

RMA 239.1

STIHL



2 - 28	Gebrauchsanleitung	513 - 541	Ръководство за употреба
28 - 52	Instruction Manual	542 - 568	Instrucțiuni de utilizare
52 - 79	Manual de instrucciones	568 - 592	Uputstvo za upotrebu
79 - 103	Uputa za uporabu		
103 - 127	Skötselansvisning		
127 - 151	Käyttöohje		
151 - 175	Betjeningsvejledning		
175 - 199	Bruksanvisning		
199 - 225	Návod k použití		
225 - 250	Használati utasítás		
251 - 277	Instruções de serviço		
277 - 302	Návod na obsluhu		
302 - 331	Инструкция по эксплуатации		
331 - 357	Lietošanas instrukcija		
357 - 385	Інструкція з експлуатації		
385 - 413	οδηγίες χρήσης		
413 - 438	Kullanma talimati		
439 - 464	Instrukcja użytkowania		
464 - 488	Kasutusjuhend		
488 - 513	Eksplotavimo instrukcija		



Eine lose, beschädigte oder nicht richtig funktionierende Schutzabdeckung kann zu Verletzungen führen.

- g) **Halten Sie Lufteintrittsöffnungen frei von Ablagerungen.** Blockierte Lufteinlässe und Ablagerungen können zu Überhitzung oder Brandgefahr führen.
- h) **Tragen Sie beim Betrieb des Rasenmähers immer rutschfeste Sicherheitsschuhe. Niemals barfuß oder mit offenen Sandalen arbeiten.** Dadurch vermindern Sie die Gefahr einer Fußverletzung beim Kontakt mit dem rotierenden Mähmesser.
- i) **Tragen Sie beim Betrieb des Rasenmähers immer lange Hosen.** Bloße Haut erhöht die Wahrscheinlichkeit von Verletzungen durch herausgeschleuderte Teile.
- j) **Betreiben Sie den Rasenmäher nicht in nassem Gras. Gehen Sie dabei, niemals rennen.** Dadurch verringern Sie die Gefahr auszurutschen und hinzufallen, was zu Verletzungen führen könnte.
- k) **Betreiben Sie den Rasenmäher nicht auf übermäßig steilen Hängen.** Damit wird das Risiko vermindert, die Kontrolle zu verlieren, auszurutschen und hinzufallen, was zu Verletzungen führen könnte.
- l) **Achten Sie beim Arbeiten an Abhängen auf einen sicheren Stand; arbeiten Sie immer quer zum Abhang, niemals aufwärts oder abwärts, und seien Sie extrem vorsichtig beim Ändern der Arbeitsrichtung.** Damit wird das Risiko vermindert, die Kontrolle zu verlieren, auszurutschen und hinzufallen, was zu Verletzungen führen könnte.
- m) **Seien Sie besonders vorsichtig beim Rückwärtsmähen oder wenn Sie den Rasenmäher zu sich herziehen. Achten Sie immer auf die Umgebung.** Dies reduziert die Stolpergefahr während des Arbeitens.
- n) **Berühren Sie keine Messer oder andere gefährliche Teile, die sich noch bewegen.** Damit vermindern Sie das Risiko einer Verletzung durch sich bewegende Teile.
- o) **Stellen Sie sicher, dass alle Schalter ausgeschaltet sind und der Akku abgetrennt ist, bevor Sie eingeklemmtes Material entfernen oder den Rasenmäher reinigen.** Ein unerwarteter Betrieb des Rasenmähers kann zu ernsthaften Verletzungen führen.

Contents

1	Introduction.....	28
2	Guide to Using this Manual.....	29
3	Overview.....	29
4	Safety Precautions.....	30
5	Preparing the Lawn Mower for Operation.....	37
6	Charging the Battery, LEDs.....	37
7	Assembling the Lawn Mower.....	38
8	Removing and Fitting the Battery.....	40
9	Switching the Lawn Mower On and Off.....	41
10	Checking the Lawn Mower and Battery....	41
11	Operating the Lawn Mower.....	42
12	After Finishing Work.....	43
13	Transporting.....	43
14	Storing.....	44
15	Cleaning.....	44
16	Maintenance.....	45
17	Repairing.....	46
18	Troubleshooting.....	46
19	Specifications.....	48
20	Spare Parts and Accessories.....	49
21	Disposal.....	49
22	EC Declaration of Conformity.....	49
23	Addresses.....	50
24	General and Product-Specific Safety Instructions.....	50

1 Introduction

Dear Customer,

Thank you for choosing STIHL. We develop and manufacture our quality products to meet our customers' requirements. The products are designed for reliability even under extreme conditions.

STIHL also stands for premium service quality. Our dealers guarantee competent advice and instruction as well as comprehensive service support.

STIHL expressly commit themselves to a sustainable and responsible handling of natural resources. This user manual is intended to help you use your STIHL product safely and in an environmentally friendly manner over a long service life.

We thank you for your confidence in us and hope you will enjoy working with your STIHL product.



Dr. Nikolas Stihl

IMPORTANT! READ BEFORE USING AND KEEP IN A SAFE PLACE FOR REFERENCE.

2 Guide to Using this Manual

2.1 Applicable documents

This User Manual represents the original instructions of the manufacturer within the meaning of EC Directive 2006/42/EC.

Local safety regulations apply.

- In addition to this User Manual, you should also read, understand and retain the following documents:
 - Safety notes and precautions for the STIHL AK battery
 - User Manual for STIHL AL 101, 301, 500 and 501 chargers
 - Safety information for STIHL batteries and products with built-in battery:
www.stihl.com/safety-data-sheets

2.2 Warning Notices in Text



DANGER

- This notice refers to risks which result in serious or fatal injury.
 - Serious or fatal injuries can be avoided by taking the precautions mentioned.



WARNING

- This notice refers to risks which **can** result in serious or fatal injury.
 - Serious or fatal injuries can be avoided by taking the precautions mentioned.

NOTICE

- This notice refers to risks which can result in damage to property.
 - Damage to property can be avoided by taking the precautions mentioned.

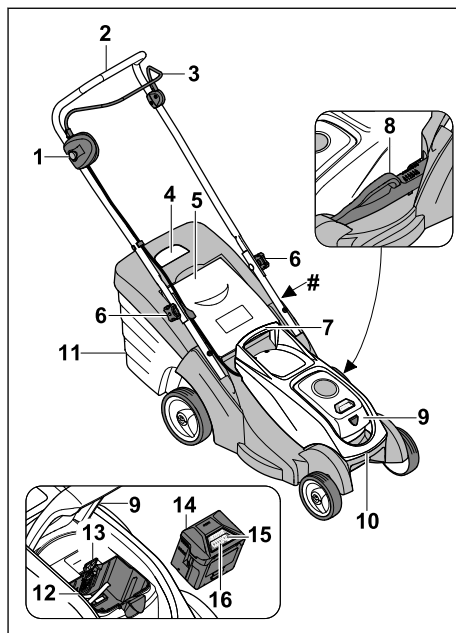
2.3 Symbols in Text



This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 Lawn Mower and Battery



1 Locking button

The locking button switches the blade on and off together with the control bar.

2 Handlebar

The handlebar is used to hold, guide and transport the lawn mower.

3 Control bar

The control bar switches the blade on and off together with the locking button.

4 Level indicator

The level indicator shows how full the grass catcher box is.

5 Discharge flap

The discharge flap closes off the discharge chute.

6 Star grip nut

The star grip nut clamps the handlebar to the lawn mower.

7 Handle

The handle is used to hold the lawn mower when adjusting the cutting height and to transport the lawn mower.

8 Lever

The lever is used to set the cutting height.

9 Flap

The flap covers the battery.

10 Transport handle

The transport handle is used to transport the lawn mower.

11 Grass catcher box

The grass catcher box collects the mown grass.

12 Battery compartment

The battery compartment holds the battery.

13 Locking lever

The locking lever keeps the battery in the battery compartment.

14 Battery

The battery supplies the lawn mower with power.

15 Button

The button activates the LEDs on the battery.

16 LEDs

The LEDs indicate the battery charge state and faults.

Rating plate with machine number**3.2 Symbols**

The symbols can be on the lawn mower, battery or charger and have the following meaning:



Deactivate the blade: ○

Activate the blade: |



Guaranteed sound power level in accordance with Directive 2000/14/EC in dB(A) for the purpose of comparing the sound emissions of products.

IPX1 IP-Symbol

IP20



Do not dispose of the product with domestic waste.



1 LED illuminates red. The battery is too warm or too cold.



4 LEDs flash red. There is a fault in the battery.



The number beside the symbol indicates the energy content of the battery according to the cell manufacturer's specifications. The available energy content is lower in practice.



Protection class II power tool



Alternating current



Direct current

4 Safety Precautions**4.1 Warning Symbols****▲ WARNING**

The warning symbols on the lawn mower or battery have the following meaning:



Follow the safety instructions and their measures.



Read, understand and keep the instruction manual.



Beware of objects being thrown up - keep a safe distance and keep other people away.



Do not touch a turning blade.



Remove the battery during work stoppages, cleaning, transport, storage, maintenance or repair.



Protect the lawn mower from rain and moisture.



Remove the battery after operation.



Protect the battery from heat and fire.



Protect the battery from rain and moisture. Do not immerse in liquids.

4.2 Intended Use

The STIHL RMA 239.1 lawn mower is used to mow dry grass.

The lawn mower is supplied with power by a STIHL AK battery.

The STIHL AL 101 charger charges the STIHL battery AK.

