the following text:

Warning!

Automatic lawnmower!

Keep away from the machine!

Supervise children!



- |                             |  |
|-----------------------------|--|
| 1 Removable cover           | 13 LED for operation check                   |
| 2 Stop button               | 14 Operator manual and quick guide           |
| 3 Start button              | 15 Power supply*                             |
| 4 LED indicators            | 16 Screws for securing charging station (x5) |
| 5 Cutting height adjustment | 17 Low voltage cable                         |
| 6 Rear wheels               | 18 Loop wire for boundary and guide wire     |
| 7 Front wheels              | 19 Wire pegs                                 |
| 8 Blade disc                | 20 Extra blades and screws (x3)              |
| 9 Battery cover             | 21 Ruler (break off carton top)              |
| 10 Carrying handle          | 22 Splice and guide wire connectors          |
| 11 Safety key               | 23 Loop wire connectors                      |
| 12 Charging station         | 24 Wire marker label                         |

\*The appearance of the power supply may differ depending on market.

Unbox the mower and installation materials. Make certain that all parts shown in Figure 1 are included and undamaged. Contact your retailer if any items are missing or damaged.

Keep the Quick Guide in a safe place since it contains the unique pairing code for your mower.

# Introduction

## How the robotic lawnmower works

The product is an autonomous appliance that can mow the grass evenly in a random pattern. The boundary wire delimits the working area around the edge and isolate the fixed objects. The product will drive back to the charging station when the battery needs to be charged. It is equipped with various sensors to operate safely and smartly.

After following the installation instructions in the manual and in the App, the robot will be ready to take care of your lawn.

## Connectivity

The product supports IoT (Internet of Thing) so it can be connected to the internet via cellular network using the appropriate App.

The App provides operation settings for your own robot and makes it possible to control it remotely.

It also supports FOTA (Firmware over the air) so it can be automatically updated to the latest software to get the best performance.

# Installation

Read the entire section before beginning installation. Installation affects mower capability. Plan the installation carefully.

The following are the main tasks within the installation:

- Planning layout and preparation
- Installing and connecting the charging station
- Connecting the power supply
- Initial charging of the battery
- Installing the boundary wire
- Installing the guide wire
- Calibrating and initial start up

## PLANNING LAYOUT AND PREPARATION

Ensure that the following conditions exist in the operating area where the mower will be used:

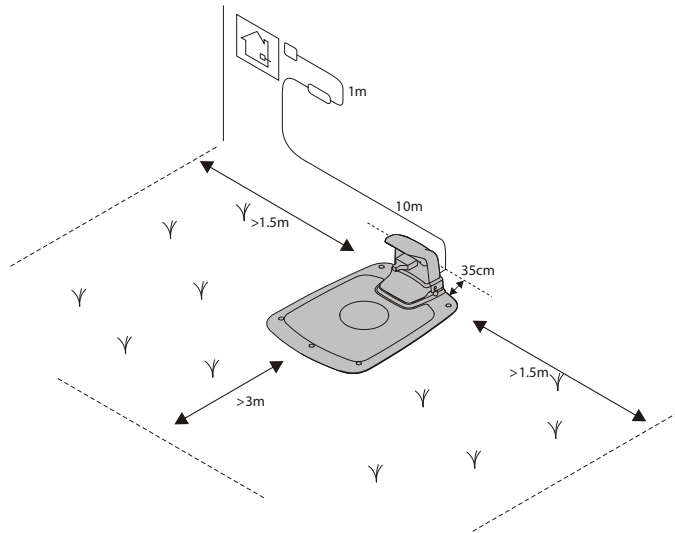
- The grass is shorter than 10 cm.
- There are no stones, loose pieces of wood, wire, live mains cables, and other foreign objects.
- The operating area is even and has no ditches, grooves, and steep slopes greater than 35%.

The following tools are required for installation, but not included:

- Hammer/rubber mallet to drive the pegs into the ground
- Combination pliers to cut the boundary wire
- Pliers wrench to press the couplers together
- Hex key, 6 mm for securing the charging station to ground



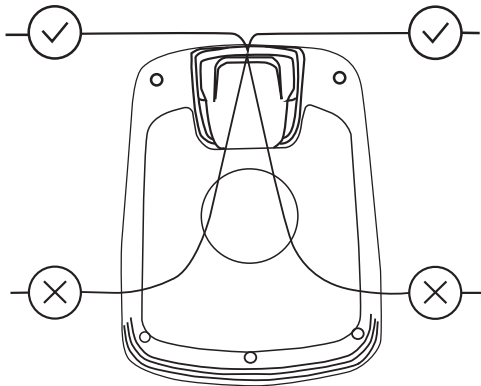
## INSTALLING AND CONNECTING THE CHARGING STATION



Position for the charging station as follows:

- In a level spot out of direct sunlight  
(The front end of the charging station must not be 5 cm higher or lower than the back end.)
- Within reach of a wall socket  
(The low voltage cable is 10 m long.)
- With at least 3 m in front of it and 1.5 m to each side  
(Do not position in confined spaces in the operating area.)

The entire charging station must be inside the operating area as shown in the figure.



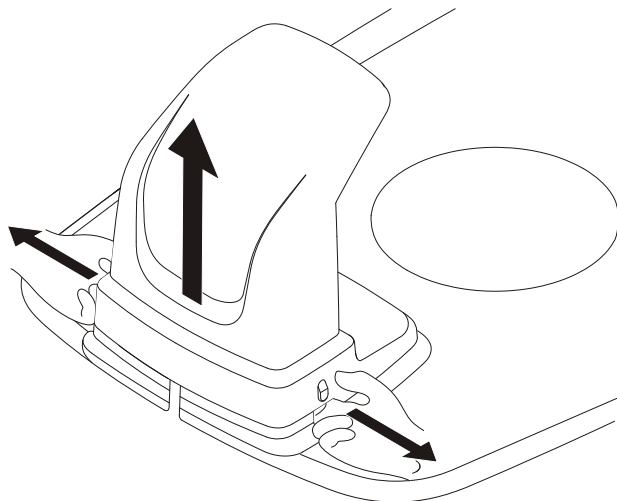
## CONNECTING THE POWER SUPPLY

Connect the power supply in a cool, dry environment; out of direct sunlight.

