

SWARDMAN

ELECTRA^{2.0}



USER MANUAL - Reel Mower

ELECTRA^{2.0}



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Please read this Original User Manual from the first to the last page.

Warnings placed on the machine:



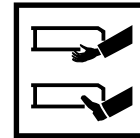
WARNING!



READ THE USER MANUAL!



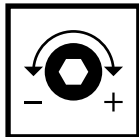
DANGER - FLYING OBJECTS!



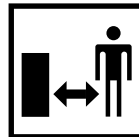
KEEP YOUR ARMS AND FEET AWAY FROM THE BLADES



DO NOT LIFT THE MACHINE USING THE HANDLE



LOCKING SCREW



KEEP BYSTANDERS AT A SAFE DISTANCE!



MAGNET



GUARANTEED NOISE LEVEL



- Read the User Manual before you start using the machine.
- Third parties must keep a sufficiently safe distance from the working area.
- For safety reasons, children and adolescents under 16 years of age and persons who have not read and understood this User Manual sufficiently are not allowed to work with this machine. To ensure that they do not play with the product, persons with limited physical or mental abilities are only allowed to use this product under the direct supervision of a competent person.

Read this User Manual carefully to understand thoroughly how to use and maintain your machine in a proper and safe manner. If you fail to do so, this may lead to personal injury or damage to the machine.

Always keep this User Manual available as an integral part of the machine, even if you sell the machine.

The left and right sides as referred to in this User Manual are meant from the perspective of the operator standing behind the machine in the direction of forward running.

Using the machine in any way contrary to this User Manual or failure to observe the operational and maintenance instructions may void the warranty.

The Swardman A 45S and A 55S reel mowers are exclusively designed for mowing lawns in private gardens and gardens around the house that have an area less than 1,700 m² or where usage does not exceed 100 running hours per year. The use for any other purpose is considered inconsistent with the intended purpose. The manufacturer is not responsible for any damage to health or machine thereof, and these risks are unconditionally on the user's part. Strict observation of the conditions for operation, maintenance and repairs specified by the manufacturer is essential for the intended use of the machine.

This reel mower should only be used, maintained, and repaired by persons who are thoroughly familiar with its specific characteristics and all the relevant safety regulations.

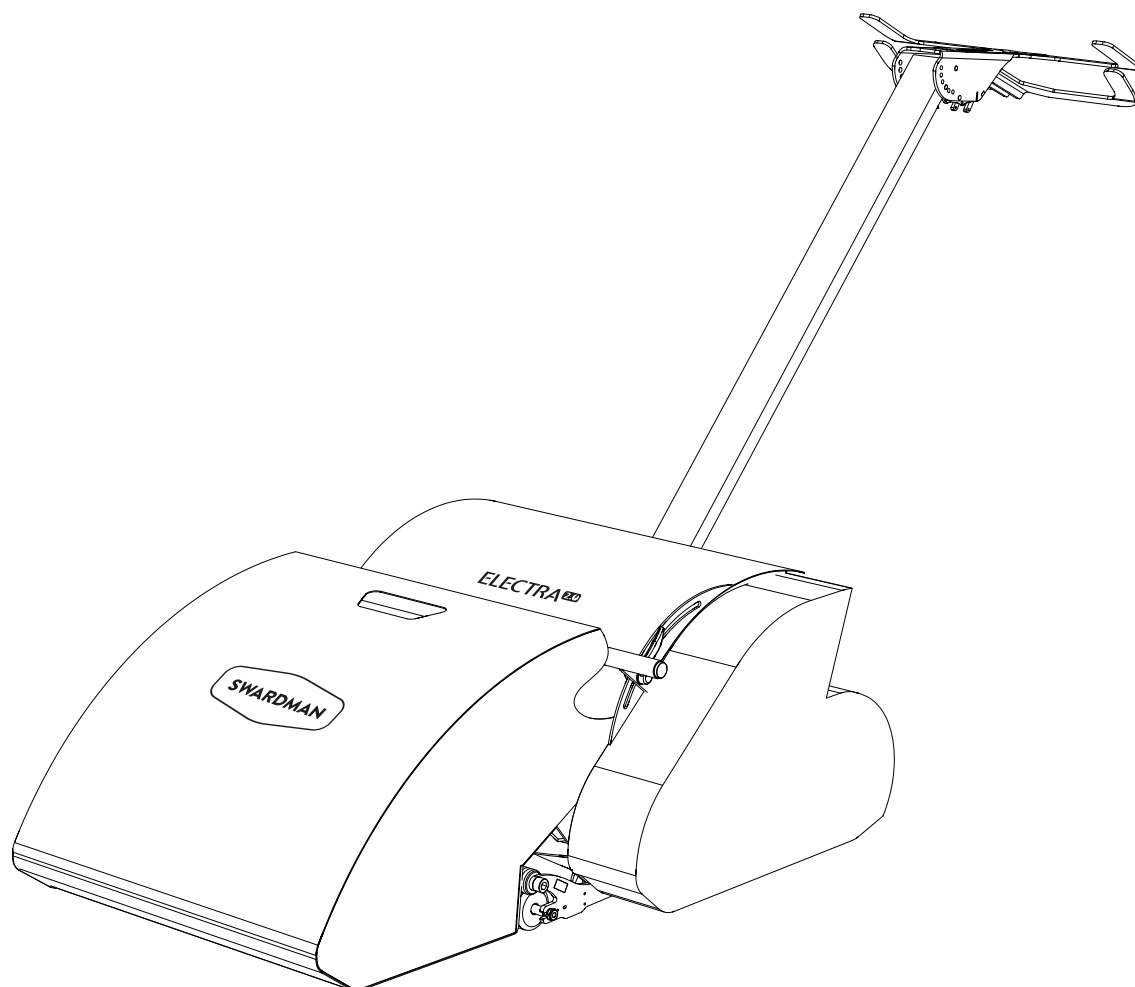


Safety information is marked with this symbol.



In the interests of your safety, pay special attention to sections marked with this symbol!

Contents of Package

1. Lawn mower
2. Grass box
3. Tools
4. Charger
5. User manual
6. Quick start instructions



General

- In the interests of your safety and the correct use of this machine, read this User Manual thoroughly and carefully.
- Please note that the user of this machine is responsible not only for ensuring other persons and their property are not in danger, but also for preventing any and all accidents that might occur due to the use of the machine.
- This User Manual is an integral part of the machine and must be handed over to each user.
- For safety reasons, children and adolescents under 16 years of age and persons who have not read and understood this User Manual sufficiently are not allowed to work with this machine. To ensure that they do not play with the product, persons with limited physical or mental abilities are only allowed to use this product under the direct supervision of a competent person.
- Please explain all the potential hazards and how to prevent them to anyone who is going to work with this machine.
- Please keep the machine in a secure place. Any machine that is not in use should be kept in a dry and locked place with a temperature between 10°C (-4°F) and 50°C (125°F) and should not be accessible to children.
- When using the machine, always wear protective gloves, in the interests of your safety.
- In case of continuous work with the machine longer than two hours, take a safety break.
- The lawn mower is designed for mowing lawns in private gardens and gardens around houses that have an area less than 1,700 m² or where usage does not exceed 100 running hours per year.
- The machine must not be equipped with any additional accessories not authorised by Swardman. Failure to observe this instruction may void the warranty.
- This lawn mower must not be used for mowing areas that are not covered by grass or contain more than 20% of plants that are not grass.
- To achieve the best possible quality of the cut, we recommend to cut approximately twice a week to the height of 20-25 mm. The result as well as the battery time depends on local conditions, density and composition of the grass cover.
- Never mow if there are other persons nearby, especially children or animals.
- Before as well as during every use, make sure there are no foreign or undesirable objects on the lawn that may cause damage to the machine or injury to the user. These above all include stones, sticks, tree bark, toys, wires, cords, hoses, etc.
- When mowing, always wear safe footwear and long trousers. Do not wear open shoes or sandals.
- Before using the machine, always check its proper technical condition.
- Pay particular attention to the reel, counter-blades, screw connections and belts. If any parts are damaged or worn, have them repaired or replaced immediately. When carrying out repairs and maintenance, use only the original parts or parts authorised by Swardman.
- **Batteries**
 -  Risk of fire!
 - Before using the battery for the very first time, format it by connecting the charger to the battery and charging it to 100%.
 - Never store the mower with the battery in the vicinity of acids and easily combustible materials.
 - Exclusively charge the battery using the originally delivered Swardman charger. The use of other charger types may damage the battery, even cause a fire.
 -  Risk of explosion!
 - Protect the battery against heat and fire.
 - The battery-powered mower can only be used in temperature ranging from 5°C to 40°C (41°F to 104°F).
 - Check the charging cable on a regular basis for signs of damage or ageing (brittleness) and only use it in the faultless condition.
 - Never leave the charger connected to the mower. After the mower is fully charged, disconnect the charger.
 - The charger delivered can only be used for charging batteries that are part of the supply.
 - If the mower indicates that the battery is fully charged (all LEDs are lit when mowing) then suddenly several LEDs disappear all at once, it is not a defect, but a common occurrence in LiFePO batteries.
 - To improve your battery life, charge the mower after every use. Do not let the battery fully discharge.