⚠ WARNING

- Batteries not approved by STIHL for the lawn mower may cause fires and explosions. This may result in serious or fatal injury to people and damage to property.
 - ▶ Use the lawn mower with a STIHL AK battery.
- Failure to use the lawn mower or battery as intended may result in serious or fatal injury to people and damage to property.
 - ▶ Use the lawn mower and battery as described in this instruction manual.

4.3 Requirements for the User

⚠ WARNING

- Uninstructed users cannot recognise or evaluate the dangers posed by the lawn mower and battery. This may result in serious or fatal injury to the user or other people.



- ▶ Read, understand and keep the instruction manual.

- ▶ If passing on the lawn mower or battery to another person: provide them with the instruction manual also.
- ▶ Make sure that the user meets the following conditions:
 - The user is rested.
 - The user is physically, sensorily and mentally capable of operating the lawn mower and battery and working with them. If the user is physically, sensorily or mentally impaired, the machine must only be used under supervision or following instruction by a responsible person.
 - The user can recognise and evaluate the dangers posed by the lawn mower and battery.
 - The user is aware that they are responsible for accidents and damage.
 - The user is of legal age or the user is being trained under supervision in a profession in accordance with national regulations.
 - The user has received instruction from a STIHL specialist dealer or a competent

person before using the lawn mower for the first time.

- The user is not impaired by alcohol, medicines or drugs.
- ▶ If anything is unclear: consult a STIHL specialist dealer.

4.4 Clothing and Equipment

⚠ WARNING

- Objects may be thrown up at high velocity while working. This may result in injury to the user.
 - ▶ Wear long trousers made from resistant material.
- Dust may be stirred up while working. Breathing in dust may be harmful to health and cause allergic reactions.
 - ▶ If dust is stirred up: wear a dust mask.
- Unsuitable clothing may get caught on wood, briars and in the lawn mower. This may result in serious injury to the user.
 - ▶ Wear close-fitting clothing.
 - ▶ Remove scarves and jewellery.
- The user may come into contact with the blade during cleaning, maintenance or transport. This may result in injury to the user.
 - ▶ Wear protective gloves.
- Wearing unsuitable footwear may cause the user to slip. This may result in injury to the user.
 - ▶ Wear sturdy, closed-toed footwear with high-grip soles.
- Material particles may be expelled when sharpening the blade. This may result in injury to the user.
 - ▶ Wear close-fitting safety glasses. Suitable safety glasses are tested in accordance with EN 166 or national regulations and available commercially with the corresponding marking.
 - ▶ Wear protective gloves.

4.5 Work Area and Surroundings

4.5.1 Lawn Mower

⚠ WARNING

- Bystanding people, children and animals cannot recognise or evaluate the dangers posed by the lawn mower and objects expelled at high speed by the mower. This may result in serious injury to bystanding people, children and animals and damage to property.



- ▶ Keep bystanding people, children and animals out of the work area.

- ▶ Maintain a distance from objects.
- ▶ Do not leave the lawn mower unattended.
- ▶ Make sure that children cannot play with the lawn mower.
- Working in the rain may cause the user to slip. This may result in serious or fatal injury to the user.
 - ▶ Do not work when it is raining.
- The lawn mower is not waterproof. Working in the rain or in a damp environment may result in electric shock. This may result in injury to the user and damage to the lawn mower.
 - ▶ Do not work in the rain or in a damp environment.
 - ▶ Do not mow wet grass.
- Electrical components of the lawn mower may produce sparks. Sparks may cause fires and explosions in highly flammable or explosive environments. This may result in serious or fatal injury to people and damage to property.
 - ▶ Do not work in a highly flammable or explosive environment.

4.5.2 Battery

⚠ WARNING

- Bystanders, children and animals cannot recognize or assess the dangers of the battery. Bystanders, children and animals may be seriously injured.
 - ▶ Keep bystanders, children and animals away from the work area.
 - ▶ Do not leave the battery unattended.
 - ▶ Make sure that children cannot play with the battery.
- The battery is not protected against all ambient conditions. If the battery is exposed to certain ambient conditions, the battery may catch fire, explode or be irreparably damaged. This may result in serious injury to people and damage to property.



- ▶ Protect battery from heat and fire.
- ▶ Do not throw the battery into a fire.

- ▶ Do not charge, use and store the battery outside of the specified temperature limits, 19.6.



- ▶ Protect the battery from rain and moisture and do not immerse it in liquids.
- ▶ Keep battery away from small metal parts.
- ▶ Do not expose the battery to high pressure.
- ▶ Do not expose the battery to microwaves.
- ▶ Protect the battery from chemicals and salts.

4.5.3 Charger

⚠ WARNING

- Bystanders and children are not aware of and cannot assess the dangers of a charger or electric current. Bystanders, children and animals may be seriously or fatally injured.
 - ▶ Keep bystanders, children and animals away from the work area.
 - ▶ Make sure that children cannot play with the charger.
- The charger is not waterproof. If you work in the rain or in a damp environment, an electric shock may occur. The user may be injured and the charger may be damaged.



- ▶ Do not operate it in the rain or in a damp environment.
- The charger is not protected against all ambient conditions. If the charger is exposed to certain ambient conditions, it may catch fire or explode. This may result in serious injury to people and damage to property.
 - ▶ Operate the charger in an enclosed, dry room.
 - ▶ Do not operate the charger in a flammable environment or in an explosive environment.
 - ▶ Do not operate the charger on a readily combustible surface.
 - ▶ Do not use and store the charger outside of the specified temperature limits, 19.6.
- People may trip over the connecting cable. People may be injured and the charger may be damaged.
 - ▶ Lay the connecting cable flat on the floor.

4.6 Safe Condition

4.6.1 Lawn Mower

The lawn mower is in safe condition when the following conditions are met:

- The lawn mower is free from damage.
- The lawn mower is clean and dry.
- The controls are working and have not been modified.

- The blade is correctly attached.
- Genuine STIHL accessories for this lawn mower are attached.
- The accessories are correctly attached.

▲ WARNING

- If not in safe condition, components may no longer operate correctly and safety devices may be disabled. This may result in serious or fatal injury to people.
 - ▶ Do not use a damaged lawn mower.
 - ▶ If the lawn mower is dirty or wet: clean the lawn mower and allow it to dry.
 - ▶ Do not modify the lawn mower.
 - ▶ If the controls are not working: do not use the lawn mower.
 - ▶ Attach genuine STIHL accessories for this lawn mower.
 - ▶ Attach the blade as described in this instruction manual.
 - ▶ Attach accessories as described in this instruction manual or in the instruction manual for the accessories.
 - ▶ Do not insert objects into the apertures in the lawn mower.
 - ▶ Replace worn or damaged warning signs.
 - ▶ If anything is unclear: consult a STIHL specialist dealer.

4.6.2 Blade

The blade is in safe condition when the following conditions are met:

- The blade and attachments are not damaged.
- The blade is not deformed.
- The blade is correctly attached.
- The blade is correctly sharpened.
- The blade is burr-free.
- The blade is correctly balanced.
- The blade has the required minimum thickness and the permissible grinding limit has not been reached,  19.2.
- The sharpening angle is observed,  19.2.

▲ WARNING

- In unsafe condition, blade parts may come loose and be expelled. This may result in serious injury to people.
 - ▶ Use an undamaged blade and attachments.
 - ▶ Attach the blade correctly.
 - ▶ Sharpen the blade correctly.
 - ▶ If the minimum thickness is not reached or the permissible grinding limit is reached: replace the blade.
 - ▶ Have the blade balanced by a STIHL specialist dealer.

- ▶ If anything is unclear: consult a STIHL specialist dealer.

4.6.3 Battery

The battery is in a safe condition if the following points are observed:

- Battery is undamaged.
- The battery is clean and dry.
- Battery functions properly and has not been modified.

▲ WARNING

- A battery that is not in a safe condition cannot operate safely. Persons may be seriously injured.
 - ▶ Never work with a damaged battery.
 - ▶ Never attempt to charge a damaged or defective battery.
 - ▶ If the battery is dirty: Clean the battery.
 - ▶ If the battery is wet or damp: Allow the battery to dry,  19.7.
 - ▶ Never attempt to modify the battery.
 - ▶ Never insert objects in the battery's openings.
 - ▶ Never bridge the battery's contacts with metallic objects (short circuit).
 - ▶ Do not open the battery.
 - ▶ Replace worn or damaged labels.
- Fluid may leak from a damaged battery. If that liquid comes into contact with the skin or eyes, the skin or eyes may be irritated.
 - ▶ Avoid contact with the liquid.
 - ▶ If skin contact occurs: Wash affected areas of skin with plenty of water and soap.
 - ▶ In the event of contact with eyes: Rinse eyes with plenty of water for at least 15 minutes and consult a doctor.
- A damaged or defective battery may smell unusual, emit smoke or burn. Persons may be seriously or fatally injured, and property may be damaged.
 - ▶ If the battery smells unusual or emits smoke: do not use the battery and keep it away from combustible substances.
 - ▶ If the battery catches fire: Attempt to extinguish the battery with a fire extinguisher or water.

4.6.4 Charger

The charger is in a safe condition if the following points are observed:

- Charger is undamaged.
- Charger is clean and dry.

▲ WARNING

- If components do not comply with safety requirements, they will no longer function properly and safety devices may be rendered inoperative. This can result in serious or fatal injuries.
 - ▶ Do not use a damaged charger.
 - ▶ If the charger is dirty or wet: Clean the charger and allow it to dry.
 - ▶ Never attempt to modify the charger.
 - ▶ Never insert objects in the charger's openings.
 - ▶ Never bridge the charger's contacts with metallic objects (short circuit).
 - ▶ Do not open the charger.

