WORX
it's your nature

Owner's manual
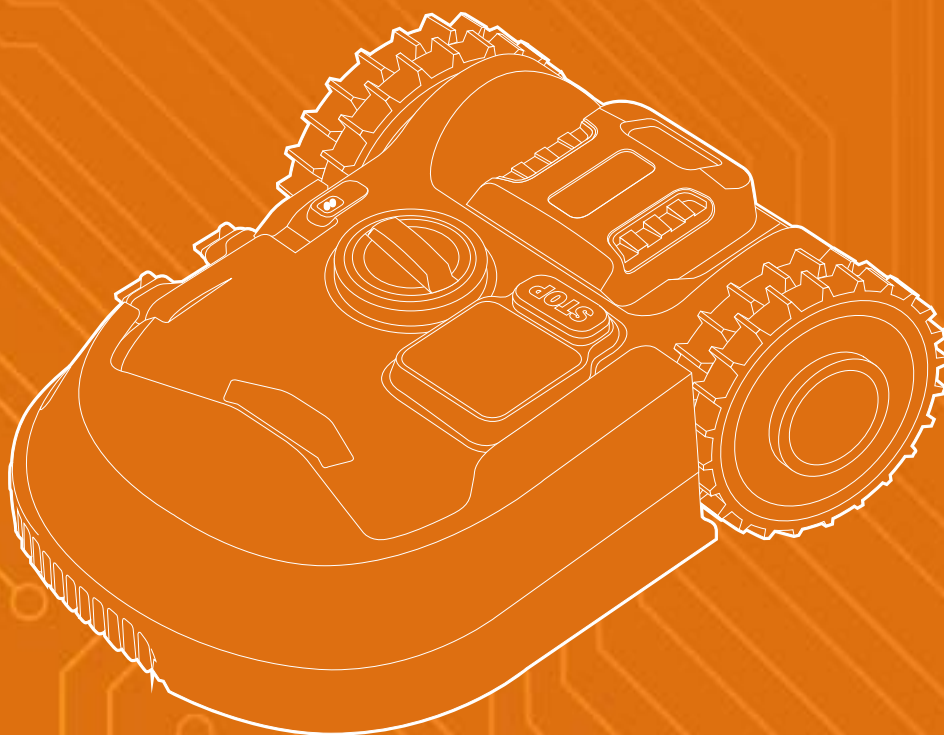
Original instruction

WR147E.1
WR148E
WR165E
WR167E

LANDROID
UNMANNED
MOWING
VEHICLE

TABLE OF CONTENTS

Thank you for purchasing a Worx Landroid Robot Mower.

Totally autonomous, fully configurable, agile and efficient, Landroid manicures your grass and gives you the best lawn ever. This manual will help you get set up.

We're here to help:

Support

www.worx-europe.com/support

Landroid Owner's Site

https://account.worxlandroid.com/login

Customer Services Helpline

0345 202 9679

PRODUCT SAFETY
GENERAL & ADDITIONAL SAFETY INSTRUSCTIONS

⚠️ **WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Carefully read the instructions for the safe operation of the machine. Save all warnings and instructions for future reference.**

- This appliance 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.
- This appliance contains batteries that are only replaceable by skilled persons.

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

⚠️ **WARNING:** To reduce the risk of injury to persons and damage to the machine, do not remove battery pack before switching off the machine.

IMPORTANT
READ CAREFULLY BEFORE USE - KEEP FOR FUTURE REFERENCE

Safe operation practices
Training

- Read the instructions carefully. Make sure you understand the instructions and be familiar with the controls and the proper use of the appliance.
- Never allow people unfamiliar with these instructions or children to use the appliance. Local regulations can 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 wire as instructed.
- Periodically inspect the area where the appliance 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.
- On multi-spindle appliances, take care as rotating one blade can cause other blades to rotate.

⚠️ **WARNING!** The lawnmower should not be operated without the guard in place

OPERATION

1. General

- Never operate the appliance with defective guards, or without safety devices, for example deflectors, in place.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Never pick up or carry an appliance while the motor is running.
- Operate the disabling device from the appliance.
  - Before clearing a blockage
  - Before checking, cleaning or working on the appliance
- It is not permitted to modify the original design of robotic lawnmower. All modifications are made at your own risk.
- Start robotic lawnmower according to the instructions. When the power key is switched on, make sure you keep your hands and feet away from the rotating blades. Never put your hands and feet under the mower.
- Never lift up robotic lawnmower or carry it when the power key is switched on.
- Do not let persons who do not know how robotic lawnmower works and behaves use the mower.
- Do not put anything on top of robotic lawnmower or its charging station.
- Do not allow robotic lawnmower to be used with a defective blade disc or body. Neither should it be used with defective blades, screws, nuts or cables.
- Always switch off robotic lawnmower when you do not intend to use the mower. Robotic lawnmower can only start when the power key is switched on and the correct PIN code has been entered.

- Keep your hands and feet away from the rotating blades. Never place your hands or feet close to or under the body when robotic lawnmower is in operation.
- To avoid using the machine and its peripherals in bad weather conditions especially when there is a risk of lightning.
- Not to touch moving hazardous parts before these have come to a complete stop.
  For machines used in public areas, that warning signs shall be placed around the working area of the machine. They shall show the substance of the following text: WARNING! Automatic lawnmower! Keep away from the machine! Supervise children!

2. Additionally when the appliance is operating automatically
- Do not leave the machine to operate unattended if you know that there are pets, children or people in the vicinity.

MAINTENANCE AND STORAGE

⚠️ **WARNING:** When the mower is turned upside down the power key must always be switched off. The power key should be switched off and the battery removed during all work on the mower's under frame, such as cleaning or replacing the blades.

- Keep all nuts, bolts and screws tight to be sure the applaince is in safe working condition.
- Inspect Landroid each week and replace worn or damaged parts for safety
- Check especially that the blades and blade disc are not damaged. Replace all blades and screws at the same time if necessary so that the rotating parts are balanced.
- 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 appliance should be according to manufacturers' instructions.

Recommendation
Please only connect Landroid and/or its peripherals to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 30 mA.

Residual risks
To avoid injuries, wear protective gloves when replacing the blades.

Safe transport
- The original packaging should be used when transporting Landroid over long distances
- To safely move Landroid within the working area:
  - press the STOP button to stop the mower
  - select the four digit PIN code when you start the mower for the first time.
  - always switch off robotic lawnmower if you intend to carry the mower.
  - carry the mower by the handle at the rear under the mower
  - carry the mower with the blade disc away from the body

RF exposure requirements
To satisfy RF exposure requirements, a separation distance of 200mm or more should be maintained between this device and persons during device operation.
To ensure compliance, operations at closer than this distance is not recommended. The antenna used for this transmitter must not be co-located in conjunction with any other antenna or transmitter.

Safety Warnings for battery pack
- Do not dismantle, open or shred cells or battery pack.
- Do not short-circuit a battery pack. Do not store battery packs haphazardly in a box or drawer where they may short-circuit each other or be short-circuited by conductive materials. When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
- Do not expose battery pack to heat or fire. Avoid storage in direct sunlight.

- Do not subject battery pack to mechanical shock.
- In the event of battery leaking, do not allow the liquid to come into contact with the skin or eyes. If contact has been made, wash the affected area with copious amounts of water and seek medical advice.
- Seek medical advice immediately if a cell or battery pack has been swallowed.
- Keep battery pack clean and dry.
- Wipe the battery pack terminals with a clean dry cloth if they become dirty.
- Battery pack needs to be charged before use. Always refer to this instruction and use the correct charging procedure.
- Do not maintain battery pack on charge when not in use.
- After extended periods of storage, it may be necessary to charge and discharge the battery pack several times to obtain maximum performance.
- Recharge only with the charger specified by Worx. Do not use any charger other than that specifically provided for use with the equipment.
- Do not use any battery pack which is not designed for use with the equipment.
- Keep battery pack out of the reach of children.
- Retain the original product literature for future reference.
- Remove the battery from the equipment when not in use.
- Dispose of properly.
- Do not mix cells of different manufacture, capacity, size or type within a device.
- Do not remove battery pack from its original packaging until required for use.
- Observe the plus (+) and minus (–) marks on the battery and ensure correct use.

INFORMATION ON LANDROID

WARNING – robotic lawnmower can be dangerous if incorrectly used. Read through the Operator's manual carefully and understand the content before using your robotic lawnmower.

WARNING - Keep a safe distance from the machine when operating.

WARNING – Operate the disabling device before working on or lifting the machine.

WARNING - Do not ride on the machine.

Li-Ion battery. This product has been marked with a symbol relating to 'separate collection' for all battery packs and battery pack. It will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.

Do not burn

Batteries may enter water cycle if disposed improperly, which can be hazardous for ecosystem. Do not dispose of waste batteries as unsorted municipal waste.
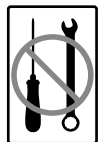
Prohibit disassembling the machine without authorization

Waste electrical products must not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.

Class III appliance

Read operator's manual

Detachable supply unit

Your Landroid can be used with other Worx functional accessories. Visit www.worxlandroid.com to learn more about these available accessory options.

WHAT'S IN THE BOX
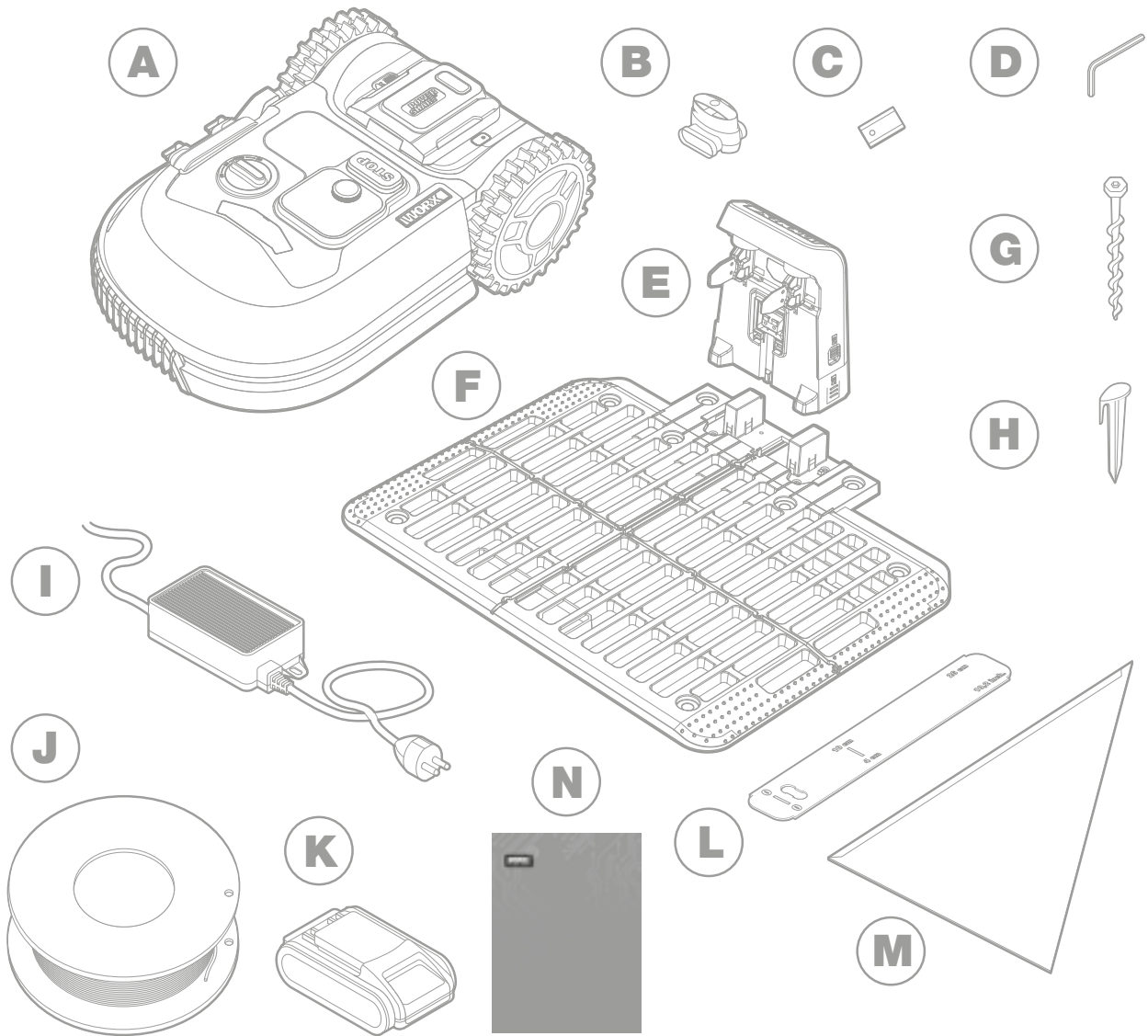
A	Worx Landroid	**H**	Wire pegs
B	Wire repair connectors	**I**	Power supply
C	Spare blades kits	**J**	Boundary wire
D	Allen key	**K**	20V battery
E	Charging pile	**L**	Boundary wire distance gauges
F	Charging base	**M**	Bertelsen ruler
G	Screws	**N**	Manuals