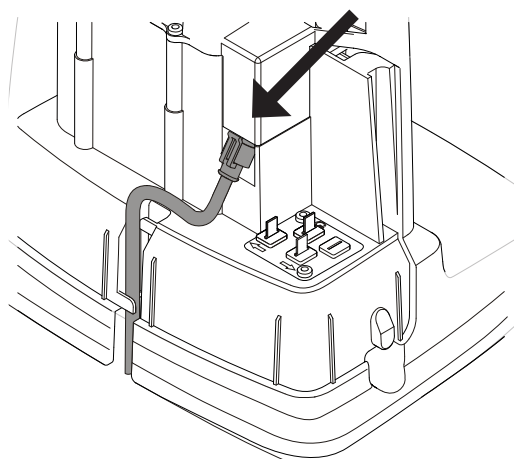
If the power supply is connected to an electrical socket outdoors, it must be approved for outdoor use.

The low voltage cable can cross the operating area if it is stapled down.

**CAUTION:** Do not cut, splice, or alter the low voltage cable. Altering the low voltage cable will void the product guarantee.



Remove the protective cover on the charging station by pressing in the tabs on each side of the base and lifting away the cover.

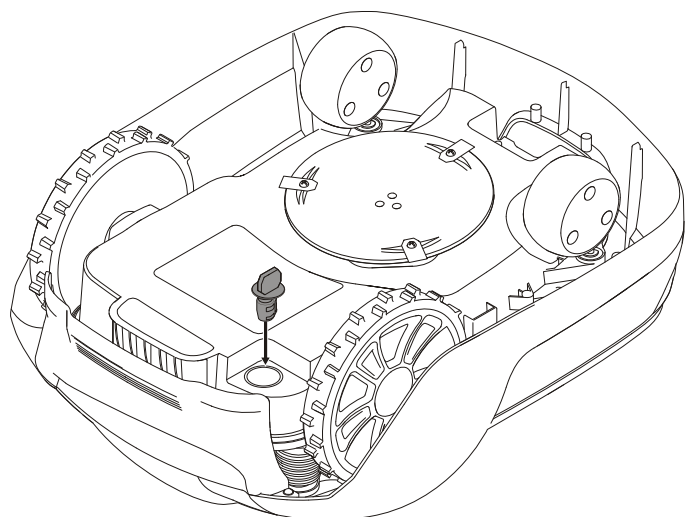


Connect the low voltage cable to the charging station.

Thread the low voltage cable behind the tabs to hold it in place in the charging station.

Connect the power supply power cable to a 220-240 V wall socket.

## INITIAL CHARGING OF THE BATTERY

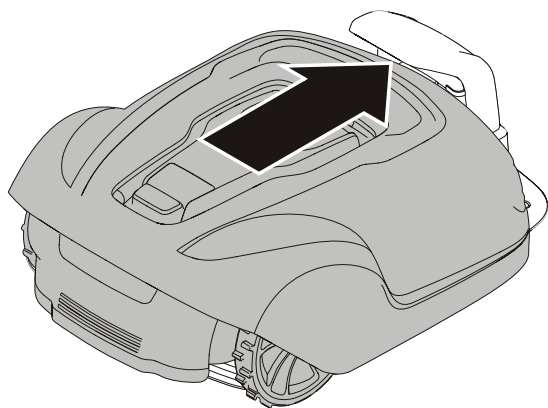


Insert the safety key into the underside of mower and turn to the Enable position.



Place the mower into the charging station while the boundary and guide wires are being laid.

The mower cannot be used before the installation is complete.



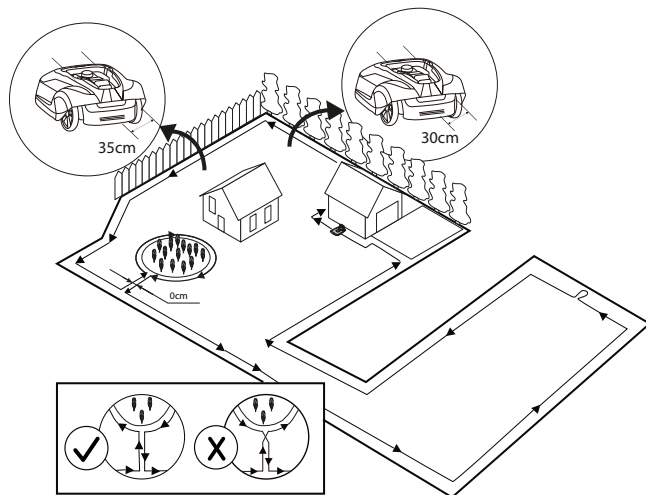
## INSTALLING THE BOUNDARY WIRE

When installing the boundary wire there are a number of situations to consider as described in the table below.

Table 1. Handling Deviations and Obstacles in the Operating Area

VARIATION WITHIN OPERATING AREA	BOUNDARY WIRE PLANNING
Fixed obstacles level with lawn that the mower can traverse (paving stone paths or similar)	Lay the boundary wire under the paving stones or in the joint between the paving stones.  Never run the mower over gravel, mulch, or similar material that can damage the blades.
Fixed obstacles $\pm$ 1 cm high	Lay the boundary wire 10 cm from the obstacle.
Fixed obstacles 1—5 cm high , small ditches, flower beds, or low kerbstones	Lay the boundary wire 30 cm from the obstacle.
Fixed obstacles 5 cm or higher (fences or walls)	Lay the boundary wire 35 cm from the obstacle.
Fixed obstacles taller than 15 cm that can withstand a collision (trees or shrubs)	No measures required; the mower will turn around when it collides with this type of obstacle.
Fixed obstacles that slope slightly such as stones or large trees with raised roots	Lay the boundary wire 30 cm from or remove obstacle.
Fixed obstacles that cannot withstand a collision	Lay the boundary wire 35 cm from and around the obstacle and then return it back along the same route.
Long and narrow passages and areas narrower than 2.5 m	Install a guide wire.
Borders on a slope, road, precipice, or water	Supplement the boundary wire with a physical barrier at least 15 cm high.
Slope up to 35% within operating area	No measures required; the mower can operate up to a 35% as long as the slope is not at the boundary of the operating area.
Slope less than 15% at operating area edge	Lay boundary wire as normal.
Slope greater than 15% at operating area edge	Do not lay boundary wire unless a fixed obstacle (fence or wall) exists to prevent the mower from leaving the operating area.  When a part of the operating area outer edge slopes more than 15%; lay the boundary wire 20 cm in on the flat ground before the beginning of the slope.