4.7 Working

▲ WARNING

- In certain situations, the user may no longer be able to concentrate on their work. This may result in the user stumbling, falling and becoming seriously injured.
 - ▶ Work calmly and carefully.
 - ▶ If the light and visibility conditions are poor: do not use the lawn mower.
 - ▶ Operate the lawn mower alone.
 - ▶ Watch out for obstacles.
 - ▶ Do not tilt the lawn mower.
 - ▶ Work standing on the ground and maintain balance.
 - ▶ If signs of fatigue occur: take a break.
 - ▶ If mowing on a slope: Mow across the slope.
 - ▶ Do not work on slopes with an inclination greater than 25° (46.6%).
- Hard objects hitting the rotating blade can damage the lawn mower.
 - ▶ If a hard object hits the rotating blade, switch off the lawn mower, remove the battery and check the lawn mower for damage.
 - ▶ If the lawn mower is damaged: consult a STIHL specialist dealer.
- The turning blade may cut the user. This may result in serious injury to the user.



- ▶ Do not touch a turning blade.
 - ▶ If the blade is blocked by an object: Switch the lawn mower off and remove the battery. Only then remove the object.
- If the lawn mower changes or starts to behave differently when working, it may not be in safe condition. This may result in serious injury to people and damage to property.
 - ▶ Stop working, remove the battery and consult a STIHL specialist dealer.

- The lawn mower may cause vibrations when working.
 - ▶ Wear protective gloves.
 - ▶ Take breaks.
 - ▶ If signs of a circulatory disturbance occur: consult a doctor.
- If the blade hits a foreign object when working, the foreign object or parts of it may be damaged or thrown up at high velocity. This may result in injury to people and damage to property.
 - ▶ Remove foreign objects from the work area.
- When the control bar is released, the blade continues to turn for a short time. This may result in serious injury to people.
 - ▶ Wait until the blade is no longer turning.
- Sparks may be produced if the turning blade hits a hard object. Sparks may cause fires in highly flammable environments. This may result in serious or fatal injury to people and damage to property.
 - ▶ Do not work in a highly flammable environment.
- If the lawn mower is stopped on a sloping surface, it may unintentionally roll away. This may result in injury to people and damage to property.
 - ▶ Only let go of the lawn mower if it is on a level surface and cannot roll away by itself.
- If objects are attached to the handlebar, the additional weight may cause the lawn mower to tip over. This may result in injury to people and damage to property.
 - ▶ Do not attach objects to the handlebar.

▲ DANGER

- If working near live wires, the blade may come into contact with the live wires and damage them. This may result in serious or fatal injury to the user.
 - ▶ Do not work near live wires.
- The user may be struck by lightning if working during a thunderstorm. This may result in serious or fatal injury to the user.
 - ▶ In case of thunderstorms: Do not continue work.

4.8 Charging

▲ WARNING

- A damaged or defective charger may produce an unusual smell or emit smoke during the charging process. This may result in personal injuries and damage to property.
 - ▶ Disconnect the plug from the wall outlet.

- The charger can overheat and cause a fire if heat dissipation is inadequate. This can result in serious or fatal injuries and damage to property.
 - Do not cover the charger.

4.9 Connecting to the power supply

Contact with live components may occur for the following reasons:

- The connecting cable or the extension cord is damaged.
- The mains plug of the connecting cable or extension cord is damaged.
- The socket is not properly installed.

▲ DANGER

- Contact with live parts may result in electric shock. This may result in serious or fatal injury to the user.

- Make sure that the connecting cable, extension cord and their mains plugs are undamaged.



If the connecting cable or the extension cord is damaged:

- Do not touch the damaged area.
- Disconnect the mains plug from the power supply.
- Make sure your hands are dry before touching the connecting cable, extension cord or mains plugs.
- Plug the mains plug of the connecting cable or extension cord into a properly installed, shockproof socket with the correct fuse rating.
- Install the charger with a ground fault circuit interrupter (30 mA, 30 ms).
- A damaged or unsuitable extension cable can result in electric shock. There is a risk of serious or fatal injury.
 - Use an extension cable with the correct cable cross-section,  19.5.

▲ WARNING

- Overvoltage can occur in the charger if the line voltage or frequency are incorrect during charging. The charger may be damaged.
 - Make sure that the mains voltage and the mains frequency of the power supply match the data on the rating plate of the charger.
- If the charger is connected to a power strip, electrical components may be overloaded during the charging process. The components may overheat and cause a fire. Persons may be seriously or fatally injured, and property may be damaged.

- Ensure that the technical specifications for the power strip are not exceeded by the information on the rating plate of the charger and of all electrical devices connected to the power strip.
- An incorrectly routed connecting cable or extension cord may be damaged, and people may trip over it. People may be injured, and the connecting cable or extension cord may be damaged.
 - Route and mark the connecting cable and extension cord so that people will not trip over them.
 - Route the connecting cable and extension cord so that they are not under tension or tangled.
 - Route the connecting cable and extension cord so that they will not be damaged, kinked or crushed and will not be chafed.
 - Protect the connecting cable and extension cord from heat, oil and chemicals.
 - Lay the connecting cable and extension cord on a dry surface.
- The extension cable warms up in operation. If that heat cannot escape, it may cause a fire.
 - If using a cable reel: completely unroll the cable reel.
- If wiring and pipes are laid in the wall, they may be damaged if the charger is mounted on the wall. Contact with wiring can result in electric shock. This may result in serious injury to people and damage to property.
 - Make sure there is no wiring or pipes in the wall at the proposed mounting site.
- If the charger is not mounted on the wall as described in this User Manual, the charger or the battery may fall or the charger may overheat. This may result in injury to people and damage to property.
 - Mount the charger on a wall as described in this User Manual.
- If the charger is mounted on a wall with the battery inserted, the battery may fall out of the charger. This may result in injury to people and damage to property.
 - Mount the charger on the wall first before inserting the battery.

4.10 Transporting

4.10.1 Lawn Mower

▲ WARNING

- The lawn mower may tip over or move during transport. This may result in injury to people and damage to property.



- ▶ Remove the battery.

- ▶ Secure the lawn mower with lashing straps, belts or a net so it cannot tip over and move.

4.10.2 Battery

▲ WARNING

- The battery is not protected against all ambient conditions. The battery may be damaged if it is exposed to certain ambient conditions, and damage to property may occur.
 - ▶ Never transport a damaged battery.
- The battery may turn over or shift during transport. This may result in injury to people and damage to property.
 - ▶ Pack the battery in packaging in such a way that it cannot move.
 - ▶ Secure the packaging so that it cannot move.

4.10.3 Charger

▲ WARNING

- The charger may turn over or move while being transported. This may result in personal injuries and damage to property.
 - ▶ Disconnect the plug from the wall outlet.
 - ▶ Remove the battery.
 - ▶ Secure the charger with lashing straps, belts or a net to prevent it turning over and moving.
- The connecting cable must not be used for carrying the charger. The connecting cable and the charger may be damaged.
 - ▶ Wind up the connecting cable and attach it to the charger.

4.11 Storing

4.11.1 Lawn Mower

▲ WARNING

- Children cannot recognise or evaluate the dangers posed by the lawn mower. There is a risk of serious injury to children.



- ▶ Remove the battery.

- ▶ Keep the lawn mower out of reach of children.

- Moisture may cause corrosion to the electrical contacts on the lawn mower and metal components.

nents. This may result in damage to the lawn mower.



- ▶ Remove the battery.

- ▶ Keep the lawn mower clean and dry.
- If the battery is inserted during storage, the blade may unintentionally be activated. This may result in serious injury to people and damage to property.



- ▶ Remove the battery.

4.11.2 Battery

▲ WARNING

- Children cannot recognise or evaluate the dangers posed by batteries. There is a risk of serious injury to children.
 - ▶ Keep the battery out of reach of children.
- The battery is not protected against all ambient conditions. If exposed to certain ambient conditions, the battery may be irreparably damaged.
 - ▶ Keep the battery clean and dry.
 - ▶ Store the battery in an enclosed space.
 - ▶ Store the battery separately from the lawn mower.
 - ▶ If the battery is stored in the charger: disconnect the mains plug and store the battery at a charge state between 40% and 60% (2 LEDs illuminated green).
 - ▶ Do not store the battery outside the specified temperature limits, 19.6.

4.11.3 Charger

▲ WARNING

- Children are not aware of and cannot assess the dangers of a charger. Children can be seriously injured or killed.
 - ▶ Disconnect the plug from the wall outlet.
 - ▶ Store the charger out of reach of children.
- The charger is not protected against all ambient conditions. If the charger is exposed to certain ambient conditions, the charger may be damaged.
 - ▶ Disconnect the plug from the wall outlet.
 - ▶ If the charger is hot: Allow the charger to cool down.
 - ▶ Store the charger in a clean, dry place.
 - ▶ Store the charger in an enclosed room.
 - ▶ Do not store the charger outside of the specified temperature limits, 19.6.

- The connecting cable should not be used for carrying the charger or hanging up the charger. The connecting cable and the charger may be damaged.
 - ▶ Hold the charger by the housing in a secure grip. The charger is provided with a handle recess to make it easy to pick up the charger.
 - ▶ Hang the charger on the wall mounting.

