

STIHL

STIHL FSA 56

Instruction Manual



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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 specialist dealers guarantee competent advice and instruction as well as comprehensive service support.

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



Dr. Nikolas Stihl

IMPORTANT: READ BEFORE USE AND KEEP IN A SAFE PLACE.

2 Guide to Using this Manual

2.1 Applicable Documentation

Local safety regulations apply.

- Read, understand and save the following documents in addition to this instruction manual:
 - Safety notes and precautions for STIHL AK battery.
 - Safety information for STIHL batteries and products with built in batteries: www.stihl.com/safety-data-sheets

2.2 Symbols used with warnings in the text



WARNING

This symbol indicates dangers that can cause serious injuries or death.

- The measures indicated can avoid serious injuries or death.

NOTICE

This symbol indicates dangers that can cause damage to property.

- The measures indicated can avoid damage to property.

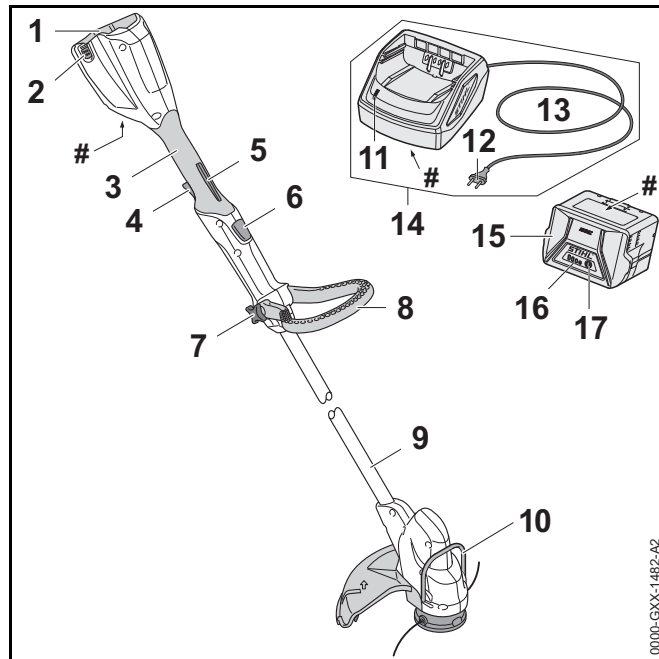
2.3 Symbols in Text



This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 Trimmer, Battery and Charger



1 Battery Compartment

Accommodates the battery.

2 Locking Lever

Secures the battery in the battery compartment.

3 Control Handle (Top Handle)

For operating, holding and controlling the trimmer.

4 Trigger

The trigger switches the motor on and off.

5 Trigger Lockout

Locks trigger in position.

6 Lock Button

Locks the shaft at the required length.

7 Star Knob Nut

Secures loop handle to shaft.

8 Loop handle

For holding and controlling the trimmer.

9 Drive Tube

Connects all components.

10 LED

The LED indicates the operating status of the charger.

11 Bump Guard

Helps protect objects from contact with the cutting attachment.

12 Appliance Plug

Connects cable to wall outlet.

13 Connecting Cable

Connects charger to appliance plug.

14 Charger

Charges the battery.

15 Battery

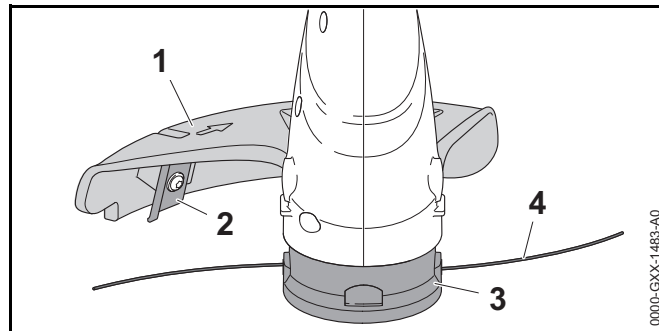
Supplies power to the trimmer.

16 LEDs

Indicate battery's state of charge and malfunctions.

17 Button

Activates the LEDs on the battery.

Rating label with serial number**3.2 Cutting Attachments****1 Deflector**

Protects user from flying debris and contact with the cutting attachment.

2 Line Limiter Blade

Trims surplus mowing line to correct length.

3 Mowing Head

The mowing head contains the mowing line.

4 Mowing Line

The mowing lines cut grass.

3.3 Symbols

Meanings of symbols that may be on the trimmer, battery and charger:

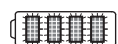


This symbol shows the rated speed of the cutting attachment.

X



1 LED glows red. Battery too hot or too cold.



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





LED glows green and LEDs on battery glow or flash green. Battery is being charged.



LED flashes red. No electrical contact between battery and charger or malfunction in battery or charger.