NOTE: Slope gradient is defined in percentage units (%). The slope as a percentage unit is calculated as the difference in elevation in centimetres for every metre. If, for example, the difference in elevation is 10 cm, the slope gradient is 10%.



Temporarily secure the end of the loop wire to a peg or other object at the charging station.

Lay out the loop wire in a counter-clockwise direction along the planned boundary of the operating area taking into consideration the rules in Table 1 until you return to the charging station.

To isolate fixed objects that cannot withstand a collision like bushes and flower beds, make an island around it by lay the boundary wire starting from the border nearest the object and go around the object and then return it back along the same route. If wire installed counterclockwise around the lawn, shall it be installed clockwise around the island according to the picture. The two incoming and outgoing wire shall be close to each other under the same wire peg.

If you are going to install a guide wire, create an eyelet with about 20 cm of extra boundary wire at the point where the guide wire will later be connected.

See *Installing a Guide Wire* on page 15 for more information.

If the boundary wire is too short, use provided splice and guide wire connectors to splice additional boundary wire as follows:

- 1 Insert both ends of the boundary wire into the splice and guide wire connector. Check that the wires are fully inserted into the splice and guide wire connector so that the ends are visible through the splice and guide wire connector.
- 2 Squeeze down the button on top of the splice and guide wire connector fully using a pliers wrench until you hear a click. Lay down the loop wire reel at the charging station.

Go back around the boundary of the operating area and secure the boundary wire either using pegs or buried in the ground. Pegs are recommended since this allows for adjustment during the first few weeks of operation.

When securing the boundary wire with pegs:

- Cut the grass very low with a standard lawnmower or a trimmer where the wire is to be laid.
- Lay the boundary wire on the ground and secure with pegs close together.
- Push or hammer the pegs into the ground.

Do not push the pegs so far into the ground so that they strain the boundary wire.

When burying the boundary wire:

- Bury the boundary wire 1—20 cm into the ground. Please see the complete manual online for the guide wire installation. When the boundary wire is completely laid out and secured, install end loop wire connectors as follows:

- 1 Open the loop wire connector and place the wire in the loop wire connector grip.
- 2 Press the loop wire connectors together using a pliers wrench until you hear a click.

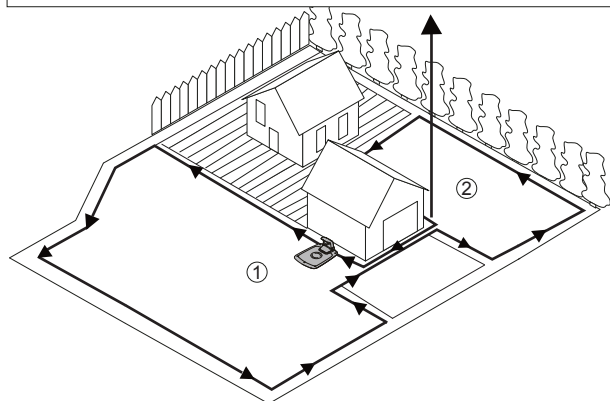
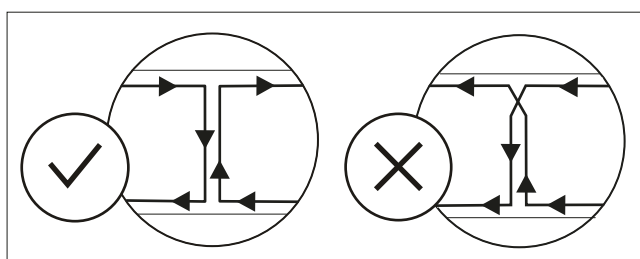
Cut off any surplus boundary wire 1-2 cm above each connector.

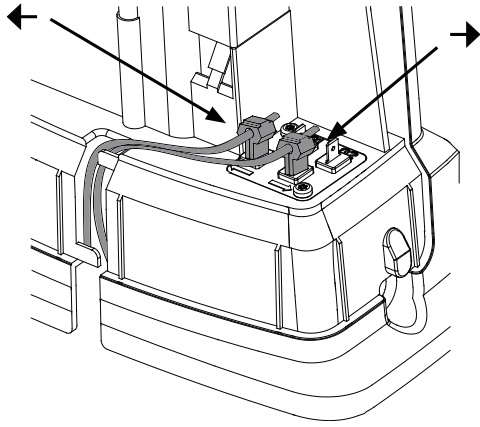
If the lawn has a secondary area ② that is separated from the main area ① where the charging station is placed, follow the steps below.

Lay the boundary wire starting from the border nearest the secondary area and going around the area and then returning it back along the same route.

If the wire is installed counterclockwise around the main area, it shall be installed counterclockwise around the secondary area, according to the picture. The two wires between the main area and the secondary area shall be close to each other.

Note: The mower must be manually carried between the main area and the secondary area.



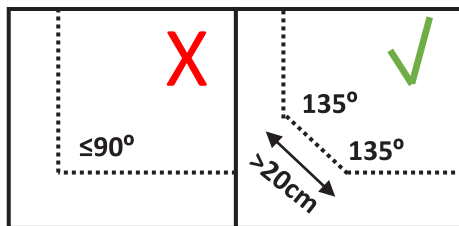
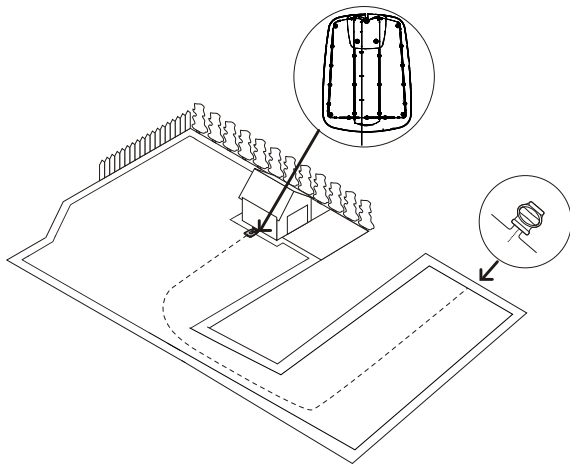


Connect the boundary wire to the charging station as follows:

- 1 Remove the protective cover on the charging station and thread the wire behind the tabs into the channel at the rear of the charging station.
- 2 Press the connector onto the metal pins on the charging station (marked with left and right arrows).