4.12 Cleaning, Maintenance and Repair

⚠ WARNING

- If the battery is inserted during cleaning, maintenance or repair, the blade may unintentionally be activated. This may result in serious injury to people and damage to property.



- ▶ Remove the battery.

- Abrasive cleaning agents, sharp objects or using a jet of water for cleaning may result in damage to the lawn mower, blade and battery. If the lawn mower, blade and battery are not cleaned correctly, components may no longer operate correctly and safety devices may be disabled. This may result in serious injury to people.
 - ▶ Clean the lawn mower, blade and battery as described in this instruction manual.
- If the lawn mower, blade or battery are not maintained or repaired correctly, components may no longer operate correctly and safety devices may be disabled. This may result in serious or fatal injury to people.
 - ▶ Do not maintain or repair the lawn mower or battery yourself.
 - ▶ If the lawn mower or battery need to be maintained or repaired: consult a STIHL specialist dealer.
 - ▶ Maintain the blade as described in this instruction manual.
- The user may cut themselves on sharp cutting edges during blade cleaning, maintenance or repair. This may result in injury to the user.
 - ▶ Wear protective gloves.
- The blade may become hot during sharpening. This may result in the user burning themselves.
 - ▶ Wait until the blade has cooled down.
 - ▶ Wear protective gloves.
- The blade on the lawn mower is movable even when the engine is switched off. During main-

tenance of the blade, the user may be injured by the moving blade.

- ▶ Work carefully.
- ▶ Wear protective gloves.
- The blade on the lawn mower is movable. During blade maintenance, the user may trap their fingers between the moving blade and fixed parts of the lawn mower.
 - ▶ Work carefully.
 - ▶ Wear protective gloves.

5 Preparing the Lawn Mower for Operation

5.1 Preparing the Lawn Mower for Operation

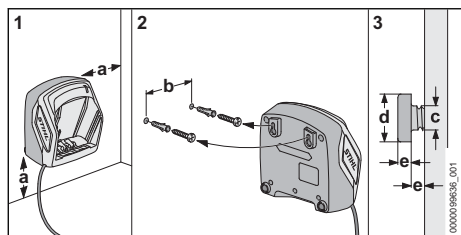
The following steps must be performed before commencing work:

- ▶ Remove packaging material and transport locks.
- ▶ Make sure that the following components are in safe condition:
 - Lawn mower, 4.6.1.
 - Blades, 4.6.2.
 - Battery, 4.6.3.
 - Charger, 4.6.4.
- ▶ Check the battery, 10.3.
- ▶ Fully charge the battery, 6.2.
- ▶ Clean the lawn mower, 15.2.
- ▶ Check the blades, 10.2.
- ▶ Attach the handlebar, 7.1.
- ▶ Fold up the handlebar, 7.2.1.
- ▶ If mowing and the mown grass is to be collected in the grass catcher box: attach the grass catcher box, 7.3.2.
- ▶ If mowing and the mown grass is to be ejected to the rear: detach the grass catcher box, 7.3.3.
- ▶ Set the cutting height, 11.2.
- ▶ Check the controls, 10.1.
- ▶ If the steps cannot be performed: do not use the lawn mower and consult a STIHL specialist dealer.

6 Charging the Battery, LEDs

6.1 Mount the charger on a wall

The charger can be mounted on a wall.



- ▶ Mount the charger on a wall in accordance with the following conditions:

- Suitable fastening material is used.
- The charger is horizontal.

The following dimensions have been met:

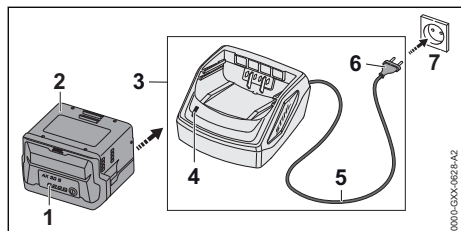
- A = at least 100 mm
- B (for AL 101) = 75 mm
- B (for AL 301, AL 501) = 100 mm
- B (for AL 500) = 120 mm
- c = 4.5 mm
- D = 9 mm
- e = 2.5 mm

6.2 Charging the battery

The charging time depends on various factors, e.g. the battery temperature or the ambient temperature. For optimum performance, observe the recommended temperature ranges, 19.7. The actual charging time may vary from the charging time indicated. The charging time is indicated at www.stihl.com/charging-times.

The charging process starts automatically when the mains plug is plugged into a socket and the battery is inserted into the charger. The charger switches off automatically when the battery is fully charged.

The battery and the charger warm up during charging.



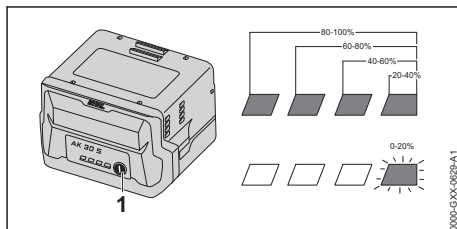
- ▶ Plug the mains plug (6) into an easily accessible socket (7).

The charger (3) will run a self-test. The LED (4) will glow green for about 1 second and red for about 1 second.

- ▶ Routing the connecting cord (5).

- ▶ Insert the battery (2) in the guides in the charger (3) and press it home as far as stop. The LED (4) glows green. The LEDs (1) glow green and the battery (2) is being charged.
- ▶ When the LED (4) and the LEDs (1) on the battery no longer light up: The battery (2) is fully charged and can be removed from the charger (3).
- ▶ If the charger (3) is no longer required: Disconnect the mains plug (6) from the wall outlet (7).

6.3 Displaying the state of charge



- ▶ Depress the pushbutton (1). The LEDs light up green for about 5 seconds and indicate the state of charge.
- ▶ If the LED on the right flashes green: Charge the battery.

6.4 LEDs on Battery

The LEDs can show the state of charge or malfunctions. The LEDs can glow or flash green or red.

The state of charge is indicated when the LEDs glow or flash green.

- ▶ If the LEDs glow or flash red: Troubleshooting, 18.1.

There is a malfunction in the mower or battery.

6.5 LED on Charger

The LED indicates the operating status of the charger.

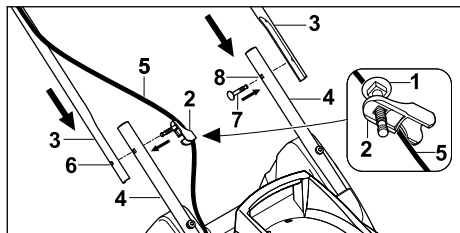
If the LED glows green, the battery is being charged.

- ▶ If the LED flashes red: Rectify the malfunction. Malfunction in charger.

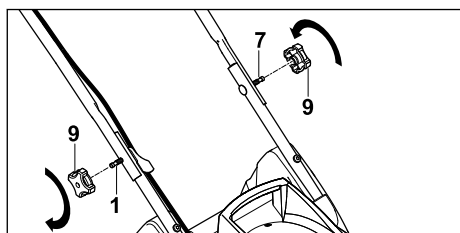
7 Assembling the Lawn Mower

7.1 Attaching the Handlebar

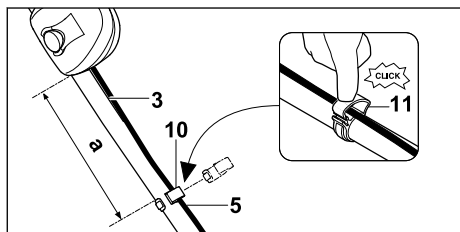
- ▶ Switch the lawn mower off and remove the battery.
- ▶ Place the lawn mower on a level surface.



- Push bolt (1) through the bore in cable guide (2).
- Fit upper handlebar (3) onto lower handlebars (4).
- Attach cable guide (2) to cable (5).
- Push the bolt with cable guide (2) through bore (6) from the inside to the outside.
- Push bolt (7) through bore (8) from the inside to the outside.



- Place star grip nuts (9) on bolts (1 and 7) and screw in.



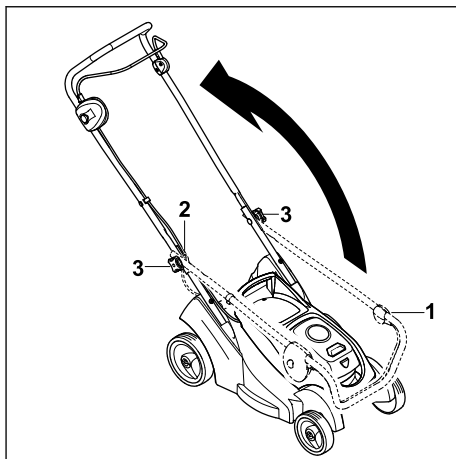
- Install cable clip (10) on upper handlebar (3) so the following condition is met:
 - Distance (a) is between 25 cm and 27 cm.
- Place cable (5) into cable clip (10).
- Close tab (11) and allow it to engage.

The handlebar must not be dismantled again.

7.2 Folding Up and Folding the Handlebar

7.2.1 Folding Up the Handlebar

- Switch the lawn mower off and remove the battery.
- Place the lawn mower on a level surface.

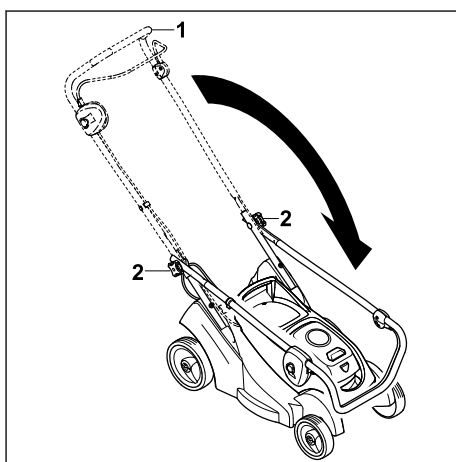


- Fold up handlebar (1), ensuring that cable (2) is not trapped.
- Firmly tighten star grip nuts (3). Handlebar (1) is firmly attached to the lawn mower.