GETTING TO KNOW LANDROID

Battery slot

Safety stop

(A)

Find My Landroid / Radio Link slot

USB port

Voice Control Slot / High Pitched Alarm Slot

Microphone hole

Cutting height adjustment

Battery cover button

Interface

ACS slot

(B)

Rain sensor

Charge contact

Off Limits slot
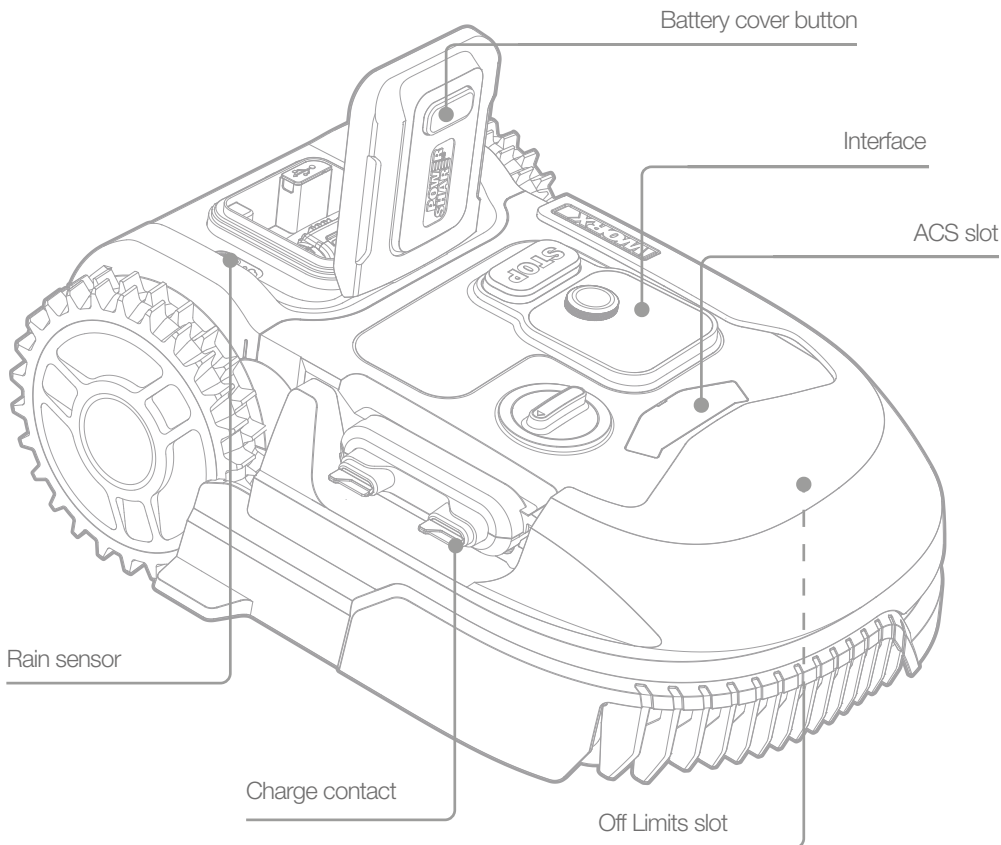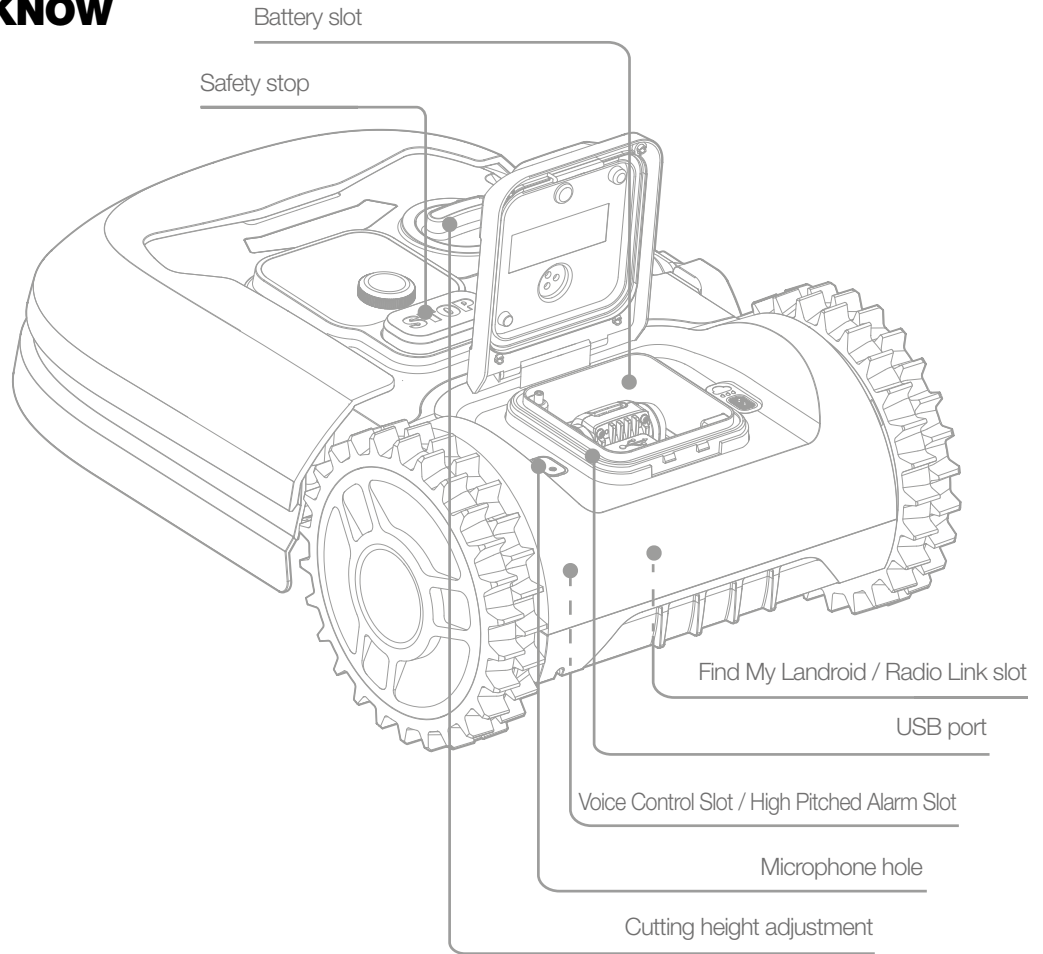
The picture is for reference only

HOW LANDROID WORKS

In the following section, we would like to help you better understand how Landroid works.
Landroid is an autonomous machine, capable of operating on its own. It knows when it needs to go to its charging base, can sense when it is raining, can stop itself if it senses a problem and knows to stop, draw back, and turn around when it bumps into something blocking its path. To prevent an accident, Landroid will also automatically stop its blade disc from rotating if it is lifted off the ground.

Charges itself

When your Landroid needs to recharge, it will stop mowing and follow the boundary wire in an anti-clockwise direction back to its charging base. Once charging is complete, Landroid will automatically resume mowing or stay in the charging base according to its mowing schedule.

Border management

Landroid is programmed to mow the grass along the perimeter of your lawn twice a week on Monday. If you want to change this pre-set, you can modify it via your smartphone or by using the control panel in "Work time-Customise Work time" menus.
See detailed instructions at the end of this manual.

Rain sensor

Landroid is 100% weather proof and happy to be outside. But mowing wet grass does not give you the best finish or result. Landroid is equipped with a rain sensor which detects rain and tells Landroid to stop mowing and go back to its charging base.

Rain delay time

After a rainfall, Landroid re-starts when the grass is no longer wet. The default Rain Delay time is 180 minutes. You can change the Rain Delay time setting via Landroid App.

In more extreme weather...

In case of a lightning storm, protect Landroid by unplugging the charging base, disconnecting the boundary wire, and making sure Landroid is not allowed to charge. In the Winter and especially in case of very cold weather and snow, we recommend you store your Landroid inside. In some countries we offer a Winter servicing of your Landroid so it's ready for the Spring growing season. Contact your dealer or check online for more details.

No more grass clippings to collect

Landroid's daily mowing produces very short clippings that don't need to be raked. These clippings are a perfect organic nutrient for your lawn. Frequent mowing boosts the density of grass blades and effectively prevents the propagation of weeds.

Cut to edge

The special offset blade gets as close as possible to the border of your lawn, leaving you little or no trimming to do.

Cutting Height

Before starting your Landroid for the first time, make sure your grass is no longer than 10cm. If longer, use a regular mower to cut it before operating Landroid. If you want to drastically
shorten the height of your grass, it is recommended that you do so progressively, by adjusting the cutting height in steps.

Security & PIN Protection

To prevent unauthorised people from being able to use it, Landroid is protected by a PIN code that you can easily set up

Self-levelling cutting deck

Ground Tracer automatically adjusts the blade's hight to match the natural unevenness found in most lawns.

INSTALLING LANDROID YOURSELF?
EASIER THAN YOU MAY THINK

Installing your Worx Landroid is easier if you carefully follow these instructions. In the end, it is a matter of installing the charging station and laying the boundary wire all around your lawn. In addition to this manual, you can use the Get Started guide that's inside the box and watch the comprehensive video tutorials on our YouTube channel*.

* This information is provided for your convenience but does not replace the instruction manual and the safety instructions that needs to be read and understood.

| Patrol your lawn to plan installation | Install the charging station | Lay the boundary wire | Connect charging station to AC | Power up Landroid. Test and get ready to mow |
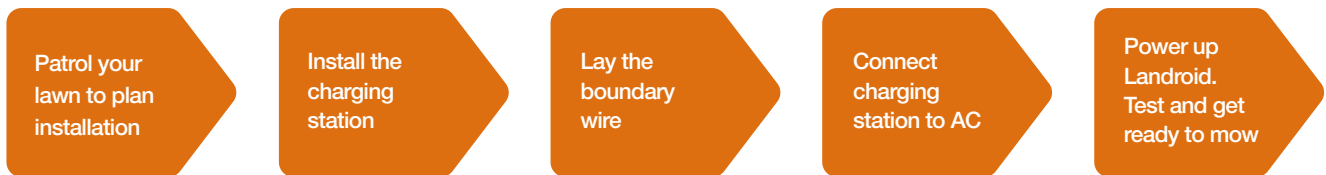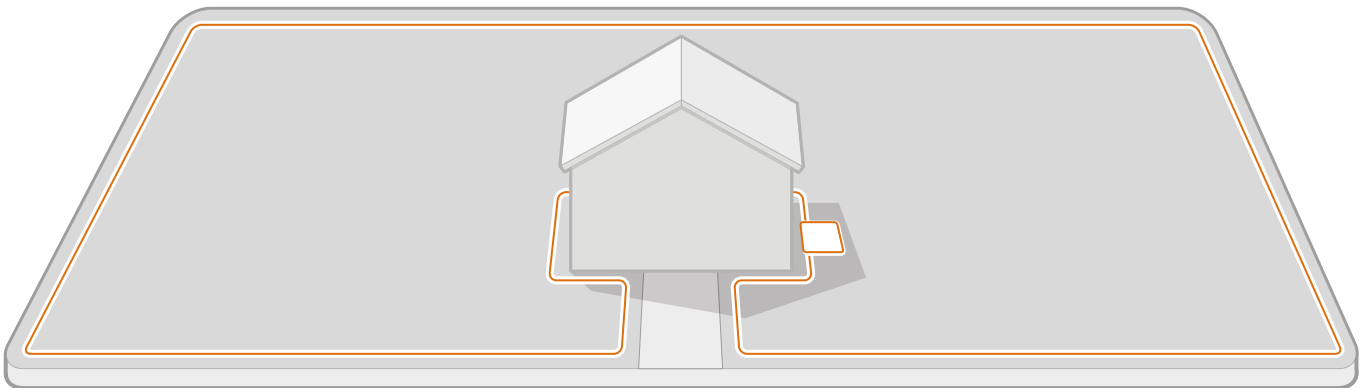
EVERY MINUTE SPENT IN PLANNING SAVES YOU 10 MINUTES IN EXECUTION

Installing Landroid is even easier if you have made a clear idea of what you need to do. A proper planning will also help you avoid mistakes or having to rework the installation once it's done.