NOTE: Make sure the boundary wire to the right of the charging station is connected to the arrow pointing right and the same for the left side.

## INSTALLING A GUIDE WIRE



The mower uses the optional guide wire to find its way back to the charging station, but also find hard-to reach areas of the operating area. For example, the guide wire is laid between the charging station and a remote part of the working area or through a narrow passage.

For narrow passages (less than 2.5 m) or to shorten search times, a guide wire is recommended.

Plan the location of the guide wire before laying out the boundary wire.

Use the same cable roll for both the boundary wire and the guide wire.

The guide wire, like the boundary wire, must be secured to the ground with pegs or buried.

When installing the guide wire on a steep slope, lay the wire at an angle to the slope so it is easier for the mower to follow the guide wire on the slope.

Do not lay the guide wire at sharp angles or the mower will have difficulty following it.

Do not lay the guide wire closer than 30 cm from the boundary wire.

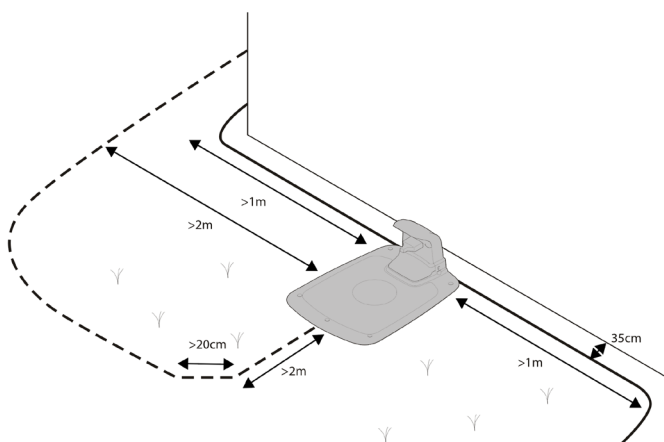
Do not lay the guide wire across the boundary wire.

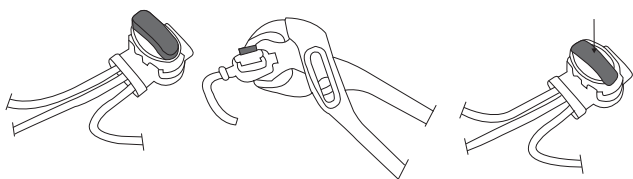
Lay the guide wire straight under the charging plate in the track intended for this and then at least 2 m straight out from the front edge of the plate.

Leave as much space as possible to the left of the guide wire (as seen when facing the charging station).

Run the guide wire to the loop on the boundary wire where the guide wire is to be connected.

Cut the boundary wire using the combination pliers.

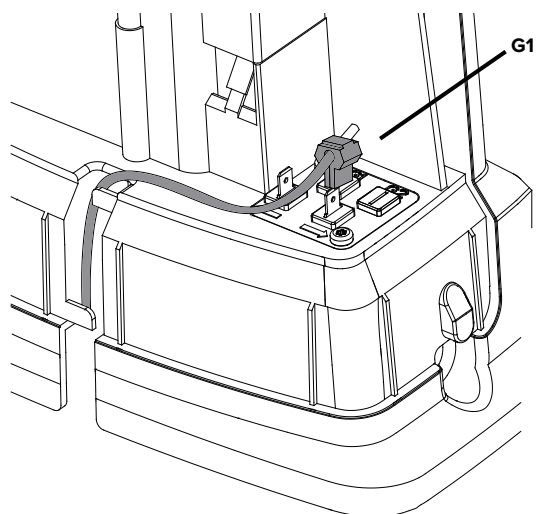




Insert both ends of the boundary wire as well as the end of the guide wire into the splice and guide wire connector. Check that the wires are fully inserted into the splice and guide wire connector so that the ends are visible through the splice and guide wire connector.

Squeeze down the button on top of the splice and guide wire connector fully using a pliers wrench until you hear a click.

Secure the splice and the boundary and guide wires either using pegs or by burying.

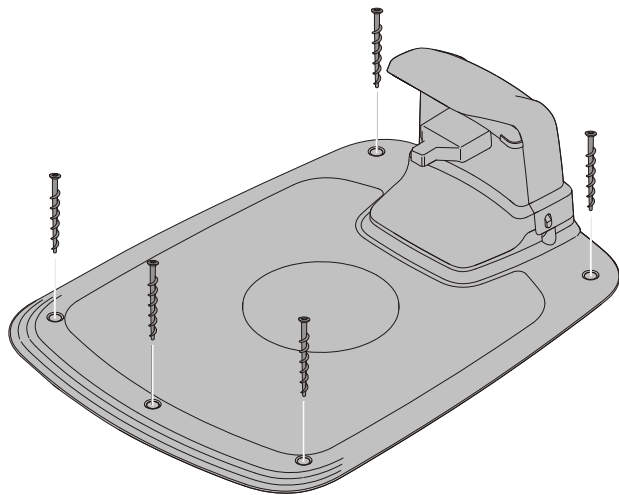


Connect the guide wire to the charging station as follows:

- 1 Remove the protective cover on the charging station and thread the guide wire behind the tabs into the channel leading to the terminals.
- 2 Connect the guide wire to the contact pin on the charging station that is labelled G1.



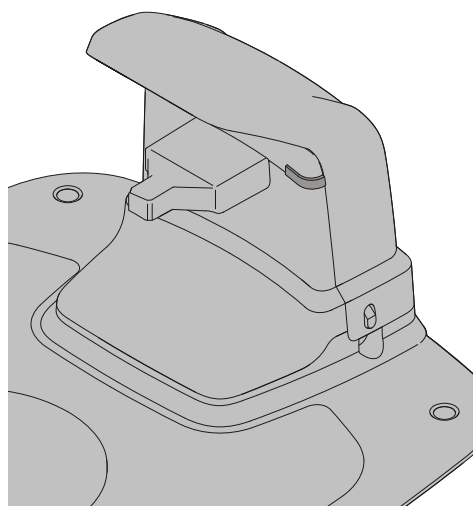
## CALIBRATING AND INITIAL START UP



Secure the charging station to the ground using the five supplied fixing screws using a 6 mm hex key.

NOTE: Do not make new holes in the charging station base plate. Only the existing holes may be used to secure the base plate to the ground.