7.2.2 Folding the Handlebar

The handlebar can be folded for space-saving transport or storage.

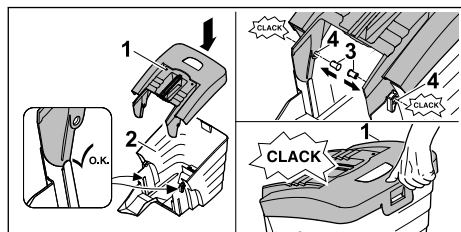
- Switch the lawn mower off and remove the battery.
- Place the lawn mower on a level surface.



- Hold handlebar (1) and loosen star grip nuts (2).
- Fold down handlebar (1) forwards.

7.3 Assembling, Attaching and Detaching the Grass Catcher Box

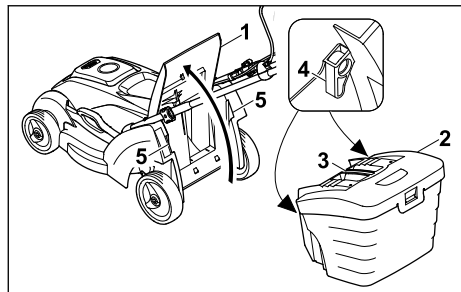
7.3.1 Assembling the Grass Catcher Box



- ▶ Fit upper part of grass catcher box (1) onto lower part of grass catcher box (2).
- ▶ Press pins (3) through openings (4) from the inside.
The pins engage audibly.
- ▶ Press upper part of grass catcher box (1) downwards.
The upper part of the grass catcher box engages with a click.

7.3.2 Attaching the Grass Catcher Box

- ▶ Switch the lawn mower off.
- ▶ Place the lawn mower on a level surface.



- ▶ Open discharge flap (1) and hold it open.
- ▶ Take hold of grass catcher box (2) by handle (3) and attach to mounts (5) using hooks (4).
- ▶ Set down discharge flap (1) on grass catcher box (2).

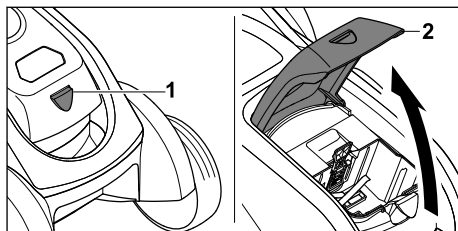
7.3.3 Detaching the Grass Catcher Box

- ▶ Switch the lawn mower off.
- ▶ Place the lawn mower on a level surface.
- ▶ Open the discharge flap and hold it open.
- ▶ Remove the grass catcher box upwards by the handle.
- ▶ Close the discharge flap.

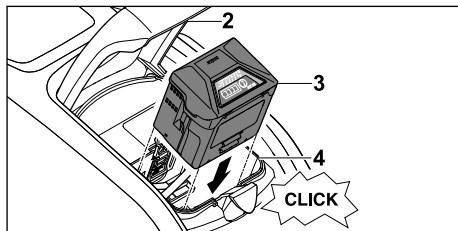
8 Removing and Fitting the Battery

8.1 Fitting the Battery

- ▶ Place the lawn mower on a level surface.



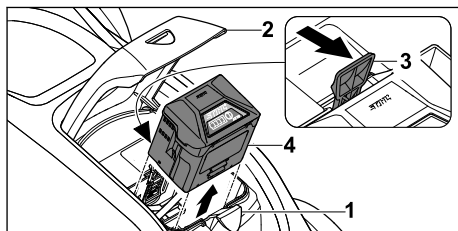
- ▶ Press the retaining tab on battery compartment (1), open flap (2) as far as it will go and hold it open.



- ▶ Push battery (3) into battery compartment (4) as far as it will go.
Battery (3) engages with a click and is locked in place.
- ▶ Close flap (2).

8.2 Removing the Battery

- ▶ Place the lawn mower on a level surface.

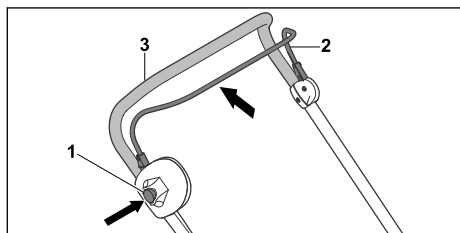


- ▶ Press the retaining tab on battery compartment (1), open flap (2) as far as it will go and hold it open.
- ▶ Press locking lever (3).
Battery (4) is released.
- ▶ Remove battery (4).
- ▶ Close flap (2).

9 Switching the Lawn Mower On and Off

9.1 Activating the Blade

- Do not tilt the lawn mower.
- Place the lawn mower on a level surface.



- Press locking button (1) with the right hand and hold.
- Pull control bar (2) with the left hand fully in the direction of handlebar (3) and hold so the thumb encloses handlebar (3). The blade turns.
- Release locking button (1).
- Hold handlebar (3) and control bar (2) with the right hand so the thumb encloses handlebar (3).

9.2 Deactivating the Blade

- Release the control bar.
- Wait until the blade is no longer turning.
- If the blade continues to turn: remove the battery and consult a STIHL specialist dealer. The lawn mower is defective.

10 Checking the Lawn Mower and Battery

10.1 Checking the Controls

Locking button and control bar

- Remove the battery.
- Press the locking button and release it again.
- Pull the control bar fully in the direction of the handlebar and release it again.
- If the locking button or the control bar is stiff or does not spring back into the initial position: do not use the lawn mower and consult a STIHL specialist dealer. The locking button or the control bar is defective.

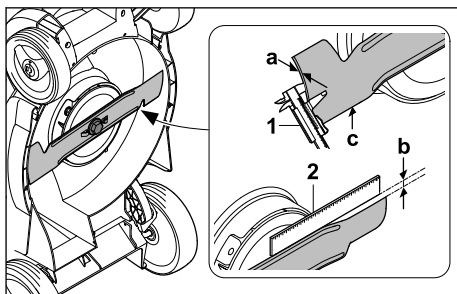
Activating the blade

- Fit the battery.
- Press the locking button with the right hand and hold.

- Pull the control bar with the left hand fully in the direction of the handlebar and hold so the thumb encloses the handlebar. The blade turns.
- If 3 LEDs flash red: remove the battery and consult a STIHL specialist dealer. There is a fault in the lawn mower.
- Release the locking button and control bar. The blade stops turning after a short time.
- If the blade continues to turn: remove the battery and consult a STIHL specialist dealer. The lawn mower is defective.

10.2 Checking the Blade

- Switch the lawn mower off and remove the battery.
- Upend the lawn mower, 15.1.



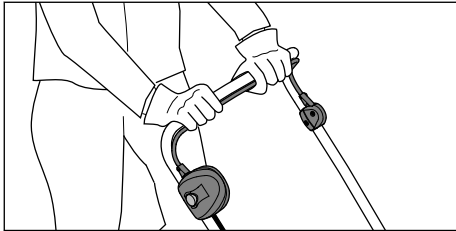
- Use a slide calliper (1) to measure the blade thickness (a) at 5 points at least. If the minimum thickness is fallen below: replace the blade, 19.2
- Place a ruler (2) against the front blade edge and measure grinding limit (b). If the permissible grinding limit is reached: replace the blade, 19.2
- If the sharpening angle is not correct: sharpen the blade, 19.2
- If anything is unclear: consult a STIHL specialist dealer.

10.3 Testing the Battery

- Press button on battery. The LEDs glow or flash.
- If the LEDs do not glow or flash: Do not use the battery and contact your STIHL servicing dealer. There is a malfunction in the battery.

11 Operating the Lawn Mower

11.1 Holding and Guiding the Lawn Mower



- ▶ Hold the handlebar with both hands so that the thumbs enclose the handlebar.

11.2 Setting the cutting height

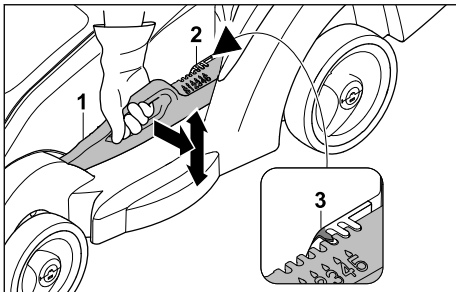
The following cutting heights can be set:

- 20 mm = position S²
- 30 mm = position 1
- 40 mm = position 2
- 50 mm = position 3
- 60 mm = position 4
- 70 mm = position 5

The positions are indicated on the lawn mower.

Setting the cutting height

- ▶ Switch the lawn mower off.
- ▶ The blade must not be turning.
- ▶ Place the lawn mower on a level surface.



- ▶ Hold the lawn mower at the handle.
- ▶ Push lever (1) away from the lawn mower slightly and hold.
- ▶ Move the lawn mower to the desired position by raising and lowering the lever.
The current cutting height can be read off at cutting height indicator (2) by means of marking (3).
- ▶ Release lever (1).
The lawn mower engages.