On the surface or buried?
Landroid's boundary wire is designed to stay on the surface of your lawn. Nearly invisible from the first day, it will be engulfed in the soil in a few weeks. If you will want to bury the wire, it is recommended to first peg it down and test the installation is successful by running Landroid over the perimeter. This allows you to easily check everything and, if necessary, change the layout before burying the wire. Bury the wire no more than a few centimetres below ground level, so that the wire ensures good signal.

Plan for the charging station
The charging station, composed of the base plate abnd the charging tower, is where your Landroid goes to have its battery recharged. It's also the parking lot where it rests in between one mowing session and the next.
Locate a proper position for it, bearing in mind:
• It needs to be powered, so it should be no more than 10m away from an AC mains outlet
• If possible, choose a shaded position as batteries and chargers don't like over-heating
• The base needs to sit on flat land to ensure effective docking
• Avoid places close to irrigation sprinklers

You can place the charging station on your lawn or on a hard surface like a walkway, provided that the lawn and the hard surface are at the same height (no steps).

To enter the station, Landroid needs at least 80cm straight path in front. On the exit side, it needs at least 30cm straight path before a left turn (fig. 1). If the turn is to the right, there is no need for a straight path (fig. 2).
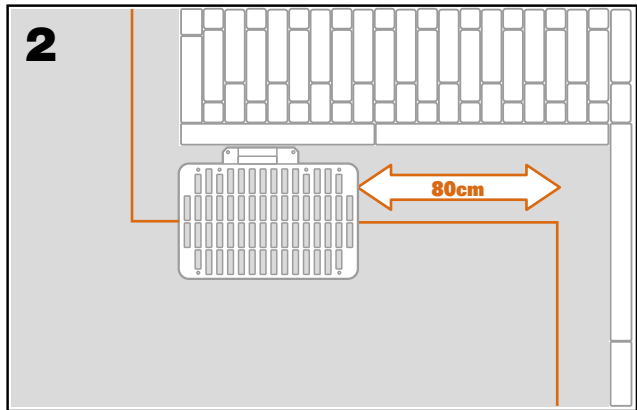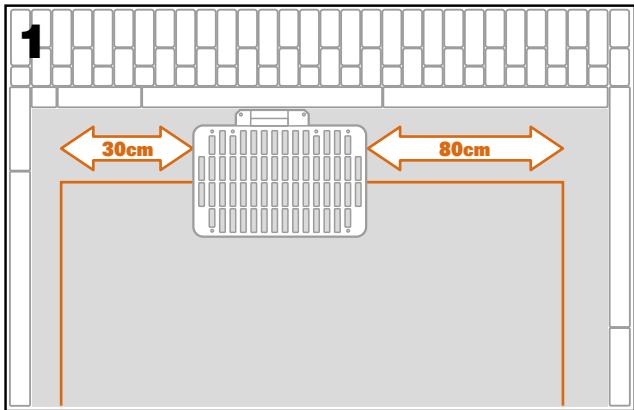
The charging base should never be positioned on a slope (fig. 3). Make sure it is level and resting on a flat surface (fig. 4).
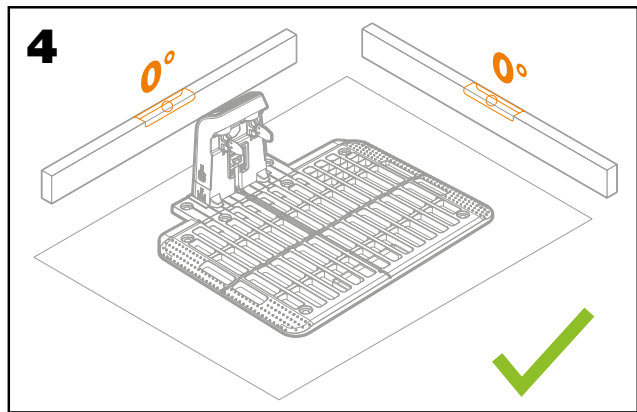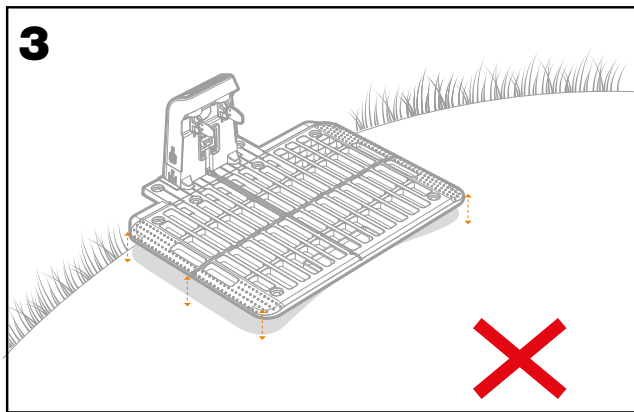
Charging station checklist:

- ☐ within reach of AC mains
- ☐ in shade
- ☐ straight path on entrance; straight path on exit if necessary
- ☐ flat land
- ☐ no irrigation sprinklers nearby

Plan for the boundary wire

The wire has to be placed at a certain distance from the edge of the lawn. This distance changes depending on what's on the other side of the edge. Different parts of your lawn may border different scenarios:

1. If the edge of the lawn borders a step: keep the wire 26cm from the edge.
2. If the edge of the lawn borders a path at the same height: keep the wire 10cm from the edge.
3. If the edge of the lawn borders gravel: keep the wire 26cm from the edge, as Landroid's wheels may slip on gravel.
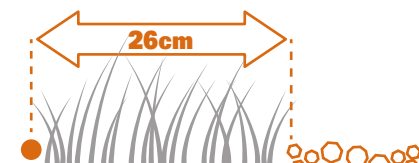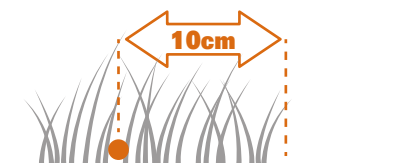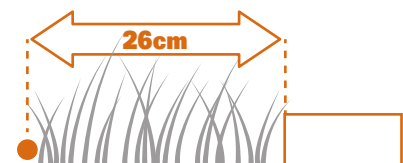
If a side of your lawn borders a neighbor's lawn with a robotic mower in use, lay your wire 1m apart from your neighbor's wire to avoid possible interference.

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PATROL YOUR LAWN

Landroid is designed to manage the most complex of lawns. Carry out a visual inspection of your lawn so you are prepared for a trouble-free installation of the boundary wire.

Identify forbidden areas
You don't want your robot mower to behead flowers, dive into a water feature, or shred tree roots that emerge from the ground. Locate these areas and surround them with boundary wire to prevent Landroid from accessing them.

The boundary wire is a single loop connected on both ends to the charging station, so you will have to depart with the wire from the border, surround the area you want to protect, then take the wire back to the border as illustrated here in fig.1.
If areas to be surrounded are far away from the border of your lawn, or if you have several areas and tree roofs to protect, this traditional method is time consuming.

A great alternative is to purchase Landroid's Off-Limits option. With this, you simply surround forbidden areas with the Off-Limits digital fence, which does not need to be connected to the boundary loop (fig. 2). The Off-Limits digital fence is also great to protect seasonal equipment (e.g. a trampoline) or for protecting new changes to the layout of your lawn without having to rework the boundary wire.
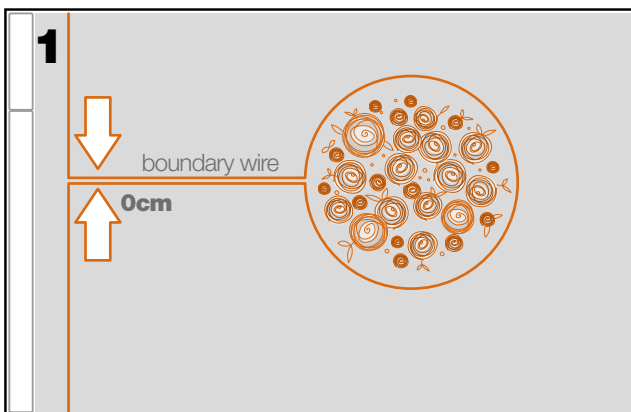
Identify obstacles
Landroid's bump sensor can manage solid obstacles such as trees, furniture and the like, which don't need to be surrounded by wire. If your lawn has several obstacles and trees close to each other, we recommend you to purchase the Landroid ACS option, an intelligent ultrasonic auto-pilot that makes your Landroid steer around obstacles instead of bouncing into them.

NOW ROLL YOUR SLEEVES UP. WHEN IT'S DONE IT'S DONE!

Now that you have planned the installation in every detail, you are ready to take action. Before starting, you may want to use your old mower for the last time to clean up your lawn and make the installation easier.

Fix the charging station in the selected location

Insert charging tower into charging base. Secure the base to the ground by means of the supplied screws, using the supplied Allen key (fig.1). If you position the base on hard surface, fix it with plug and screw fixings (not supplied)
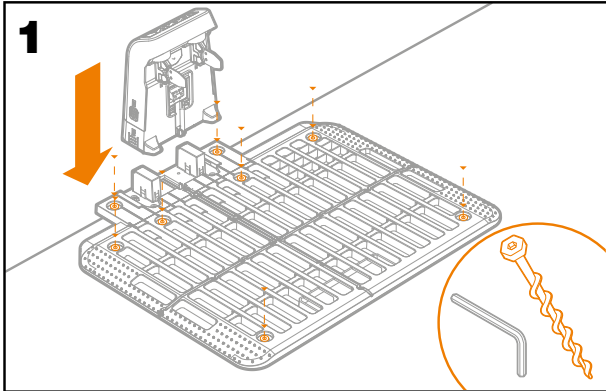
Connect one end of the boundary wire to the charging station

• Strip the end of the wire with a pair of scissors (fig. 2)
• Open the plastic door and insert the stripped end into the red left clamp (fig. 3)
• Pass the wire through the guide of the base, as shown in fig. 3
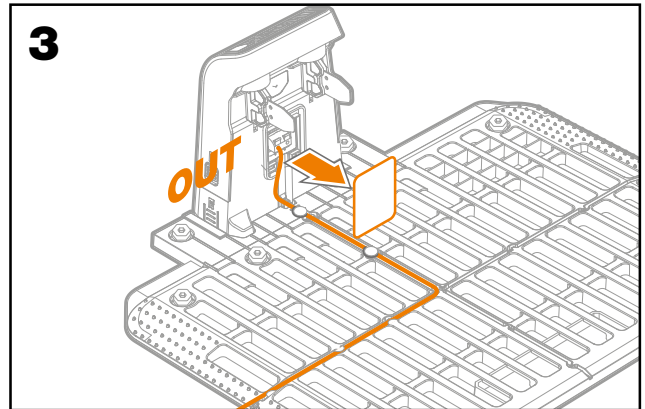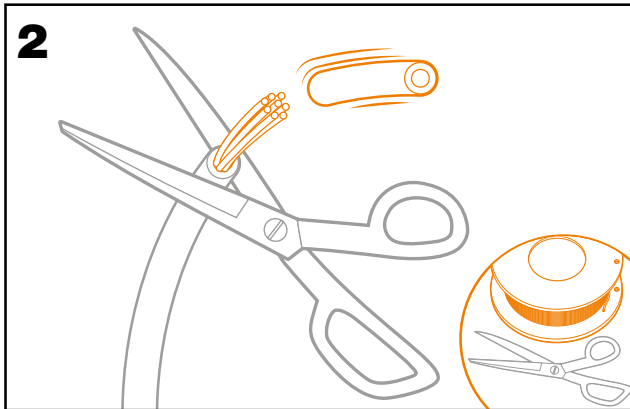
Lay the boundary wire around your lawn