Handling

- Only mow lawns by daylight or sufficient artificial light.
- Only use your normal walking pace to drive the machine.
- **Primarily control the machine speed with control buttons PLUS 23 and MINUS 22 see Fig. 5. Number of cuts per meter and cut quality remain unchanged. Speed can additionally be controlled with a travel lever, e.g. upon a change of the travel direction.**
- When mowing on a slope, always maintain a safe posture.
- Take special care when changing direction or turning on a slope.
- For safety reasons, do not mow a slope inclined more than 25°.
- Take special care when turning or reversing the machine.
- Always keep a natural posture when mowing and maintain a stable position while you are working.
- When mowing, keep the minimum safe distance ensured by the handlebars from the lawn mower.
- If you transport the machine to another location, load it into a vehicle, or move it through places with no grass, always wait until the mowing blades stop.
- Never carry or lift the mower while the motors are running.
- Never operate the mower when the grass box is not fitted correctly or other safety elements are missing or damaged.
- Start the mower only in its operating position, never start it while it is lying on its side.
- When starting the mower, always make sure your hands and feet are at a safe distance from the mowing blades.
- Never touch the mowing blades while the machine is turned on.
- Never adjust or clean the mowing blades while the machine is turned on.
- Turn off the machine with the main switch 12 see Fig. 2, always when you:
 - Check, clean or adjust any part of the machine.
 - Remove any undesirable items from the mowing blades.
- If the mower blades or travel gets blocked, immediately stop the mower, find the cause, remove it and before restarting, check the parts for any damage. If, after having been restarted, the machine shows increased vibrations, stop it and contact the Swardman service department.
- The handle of interchangeable cartridges does not serve for handling of the machine but exclusively for removal and insertion of cartridges. Handling of the machine using the cartridge handle could result in an irreversible damage to cut settings or other functions of the cartridges.

Maintenance and Storage

- Please make sure all the screws are properly tightened.
- Before mowing, always check the mowing blades.
- For safety reasons, replace damaged parts with new parts.
- During maintenance or repair work on the machine, always wear protective gloves.
- Always perform maintenance and repair work with the motor stopped and the main switch turned off.
- Do not clean the mower with running water or a pressure washer.
- For safety and reliability reasons, use only original Swardman parts.
- Make sure that the ambient temperature of the storage area will not drop below 10°C (50°F) and will not exceed 50°C (125°F).

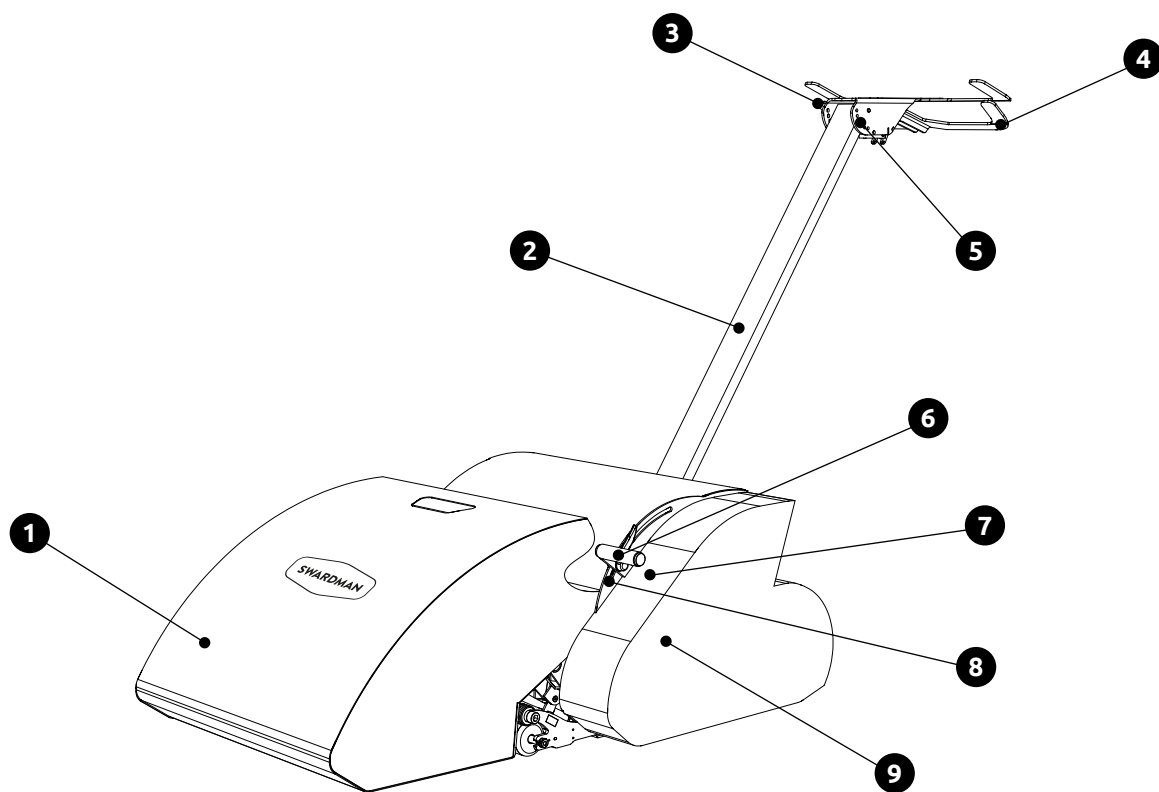
Reel mower	Electra 2.0 45	Electra 2.0 55
Order number	A45 S	A55 S
Maximum operating speed (kmph ⁻¹)	5,3	5,3
Cutting width (cm/inch)	44.5 (18")	54.5 (22")
Mowing height (mm/inch)	4 – 45 (0.15"-1.8")	4 – 45 (0.15"-1.8")
Number of cuts per meter (6 blade reel)	72	72
Grass box volume (l)	40	50
Weight (kg/lb)	53 (117)	59 (130)
Maximum overall width (cm/inch)	59 (23")	69 (27")
Declared sound pressure level A at the operator's side ¹ L _{pAd} (dB)	67 + 2	67 + 2
Guaranteed sound power level ² A L _{WA,G} (dB)	78	78
Declared aggregate value of acceleration of vibrations transferred to the operator's hand/arm ³ a _{hvd} (mps ⁻²)	max 2.5	max 2.5
Serial number	See specifications on the nameplate	

¹ measured in accordance with ČSN EN ISO 5395-1, Annex F and ČSN EN ISO 11201: April 2010

² measured in accordance with the Government Decree No. 9/2002 Coll., or the Directive 2000/14/ES