11.3 Mowing

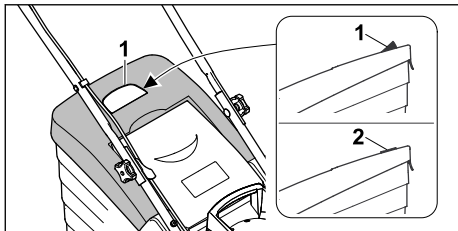


- ▶ Push the lawn mower forwards slowly and in a controlled manner.
- ▶ If a foreign object is hit during mowing and the blade is blocked:
 - ▶ Switch the lawn mower off and remove the battery.
 - ▶ Make sure that all moving parts have come to a complete stop.
 - ▶ Check the lawn mower.
 - ▶ If repairs are required: consult a STIHL specialist dealer.
- ▶ If the lawn mower begins to vibrate strongly:
 - ▶ Switch the lawn mower off and remove the battery.
 - ▶ Check the lawn mower.
 - ▶ Check that all nuts, bolts, screws and pins are tight.
 - ▶ If repairs are required: consult a STIHL specialist dealer.

For optimum performance, note the recommended temperature ranges, 19.7.

²Not available for all country variants.

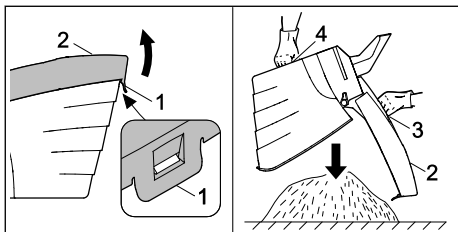
11.4 Emptying the Grass Catcher Box



The flow of air generated by the blade raises level indicator (1). The flow of air stops when the grass catcher box is full. If the flow of air is too low, level indicator (2) returns to its resting state. This is a prompt to empty the grass catcher box.

The functionality of the level indicator is restricted if the flow of air is impaired. External influences such as wet, dense or high grass, low cutting levels, dirt or the like can impair the flow of air and the functionality of the level indicator.

- If the level indicator drops to its resting state: empty the grass catcher box.
- Switch the lawn mower off.
- Detach the grass catcher box.



- Open tab (1).
- Open and hold upper part of grass catcher box (2) by handle (3).
- Hold lower handle (4) with the second hand.
- Empty the grass catcher box.
- Close the grass catcher box.
- Attach the grass catcher box.

12 After Finishing Work

12.1 After Finishing Work

- Switch the lawn mower off and remove the battery.
- If the lawn mower is wet: allow it to dry.
- If the battery is wet or damp: allow it to dry, ☞ 19.7.
- Clean the lawn mower.
- Clean the battery.

13 Transporting

13.1 Transporting the Lawn Mower

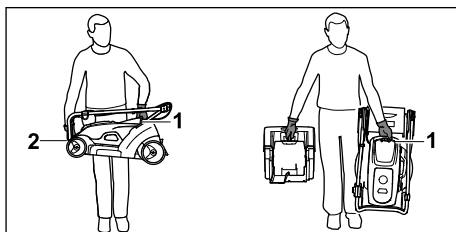
- If the lawn mower is moved to and from the area to be mowed:
 - Switch the lawn mower off.
 - The blade must not be turning.
 - Remove the battery.
- If the lawn mower must be tilted for transport over areas other than grass:
 - Switch the lawn mower off.
 - The blade must not be turning.
 - Remove the battery.

Pushing the lawn mower

- Push the lawn mower forwards slowly and in a controlled manner.

Carrying the lawn mower

- Wear protective gloves.



- If only the lawn mower is being carried:
 - Fold down the handlebar.
 - Hold the lawn mower with one hand on handle (1) and the other hand on transport handle (2).
 - Lift and carry the lawn mower.
- If the lawn mower and grass catcher box are to be carried at the same time:
 - Hold the lawn mower with one hand on handle (1).
 - Lift the lawn mower and carry to the side of the body.

Transporting the lawn mower in a vehicle

- Secure the lawn mower upright so it does not tip over and cannot move.

13.2 Transporting the Battery

- Switch the lawn mower off and remove the battery.
- Make sure that the battery is in safe condition.
- Pack the battery in such a way that it cannot move in the packaging.
- Secure the packaging so it cannot move.

The battery is subject to the requirements for transporting hazardous goods. The battery is classed as a UN 3480 (lithium-ion battery) and

has been tested in accordance with the UN Manual of Tests and Criteria, Part III, subsection 38.3.

Please refer to www.stihl.com/safety-data-sheets for transport instructions.

13.3 Transporting the Charger

- ▶ Disconnect the plug from the wall outlet.
- ▶ Remove the battery.
- ▶ Wind up the connecting cable and attach it to the charger.
- ▶ Transporting the charger in a vehicle: Secure the charger with lashing straps, belts or a net to prevent it turning over and moving.

14 Storing

14.1 Storing the Lawn Mower

- ▶ Switch the lawn mower off and remove the battery.
- ▶ Allow the lawn mower to cool down.
- ▶ Empty the grass catcher box.
- ▶ Store the lawn mower in accordance with the following conditions:
 - The lawn mower is out of reach of children.
 - The lawn mower is clean and dry.
 - The lawn mower cannot tip over.
 - The lawn mower cannot roll away.

14.2 Storing the Battery

STIHL recommends storing the battery at a charge state between 40% and 60% (2 LEDs illuminated green).

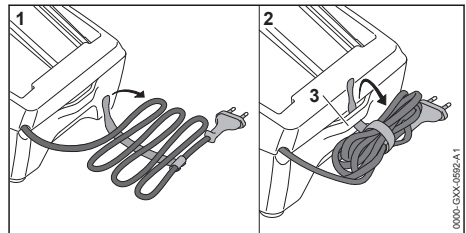
- ▶ Store the battery in accordance with the following conditions:
 - The battery is out of reach of children.
 - The battery is clean and dry.
 - The battery is in an enclosed space.
 - The battery is separate from the lawn mower.
 - If the battery is stored in the charger: disconnect the mains plug and store the battery at a charge state between 40% and 60% (2 LEDs illuminated green).
 - The battery is not stored outside the specified temperature limits,  19.6.

NOTICE

- If the battery is not stored as described in this instruction manual, it may become deeply discharged and irreparably damaged.
 - ▶ Charge a discharged battery before storing it. STIHL recommends storing the battery at a charge state between 40% and 60% (2 LEDs illuminated green).
 - ▶ Store the battery separately from the lawn mower.

14.3 Storing the Charger

- ▶ Disconnect the mains plug from the power supply.

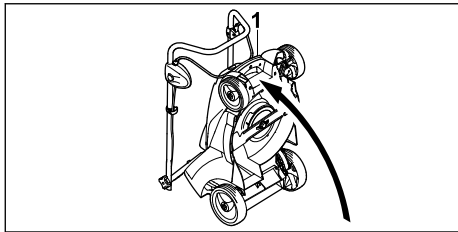


- ▶ Wind up the connecting cable and attach it to the charger.
- ▶ Observe the following points when storing the charger:
 - Charger is out of the reach of children.
 - The charger is clean and dry.
 - Charger is in an enclosed space.
 - The charger is not suspended from the connecting cable or the holder (3) for the connecting cable.
 - Do not store the charger outside of the specified temperature limits,  19.6.

15 Cleaning

15.1 Upending the Lawn Mower

- ▶ Switch the lawn mower off and remove the battery.
- ▶ Place the lawn mower on a level surface.
- ▶ Detach the grass catcher box.
- ▶ Set the cutting height to the lowest setting,  11.2.
- ▶ Fold the handlebar,  7.2.2.



- Hold the lawn mower at transport handle (1) and upend.

15.2 Cleaning the lawn mower

- switch the lawn mower off and remove the battery.
- Clean the lawn mower with a damp cloth.
- Clean the discharge chute with a soft brush or a damp cloth.
- Remove any foreign bodies from the battery compartment and clean the battery compartment with a damp cloth.
- Clean the electrical contacts in the battery compartment with a paintbrush or a soft brush.
- Clean the ventilation slots with a paintbrush.
- Upend the lawn mower.
- Clean the area around the blade and the blade with a stick, a soft brush or a damp cloth.

NOTICE

- Using a high-pressure cleaner or a water jet for cleaning can damage the machine.
 - Do not clean the machine with a high-pressure cleaner or a water jet.

15.3 Cleaning the Battery

- Clean the battery with a damp cloth.

15.4 Cleaning the Charger

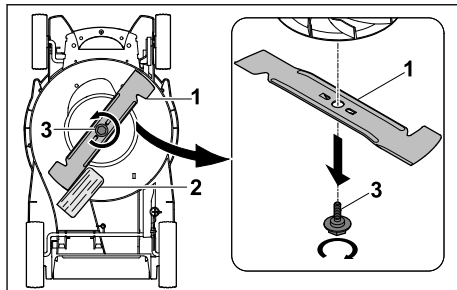
- Disconnect the mains plug from the power supply.
- Clean the charger with a damp cloth.
- Clean vents with a paintbrush.
- Clean the charger's electrical contacts with a paintbrush or a soft brush.

16 Maintenance

16.1 Removing and Attaching the Blade

16.1.1 Removing the Blade

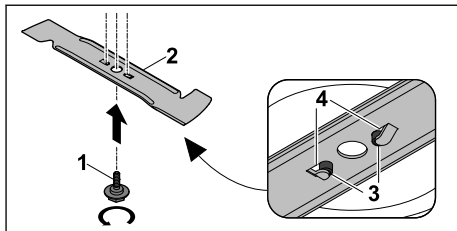
- Switch the lawn mower off and remove the battery.
- Upend the lawn mower.