• Use the supplied gauge to set the distance wire to edge
• If there is a step at the edge of your lawn, keep the wire at 26cm from it (fig. 4)
• If there is no step, keep the wire at 10cm from the edge (fig. 5)
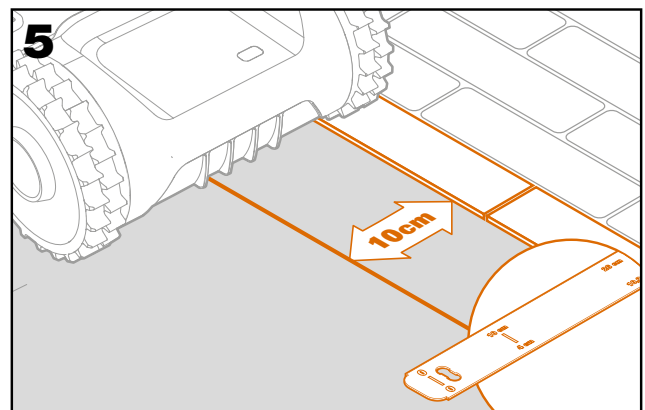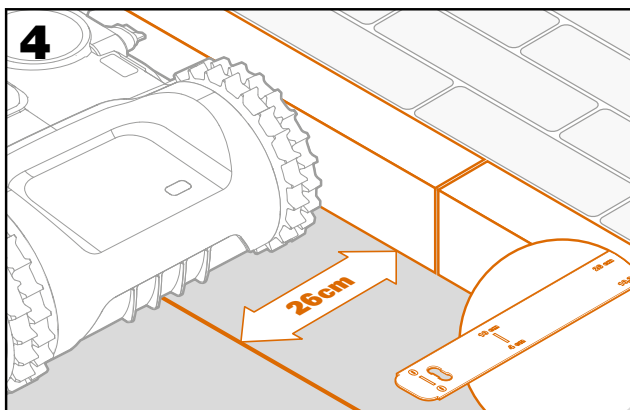
External corners of 90°

Rounds external corners of 90° as shown in figure 6.
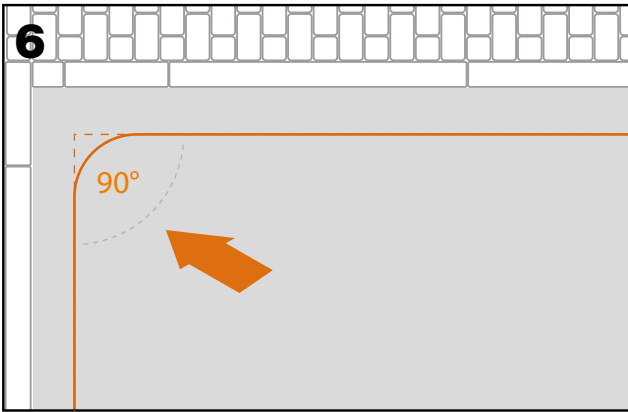

External corners less than 90°

In special conditions (wet grass, excessive slopes, presence of earth or mud), the Landroid may slip at sharp angles and the turf may be damaged. To prevent this problem, we advise those who have a garden with these conditions to cut the corner and create two corners greater than 90° as shown in figure 7.
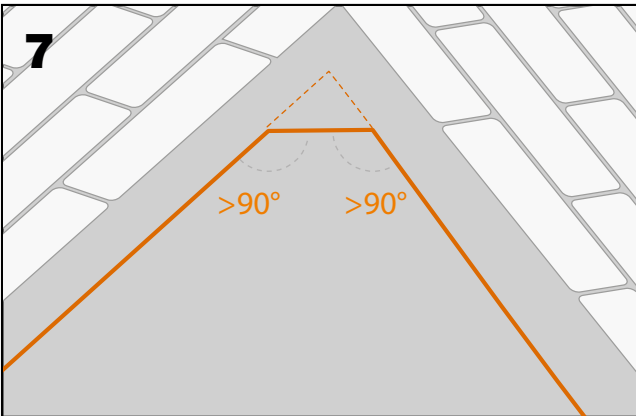

Secure the wire to the ground using pegs

• Place pegs at approximately 80cm to each other (fig. 8)
• Make sure the wire is always in close touch with the ground (fig. 9)
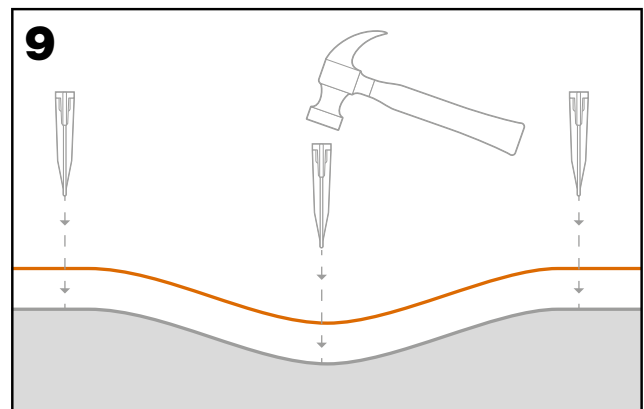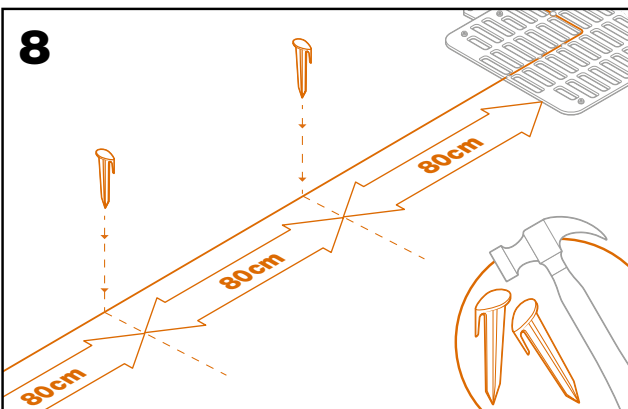
Lay perimeter islands, if needed

- Protect flower beds, ponds, tree roots and other areas by surrounding them with the boundary wire
- Depart the edge at a right angle to reach the area to be protected
- Surround the area with the wire, keeping 26cm distance, until you close the island
- Always lay the wire clockwise. Failing to do so will make the mower drive into the island
- Return to the edge of the lawn following the same path
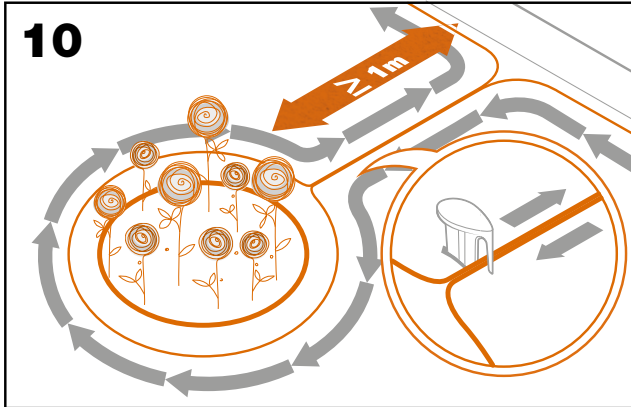
Bertelsen method: how to make perfect 90° angles with corners facing the lawn

If there are 90 degree corners that face the inside of your lawn, use the Bertelsen ruler to help Landroid make perfect turns (and remove the risk that Landroid hits an obstacle on the border of the lawn whilst doing this manoeuvre).
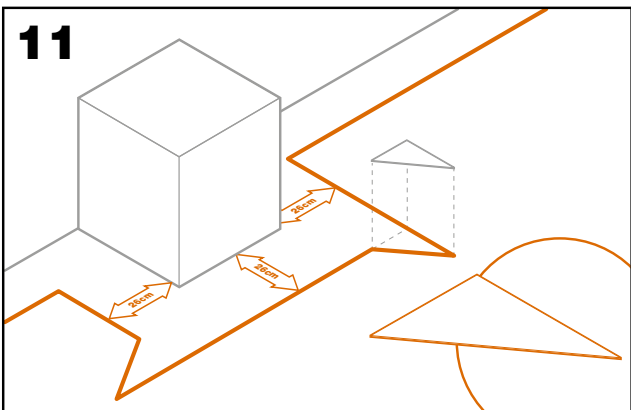
Close the loop

Once you have completed laying the wire on the perimeter of your lawn, you will arrive back to the charging base.

- Pass the wire through the guide in the base, up to the clamp (fig.12)
- Cut the exceeding wire and strip the end with a pair of scissors
- Insert the stripped end into the black right clamp
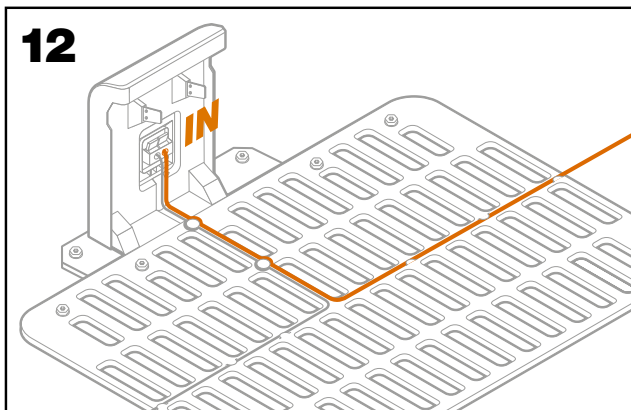
Final steps

The boring part is over! There are only a few more steps to go:

• Connect the charging station to the AC mains socket (fig. 13)

• If everything is fine, the LED will light green

• If there's a trouble in the loop, such as broken wire or wire ends not properly clamped, the LED will turn red. Check that everything is fine and see the FAQ session if the problem persists
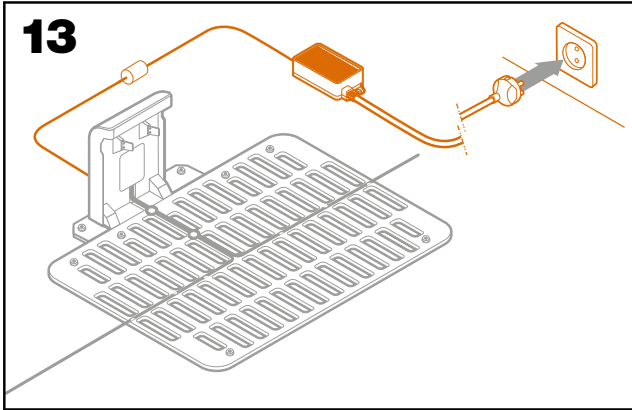

• Open the rear of Landroid and insert the PowerShare battery into the slot until it clicks (fig.14)
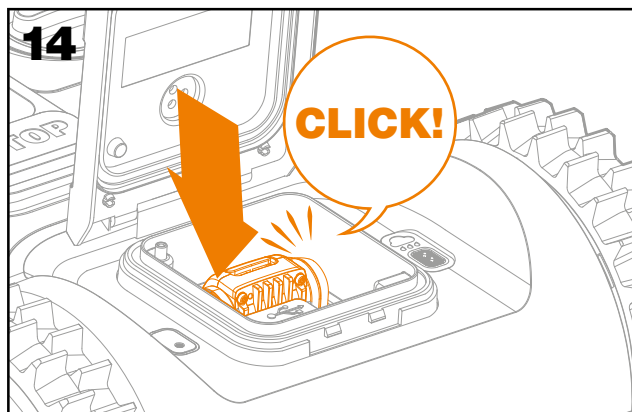
• Place Landroid on charge by making sure a good contact is established with the base (fig. 15). The LED will blink green; once the battery is fully charged, the LED will turn solid green.
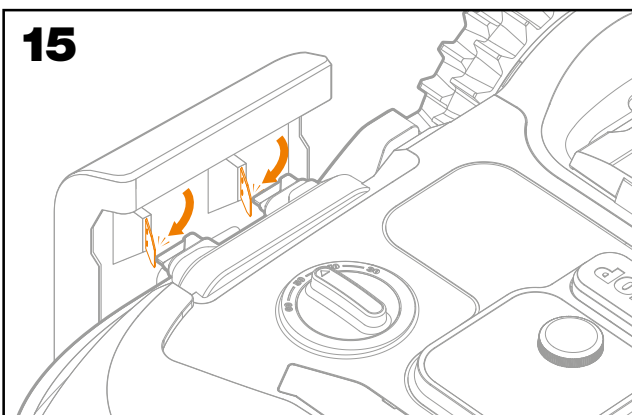
Let Landroid charge the battery for a while. Whilst it is charging you may want to take a well-deserved break: get familiar with the following instructions, and connect Landroid to your Wi-Fi network.