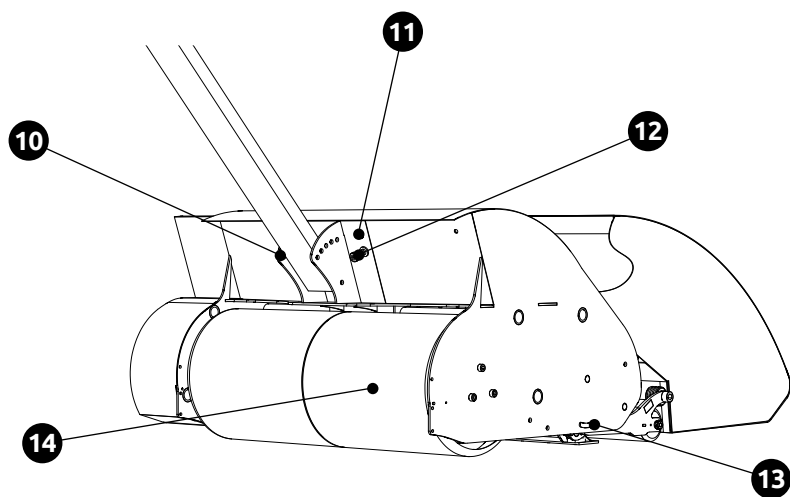
³ measured in accordance with ČSN EN ISO 5395-1, Annex G and ČSN EN ISO 20643

Figure 1



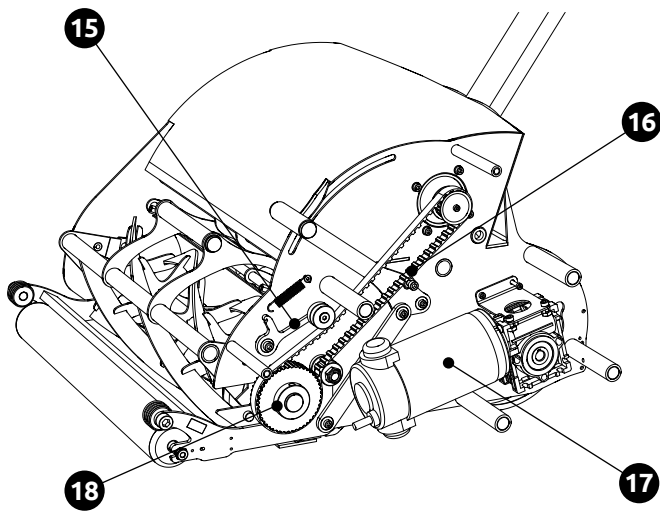
- 1 Grass box
- 2 Handlebar body
- 3 Control lever for mowing blades
- 4 Travel control lever
- 5 Handlebar height adjusting
- 6 Control lever for mowing height adjusting
- 7 Mowing height indicator
- 8 Quick-release bolt
- 9 Side cover of timing gears

Figure 2



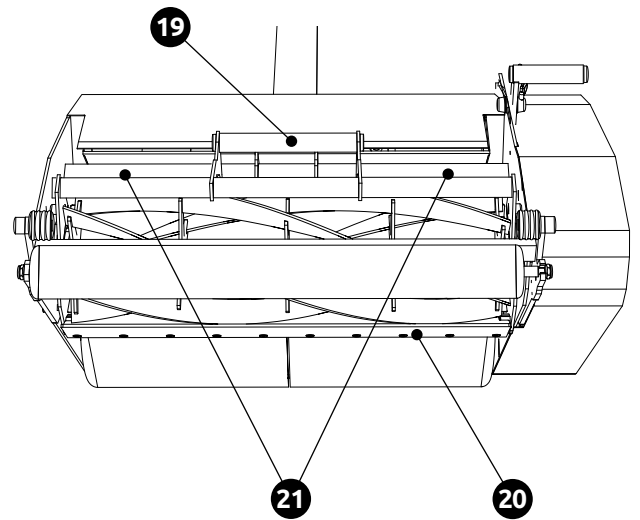
- 10 Handlebar position adjusting
- 11 Power connector
- 12 Main switch
- 13 Mowing height locking screw
- 14 Rear roller with differential

Figure 3



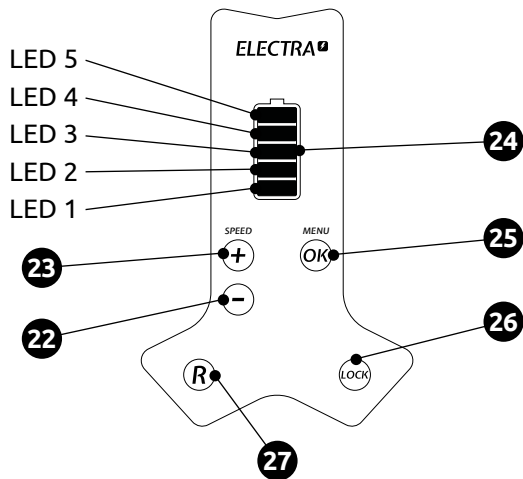
- 15 Belt tightening pulley
- 16 Reel drive belt
- 17 Travel engine
- 18 Reel pulley

Figure 4



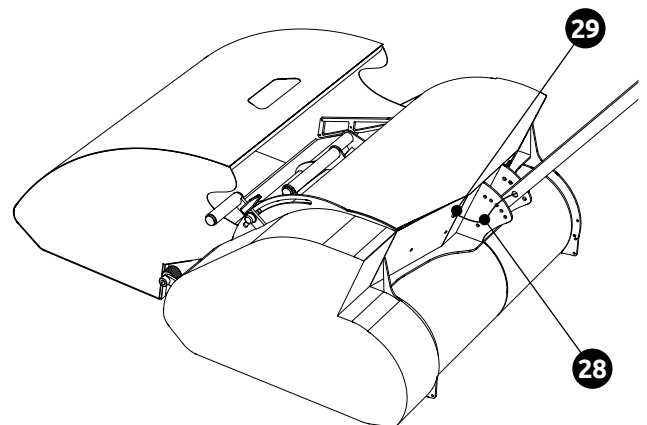
- 19 Cartridge handle
- 20 Bed-knife
- 21 Reel adjusting screws

Figure 5



- 22 Speed decreasing button
- 23 Speed increasing button
- 24 Indication of battery charging condition and adjustment of advanced functions
- 25 "OK" button
- 26 "LOCK" button for activation of reel drive
- 27 "R" button for activation of reverse run

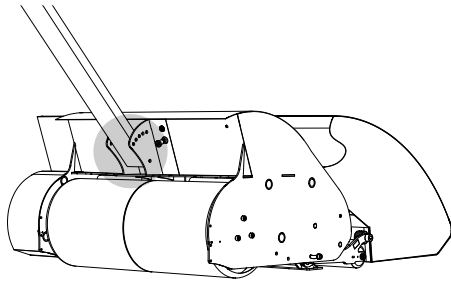
Figure 6



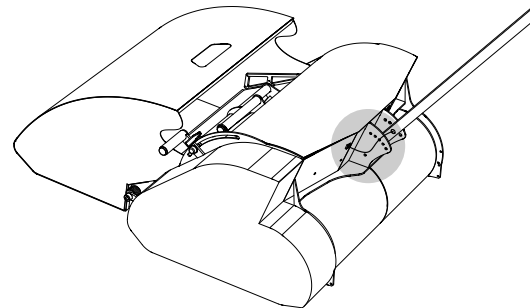
- 28 Data cable
- 29 Data cable socket

Assembling the Lawn Mower

Take the mower out of the box. Best practice is to carefully cut the box open from the front and draw the machine out to a free area. Do not ever use the handle on the mowing cartridge for lifting the mower or to transport it.



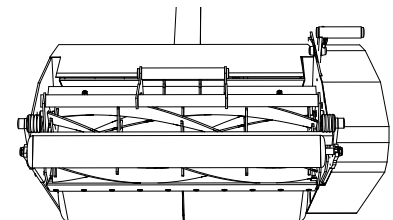
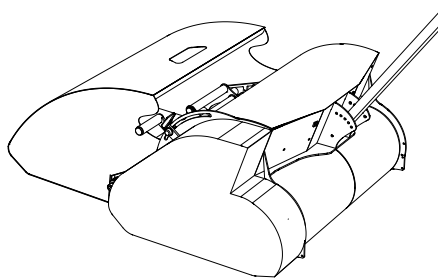
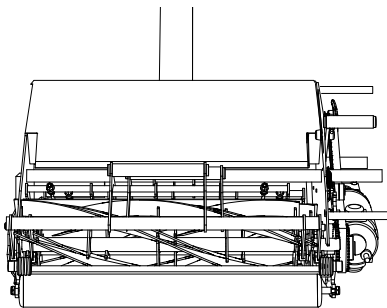
1. Insert the handlebar profile into the mower bracket, adjust to the required position and fix the position with screws.