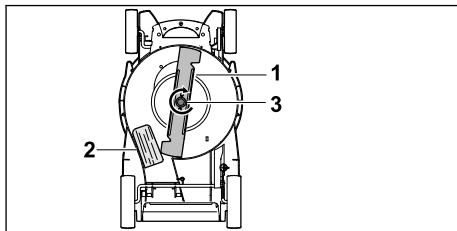
- Block blade (1) using a piece of wood (2).
- Unscrew screw (3) in the direction of the arrow and remove.
- Remove blade (1).
- Discard screw (3).
Use a new screw to attach blade (1).

16.1.2 Attaching the Blade

- switch the lawn mower off and remove the battery.
- Upend the lawn mower.



- Apply Loctite 243 thread locker to the thread of new screw (1).
- Position blade (2) so that the raised areas on contact area (3) engage in notches (4).
- Screw in screw (1).



- Block blade (1) using a piece of wood (2).
- Tighten screw (3) to 14 Nm.

16.2 Sharpening and Balancing the Blade

Sharpening and balancing the blade correctly requires a lot of practice.

STIHL recommends having the blade sharpened and balanced by a STIHL specialist dealer.

The current addresses of the specialist dealers can be found under the respective STIHL country representative at www.stihl.com.



WARNING

- The cutting edges of the blade are sharp. This may result in the user cutting themselves.
 - ▶ Wear protective gloves.
-
- ▶ Switch the lawn mower off and remove the battery.
 - ▶ Upend the lawn mower.
 - ▶ Remove the blade.
 - ▶ Sharpen the blade. Observe the sharpening angle and cool the blade, 19.2. Bluing of the blade during sharpening is not permitted.
 - ▶ Attach the blade.
 - ▶ If anything is unclear: consult a STIHL specialist dealer.

17 Repairing

17.1 Repairing the Lawn Mower

The user should not repair the lawn mower or blade themselves.

- ▶ If the lawn mower or blade is damaged: do not use the lawn mower or blade and consult a STIHL specialist dealer.
- ▶ If warning signs are illegible or damaged: have the warning signs replaced by a STIHL specialist dealer.

17.2 Servicing and repairing the charger

The charger does not need servicing and it cannot be repaired.

- ▶ If the charger has a malfunction or is damaged: Replace the charger.
- ▶ If the connecting cable has a malfunction or is damaged: Do not use the charger and have the connecting cable replaced by a STIHL servicing dealer.

18 Troubleshooting

18.1 Remediying errors in the lawn mower or battery

Error	LEDs on the battery	Cause	Remedy
The lawn mower does not start when switched on.	1 LED flashes green.	State of charge of the battery is too low.	▶ Charge the battery as described in the User Manual for STIHL AL 101, 301, 500 and 501 chargers.
	1 LED lights up red.	The battery is too warm or too cold.	▶ Remove the battery. ▶ Allow the battery to cool down or warm up.
	3 LEDs flash red.	There is an error in the lawn mower.	▶ Remove the battery. ▶ Clean the electrical contacts in the battery compartment. ▶ Insert the battery. ▶ Switch on the lawn mower. ▶ If 3 LEDs continue to flash red: Do not use the lawn mower and instead consult a STIHL authorized dealer.
	3 LEDs light up red.	The lawn mower is too warm.	▶ Remove the battery. ▶ Allow the lawn mower to cool down.
	4 LEDs flash red.	There is an error in the battery.	▶ Remove the battery and reinsert it. ▶ Switch on the lawn mower. ▶ If 4 LEDs continue to flash red: Do not use the battery and instead consult a STIHL authorized dealer.
		There is a break in the electrical connection between the lawn mower and the battery.	▶ Remove the battery. ▶ Clean the electrical contacts in the battery compartment. ▶ Insert the battery.
		The lawn mower or the battery is damp.	▶ Remove the battery. ▶ Clean the lawn mower.

Error	LEDs on the battery	Cause	Remedy
			▶ Allow the lawn mower or battery to dry,  19.7.
		The resistance on the cutting blade is too great.	▶ Increase the cutting height. ▶ Switch on the lawn mower in shorter grass.
		The area around the cutting blade is blocked.	▶ Clean the lawn mower.
The lawn mower switches off while in operation.	3 LEDs light up red.	The lawn mower is too warm.	▶ Remove the battery. ▶ Allow the lawn mower to cool down. ▶ Clean the lawn mower. ▶ Do not switch on lawn mower too often within a short time. ▶ Increase the cutting height. ▶ Mow shorter grass.
		The cutting blade is jammed.	▶ Remove the battery. ▶ Clean the lawn mower.
		There is an electrical error.	▶ Remove the battery and reinsert it. ▶ Switch on the lawn mower.
The lawn mower vibrates excessively during operation.		The screw on the blade is loose.	▶ Securely tighten the screw.
		The cutting blade is not correctly balanced.	▶ Sharpen and balance the cutting blade.
The lawn mower runtime is too short.		The battery is not fully charged.	▶ Fully charge the battery as described in the User Manual for STIHL AL 101, 301, 500 and 501 chargers.
		The battery service life has been exceeded.	▶ Replace battery.
		The area around the cutting blade is blocked.	▶ Clean the lawn mower.
		The cutting blade is blunt or worn.	▶ Sharpen and balance the cutting blade.
		The resistance on the cutting blade is too great.	▶ Increase the cutting height. ▶ Mow shorter grass.
The battery jams when inserted in the battery compartment.		The guides or electrical contacts in the battery compartment are dirty.	▶ Clean the lawn mower.
Charging does not start when the battery is inserted into the charger.	1 LED lights up red.	The battery is too warm or too cold.	▶ Remove the battery. ▶ Allow the battery to cool down or warm up.
The grass has not been cut cleanly or the lawn is yellow.		The cutting blade is blunt or worn.	▶ Sharpen and balance the cutting blade.
		The resistance on the cutting blade is too great.	▶ Increase the cutting height. ▶ Mow shorter grass.

18.2 Troubleshooting Charger

If the battery is not being charged and the LED on the charger flashes red: There is no contact between the charger and battery.

- Remove the battery.
 - Clean contacts on charger.
 - Fit the battery.
 - If the battery is still not being charged and the LED on the charger flashes red: Do not use the charger and contact your STIHL servicing dealer.
- Malfunction in charger.

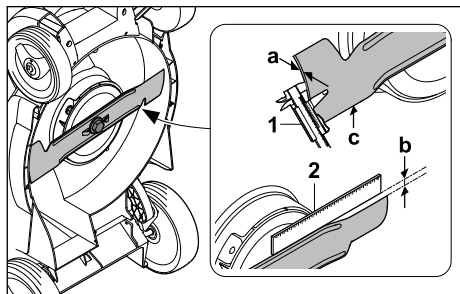
19 Specifications

19.1 STIHL Lawn Mower RMA 239.1

- Permissible battery: STIHL AK
- Weight with grass catcher, without battery: 13 kg
- Weight (m) with grass catcher box and STIHL battery AK 30: 14 kg
- Maximum grass catcher box capacity: 40 l
- Cutting width: 37 cm
- Speed (n): 3350 rpm
- Electrical type of protection: IPX1

For information on run time, see www.stihl.com/battery-life.

19.2 Blade



- Minimum thickness a: 1,6 mm
- Maximum grinding limit b: 5 mm
- Sharpening angle c: 30°

19.3 STIHL AK Battery

- Battery technology: lithium-ion
- Voltage: 36 V
- Capacity in Ah: see rating label
- Energy content in Wh: see rating label
- Weight in kg: See rating label

19.4 STIHL AL 101 Charger

- Rated voltage: See rating plate

- Frequency: see rating plate
- Rated power: see rating plate
- Charging current: See rating plate

For charging times, see www.stihl.com/charging-times.

19.5 Extension Cords

If an extension cord is used, the cross sectional area of its conductors must meet the following minimum requirements – depending on the line voltage and length of the extension cord:

If rated voltage on the rating label is 220V to 240V:

- Cord length up to 20 m: AWG 15 / 1.5 mm²
- Cord length 20 m up to 50 m: AWG 13 / 2.5 mm²

If rated voltage on the rating label is 100V to 127V:

- Cord length up to 10 m: AWG 14 / 2.0 mm²
- Cord length 10 m up to 30 m: AWG 12 / 3.5 mm²

19.6 Temperature Limits



WARNING

- The battery is not protected against all ambient conditions. If exposed to certain ambient conditions, the battery may catch fire or explode. This may result in serious injury to people and damage to property.
 - Do not charge or use the battery below -20 °C or above +50 °C.
 - Do not store the battery below -20 °C or above +70 °C.
 - Do not use the lawn mower below 0 °C or above + 50 °C.
 - Do not store the lawn mower below - 20 °C or above + 70 °C.

19.7 Recommended Temperature Ranges

For optimum performance of the lawn mower and batteries, observe the following temperature ranges:

- Lawn mower:
 - Usage: 0 °C to +40 °C
 - Storage: -20 °C to +50 °C
- Battery:
 - Charging: +5 °C to +40 °C
 - Use: -10 °C to +40 °C
 - Storage: -20 °C to +50 °C

If the battery is charged, used or stored outside the recommended temperature ranges, performance may be reduced.

If the battery is wet or damp, allow it to dry for at least 48 hours at above +15 °C and below +50 °C and at less than 70% humidity. Higher humidity may increase the drying time.