Joining up the boundary wire
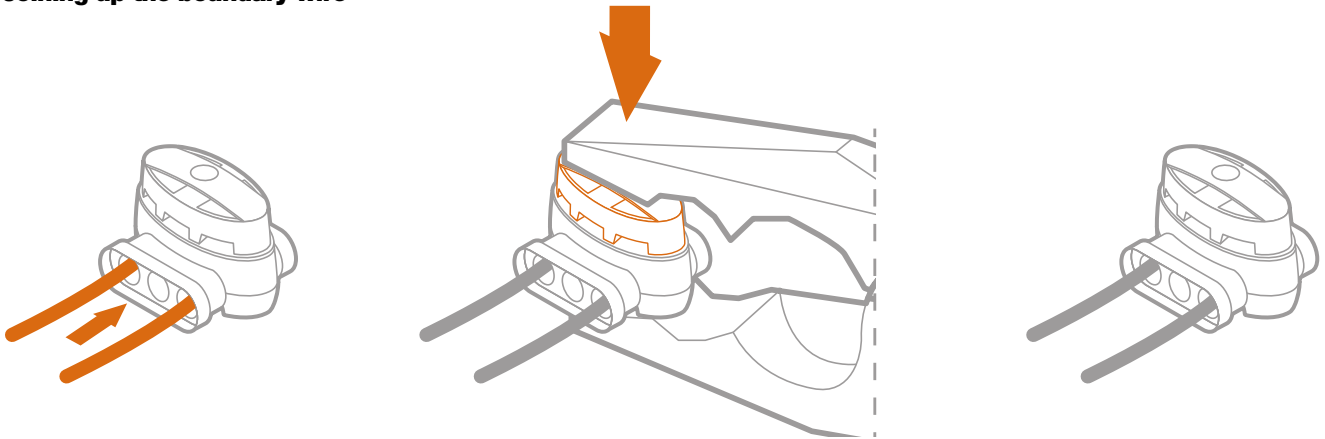
Landroid box includes two small, waterproof boundary wire connectors. They can be used for the following:
• When your lawn has a very long perimeter and you need extra boundary wire to complete the installation. Please do not exceed 350m of boundary wire: this is the maximum length of the boundary wire perimeter
• When the bounday wire is cut by accident and you need to fix it
• When you decide to rework your garden in the future and need to modify the original boundary wire installation

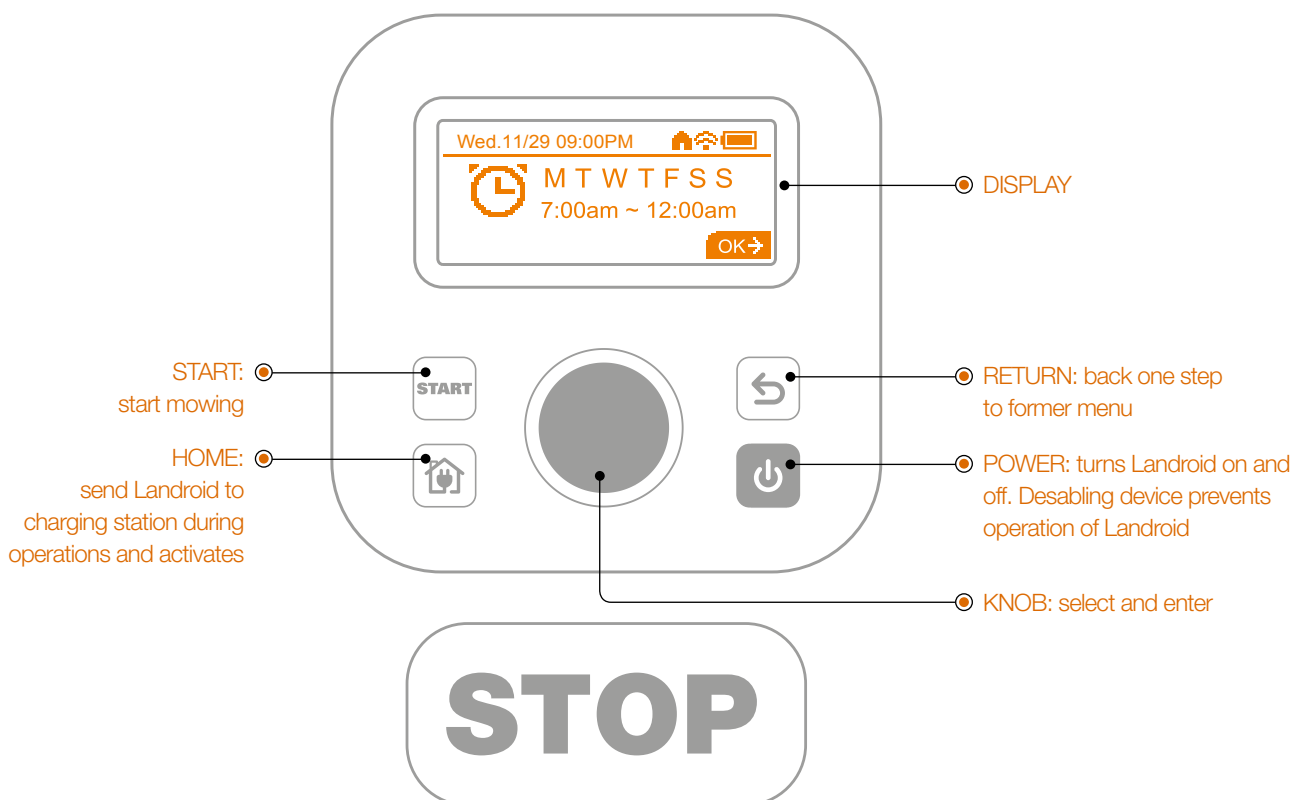The connectors are waterproof and provide optimal electric connection.
• Insert both ends of the wire into any two of the three holes of the connector; no need to strip the wires
• Insert the wires fully until both wire ends are visible on the other side of the connector
• Press the connector firmly by using a pair of pliers

⚠ **Attention:** it is not recommended to simply splice the boundary wire with insulating tape or use a screw terminal block for connection. A broken circuit may occur after a period of time as soil moisture can oxidize the wire.

NOW FOR THE EXCITING BIT!
START LANDROID FOR THE FIRST TIME.

Get familiar with the control panel

Landroid's control panel provides the key functions in a minimalistic design.
For advanced functions, the free Landroid app provides further options in a richer interface: your smartphone.

```
Wed.11/29 09:00PM    🏠📶🔋
   🕐  M T W T F S S
       7:00am ~ 12:00am
                    OK➜
```

DISPLAY

START:
start mowing

HOME:
send Landroid to
charging station during
operations and activates

RETURN: back one step
to former menu

POWER: turns Landroid on and
off. Desabling device prevents
operation of Landroid

KNOB: select and enter

STOP

Starting Landroid

• Position the Landroid inside the work area
• Press and hold down ⏻ until the display lights up
• Enter the default PIN code 0000 by pressing ● four times. The display will show 0000. Press ● again to confirm
  The display will show "PIN code OK"
• Press the [START] button and then the ● button to confirm. The Landroid will start mowing the lawn
• You can stop the Landroid at any time by pressing the large red button (STOP)
• To send the Landroid to the charging base, press the [🏠] button and confirm by pressing ●.

LANDROID CONTROL PANEL

Advanced functions via the built-in interface

Despite its minimalistic design, you can set several advanced functions through the built-in control panel. However, for the best user experience we recommend you use the free Landroid app to do this, given its much richer and intuitive interface.
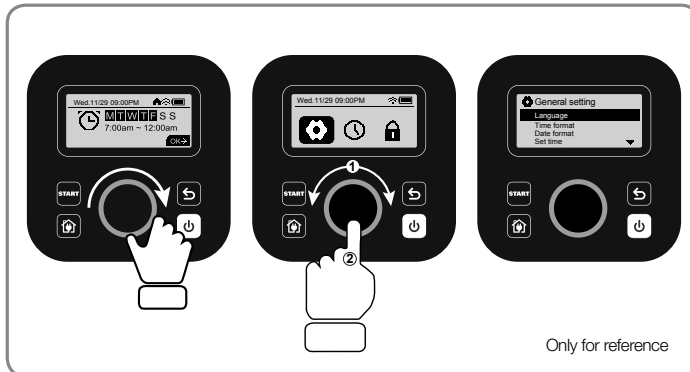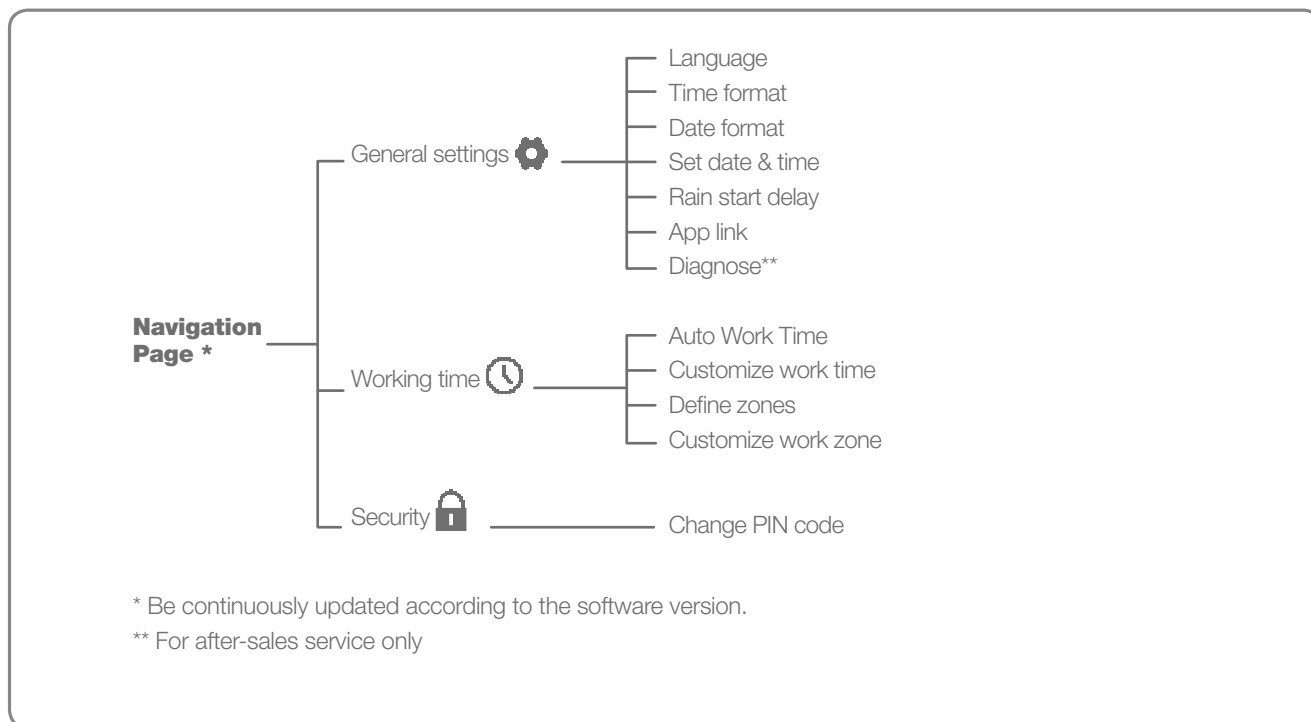
1. Settings

- To access the main menu, rotate ⬤ clockwise
- Rotate ⬤ to select the menu items:
  "General settings" ⚙
  "Working time" 🕐
  "Security" 🔒
  then press ⬤ to enter.
- Use the same procedure for the following actions.

Only for reference

Navigation Page *

General settings ⚙
— Language
— Time format
— Date format
— Set date & time
— Rain start delay
— App link
— Diagnose**

Working time 🕐
— Auto Work Time
— Customize work time
— Define zones
— Customize work zone

Security 🔒
— Change PIN code

* Be continuously updated according to the software version.