2. Connect the data cable 28, Fig. 6, protruding from the handlebar bracket, to the socket 29 in the left rear part of the mower.

Checking the Reel Adjustment

Regularly check the adjustment of the reel against the bed-knife. **When adjusting, use the 8 mm wrench.** Mower with 45 cm (18in) cutting width has 2 adjusting screws on the reel and 55 cm (22in) cutting width has 3 adjusting screws.



1. Turn off the main switch 12
 2. If the reel does not cut clearly, tighten the **adjusting screws 21** clockwise. Proceed carefully by tightening them by approx. 10°. If required, repeat the procedure.

3. Tilt the machine back so that the handlebars touch the ground.

4. Insert a strip of plain paper before the bedknife 20 and carefully turn the reel by another hand.
 5. If the paper has been cut by all the blades in whole width, the reel is adjusted. A light touch of reel blades with the bedknife is normal.



Adjust only with protective gloves on and the machine stopped.



An excessive pressure between the reel and the bed-knife will result in an excessive wear of blades as well as the driving belt. When properly adjusted, the reel should turn smoothly.

Starting the Machine

1. Turn on the main safety switch by pulling it out 12.
2. Push the OK button 25.
3. LEDs on handlebar come on.
4. Push the LOCK button 26, the fifth LED flashes. While LED is flashing, lift the right lever within 1.5 seconds. The reel starts turning. Lift the left lever to activate the drive. The more you lift the lever, the faster the machine will travel.
5. Release the right lever to turn off the reel.
6. Release the left lever to stop the drive.

Mowing Height Adjusting

Mowing height can be adjusted with the control lever on the left side of the machine. To change the height adjustment, proceed as follows:

1. The mowing height is locked with a screw 13 on the right side; the screw moves in a groove. Before changing the mowing height, slightly loosen the locking screw.
2. Loosen the quick-release bolt 8.
3. Adjust the mowing height by moving the lever 6 forwards to decrease and backwards to increase the mowing height.
4. After the required height has been achieved, retighten the quick-release bolt as well as the locking screw. This will ensure a constant mowing height over the total machine width.

Next to the control lever for mowing height adjustment, there is an orientation scale with an indicator 6.

The scale shows the mowing height in millimetres or inches. The height of cut is shown by the upper/rear side of the lever.

Basic Functions of Keyboard Control

Higher throttle setting = higher number of motor revolutions = faster travel and higher number of reel revolutions. Lower throttle setting = lower number of motor revolutions = slower travel and lower number of reel revolutions. Number of cuts per meter and cut quality remain unchanged.

Speed Change

PLUS 23 and MINUS 22 buttons

- One push = 1/20 step (+/- 0.65 kmph)
 - When speed is increased, the 2nd LED flashes once
 - When speed is decreased, the 1st LED flashes once
- Keep PLUS or MINUS button pushed to change speed more quickly

Reverse Travel - Reversing

The reversing speed is always set at 70 % of the forward speed

- Push the R button 27, without touching the travel lever

Standby Mode

- The mower shall sleep after 60 seconds of inactivity
- Press any button on the handlebars to make the mower live again
-

Turning On the Reel

- Lock off the reel by pushing the LOCK button 27 the 1st LED flashes quickly
- Time required to lock off the reel is within 1.5 sec

Note: The reel cannot be locked off, if the cruise control is active (see advanced functions)

Advanced Functions of Keyboard Control

Cruise Control

- Lets you control the mower with only one lever
- If the machine is travelling and the reel is rotating, push the R button to turn on the cruise control
- If the machine is travelling and the reel is not rotating, push the R (not LOCK) button to turn on the cruise control (in this case, push the LOCK button to turn on the reel)
- Push the R or LOCK button or release both levers to turn off the cruise control
- When the cruise control is active, the mower travels at the speed set when turning-on the cruise control; the set speed can be changed with PLUS **23** or MINUS **22** button
- With the cruise control on, the mower can be operated with the left or right lever
- The left lever control can be changed in the cruise control mode for the right lever and vice versa
- Turning the cruise control on or off is signaled by a sound signal

Regeneration Mode

- It is intended exclusively for working with regeneration cartridges
- When this mode is activated, the maximum working speed of the cartridge motor is set and the + / - buttons can only be used to control the travel speed of the mower. The cartridge speed remains the same
- It is **switched on** by pressing and holding the OK and R buttons simultaneously for 2 seconds
- When the regeneration mode is **switched on**, number 4 flashes rapidly 4 times. LED
- If the mower is set in regeneration mode, the **3rd LED flashes continuously**
- It is **switched off** by pressing and holding the OK and R buttons simultaneously again for 2 seconds
- When the regeneration mode is switched off, the 4th LED flashes slowly once and the 3rd LED stops flashing
- When the regeneration mode is switched on, the power of the motor driving the cartridge is always set to maximum without any influence of the travel speed. Pressing the +, - buttons does not affect the speed even in cruise control mode
- In regeneration mode, the travel speed of the mower is lower than when mowing

Emptying the Grass Box

Continuously visually check that the grass box is not full. Never fill the box to allow grass to fall from the box onto the lawn. Never fill the box so you are not able to pick it up and empty it by yourself.

Machine Work Termination

To completely turn off the machine, use the main safety switch **12**. LEDs go out immediately.

Charging

You can charge the lawnmower while the machine is turned both on and off.

The charging status of the mower can be monitored directly on the mower handlebars. After connecting the mower to the charger, switch on the machine with the main red switch. The charging status will be indicated by the LED lights on the mower handlebars. The LED lights will gradually light up while charging. Once the mower is fully charged, all five LED lights will light up. **If the charger indicates that the mower is fully charged but the LED lights on the handlebars are still gradually lighting up to indicate charging, refer to the mower handlebars and allow the mower to charge until all five LED lights are lit continuously.**

Cleaning

Clean the machine to remove dirt and cut grass after each operation. Thoroughly brush off or air blow the machine and wipe it with a cloth. Never use pressure washers, their use voids the warranty.

Cut Quality Adjusting

A quality lawn depends on properly adjusted mowing blades. Adjust every time you notice the machine is not mowing well. (For better illustration, see the video manual at www.swardman.com.)

Adjust as follows (shown in the paragraph - Checking the Reel Adjustment (page 10):

1. Stop the machine
2. Turn off the main switch by pushing it in **12**
3. Put on protective gloves
4. Take off the grass box
5. Tilt the machine onto the handlebars
6. Take a strip of a plain paper, fold it in half and take the 8 mm wrench.
7. Kneel down in front of the mower
8. Gripping the paper strip in one hand, simulate a blade of grass and bring it perpendicularly before the bed-knife
9. Turn the reel with your other hand so that the paper is cut - be very careful - the mowing blades can cause painful injuries even at a low rotational speed.
10. The paper should be cut off smoothly - repeat on both ends and in the middle. If the cut has been smooth at each point, the machine is adjusted correctly.
11. If the paper has not been cut or the cut has not been smooth, it is necessary to draw the bed-knife up towards the reel.
12. To tighten the bed-knife, turn the nut **21** slightly right.
13. Repeat the check using another piece of paper. Repeat this process until the reel cuts perfectly over the total width.
14. After correct adjusting, the reel should be spinning freely and reel blades and bed-knife should be barely touching
15. If the mowing system has been used for a prolonged period (depending on the mowing intensity and dimensions of the mown area), the blades might become dull and making adjustments will be more difficult. If the adjustment no longer helps to achieve a smooth cut, the mowing blades must be sharpened. To see how to have the mowing blades sharpened, visit the Service Section on the Swardman website.
16. You can lubricate the reel blade with organic oil after each use to protect the blade against corrosion and reduce any noise and friction at the same time.

Winter Storage / Storage longer than 30 days

The prescribed regular maintenance is to be performed at the recommended service intervals. Replacing worn or damaged parts if needed and having repairs and maintenance of the machine performed at the Swardman service department before winter storage will extend the mower lifetime and reliability.