19.8 Sound Values and Vibration Values

- Sound pressure level L_{pA} measured according to EN IEC 62841-4-3: 76 dB(A)
- Uncertainty K_{pA} : 2 dB(A)
- Guaranteed sound power level L_{WA} measured in accordance with 2000/14/EC: 91 dB(A)

Specified vibration characteristic in accordance with EN 12096:

- Vibration value a_h measured in accordance with EN IEC 62841-4-3, handlebar: 1,4 m/s²
- Uncertainty K_h : 0,7 m/s²

The specified sound and vibration values were measured according to a standardised test procedure and can be used to compare electrical appliances. The actual sound and vibration values that occur may deviate from the indicated values, depending on the type of application. The specified sound and vibration values can be used for an initial assessment of the sound and vibration exposure. The actual sound and vibration load must be assessed. Times during which the electrical appliance is switched off, along with times during which it is switched on but running without load, can also be taken into consideration.

For information on compliance with Employers' Vibration Directive 2002/44/EC, see www.stihl.com/vib.

19.9 REACH

REACH is an EC regulation and stands for the Registration, Evaluation, Authorisation and Restriction of Chemical substances.

For information on compliance with the REACH regulation see www.stihl.com/reach.

20 Spare Parts and Accessories

20.1 Spare parts and accessories

STIHL These symbols indicate original STIHL spare parts and original STIHL accessories.

STIHL recommends the use of original STIHL spare parts and accessories.

Despite ongoing market observation, STIHL is unable to judge the reliability, safety and suitability of other manufacturers' spare parts and accessories; accordingly, STIHL cannot warrant for the use of those parts.

Original STIHL spare parts and original STIHL accessories are available from STIHL dealers.

20.2 Essential Spare Parts

- Blade: 6320 702 0130
- Blade fastening screw: 6310 760 2801

21 Disposal

21.1 Disposing of lawn mower, battery and charger

Information on disposal is available from your local authority or from a STIHL specialist dealer.

Improper disposal may be harmful to health and pollute the environment.

- ▶ Take STIHL products including packaging to a suitable collection point for recycling in accordance with local regulations.
- ▶ Do not dispose of the product with domestic waste.

22 EC Declaration of Conformity

22.1 STIHL RMA 239.1 Lawn Mower

STIHL Tirol GmbH
Hans Peter Stihl-Straße 5
6336 Langkampfen
Austria

declares under our sole responsibility that

- Category: cordless lawn mower
- Manufacturer's brand: STIHL
- Model: RMA 239.1
- Cutting width: 37 cm
- Serial identification number: 6320

conforms to the relevant provisions of Directives 2000/14/EC, 2006/42/EC, 2014/30/EU and 2011/65/EU and has been developed and manufactured in compliance with the following standards in the versions valid on the date of production: EN 62841-1, EN IEC 62841-4-3, EN 55014-1 and EN 55014-2.

Participating notified body:

TÜV Rheinland LGA Products GmbH
Tillystraße 2
90431 Nürnberg, DE

The measured and guaranteed sound power levels were determined according to Directive 2000/14/EC, Annex VIII.

- Measured sound power level: 89,4 dB(A)
- Guaranteed sound power level: 91 dB(A)

The technical documents are stored at STIHL Tirol GmbH.

The year of manufacture and machine number are indicated on the lawn mower.

Langkampfen, 22-04-2024

STIHL Tirol GmbH

pp 

Matthias Fleischer, Head of Product Development

pp 

Sven Zimmermann, Head of Quality Department

23 Addresses

www.stihl.com

24 General and Product-Specific Safety Instructions

24.1 Introduction

This section reproduces the general and product-specific safety instructions prescribed and pre-formulated in the product standard.

The safety information for avoiding electric shock given under "Electrical Safety" is not applicable to STIHL battery products, with the exception of point c).



- **Read all safety warnings, instructions, illustrations and specifications provided with this lawn mower.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **Save all warnings and instructions for future reference.**

24.2 Work Area Safety

- a) **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- b) **Do not operate lawn mowers in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Lawn mowers create sparks which may ignite the dust or fumes.
- c) **Keep children and bystanders away while operating a lawn mower.** Distractions can cause you to lose control.

24.3 Electrical Safety

- a) **Lawn mower plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) lawn mowers.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- b) **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- c) **Do not expose lawn mowers to rain or wet conditions.** Water entering a lawn mower will increase the risk of electric shock.
- d) **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the lawn mower. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- e) **When operating a lawn mower outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) **If operating a lawn mower in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

24.4 Personal Safety

- a) **Stay alert, watch what you are doing and use common sense when operating a lawn mower. Do not use a lawn mower while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating lawn mowers may result in serious personal injury.
- b) **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes,

hard hat or hearing protection used for appropriate conditions will reduce personal injuries.

- c) **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the lawn mower.** Carrying lawn mowers with your finger on the switch or energising lawn mowers that have the switch on invites accidents.
- d) **Remove any adjusting key or wrench before turning the lawn mower on.** A wrench or a key left attached to a rotating part of the lawn mower may result in personal injury.
- e) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the lawn mower in unexpected situations.
- f) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- g) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
- h) **Do not let familiarity gained from frequent use of lawn mowers allow you to become complacent and ignore lawn mower safety principles.** A careless action can cause severe injury within a fraction of a second.

24.5 Lawn Mower Use and Care

- a) **Do not force the lawn mower. Use the correct lawn mower for your application.** The correct lawn mower will do the job better and safer at the rate for which it was designed.
- b) **Do not use the lawn mower if the switch does not turn it on and off.** Any lawn mower that cannot be controlled with the switch is dangerous and must be repaired.
- c) **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the lawn mower before making any adjustments, changing accessories or storing lawn mowers.** Such preventive safety measures reduce the risk of starting the lawn mower accidentally.
- d) **Store idle lawn mowers out of the reach of children and do not allow persons unfamiliar with the lawn mower or these instructions to**

operate the lawn mower. Lawn mowers are dangerous in the hands of untrained users.

- e) **Maintain lawn mowers and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the lawn mower's operation. If damaged, have the lawn mower repaired before use.** Many accidents are caused by poorly maintained lawn mowers.
- f) **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) **Use the lawn mower, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the lawn mower for operations different from those intended could result in a hazardous situation.
- h) **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the lawn mower in unexpected situations.

24.6 Battery Lawn Mower Use and Care

- a) **Recharge only with the charger specified by the manufacturer.** A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
- b) **Use lawn mowers only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
- c) **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.
- d) **Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help.** Liquid ejected from the battery may cause irritation or burns.
- e) **Do not use a battery pack or lawn mower that is damaged or modified.** Damaged or modified batteries may exhibit unpredictable

- behaviour resulting in fire, explosion or risk of injury.
- f) **Do not expose a battery pack or lawn mower to fire or excessive temperature.** Exposure to fire or temperature above 130 °C may cause explosion.
 - g) **Follow all charging instructions and do not charge the battery pack or lawn mower outside the temperature range specified in the instructions.** Charging improperly or at temperatures outside the specified range may damage the battery and increase the risk of fire.

24.7 Service

- a) **Have your lawn mower serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the lawn mower is maintained.
- b) **Never service damaged battery packs.** Service of battery packs should only be performed by the manufacturer or authorised service providers.

24.8 Safety Instructions for Battery Lawn Mowers

- a) **Do not use the lawn mower in bad weather conditions, especially when there is a risk of lightning.** This decreases the risk of being struck by lightning.
- b) **Thoroughly inspect the area for wildlife where the lawn mower is to be used.** Wildlife may be injured by the lawn mower during operation.
- c) **Thoroughly inspect the area where the lawn mower is to be used and remove all stones, sticks, wires, bones, and other foreign objects.** Thrown objects can cause personal injury.
- d) **Before using the lawn mower, always visually inspect to see that the blade and the blade assembly are not worn or damaged.** Worn or damaged parts increase the risk of injury.
- e) **Check the grass catcher frequently for wear or deterioration.** A worn or damaged grass catcher may increase the risk of personal injury.
- f) **Keep guards in place. Guards must be in working order and be properly mounted.** A guard that is loose, damaged, or is not functioning correctly may result in personal injury.

- g) **Keep all cooling air inlets clear of debris.** Blocked air inlets and debris may result in overheating or risk of fire.
- h) **While operating the lawn mower, always wear non-slip and protective footwear. Do not operate the lawn mower when barefoot or wearing open sandals.** This reduces the chance of injury to the feet from contact with the moving blade.
- i) **While operating the lawn mower, always wear long trousers.** Exposed skin increases the likelihood of injury from thrown objects.
- j) **Do not operate the lawn mower in wet grass. Walk, never run.** This reduces the risk of slipping and falling which may result in personal injury.
- k) **Do not operate the lawn mower on excessively steep slopes.** This reduces the risk of loss of control, slipping and falling which may result in personal injury.
- l) **When working on slopes, always be sure of your footing, always work across the face of slopes, never up or down and exercise extreme caution when changing direction.** This reduces the risk of loss of control, slipping and falling which may result in personal injury.
- m) **Use extreme caution when reversing or pulling the lawn mower towards you. Always be aware of your surroundings.** This reduces the risk of tripping during operation.
- n) **Do not touch blades and other hazardous moving parts while they are still in motion.** This reduces the risk of injury from moving parts.
- o) **When clearing jammed material or cleaning the lawn mower, make sure all power switches are off and the battery pack is disconnected.** Unexpected operation of the lawn mower may result in serious personal injury.

Índice

1	Prólogo.....	53
2	Informaciones relativas a estas instrucciones para la reparación.....	53
3	Sinopsis.....	54
4	Indicaciones relativas a la seguridad.....	55
5	Preparar el cortacésped para el trabajo....	62
6	Cargar el acumulador y LEDs.....	63