** For after-sales service only

2. Set date and time

- Return to "General settings"
- Rotate ⬤ clockwise to select "Set date & time", then press ⬤ to enter.
- Rotate ⬤ clockwise to select the date, then press ⬤ to confirm. The selected option (day, month or year) will start flashing.
- Rotate ⬤ to select the day, month or year and press quickly to confirm. Use the same method to complete the "Year / Month / Time".

3. Set work schedule

Note: it is possible to set two work schedules per day: "Scheduler #1" and "Scheduler #2"

- Return to the main menu and rotate ● clockwise to select "Working time", then press ● to enter.
- Rotate ● clockwise to select "Customize work time", then press ● to confirm.
- Rotate ● clockwise to select the day of the week, then press ● to confirm.
- Press ● to enter settings
- Rotate ● clockwise to activate "Scheduler #1 *". Press ● to confirm.
- Rotate ● clockwise. Select the start time "Hour/minute" and press ● to enter. The selected number will start flashing.
- Rotate ● to select the time you want the Landroid to start working on that day, and press ● to confirm.
  Follow the same procedure to set the time to stop work.
- Next, rotate ● clockwise to select "Border cut" and press ● to enter settings.
- Rotate ● clockwise to choose whether or not to activate "Border cut" and press ● to confirm.
- If you want to set a second working time ("Scheduler #2"), follow the same procedure.
- Press the ⟲ button and follow the same procedure to set the other days of the week.

4. Working time adjust

- You can rapidly adjust the work time of the week. The increment /decrement of time will be evenly allocated to required working days.
- Return to main interface.
- Anticlockwise rotate ● to activate the working time adjust.
  Note: The total time is based on the customize work time, and can be adjusted by gradient of 10%.
- Then rotate ● to adjust and short press to confirm.

5. One time schedule

To cut the lawn on a day or at a time outside the programming period, simply start the Landroid by pressing the button [START] and then the button ● to confirm. However, in this case the Landroid will only cut the lawn for the duration of the battery life and once back at the base for charging it will stay there until it is programmed to start again.

However the new "One time schedule" function allows a precise working time to be programmed with a border cut option.
It is also possible to decide whether at the end of the cutting session the Landroid should return to the charging base or switch off on the spot. This is very useful in any situation where an area of the lawn is not connected by a path that the Landroid can travel over to the main lawn (where the charging base is located), i.e. those areas where the Landroid needs to be transported by hand, preventing it from continuing to operate until it runs out of battery.

If the Landroid has access to the recharging base.
Note: to activate the "Border Cut" option, the Landroid must be positioned in the charging base.
- Position the Landroid at the recharging base
- Go to the main menu
- Quickly press the [START] button three times
- Rotate ● clockwise, select "Charging base - Yes / No", then press ● to enter settings.
- The selected word will flash. Select "Yes" and press ● to confirm
- Rotate ● to select "Enable Border Cut - Yes / No", select the desired option and confirm.
- Follow the same procedure to select the "Working Time".
- Rotate ● clockwise to choose whether or not to activate "Start" and press ● to confirm. Once the battery has run out, the Landroid will return to the base to recharge and, if necessary, restart in accordance with the newly set working time.

If the Landroid does NOT have access to the charging base.
Note: the option "Border Cut" is not available for areas without access to the charging base
- Go to the main menu
- Quickly press the [START] button three times
- Rotate ● clockwise, select "Charging base - Yes / No", then press ● to enter settings.
- The selected word will flash. Select "No" and press ● to confirm
- Follow the same procedure to select the "Working Time".
- Rotate ● clockwise to choose whether or not to activate "Start" and press ● to confirm. Once the battery or working time has run out, the Landroid will shut down on the spot.

CONNECTING LANDROID TO THE INTERNET

Why connect Landroid

Landroid is an IoT (Internet of Things) device. To get full functionality out of your Landroid and keep it always updated to the latest software, it must be connected to the internet via your Wi-Fi network .

BEFORE YOU START

1. Dowload the app

Download the free Landroid app first. Get it from Android or Apple app stores.

GET IT ON Google Play   Available on the App Store

2. Ensure you have:

• Your WiFi network password/bluetooth function on your smartphone.
• Landroid Serial Number: it can be found in the label under the rear bonnet of the machine.
  If you don't want to type the 20-digit Serial Number, input it by scanning the QR code with your smartphone's camera.

Label and QR code
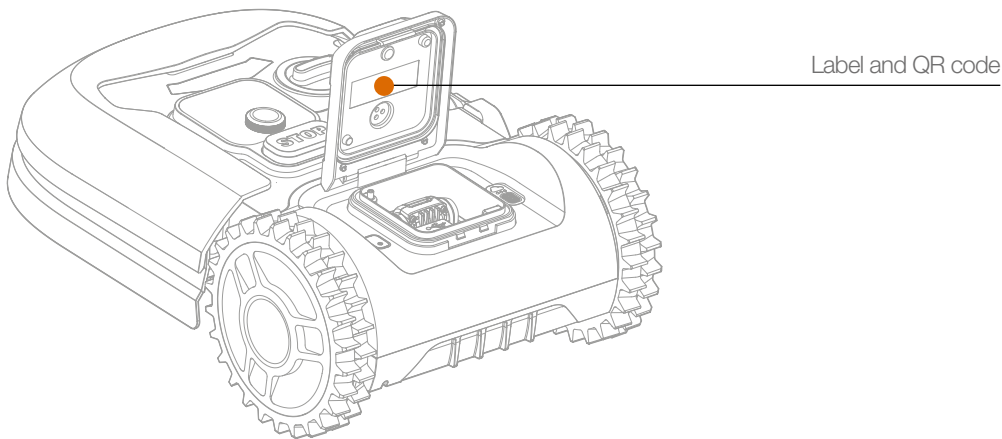
3. Check your Wi-Fi settings

• Landroid works with 2.4GHz Wi-Fi signal
• Make sure your Lasndroid is in the same router environment as your smartphone
• Make sure the distance between your Landroid, smartphone and your router is as close as possible during connection

Tip: when Landroid moves to an area of your lawn with poor or no Wi-Fi signal, instructions sent from the app will only be executed when Landroid returns to an area with good signal.

Bluetooth function
• Make sure Buletooth function on your smartphone is activated.
• Make sure your Landroid is within the connectable distance.

LANDROID APP
NOT A SIMPLE REMOTE CONTROL

Don't think at it as a remote control. The app is an integral part of the Worx Landroid advanced ecosystem based on cloud computing and artificial intelligence.
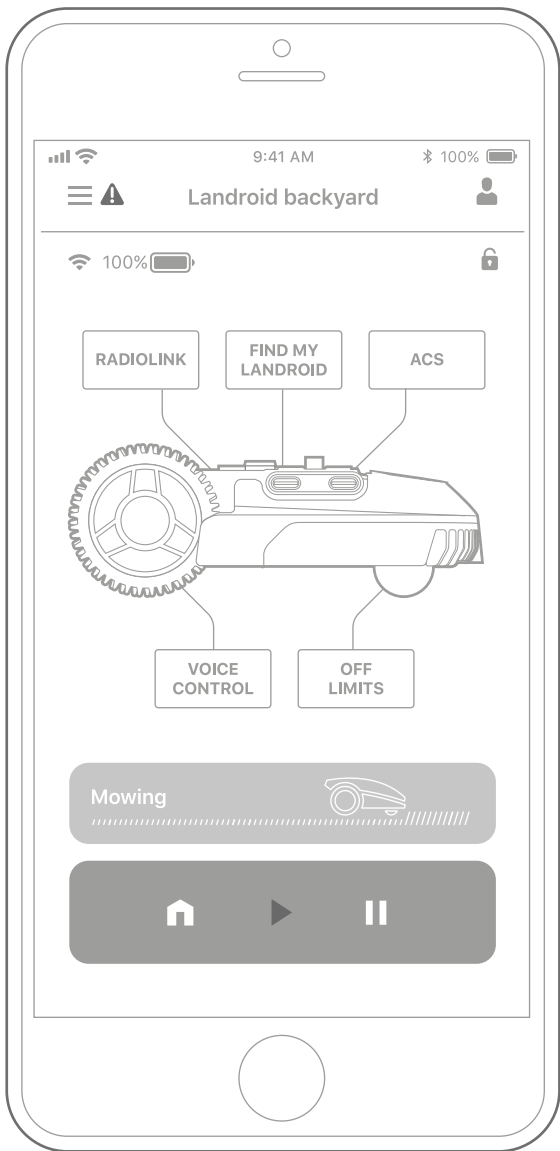
Thanks to the app's augmented reality feature, you can measure the exact area of your lawn. It's as easy as taking a walk along its border.

You can use the app to upload information on your grass species, soil type and irrigation. These inputs, in combination with weather data and lawn size, will allow our cloud computing to tailor-make your Landroid's working schedule to the actual growth of your grass, everyday.

The app also lets you view statistics on what Landroid has been doing for you.

If you ever need to get your Landroid serviced, you can even open a service ticket by using the app.

The app also notifies you when there's new software available for Landroid to download automatically over the air.

Once connected, Landroid can access its unique auto scheduling instructions from the cloud and is able to download the latest software to optimise its performance.

MAINTENANCE

Your Landroid works hard and needs to be cleaned and checked from time to time. This section of our guide helps you keep Landroid in good shape so it can last for years without troubles. Here's how to take care of your Landroid. Turn off the machine before carrying out any service or maintenance.

KEEP IT SHARP

Landroid does not cut grass like other mowers. Its cutting blades are razor sharp on 2 edges and rotate in both directions for maximum cutting capacity.

- The blade turning disc makes a clockwise and counterclockwise rotation at random to use both cutting edges and minimize the frequency of replacing the blades
- Each cutting blade will last up to 2 months when it is programmed to mow every day
- Always check to see if the blades are chipped or damaged and replace them if they are
- When the cutting blades are dull and worn out, they should be replaced with the spare blades provided with your Landroid. Spare blades are also available at your nearest Landroid retailer

⚠ **WARNING!** Before cleaning, adjusting, or replacing the blades, turn your Landroid OFF and remove the battery. Always wear protective gloves.