NOTE: Do not step or walk on the charging station base plate.



Check the LED indicator on the charging station:

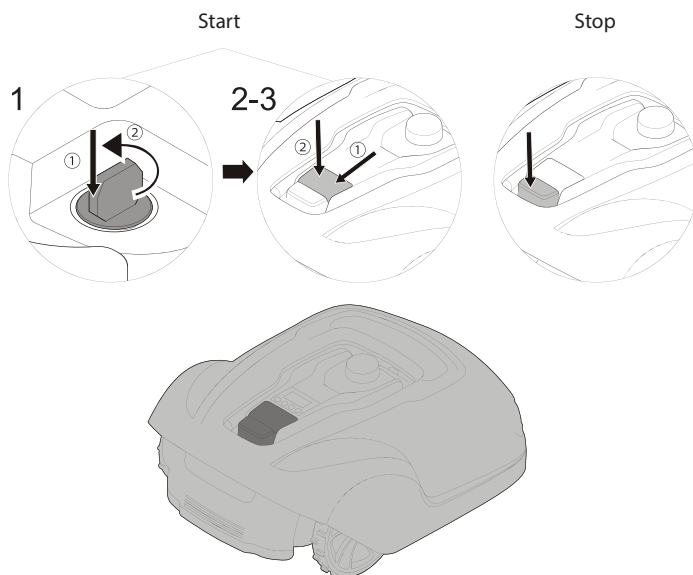
- LED indicator lights up continuously green, if the output voltage of the power supply is available and the boundary wire is not interrupted.

The LED indicator does not light up when the output voltage of the power supply is not available.

If the indicator LED does not show a solid or green light, see Indicator LEDs on the Charging Station on page 24 for troubleshooting.

Pair the mower with Mobile App as instructed in Pairing Mobile App to Mower on page 19.

## STARTING AND STOPPING THE MOWER



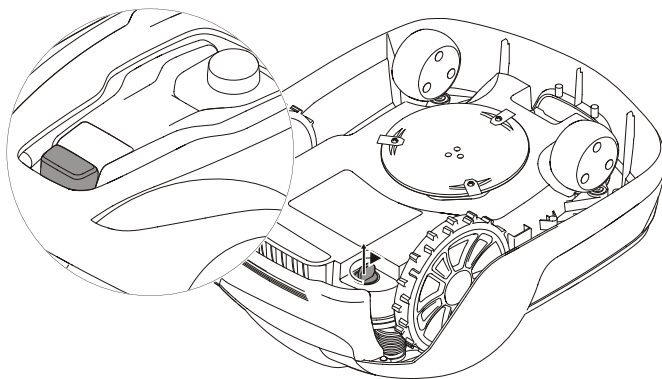
To start the mower:

- 1 Insert the safety key and rotate counter clockwise to position "1".
- 2 Slide the START button latch backwards.
- 3 Press down the START button.

To stop the mower:

Press the STOP button on the mower.

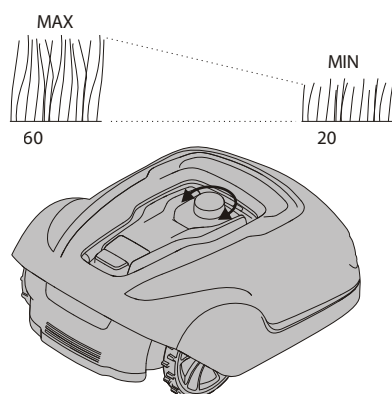
## SWITCHING OFF THE MOWER



Press the STOP button on the mower and remove the safety key.

**WARNING!** Always remove the safety key when performing maintenance or if the mower must be moved.

## ADJUSTING CUTTING HEIGHT



For the first few weeks of mowing, set the cutting height to 60 mm to avoid cutting the boundary wire and guide wire. Lower the setting one step each week thereafter until the desired cutting height is reached.

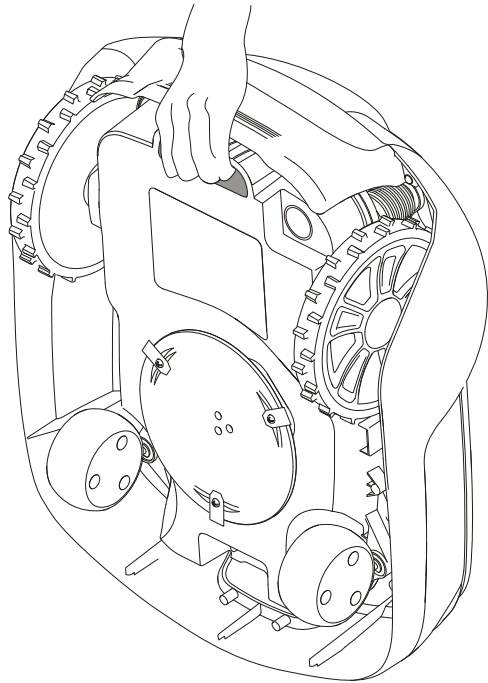
Turn the cutting height adjustment knob to the required setting. The selected setting is the marking on the body that aligns with the arrow on the knob.

Turn clockwise to increase the cutting height.

Turn anti-clockwise to decrease the cutting height.

The cutting height for the mower can be adjusted between 20 mm and 60 mm.

## LIFTING AND CARRYING THE MOWER



Press the STOP button and remove the safety key before lifting.

Always lift the mower using the carrying handle.

## PAIRING MOBILE APP TO MOWER

Download Greenworks tools App from App Store/Google Play and follow the on-screen instructions for how to pair the mower. Have the unique pairing code (found on the quick guide manual) and the mower at hand.

**WARNING!** Wear protective gloves when handling or working near the sharp blades.

**WARNING!** Before working on the mower itself, remove the safety key.

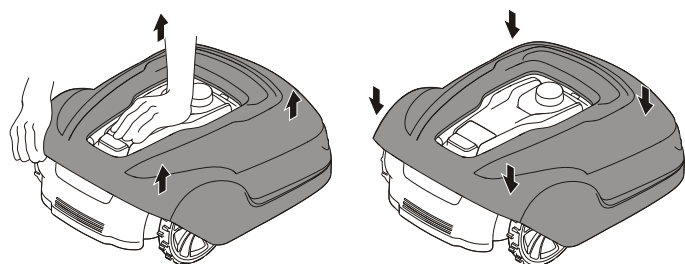
**WARNING!** Before working on the charging station or power supply, remove the plug from the mains.