Before storing the mower, observe the following:

1. Thoroughly clean the machine. Remove all grass that is stuck.
2. Check the mechanical parts of the machine (see "Counter-Blade Adjustment") and slightly lubricate the blades with a biological oil.
3. Make sure all the bolts and nuts are tightened.
4. Charge the battery to 100% and disconnect the charger.
5. Recover the batteries by charging them to 100% every 8 weeks. The ambient temperature must be above 10°C (50°F) when charging the mower.
6. Make sure that the ambient temperature of the storage area will not drop below 10°C (50°F).

Acknowledgements

Thank you for choosing the Swardman reel mower. We believe that with proper care it will serve you for a long time and your lawn will be your pride and joy.

Our team is always ready to advise you on how to correctly use this machine. If you have any questions, please do not hesitate to contact us.

We would be happy if you shared your experience using the Swardman reel mower with us.

The following table shows possible symptoms of problems and how to fix them if your machine is not working properly. If you cannot find or fix the problem while using this table, please contact your dealer.



Caution: Before finding the problem, turn off the machine by means of the main switch **12**. For support in the form of video instructions, visit www.swardman.com/int/support

Problem	Possible cause	Problem removal
Having been mowed, the grass blades are not cut properly	The bed-knife is not adjusted correctly	Adjust the bed-knife.
Motor cannot be stopped	Failure of the sensor or electronics	Immediately turn the mower off with a main switch 12 ! If the problem continues, contact the service department of your Swardman dealer.
Cartridge does not rotate	<ol style="list-style-type: none"> 1. Incorrect adjustment of the reel 2. The belt has fallen or is damaged 16 	<ol style="list-style-type: none"> 1. Loosen adjusting screws of the reel 21 and readjust the reel. 2. Replace the reel drive belt 16. 3. Install the cartridge belt as shown in the picture 3 on page 11. If the belt is damaged, replace it with a new one.
The mower suddenly stops and beeps (the sound comes from the –body of the mower)	Connection between the mower and handlebars is lost	Make sure that the data cable is connected correctly. If the problem persists, contact your Swardman dealer.
The mower switches off and beeps (the sound comes from the handlebars)	Critical battery condition	Charge the battery.
LED1 is blinking fast and the cartridge does not rotate	Low battery capacity	Charge the battery.
LED2 is blinking fast, the mower stopped and the cartridge does not rotate	The machine is overheated	Leave the machine at rest in a cool and well ventilated area for at least 30 minutes. After 30 minutes turn the machine on again.
LED4 is blinking fast, the cartridge does not rotate	Cartridge motor overload	<ol style="list-style-type: none"> 1. Turn the mower off. Loosen adjusting screws of the reel. Then turn the mower on again. 2. Turn the mower off. Check if the cartridge is obstructed. If so, remove the obstacle. Then turn the mower on again. 3. If you are working with a regenerative cartridge, make sure that the regeneration mode is turned on.
LED5 is blinking fast, the mower does not drive	Drive motor overload	<ol style="list-style-type: none"> 1. Make sure that the rollers of the mower can rotate easily. If not, remove the obstacle. Then turn the mower off and on again. 2. Decrease the drive speed. Turn the mower off and on again.



If the above troubleshooting procedures fail to solve problems, contact your Swardman dealer.

Swardman provides a warranty against manufacturing and material defects in the product. In case of a manufacturing or a material defect during the warranty period, we will repair (or replace) the product.

If this product is intended for domestic use, the warranty period is 24 months from the date of purchase. In the event of industrial or professional use or similar loading, it is 12 months.

A warranty repair will be made, if:

- You take the machine to your Swardman dealer.
- You prove the product purchase and the purchase date, e.g. through the product invoice.

The warranty cannot be applied, if:

- you fail to prove the product purchase with the purchase date,
- the machine is not provided with the name plate,
- the product is modified resulting in a change in the manufacturer's specifications or the use of non-original parts,
- removal of the battery cover and control board results in damage to the seal,
- any previous repair of the product is performed elsewhere than in the authorised Swardman service department,
- a defect is caused by an incorrect adjustment, misuse, improper use, professional use, negligence or by accidental damage,
- a defect is caused by insufficient maintenance,
- any part, especially the travel or mowing mechanism, is damaged by its impacting against a solid object,
- a defect is caused by the product's misuse,
- a defect is caused by the product's normal wear and tear.

The following parts are considered to be consumables. Their lifetime depends on regular servicing, and the warranty does not normally apply to them: Blades, driving belts, bearings, battery and other easy-worn parts.

The warranty does not cover the costs associated with routine maintenance of the product.

In your best interest, follow the User Manual for the lawn mower. The proper care for the product shall ensure its excellent service for many years. To ensure proper functioning, it is recommended to have the reel sharpened at the authorised Swardman service department at least once a year.

If necessary, always use the Swardman original spare parts. The warranty does not cover a damage resulting from using spare parts not manufactured or approved by Swardman.

This warranty does not affect your statutory rights in connection with defective products.

When the time comes to dispose of the product, please consider the environment and recycle the product.

(For information on where to properly dispose of the product, please contact your local authorities).

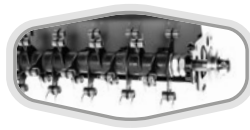
Interchangeable Cartridges



Reel (5, 6, 10 blades)



Verticutter cartridge



Scarifier cartridge



Groomer



Astroturf cleaner cartridge



Grooming lawn brush cartridge

Handlebars



Leather handlebars



Beverage holder

Front roller



Front grooved roller



Front and rear roller wiper

Other accessories



Mobile phone holder



Cartridge holder

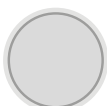


Transport wheels



Wheels for taller grass

Colours and materials



SILVER



RAL 6003



RAL 9016



RAL 3011



RAL 2009



RAL 3020



RAL 5002



RAL 5015



RAL 6018



Optional RAL

Manufacturer Information

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EC Declaration of Conformity, EU Declaration of Conformity

ES Prohlášení o Shodě, EU Prohlášení o Shodě

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Toto prohlášení o shodě se vydává na výhradní odpovědnost výrobce.