Replacing the Blades

Remove the battery (fig.1) and gently flip the Landroid over (fig.2)
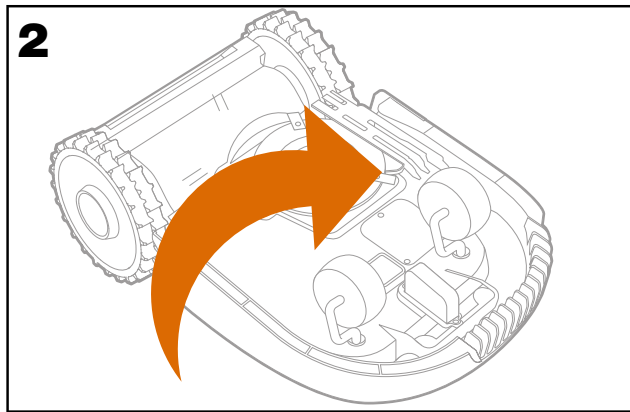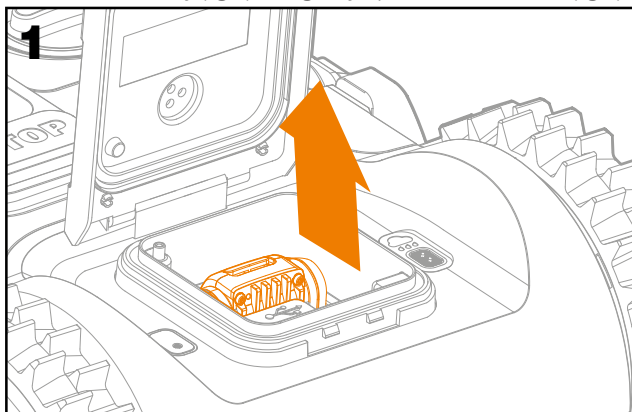
Take the screws off the blades with a screwdriver (fig. 3 - 4)
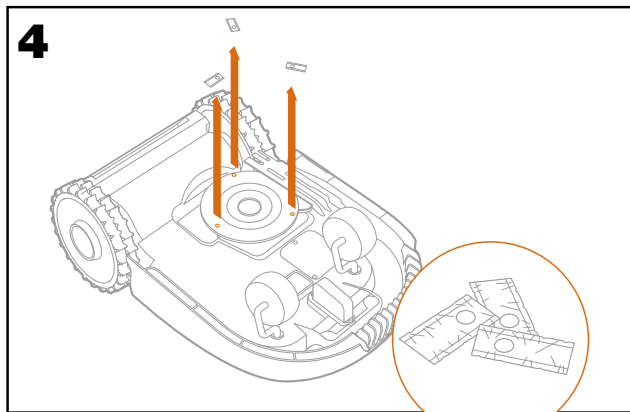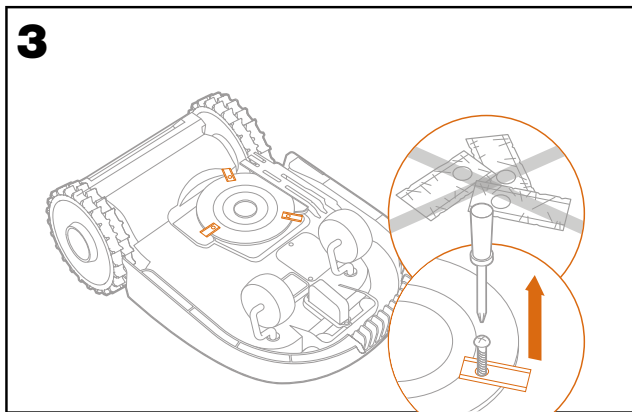
Firmly screw on the new blades (fig. 5 - 6)
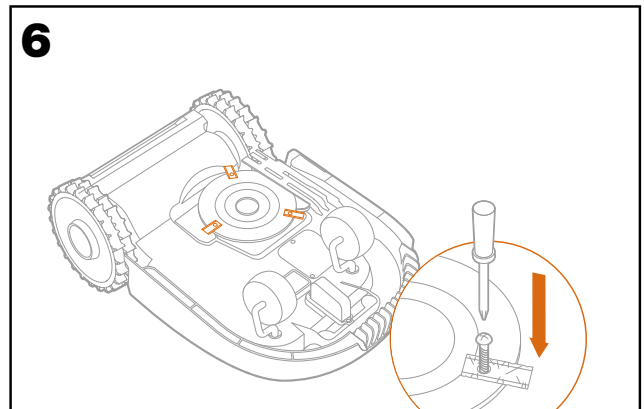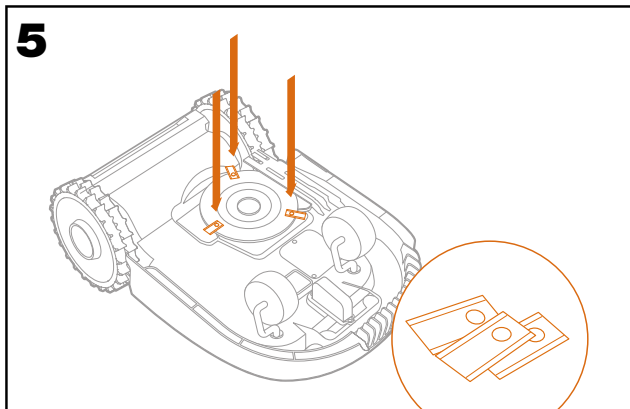
⚠ Attention: When fitting new blades, make sure you replace ALL the blades.
- Always use new screws when fitting blades. This is important to ensure blade retention and balance the blade turning disc. Failure to use new screws could cause serious injury
- Important: After screwing the blade to the blade disc, make sure the blade is able to spin freely

KEEP IT CLEAN

Your Landroid should be cleaned regularly. This helps keep it in good condition, especially removing dirt, debris and the build-up of grass from daily mowing. Turn Landroid off before cleaning it. For extra safety, remove the battery.

⚠ WARNING! DO NOT use a hose, high pressure washer or otherwise pour running water on your Landroid. High pressure water can go inside the sealings and damage electronic and mechanical parts.

Cleaning the upper body
- Clean with a spray bottle filled with water. Don't use solvents or polishers
- Use a brush or a clean cloth to remove built-up dirt

Cleaning the Bottom
- Flip Landroid upside down
- Remove debris and grass clippings using a brush to remove
- Be careful not to touch the blades with your hands. Wear gloves for protection
- Clean the blade disc, the chassis and the front wheel(s) thoroughly with a soft brush or moist rag
- Rotate the blade disc to ensure it rotates freely. Remove any obstructions. Remove any lodged debris so that they don't cause a crack in the blade disk. Even the tiniest crack effects mowing performance
- Check the blades spin freely around the fixing screws. Remove any obstructions

Cleaning the drive wheels
- Remove mud from wheels with a brush in order to ensure good grip of the tread

Clearing the charging contacts
- Clean the contact pins located on the charging base and the charging strips located on the Landroid using a cloth
- Periodically remove any build-up of grass clippings or debris around the contact pins and the charging strips to ensure Landroid successfully charges each time

KEEP IT CHARGED

The heart of Landroid is its 20V Li-Ion Worx Powershare Battery.
- For the proper storage of the battery, make sure it is fully charged and kept in a cool dry place.
- The recommended Landroid operation temperature is between 0-55°C
- The life-span of Landroid's battery depends on hours of usage and the length of use per day during the mowing season

Battery maintenance during storage
- Landroid can be charged manually without the boundary wire
- Connect the charging base to a suitable power supply. The green light on the charging base will turn on
- Manually dock Landroid into the charging base while Landroid is powered off
- The green light on the charging base will flash and Landroid will begin to charge
- When the battery is fully charge, the green light will turn solid green

KEEP IT STORED OVER THE WINTER

Although Landroid is designed and built to survive the most severe weather conditions, we recommend storing it in your shed or garage during the winter. To prepare it for winter hibernation:
- Clean it thoroughly
- Fully charge the battery
- Turn the power off

Getting back to work in the Spring
When it is time to re-start Landroid for the new season, please perform the following checks:
- Update the time and date settings via the app
- If you notice signs of oxidation on the charging contacts of Landroid and the charging station, clean these with a fine grade emery cloth
- Full charge Landroid's battery before operating

KEEP IT UPDATED

Landroid is always improving and new software versions are made available for free. Always keep Landroid software updated to make the most of your machine.

Over-the-Air (OTA) updates
If your Landroid is connected to your Wi-Fi network, you will be notified that new software is available via the app. Once you confirm, the update will happen automatically Over-the-Air.

Check which software version you have
The software version number can be seen when Landroid is powered on.

Manual updates

- If your Landroid is not connected to your Wi-Fi network, you can still update it to the latest software version with a USB stick
- Regularly visit the Worx Landroid website to check if any new version is available. If you subscribed to Landroid email list, you will be notified when a new version is available
- Download the latest software version at our website
- Unzip the file on your computer
- Take a blank USB stick formatted in FAT32
- Save the unzipped Landroid software to the USB stick
- Place Landroid on a secure and level surface
- Turn off Landroid
- Go to the rear of the Landroid to access the USB port.
- Insert the USB stick in the port
- Place the Landroid on the lawn again, inside the working area delimited by the boundary wire
- Turn on Landroid
- Without lifting Landroid, remove the USB stick when "Please remove the USB key" is displayed
- The update will begin automatically and may take a while. Landroid will restart automatically after the update is completed

⚠ **NOTE:** Make sure Landroid is within the boundary when restarting Landroid.

This section contains a guide on operation and potential error messages Landroid displays. There is also a troubleshooting section at the end that is designed to help you understand and solve any issues.

OPERATION MESSAGES

MESSAGE	LANDROID ACTION
Cutting grass	Cutting grass according to the mowing schedule.
Raining	The rain sensor detects water. Landroid will return to the charging base and stay there for the time you have programmed it to do so. When dry, Landroid will automatically begin the rain delay countdown and then return to mow. If you want Landroid to mow before this, simply turn it off then on again, but only when the rain sensor is dry, or you can remove the rain delay completely by setting the rain delay time to zero.
Going home	Needs to recharge—during the journey to the base, the cutting blade is stopped in order to save energy.
Charging	'Charging' and charge percentage are displayed.
No working time scheduled	Stand-by, needs to be programmed as desired.
Not working today	Stand-by, will start according to mowing schedule.
Work done today	
Zone searching	According to the setting of 'Customize work zone', Landroid is searching a certain area to mow.
Charge complete	Landroid has completed its charging.
Emergency charge	Landroid is charging in a powered-off state.

ERROR MESSAGES

Sometimes things can go wrong. Fortunately Landroid is smart enough to tell you if it is enountering an issue, so you can fix it. If in doubt, please visit our website where you will find useful videos and further support.

MESSAGE	CAUSE	ACTION
Outside working area! Press START to reset.	Landroid cannot find the boundary wire signal.	1. If Landroid is actually outside of its working area: turn power off, take Landroid inside the working area, turn the power on and press start. 2. If Landroid is inside its working area check if the LED on the charging base is solid green. If red, check if the boundary wire is properly connected to the charging base and that the base is connected to a suitable power supply. If they are properly connected, the boundary wire terminals are clamped incorrectly and must be reversed.
WRONG PIN! Please retry.	PIN code is wrong.	Input the correct PIN or re-set your PIN.
Blade motor fault! Press START to reset.	Blade disc is blocked by an object, e.g. a branch.	Turn power off. Turn Landroid upside down and check if there's anything preventing the blade disc from rotating and remove any obstruction. Turn Landroid upright. Turn power on. Press start.
	Blade is over-loaded by thick dense grass.	Turn power off. Take Landroid to an area with short grass or adjust the cutting height to a higher setting. Turn power on. Press start.
Wheels motor fault! Press START to reset.	Wheel motor is blocked in some way.	Turn power off and take Landroid to an area free from obstacles. Turn power on. Press start. If the error message is still displayed, turn power off. Turn Landroid upside-down and check if there's anything preventing the wheels from rotating. Remove any obstruction, turn Landroid upright, turn power on.

Upside down! Press START to reset.	This could have happened when Landroid came into contact with a sloping surface which made it overturn.	Turn Landroid upright and remove any obstacle that might have caused Landroid to overturn.
Mower trapped! Press START to reset.	Landroid is trapped.	Turn power off. Take Landroid to an area of your lawn free of obstacles, then turn power on. Press start. If the error message is still displayed: turn power off, turn Landroid upside-down. Check if there is anything preventing the wheels from rotating. Remove any obstruction, turn the Landroid upright, turn power on.
Mower lifted! Press START to reset.	Landroid is lifted up.	Turn power off. Take Landroid to an area clear of obstacles, turn power on. Press start. If the error message is still displayed: turn power off, turn Landroid upside-down and check there's anything that can cause Landroid to be lifted up. Remove any possible object, turn Landroid upright, turn power on.
Battery voltage too low! Please change battery.	Battery exausted.	In this case you must turn Landroid off and place it in the charging base, then 'Emergency charging' will be displayed and it will start charging. If the battery error still persist, your battery is damaged and need to be changed.
Wire missing! Press START to reset.	Machine can't find boundary wire signal.	If the LED light is red, check if the boundary wire is well connected to the clamps on the charging base. If the problem persists, check that the boundary wire hasn't been cut.
Battery temperature out of range! Please wait.	Temperature is too high (more than 55°C) or too low (less than 0°) when charging.	Place the charging base in a shady area or wait until it reaches the normal temperature.
	Battery pack cover is opened.	Close the battery pack cover.

Can't find charge station press START to reset.	Boundary wire is beyond its maximum length (350m or machine doesn't have enough power to go back to charging station.	Take Landroid to the charging station.
Mower locked!	With the 'Lock Function' enabled, if your Landroid does not receive a signal from your Wi-Fi router for 3 days, then it gets locked as a security measure. This could be because your router lost its power or because you changed your Wi-Fi router or network provider.	Please reconnect Landroid to the Wi-Fi networtk it has been originally paired with. If this is not possible, contact Cutomer Service.