- Periodically visually inspect the mower and replace worn or damaged parts for safety.
- Inspect that the blades rotate freely
- Keep all nuts, bolts, and screws tight to be sure that the mower is in safe working condition.
- The normal operating life of the blades is 2 to 6 weeks when used at maximum area capacity and longer for smaller areas.

**CAUTION:** Dull blades result in the grass being cut poorly; requiring more energy and shorter time between battery loadings.

- Clean the mower regularly for best function.

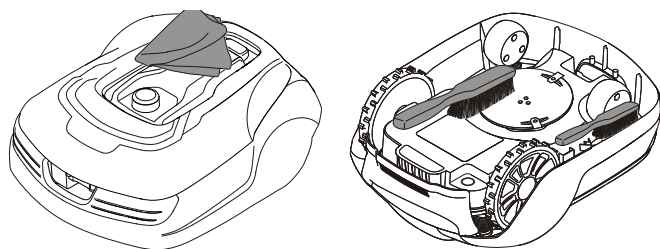
## REMOVING THE BODY FROM CHASSIS



Hold down the mower with one hand and lift firmly at one of the corners of the body and repeat for all four corners, until the body pops loose from the chassis.

Replace the body by aligning the body onto the chassis and press down firmly until you hear the click. Check that the body is firmly attached to the chassis.

## CLEANING

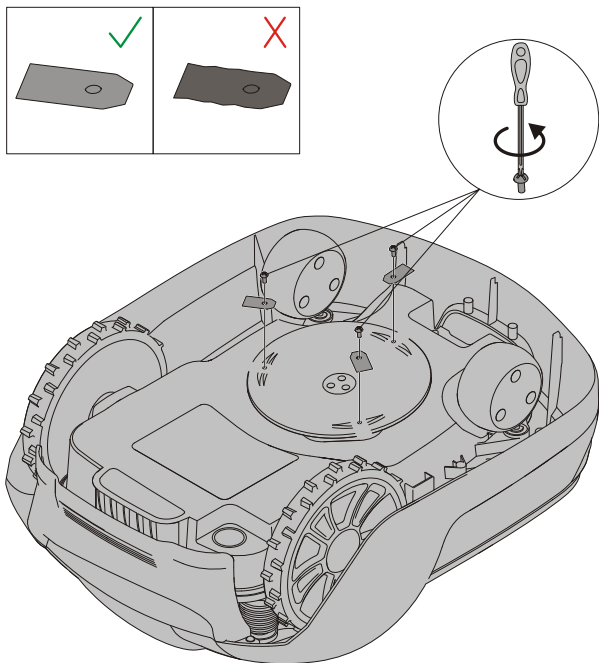


**WARNING!** Press the STOP button and remove the safety key before cleaning.

Clean the exterior of the mower thoroughly using a soft brush, damp cloth, and low pressure water hose, if necessary. Remove the body from the chassis.

Turn the mower on its side and clean the blade area and wheels with a stiff brush or scraper to remove compacted grass clippings.

## REPLACING BLADES



**WARNING!** Press the STOP button and remove the safety key before replacing blades and wear protective gloves.

**WARNING!** Use only GLOBE'S blade: 333092355

**CAUTION:** Use only original replacement parts.

Replace all three blades and screws as a set at the same time.

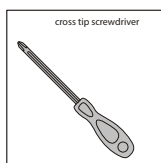
Turn the mower upside down.

Loosen the screws using a straight slot or cross tip screwdriver.

Remove the blades and the screws.

Screw in the new blades using new screws.

Check that the blades pivot freely



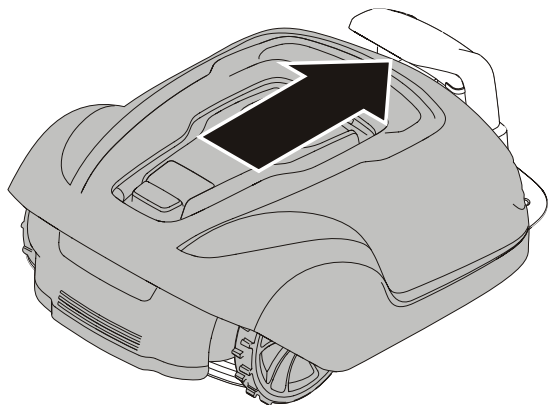
## MAINTAINING THE BATTERY



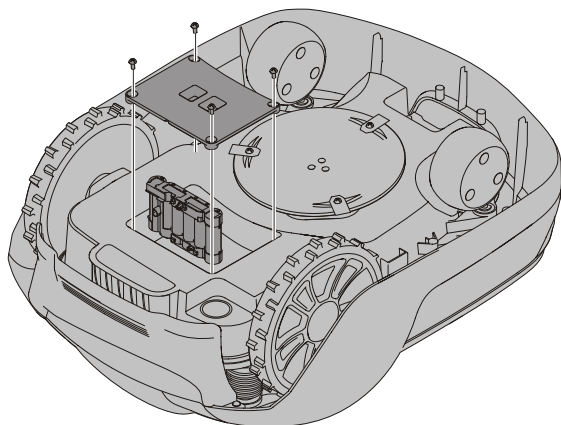
**WARNING!** In the event of electrolyte leakage, flush with water/neutralizing agent and seek medical care if electrolyte comes in contact with the eyes.

Only charge the battery in the original charging station. Incorrect use may result in electric shock, overheating, or leakage of corrosive liquid from the battery.

The battery is maintenance-free, but has a limited service life of 2 to 4 years depending on the length of the season and how many hours a day the mower is used.



## REPLACING THE BATTERY



**WARNING!** Press the STOP button and remove the safety key before replacing batteries and wear protective gloves.

**CAUTION:** Use only original replacement parts.

Turn the mower upside down and remove the four Torx T20 screws and remove the battery cover.

Disconnect the battery terminal connector.

Lift the battery straight out.

Insert the new battery in slot 1 (the rear slot).

Connect the battery terminal connector to the new battery.

Put the battery cover back into place and insert and tighten the four Torx T20 screws.

Insert the safety key into the underside of mower and turn to the Enable position.

Place the mower into the charging station for enable and charging the battery.

**WARNING!** This appliance contains batteries that are only replaceable by a skilled persons.

**WARNING!** For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.



Discard the old battery in accordance with local environmental regulations.