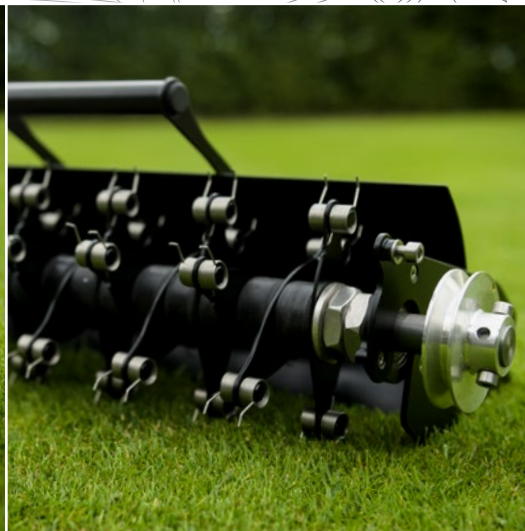
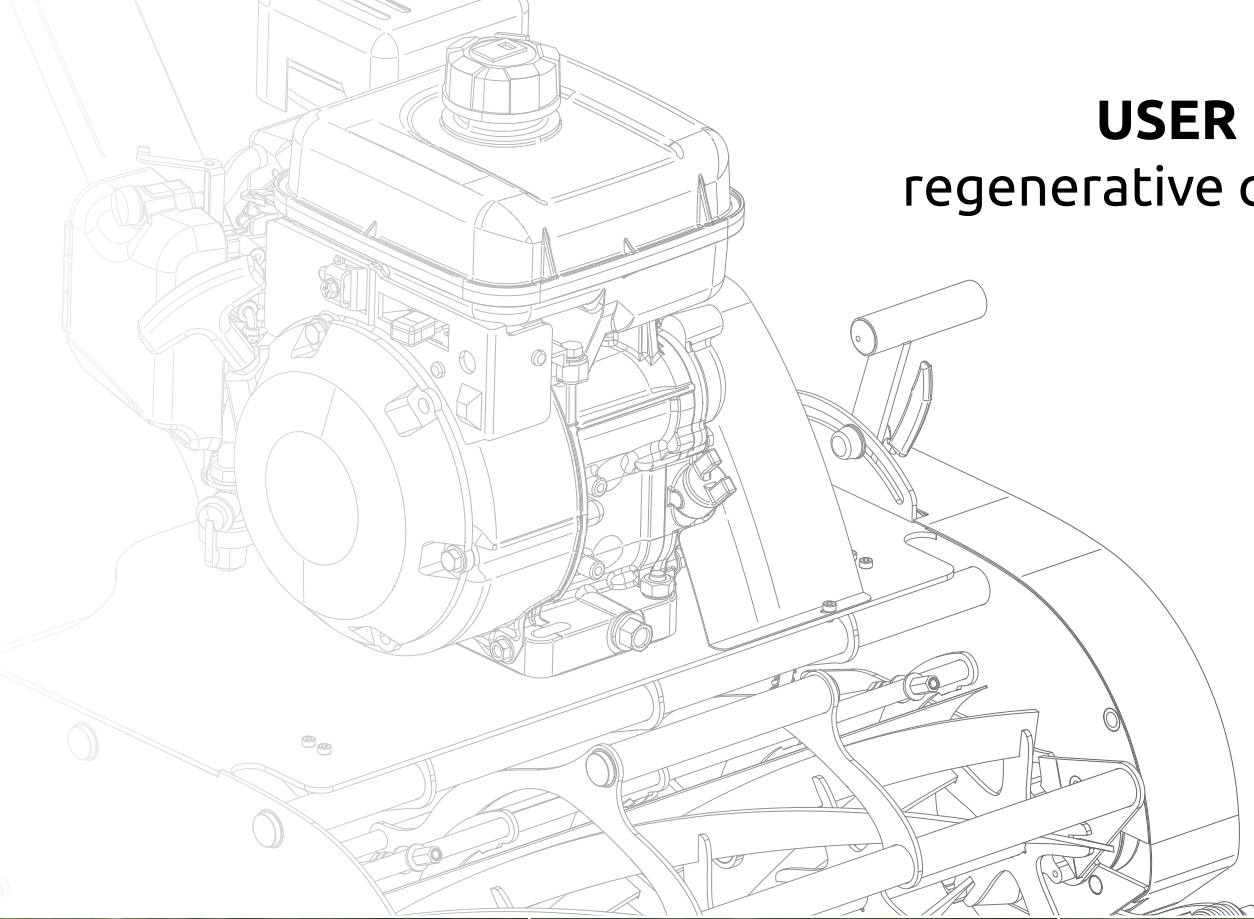
Výrobce / Manufacturer:	Swardman, s.r.o.																
Adresa / Address:	Šardice č.p. 862, 696 13 Šardice, Česká republika / Czech Republic																
IČ / ID:	29155738																
Jméno a adresa osoby pověřené sestavením technické dokumentace (podle 2006/42/ES, NV č. 176/2008 Sb.) a jméno a adresa osoby, která uchovává technickou dokumentaci (podle 2000/14/ES, NV č. 9/2002 Sb.) / Name and address of the person authorised to compile the technical file (according to 2006/42/EC) and name and address of the person, who keeps the technical documentation (according to 2000/14/EC):	Swardman, s.r.o., Šardice č.p. 862, 696 13 Šardice, Česká republika / Czech Republic																
Výrobek (stroj) – typ / Product (Machine) – Type:	Vřetenová sekačka Swardman typ A55 (A45)																
Výrobní číslo / Serial number:																	
Popis / Description:	Vřetenová sekačka Swardman A55(A45) je akumulátorový žací stroj s vyměnitelným vodorovným vřetenem. / Spindle mower Swardman A55 (A45) is cordless mower with a removable horizontal cylinder.																
	<table border="1"> <tr> <td>Šířka záběru / Cutting width</td> <td>450 mm</td> <td>550 mm</td> </tr> <tr> <td>Hmotnost / Weight</td> <td>52 kg</td> <td>59 kg</td> </tr> <tr> <td>Rychlost pojezdu (kmh) / Travel speed (kph)</td> <td colspan="2">5,3</td> </tr> <tr> <td>Rozměry (hxšxv) / Dimensions(dxwxh) cm</td> <td>1320x590x1050</td> <td>1320x690x1050</td> </tr> <tr> <td>Stupeň ochrany krytem: IP43 ČSN EN 60529 / Degree of Protection IP43 ČSN EN 60529.</td> <td colspan="2"></td> </tr> </table>		Šířka záběru / Cutting width	450 mm	550 mm	Hmotnost / Weight	52 kg	59 kg	Rychlost pojezdu (kmh) / Travel speed (kph)	5,3		Rozměry (hxšxv) / Dimensions(dxwxh) cm	1320x590x1050	1320x690x1050	Stupeň ochrany krytem: IP43 ČSN EN 60529 / Degree of Protection IP43 ČSN EN 60529.		
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Prohlašujeme, že strojní zařízení splňuje všechna příslušná ustanovení uvedených směrnic (NV) / We declare that the machinery fulfils all the relevant provisions of the mentioned Directives (Government Provisions):	*Strojní zařízení – směrnice 2006/42/ES, NV č. 176/2008 Sb. / the Machinery Directive 2006/42/EC, Elektromagnetická kompatibilita – směrnice 2014/30/EU, NV č. 117/2016 Sb. / the Electromagnetic Compatibility (EMC) Directive 2014/30/EU, Emise hluku – směrnice 2000/14/ES; NV č. 9/2002 Sb. / the Noise Emission Directive 2000/14/EC.																
Harmonizované technické normy a technické normy použité k posouzení shody / The harmonized technical standards and the technical standards applied to the conformity assessment:	ČSN EN 12100, ČSN EN ISO 5395-1, ČSN EN ISO 5395-2, ČSN EN 60335-2-77 ed.3, ČSN EN 55014-1 ed.3:2007, ČSN EN 55014-2 ed.2:2017, ČSN EN ISO 11201, ČSN EN ISO 3744.																
Použitý postup posouzení shody / To the conformity assessment applied procedure:	Na základě směrnice 2000/14/ES, příloha V; NV č. 9/2002 Sb., příloha č. 5 / Pursuant to the Noise Emission Directive 2000/14/EC, Annex VI.																
Posouzení shody provedla / The conformity assessment carried out by:	Notifikovaná osoba č. 1017 TÜV SÜD Czech s.r.o. Novodvorská 994, CZ-142 21 Praha 4, CZ / Czech Republic. Závěrečná zpráva č. / The Final Report No.: 12.865.854																
Naměřená hladina akustického výkonu / Measured sound power level:	L _{WA} = 77,3 dB																
Garantovaná hladina akustického výkonu / Guaranteed sound power level:	L _{WA} = 78 dB																

*V rámci požadavků 2006/42/ES (NV č. 176/2008 Sb.), bylo provedeno i posouzení shody s 2014/35/EU (NV č. 118/2016 Sb.).

*Within the requirements of the Directive 2006/42/EC it has been performed also a conformity assessment with the Directive 2014/35/EU.