NOTES

- Before turning power on, always check Landroid is inside its working area. If not, the message "Outside working area! Press START to reset" will be displayed. This message is also displayed when Landroid is partly but not completely inside its working area
- If for any reason—i.e. a party, children playing…—you want to park your Landroid in the charging base: press home then ⬤. Landroid will go to its base and stay there. Please note Landroid will now wait until the next scheduled mowing session. If you want to re-start it at anytime, press start then ⬤ to start your Landroid
- If an error repeatedly occurs in the same area of your lawn, you might have a problem with the boundary wire so please refer to the installation instructions and check your set up is correct with its help
- If your lawn is divided in two separated areas, connected by a corridor less than 1m wide, one of which is not provided with the charging base: when Landroid runs out of charge, take it manually to the charging base
- If Landroid runs abnormally once in a while, please reset it by turning it off and removing the battery for 30 seconds, then restart it. If the problem cannot be solved, please contact our Customer Service for help

TROUBLE SHOOTING

If your Landroid does not work correctly, follow the trouble shooting guide below. If the fault persists, contact Customer Service.

SYMPTOM	CAUSE	SOLUTION
The LED light on the charging base does not turn on.	There is no power.	Check the charging base is connected properly to the charger and the charger is connected to a suitable power supply.
Red light on the charging base.	The boundary wire isn't connected.	Check that the boundary wire has been connected correctly to the charging base. Check there are no breaks in the boundary wire.
Landroid turns on, but the blade disc does not spin.	Landroid is searching for the charging base.	This is normal: when Landroid needs to recharge, the blade disc does not rotate while it is searching for the charging base automatically.
Landroid vibrates.	The blade disc is unbalanced. Blades may be damaged.	Check the blades and replace them if damaged. Remove debris and foreign objects from the blades and blade disc.
Grass is being cut unevenly.	Landroid does not work enough hours per day to cut the grass.	Try adding more hours to the mowing schedule.
	Mowing area is too big for the size of Landroid you have.	Try decreasing the size of the mowing area.
	The blades are dull and not sharp.	Change all the blades and screws in order to balance the bade disc.
	The cutting height is set too low for the length of the grass.	Raise the cutting height and then gradually lower.
	Grass or another object has wrapped around the blade disc.	Check the blade disc and remove any grass or other objects that might prevent it spinning.
	There is a build-up of grass in the blade disc or motor frame box.	Make sure the blade disc rotates easily. If need be, you may take off the blade disc and then remove the debris.
Your Landroid is inside its working area and the boundary wire is connected, but the display says 'Outside working area! Press START to reset'	The boundary wire ends are clamped incorrectly.	Reverse the boundary wire ends and reconnect to the charging station.

The charging time is far more than the rated charging time.	Poor connection caused by debris on the charging strip.	Clean the contact pins located on the charging base and the charging strip on Landroid using a cloth.
	The charging protection program is activated due to high temperature.	Place the charging base in a shady area or wait until the temperature has cooled down.
The mower does not charge.	There is no power.	Check the power cord is connected properly to the charger and the charger is connected to a suitable power supply. Make sure both the charging strips on the mower touch the centre of the contact strips on the charging base.
Landroid is starting to have shorter run-times between charges.	Something is clogging in the blade disc creating friction and increasing power consumption.	Take off the blade disc and clean it. Maybe the grass is too high and too thick.
	Landroid is shaking heavily because the blade disc is unbalanced.	Check the blade disc and blades, remove debris and foreign objects from the blades and blade disc. Replace the blades with a new set.
	The battery may be exhausted or old.	Replace battery.
	The working time is up.	Reset the woking time.
Landroid is not operating at the correct time.	The clock is not set to the correct time.	Set the clock to the correct time.
	Programmed cutting times for Landroid are not correct.	Change the time settings for the mower to start and stop.
	The percentage of weekly operating time set through app has changed.	Set the correct percentage through app.
Landroid cannot correctly dock with the charging base.	Environmental influences.	Restart Landroid.
	Poor connection caused by debris on the charging strip.	Clean the contact pins located on the charging base and the charging strip on Landroid using a cloth.
The green light on the charging base turns on before charging is complete.	The charging base is overheating or overcooling.	Place the charging base in a shady area or wait until it reaches the normal temperature.
Landroid wheels skid or repeatedly slip.	Foreign obstacles, such as twigs and branches may be lodged under Landroid.	Remove foreign objects from underside of Landroid.
	The lawn is too wet.	Wait until lawn has dried.

Landroid runs outside the boundary wire. Landroid does not mow an area within a boundary wire zone. Landroid reverses or rotates erratically near the boundary wire.	The boundary wire of another Landroid or robotic mower is positioned too closely.	Ensure at least 1m clearance is provided in between your boundary wire and that of your neighbor.
	In wet conditions, the boundary wire electric signal may leak where the wire has been joined or repaired incorrectly.	Check boundary wire joints. Insulate to provide a fully waterproof connection.
	There is boundary wire electric signal leakage due to broken insulation.	Repair damaged boundary wire with the wire connectors supplied.
Landroid slips out of its working area going down a hill.	Low grip of Landroid drive wheels.	Please check the wheels are clean and free of mud in order to have the maximum grip possible.
Landroid operative system crashes when charging or on standby.	Software or display fault.	Restart Landroid.
Landroid shuts off when docking in the charging base.	Landroid fails to charge due to over temperature protection and is powered off.	Place the charging base in a shady area or wait until the temperature has cooled down.
	Poor connection.	Check the LED light on the charging base. Check the connection between the contact pins located on the charging base and the charging strip.
Landroid stops in the working area.	There is an obstacle in the working area.	Remove the obstacle from Landroid's working area.
	The cutting height is set too low for the length of the grass or the grass is too dense.	Raise the cutting height and then gradually lower.
	The extended boundary wire should not exceed 350m or it may cause signal problem.	Reduce the lenght of the boundary wire.
	The distance between the center of the lawn and the boundary wire should not exceed 25m or it may cause signal attenuation.	Reduce the distance between the center of the lawn and the boundary wire perimeter within 25m.
Landroid flips over.	There is an inclined obstacle on the lawn.	Exclude the obstacle from Landroid's working area.

Landroid fails to connect to the internet.	Please check your router has the correct settings.	Make sure your router is 2.4GHz. If your router has two settings, please enable the 2.4GHz band.
		Make sure your router is set to 802.11 mode and wireless setting is b/g/n mixed.
		Make sure your router has the SSID Broadcast function enabled when you connect the machine with the app. You can close it after you connect successfully.
		Make sure DHCP function is enabled.
		If you changed your Wi-Fi network, you need to connect Landroid to the new network.
		If you have a "Fritz!box" router, please make sure activate "Allow communication between devices in same network" in the settings.
	Please check whether the router is disconnetcted or Wi-Fi SSID is changed.	Make sure the router is connected and Wi-Fi SSID is correct.
Your Landroid beeps when you are adjusting "month / hour /minute"	It is normal.	Anticlockwise ⬤ to adjust.

Environmental protection

Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

TECHNICAL DATA

Type **WR165E WR167E WR148E WR147E.1 (100-199 - designation of machinery, representative of Robotic Lawnmower)**

	WR165E	WR167E	WR148E	WR147E.1
Rated voltage	20 V ⎓ Max.*			
No load speed (/min)	2800		2400	
Cutting area (m²)	500	700	800	1000
Cutting diameter (cm)	18		20	
Cutting height (mm)	30-60			
Cutting height positions	4			
Battery type	Lithium-ion			
Battery model	WA3551.3	WA3553.3	WA3551.3	WA3553.3
Charging time approx. (mins)	75	150	75	75
Charger model	WA3750.1/ WA3755.1			WA3775 / WA3776
Charger rating	Input: 100-240 V~50/60 Hz, 38 W, Output: 20V ⎓ ,1.5 A			Input:100-240 V~50/60 Hz, 90 W, Output: 20 V ⎓ , 3.0 A
Machinery weight (kg)	9.5	9.8	11.7	12
Protection degree	III			
App (Wifi/Bluetooth)	Y			
Frequency band of embedded WLAN module	2.412GHz-2.484GHz			
Max. radio-frequency power of embedded WLAN module	802.11b:+16±2dBm(@11Mbps) 802.11g:+14±2dBm(@54Mbps) 802.11n:+13±2dBm(@HT20,MCS7)			
Frequency band of inductive loop systems	77 Hz			
Max. radio-frequency power of inductive loop systems	82 dBµA/m			

*Voltage measured at no load. Initial battery voltage reaches maximum of 20 volts. Nominal voltage is 18 volts.

NOISE DATA

	WR165E	WR167E	WR148E	WR147E.1
A weighted sound pressure	$L_{pA} = 50.83$ dB(A)		$L_{pA} = 40.68$ dB(A)	
	$K_{PA} = 3.17$ dB(A)		$K_{PA} = 1.36$ dB(A)	
A weighted sound power	$L_{wA} = 61.83$ dB(A)		$L_{wA} = 61.56$ dB(A)	
	$K_{wA} = 3.17$ dB(A)		$K_{wA} = 1.36$ dB(A)	
Wear ear protection when sound pressure is over 80 dB (A).				

A degree of noise from the machine is not avoidable. Route noisy work is to be licensed and limits for certain periods. Keep rest periods and they may need to restrict the working hours to a minimum. For their personal protection and protection of people working nearby, an appropriate hearing protection shall be worn.

ACCESSORIES

	WR165E	WR167E	WR148E	WR147E.1
Screw	9	9	9	9
Charging station	1	1	1	1
Charging base fixing nails	8	8	8	8
Boundary wire	130m	150m	150m	180m
Wire pegs	180	210	210	250
Hex key	1	1	1	1
Boundary wire distance gauge	2	2	2	2
Blade	9	9	9	9
Connector	2	2	2	2
Battery pack (WA3551.3)	1	/	1	/
Battery pack (WA3553.3)	/	1	/	1
Charger (WA3750.1/ WA3755.1)	1	1	1	/
Charger (WA3775 / WA3776)	/	/	/	1

We recommend that you purchase genuine accessories listed in the above list from the same store that sold you the tool. Refer to the accessory packaging for further details. Store personnel can assist you and offer advice.

INTENDED USE

The garden product is intended for domestic lawn mowing. It is designed to mow often, maintaining a healthier and better looking lawn than ever before. Depending on the size of your lawn, your Landroid may be programmed to operate at any time or frequency. It is impossible for digging, sweeping or snow cleaning.

DECLARATION OF CONFORMITY

We,
Positec Germany GmbH
Grüner Weg 10, 50825 Cologne, Germany

On behalf of Positec declare that the product
Description **Robotic Lawnmower**
Type **WR165E WR167E WR148E WR147E.1(100-199 - designation of machinery, representative of Robotic Lawnmower) (Serial number is placed on the back page) with battery charger WA3775 / WA3776 / WA3750.1/ WA3755.1 and charging station WA4002.1**
Function **Cutting grass**

Complies with the following Directives,
2006/42/EC, 2014/30/EU, 2014/35/EU, 2011/65/EU&(EU)2015/863, 2000/14/EC amended by 2005/88/EC, 2014/53/EU

WR165E WR167E
2000/14/EC amended by 2005/88/EC
- Conformity Assessment Procedure as per   **Annex V**
- Measured Sound Power Level   **61.83 dB (A)**
- Declared Guaranteed Sound Power Level   **67 dB (A)**

WR148E WR147E.1
2000/14/EC amended by 2005/88/EC
- Conformity Assessment Procedure as per   **Annex V**
- Measured Sound Power Level   **61.56 dB (A)**
- Declared Guaranteed Sound Power Level   **63 dB (A)**

The notified body involved
Name: Intertek, Semko AB (notified body 0413)
Address: Torshamnsgatan 43164 22 Kista Sweden
Certification No. : 201002326SHA-V1

Standards conform to,
**EN 60335-1:2012+A11+A13+A1+A14+A2:2019, EN 50636-2-107:2015+A1+A2:2020,
EN 60335-2-29:2004+A2+A11:2018, EN 62233:2008, EN 55014-1:2017+A11:2020,
EN 55014-2:2015, EN IEC 61000-3-2:2019, EN 61000-3-3:2013+A1:2019, EN ISO 3744:2005,
EN 300 328 V2.2.2, EN 301 489-1 V2.2.3, EN 301 489-17 V3.2.4, EN IEC 62311:2020,
EN 61558-1:2005+A1:2009, EN 61558-2-16:2009+A1:2013, EN 55011:2016+A11:2020,
EN 303 447 V1.1.1, EN 55032:2015+A11:2020, EN 55035:2017+A11:2020**

The person authorized to compile the technical file,
Name   Marcel Filz
Address   Positec Germany GmbH, Grüner Weg 10, 50825 Cologne, Germany

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2020/12/02
Allen Ding
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