## WINTER STORAGE MOWER

Always clean the mower before winter storage.

Charge the battery fully before winter storage. If the battery is not fully charged it can be damaged and in certain cases be rendered useless.

**CAUTION:** If the battery is not fully charged, it can be damaged and in certain cases be rendered useless.

Inspect the condition of wear items; that the blades are sharp and that blades and front wheels turn freely. Correct any deficiencies.

Store the mower in a dry, frost-free environment standing on all four wheels.

## WINTER STORAGE CHARGING STATION

When possible, disconnect the boundary wire and guide wire from the charging station and store the charging station and power supply indoors.

Leave the boundary wire and the guide wire in the ground, but protect the ends of the wires from dampness by connecting them to an original coupler or putting them in a container with grease.

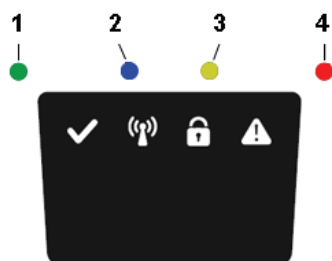
If it is not possible to store the charging station indoors, the charging station must remain connected to the mains, the boundary wire, and the guide wires.

## AFTER WINTER STORAGE

Inspect the mower and charging station contact and charging strips for corrosion, burning, or filth. If the charging or contact strips require cleaning, clean using fine grade emery cloth.

This section also presents some symptoms that can guide you if the mower does not work as expected.

### INDICATOR LEDS ON MOWER



LED	STATUS	MEANING	ACTION
1. Operating (Green)	Flashing	Recovery mode	Place the robot in charging station for up to 5 hours and wait for the green LED to stop flash. If LED doesn't stop flash then restart the robot outside the CS and try again.
	On	Mower in operation mode (charging, parked in Charging station, paused, mowing or searching)	
	Off	Mower stopped with Stop button on mower, safety key in Disabled position, mower in error state or mower waiting for PIN code.	
2. Connectivity (Blue)	Flashing	Trying to connect to internet server	
	On	Connected to internet server	
	Off	Mower not in "Power on mode"	
3. Security (Yellow)	Flashing	PIN code authorization required	... via Mobile App.
	Off	No pin required	No action required
4. Error (Red)	Flashing	Mower stopped with error	Check the reason for the error and then restart by pressing the Start button on the mower.

### INDICATOR LEDS ON CHARGING STATION

LED	STATUS	MEANING	ACTION
Green	On	Boundary wire and Charging station OK	No action required.
Blue	Flashing	Boundary wire broken or not connected	Check and repair boundary wire.
Red	Flashing	Electronic fault in charging station or power supply Unit	Please contact your dealer



## SYMPTOMS

If your mower does not work as expected, follow the troubleshooting guide below.

SYMPTOMS	CAUSE	ACTION
Mower has difficulty docking with charging station	The charging station is on a slope.	Place the charging station on a surface that is entirely level. See Installing and connecting the Charging Station on page 9.
	The boundary wire is not laid correctly in relation to the charging station.	Check that the charging station and boundary wire has been correctly installed. See Installing and connecting the Charging Station on page 9.
Uneven mowing results	The mower works too few hours per day.	Increase the operation time. See the Scheduling function in the Mobile App.
	The shape of the working area requires manual settings to be made for the mower to find its way to all remote areas.	Adjust lawn coverage to steer the mower to one or more remote areas. See Settings function in the Mobile App.
	The shape of the working area requires manual settings to be made for the mower to find its way to all remote areas.	Try limiting the operating area or extending the operation time. See the Scheduling function in the Mobile App.
	The blades are dull.	Replace all the blades and screws so that the rotating parts are balanced. See Replacing blades on page 21.
	Grass collects on the blade disc or around the motor shaft.	Check that the blade disc rotates easily. If not, remove grass and foreign objects. See Maintenance on page 20.
The mower mows for shorter periods than usual between charges	Grass or other foreign object are blocking the blade disc.	Remove grass and foreign objects. See Maintenance on page 20.
	The battery is worn out.	Replace the battery. See Replacing the Battery on page 22.
Mowing and charging times shorter than usual	The battery is worn out.	Replace the battery. See Replacing the Battery on page 22.

## BREAKS IN BOUNDARY WIRE AND GUIDE WIRE

Breaks in the boundary wire and guide wire (if installed) are usually the result of unintentional physical damage.

Inspect the entire boundary wire from the charging station and back.

Inspect the guide wire (if installed) from the charging station to the splice into the boundary wire.

Inspect that all the couplings have been properly squeezed to make connections.

	Optimow 10	Optimow 15
Dimensions:		
Height	26 cm	26 cm
Length	62 cm	62 cm
Width	50 cm	50 cm
Weight	11 kg	11 kg
Electrical system:		
Battery, Special Lithium-Ion battery	24 V / 2.0 Ah, Part No. 211022355 / T0100607-00	24 V / 2.0 Ah, Part No. 211022355 / T0100607-00
Power supply	220-240 V/32 VDC	220-240 V/32 VDC
Low voltage cable length	10 m	10 m
Mean energy consumption at maximum use	8 kWh/month for a working area of 1,000 m <sup>2</sup>	10 kWh/month for a working area of 1,500 m <sup>2</sup>
Charge current	1.3 A DC	1.3 A DC
Average charging time	140 minutes	70 minutes
Average cutting time	70 minutes	70 minutes
Noise emissions: *)		
Measured sound power noise level **)	55 dB (A)	55 dB (A)
Guaranteed sound power noise level	57 dB (A)	57 dB (A)
Sound pressure noise level ***)	44 dB (A)	44 dB (A)
Mowing:		
Cutting system	Three pivoted cutting blades	Three pivoted cutting blades
Average power consumption during cutting	25 W ± 20%	25 W ± 20%
Cutting height	2-6 cm	2-6 cm
Cutting width	22 cm	22 cm
Narrowest possible passage	60 cm	60 cm
Maximum slope for cutting area	35%	35%
Maximum slope for boundary wire	15%	15%
Maximum length boundary wire	800 m	800 m
Working capacity****)	1,000 m <sup>2</sup>	1,500 m <sup>2</sup>
Recommended area capacity	0 - 700 m <sup>2</sup>	500 - 1,200 m <sup>2</sup>
IP classification:		
Mower	IPX5	IPX5
Charging station	IPX3	IPX3
Power supply	IP67	IP67