USER MANUAL

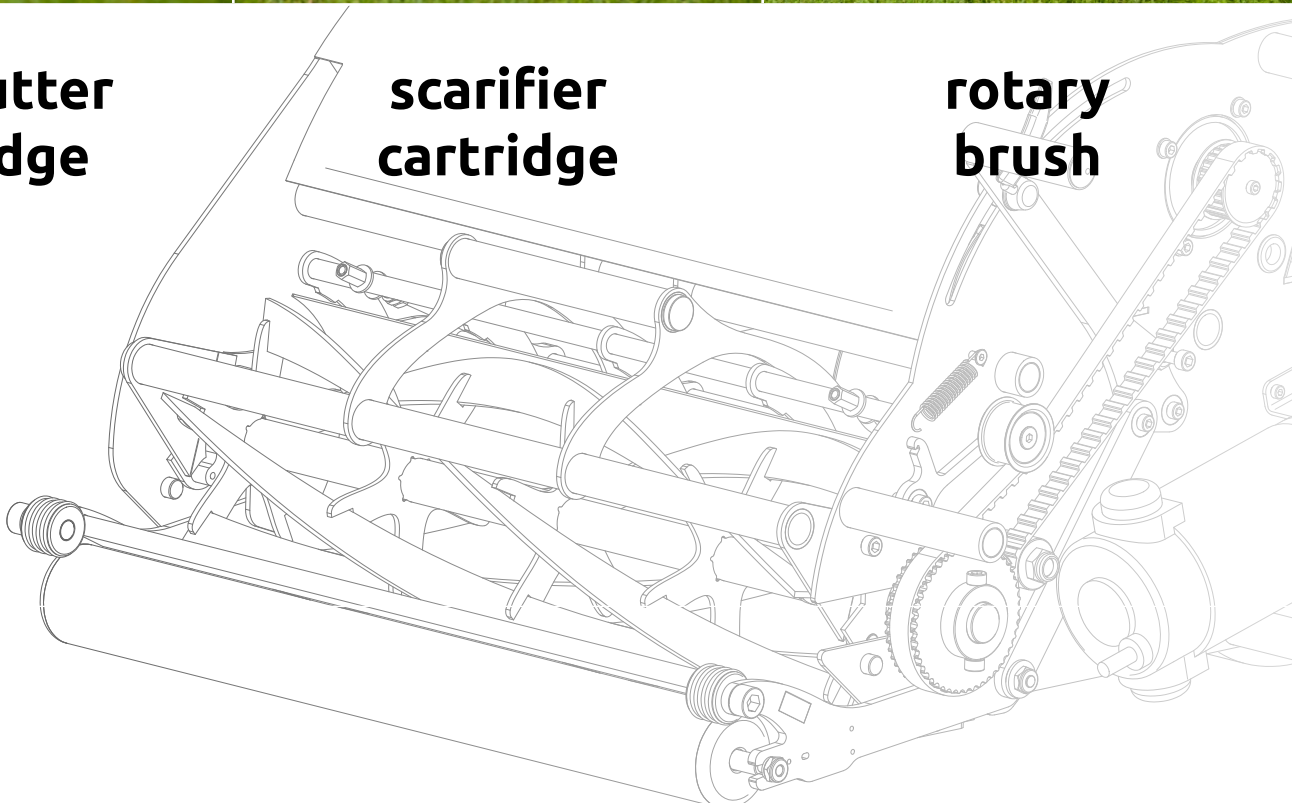
regenerative cartridges



**verticutter
cartridge**

**scarifier
cartridge**

**rotary
brush**



Verticutter cartridge

Verticutter cartridge is used to cut lawns vertically. The cartridge is fitted with steel rotating blades. The denser a lawn is, the more it needs verticutting. We recommend to verticut the lawn 3 - 5x per year during the grass season, always before each fertilization to a depth of 3 - 5 mm.



Verticutting the lawn before fertilizing will remove the thatch and dead parts of the plants, prevent the fertilizer from being washed away by rain and ensure absorption into the soil and to the roots of the lawn. At the same time the grass sods are being broken, increased water absorption and supports the growth of grass sprouts and growth of the new plants. By breaking the surface of the soil, the circulation of the air in the soil will be restored. The surface will also have better access to sunlight. All of these positive procedures result in thicker and healthier lawn.

Verticutting must be performed at high speed in order for the blades to cut correctly. When using Edwin, you can increase the power using the throttle lever on the handlebar. When using the Electra, use the regeneration mode. See the mower's user's manual for more information.

If the lawn is very thick and full of thatch, we recommend double verticutting in two direction crossways.

Never carry out the verticutting if the lawn is soaked or too dry. The lawn does not need to be verticut all over its area. If there are thin areas, skip them. Never perform verticutting if the soil temperature is below 10 °C (50°F).

The steel blades of the verticutter are subject to normal wear and can be replaced with new ones when worn and not functioning. Spare parts are available in the e-shop at www.swardman.com

Scarifier cartridge / Astro turf cleaner cartridge

The scarifier cartridge is used to remove broken thatch and dead stalks after verticutting. It can also be used on lawns where verticutting was not performed.



Thanks to a large number of double springs and high revolutions (increase in high revs when using Edwin) or in regeneration mode (when using Electra), it is much more efficient and faster than manual raking.

The scarifier can remove undesired dirt from the lawn, such as leaves, moss, twigs, small cones and bark residues which can prevent safe mowing. The scarifier combs the grass nicely and highlights the stripes on the lawn.

The stainless steel springs of the scarifier are subject to normal wear and should be replaced with new ones when worn and not functioning. Spare parts are available in the e-shop at www.swardman.com.

Astro turf cleaner will clean your artificial grass from leaves, needles, little rocks and other small objects. It is used the same way as scarifier cartridge.

Rotary brush

The rotary brush is used for the application of sand and material, which usually follows the aeration. The sand can also be incorporated into a lawn that has not been aerated, although the resulting effect is poorer than on a previously aerated lawn.

The sand application is sufficient when the grass stalks are visible and the sand does not form accumulated hills. An uneven terrain can be levelled by repeating the sand application.

For best results, we recommend using dry and loose sand. Wet sand is not suitable for rotary brush application.



Groomer

The groomer is designed for regular and frequent care that is friendly to your lawn. While the reels mow the lawn horizontally, the groomer cuts the grass vertically. It shortens horizontally growing grass blades and removes thatch from the lawn. As a result, the grass is stimulated to grow further upwards. Regular usage of the groomer cartridge therefore helps you achieve an evenly growing, dense, and homogeneous lawn. Thanks to its narrow blades fitted close to each other, the use of the groomer is very lawn-friendly and differs significantly from verticutting.



As grooming is a gentle and lawn-friendly procedure, you can use the groomer every week. The knives of the groomer should only slightly touch the soil of the lawn – the depth should be between 0 and 1 mm. The groomer should operate at maximum machine speed. For Edwin, you can increase the power using the throttle lever on the handlebar, whereas for Electra, switch on the regeneration mode.

The groomer's blades are subject to normal wear and tear and can be replaced with new ones after excessive wear or loss of original function.

Technical Data

	Verticutter cartridge		Scarifier cartridge		Rotary brush		Groomer	
	45 cm 18in	55 cm 22in	45 cm 18in	55 cm 22in	45 cm 18in	55 cm 22in	45 cm 18in	55 cm 22in
Model								
Range width	450 mm 18in	550 mm 22in	450 mm 18in	550 mm 22in	450 mm 18in	550 mm 22in	450 mm 18in	550 mm 22in
Number of blades / springs	10	12	36	44	-	-	34	42
Maximum designed depth	- 10 mm -0.4in	- 10 mm -0.4in	0 mm 0in	0 mm 0in	0 mm 0in	0 mm 0in	2 mm 0,08in	2 mm 0,08in
Maximum permissible working depth	- 5 mm -0.2in	- 5 mm -0.2in	0 mm 0in	0 mm 0in	0 mm 0in	0 mm 0in	1 mm 0,04in	1 mm 0,04in

Note: The working depth of the verticutting cartridge mentioned above is indicative. The actual working depth decreases with increasing the soil hardness and in case of solid particles such as stones which can also damage the verticutter blades.