\*) The noise emission declarations conforms to EN 50636-2-107

\*\*) uncertainties KWA, 2 dB (A)

\*\*\*) uncertainties KPA, 2 dB (A)

\*\*\*\*) Working capacity declaration conforms to EGMF RLM004-1.0/2016

RADIO FREQUENCY DATA SHEET		
	LTE & GSM	Short Range Devices (SRD) (Boundary Wire)
Frequency Bands	LTE-FDD: B1/B2/B3/B4/B5/B8/B12/B13/B18/B19/B20/B25/B26/B27/B28/B66/ B71/B85 GSM: 850/900/1800/1900 MHz	0~148.5KHz
Max Output Power (dBm)	LTE-FDD: 21 dBm +1.7/-3 dB GSM850/EGSM900: 33 dBm ±2 dB DCS1800/PCS1900: 30 dBm ±2 dB GSM850/EGSM900 (8-PSK): 27 dBm ±3 dB DCS1800/PCS1900 (8-PSK): 26 dBm ±3 dB	NA



According to the European law 2012/19/EU, electrical and electronic equipment that is no longer usable, and according to the European law 2006/66/EC, defective or used battery packs/batteries, must be collected separately and disposed of in an environmentally correct manner.

The symbol on the mower or its packaging indicates that this product cannot be treated as domestic waste. It should instead be left at a suitable recycling centre to recycle its electronic components and batteries.

The batteries are enclosed in the chassis under the mower. See Replacing the Battery on page 22 for battery removal.

By ensuring that this product is taken care of correctly, you can help to counteract the potential negative impact on the environment and people that can otherwise result through the incorrect waste management of this product.

For more detailed information about recycling this product, contact your municipality, your domestic waste service or the shop from where you purchased the product.



Separate collection of used machine and packaging let you recycle materials and use them again. Use of the recycled materials helps prevent environmental pollution and decreases the requirements for raw materials.

### Batteries



At the end of their useful life, discard batteries with a precaution for our environment. The battery contains material that is dangerous to you and the environment. You must remove and discard these materials separately at a equipment that accepts lithium-ion batteries.

GLOBGRO AB, Globe Group Europe guarantees this product's functionality for a period of three years (from date of purchase), except for the battery that has two years warranty period. The guarantee covers serious faults relating to materials or manufacturing faults. Within the guarantee period, we will replace the product or repair it at no charge if the following terms are met:

- The mower and the charging station may only be used in compliance with the instructions in this operator manual.
- Users or non-authorized third parties must not attempt to repair the product.

Examples of faults which are not included in the guarantee:

- Damage caused by lightning.
- Damage caused by improper battery storage or battery handling.
- Damage caused by using a battery that is not a original battery.
- Damage caused by not using original spare parts and accessories, such as blades and installation material.
- Damage to the loop wire.

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

If a fault occurs with your mower, please contact the dealer for further instructions. Have your receipt and product serial number to hand for quicker assistance.

Name and address of manufacturer:

Name: Globe Technologies Europe GmbH

Address: Brunnenweg 17, 64331 Weiterstadt, Germany

Name and address of the person authorised to compile the technical file:

Name: Ralf Pankalla

Address: Brunnenweg 17, 64331 Weiterstadt, Germany



Herewith we declare that the product:

Category:	Robotic Lawnmower
Model:	Optimow 10 / 15
Serial number:	See product rating label.
Year of Construction	See product rating label.

- Is in conformity with the relevant provisions of the Machinery Directive 2006/42/EC
- Is in conformity with the provisions of the following other directives:

Electromagnetic Compatibility - Directive 2014/30/EU  
 Radio equipment - Directive 2014/53/EU  
 Low Voltage Directive 2014/35/EU  
 Restriction of the Use of certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) Directive 2011/65/EU & (EU) 2015/863

- Furthermore, we declare that the following standards have been used:

EN 60335-1, EN 50636-2-107, EN 60335-2-29,  
 EN 62233, EN 55014-1, EN 55014-2, EN 61000-3-2,  
 EN 61000-3-3, EN 61558-1, EN 61558-2-16, EN 62311,  
 EN 303 447, EN 303 413, EN 301 511,  
 EN 301 489-1, EN 301 489-19, Draft ESTI EN 301 489-52,  
 EN 62321-3-1, EN 62321-4, EN 62321-5, EN 62321-6,  
 EN 62321-7-1, EN 62321-7-2, EN 62321-8

Ted Qu Haichao  
 Quality Director  
 Weiterstadt, 26.06.2021

Ted Qu

Name and address of the manufacturer:

Name: Globe Technologies Europe GmbH

Address: Brunnenweg 17, 64331 Weiterstadt, Germany

Name and address of the Authorized representative:

Name: Garden Equipment Ltd

Address: First, Floor, 3a Groveley Road, Christchurch, Dorset, BH23 3HB, UK



Name and address of the person authorised to compile the technical file:

Name: Simon Del-Nevo

Address: First, Floor, 3a Groveley Road, Christchurch, Dorset, BH23 3HB, UK

Here with we declare that the product

Category:	Robotic Lawnmower
Model:	Optimow 10 / 15
Serial number:	See product rating label.
Year of construction:	See product rating label.

- is in conformity with the relevant provisions of the Supply of Machinery (Safety) Regulations 2008.
- is in conformity with the provisions of the following other UK legislation:

Electromagnetic Compatibility Regulations 2016  
Radio Equipment Regulations 2017  
Electrical Equipment (Safety) Regulations 2016  
The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Furthermore, we declare that the following standard have been used:

BS EN 60335-1, BS EN 50636-2-107, BS EN 60335-2-29,  
BS EN 62233, BS EN 55014-1, BS EN 55014-2, BS EN 61000-3-2,  
BS EN 61000-3-3, BS EN 61558-1, BS EN 61558-2-16, BS EN 62311,  
EN 303 447, EN 303 413, EN 301 511,  
EN 301 489-1, EN 301 489-19, Draft ESTI EN 301 489-52,  
BS EN 62321-3-1, BS EN 62321-4, BS EN 62321-5, BS EN 62321-6,  
BS EN 62321-7-1, BS EN 62321-7-2, BS EN 62321-8

Place, date: Christchurch, Dorset, UK 26.06.2021

Signature: Ted Qu, Quality Director

Ted Qu