Fig. No. 1 - Swardman Edwin

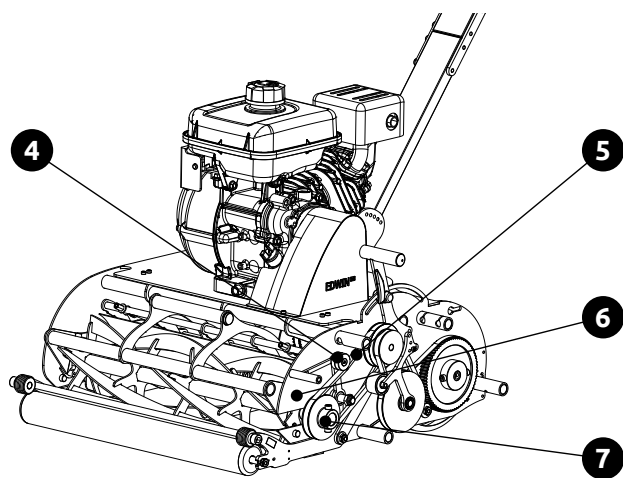
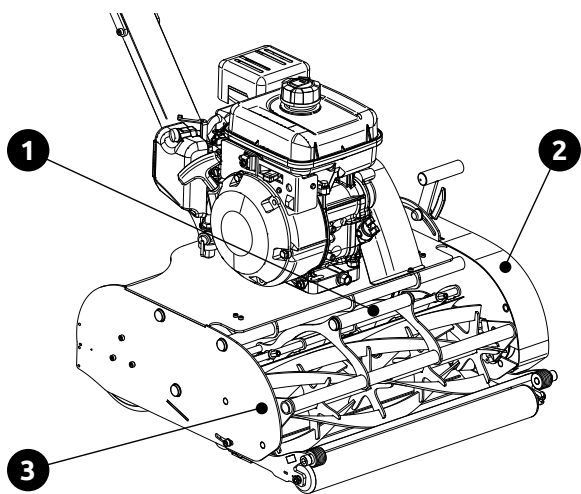
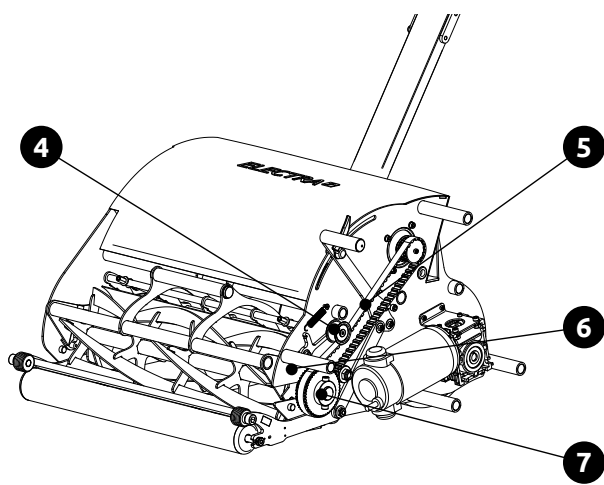
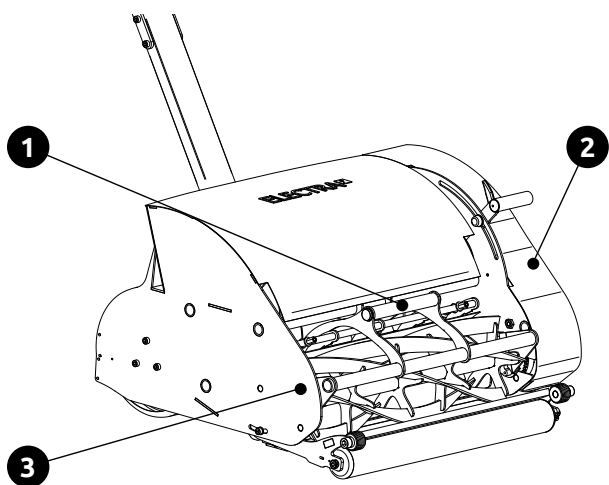


Fig. No. 2 - Swardman Electra



- ① Cartridge handle
- ② Side cover
- ③ Cartridge left securing screw
- ④ Cartridge clutch
- ⑤ Reel drive V-belt (Edwin) / Reel drive cog belt (Electra)
- ⑥ Cartridge right securing screw
- ⑦ Cartridge pulley

1. Loosen the mowing height lock screw on the right side of the machine
2. Use the height setting lever to set the mowing height to maximum
3. Unscrew the bolts securing the side cover **2** and remove the side cover of the machine.
4. Release manually the V-belt (Edwin) **5** or cog belt (Electra) **5** from the cartridge pulley **7**.
5. Using the Allen key, loosen and remove the left **3** and the right securing screw **6** of the cartridge (the key is included)
6. Remove the cartridge from the machine using the cartridge handle **1**
7. Using the handle **1** insert the desired verticutter / scarifier / rotary brush cartridge in the machine
8. Reinstall the securing screws - the left **3** as well as the right one **6** (make sure the screw can be screwed easily)
9. Install the V-belt (Edwin) **5** or the cog belt (Electra) **5** on the cartridge pulley **7**
10. Guide the V-belt under the cartridge clutch **4** into its original position and at the Electra under the tensioner
11. Install the side cover **2** and secure it with bolts.
12. Set the correct working height of the machine.
 - a. for the **verticutter** set the height so that the front roller is maximum 5 mm (0.2in), preferably 3 mm (0.1in), lifted in the air, and always so that it moves freely above a hard surface. This corresponds to a working depth of -3 mm (-0.1in) and deeper.
 - b. for the **scarifier** set the height so that the springs slightly touch the hard surface or move over it. This corresponds to a working depth of 0 mm/in and deeper.
 - c. for the **rotary brush** lower the working height of the machine so that the bristles are in moderate contact with the surface / lawn. Replace the protective cover **Fig. 3** and then cover the gap between the mower chassis and the protective with the magnetic shield **Fig. 4**



Fig. 3

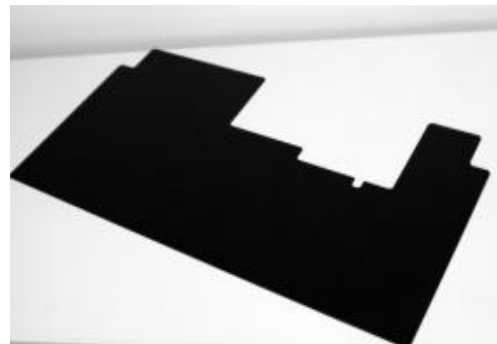


Fig. 4

13. After installation of the verticutter or scarifier cartridge, place the grass box (for the verticutting cartridge, the collection into the box is less effective, but the bin serves as a protection against flying objects). After installing the rotary brush, the grass bin is not installed.
14. The machine is then ready for work. In the case of the installation of the rotary brush according to **Fig. 5**



Fig. 5



When working with the machine and also with the verticutter / scarifier cartridge, grass box should always be installed as it also serves as a protective cover. When working with the rotary brush cartridge always use the metal cover and a magnetic shield.

Cleaning

After each work, clean the machine from dirt and grass residues. Wipe the appliance using a brush and wipe with a cloth, or use a leaf blower. Never use pressure washers, their use can void the warranty for the machine or the accessories.

Winter Storage / Storage longer than 30 days

The prescribed regular maintenance to be performed at the recommended service intervals, replacing of the worn or damaged parts if needed and having repairs and maintenance of the machine performed at the Swardman service department or at the service partner before winter storage will extend the machine lifetime and reliability.



Before storing the machine, observe the following:

1. Thoroughly clean the machine. Remove all stuck grass residues
2. Check the mechanical parts
3. Make sure all the bolts and nuts are tightened

Acknowledgements

Thank you for purchasing a Swardman product. We believe that with proper care it will serve you for a long time and your lawn will be your pride and joy. Our team is always ready to advise you on how to correctly use this machine. If you have any questions, please do not hesitate to contact us. We will be happy if you share with us your experiences in using the Swardman machine.

Troubleshooting

The following table shows possible symptoms of problems and how to fix them if your machine is not working properly. If you cannot find or fix the problem using this table, please contact your dealer. Caution: Before troubleshooting, turn the machine off and remove the end cap from the spark plug (Edwin) or pull the main switch to the off position (Electra).

Problem	Type	Possible cause	Remedy
The cartridge does not rotate	Edwin	1. The cartridge control cable is too loose 2. Worn belt	Follow the Edwin or Electra main user's guide in the „Troubleshooting“ section. Removal of the fault is the same as for the same symptoms of mower reel malfunction.
	Electra	1. Low capacity of the accumulator 2. Fallen or damaged belt 3. Electronics failure	
The cartridge rotates even when the reel control lever is not pushed	Edwin	Incorrect clutch adjustment, cartridge control cable too tight	Removal of the fault is the same as for the same symptoms of mower reel malfunction.
	Electra	Electronics failure	
The cartridge does not engage in the lawn	Edwin Electra	The working height is not adjusted properly / or the blades are worn	Use the height adjustment on the machine to lower the working height. / replace the blades.




SWARDMAN

passion for lawns



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