LWA Guaranteed sound power level according to directive 2000/14/EC in dB(A) in order to make sound emissions of products comparable.



The data next to this symbol indicates the energy content of the battery according to the cell manufacturer's specification. The energy content available during operation is lower.



Operate the electric appliance in a dry place, indoors only.



Do not dispose of the product with your household waste.



Wear safety glasses.



Observe safety notices on flying debris and take the necessary precautions.



Always remove the battery during work breaks, transport, storage, maintenance or repairs.



Protect trimmer and charger from rain and dampness.



Maintain safe distance.



Protect battery from heat and fire.



Protect the battery from rain and damp – do not immerse it in fluids.



Observe battery's specified temperature range.

4 Safety Precautions

4.1 Warning Signs

Meanings of warning signs and labels on the trimmer, battery and charger:



Observe safety notices and take the necessary precautions.



Read, understand and save the instruction manual.

4.2 Intended Use

The STIHL FSA 56 trimmer is designed for mowing grass.

The trimmer must not be used in the rain.

The STIHL AK battery supplies power to the trimmer.

The STIHL AL 101 charger recharges the STIHL AK battery.

⚠ WARNING

- Batteries and chargers not explicitly approved for the trimmer by STIHL may cause a fire or explosion. This can result in serious or fatal injuries and damage to property.
 - ▶ Use the trimmer with a STIHL AK battery.
 - ▶ Recharge the STIHL AK battery with a STIHL AL 101, AL 300 or AL 500 charger.
- Using the trimmer, battery or the charger for purposes for which they were not designed may result in serious or fatal injuries, and damage to property may occur.
 - ▶ Use the trimmer, charger and battery as described in this instruction manual.

4.3 The Operator

⚠ WARNING

- Users without adequate training or instruction cannot recognize or assess the risks involved in using the trimmer, battery and charger. The user or other persons may sustain serious or fatal injuries.



- ▶ Read, understand and save the instruction manual.

- ▶ If you pass the trimmer, battery and charger on to another person: Always give them the instruction manual.
- ▶ Make sure the user meets the following requirements:
 - The user must be rested.
 - The user must be in good physical condition and mental health to operate and work with the trimmer, battery and charger. If the user's physical, sensory or mental ability is restricted, he or she

may work only under the supervision of or as instructed by a responsible person.

- The user is able to recognize and assess the risks involved in using the trimmer, battery and charger.
 - The user must be of legal age or is being trained in a trade under supervision in accordance with national rules and regulations.
 - The user has received instruction from a STIHL servicing dealer or other experienced user before working with the trimmer for the first time.
 - The user must not be under the influence of alcohol, medication or drugs.
- ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

4.4 Clothing and Equipment

⚠ WARNING

- Objects can be thrown through the air at high speed during operation. This can result in personal injury.



- ▶ Wear close-fitting safety glasses. Suitable safety glasses that have been tested and labeled in accordance with EN 166 or national standards are available from retailers.
- ▶ Wear a face shield.
- ▶ Wear long trousers made of durable material.

- Dust can be whipped up during operation: Whipped up dust can damage the respiratory passages and cause allergic reactions.
 - ▶ Wear a respirator.
- Inappropriate clothing can snag on wood, brush or the trimmer. Not wearing personal protective equipment may result in serious injury.
 - ▶ Wear snug-fitting clothing.
 - ▶ Do not wear a scarf or jewelry.
- The user can come into contact with the rotating cutting attachment during operation. This can result in serious injuries.
 - ▶ Wear footwear made of durable material.
 - ▶ Wear long trousers made of durable material.
- The user can come into contact with the cutting attachment or line limiting blade during cleaning and maintenance work. This can result in personal injury.
 - ▶ Wear work gloves made of durable material.
- Wearing unsuitable footwear may cause you to slip or stumble. This can result in personal injury.
 - ▶ Wear sturdy enclosed footwear with non-slip soles.

4.5 Work Area and Surroundings

4.5.1 Brushcutter

WARNING

- Bystanders, children and animals are not aware of the dangers of the brushcutter and objects being thrown into the air and cannot assess them. Bystanders, children and animals may be seriously injured and property may be damaged.



- ▶ Keep bystanders, children and animals at a distance of 15 m from the working area.

- ▶ Maintain a distance of 15 m from objects.
- ▶ Do not leave the brushcutter unattended.
- ▶ Ensure that children cannot play with the brushcutter.

- The brushcutter 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 brushcutter may be damaged.



- ▶ Do not work in the rain or in a damp environment.

- Electrical components of the brushcutter can produce sparks. Sparks can cause fires and explosions in a flammable or explosive environment. This can result in serious injuries or death and damage to property.
 - ▶ Do not work in a flammable environment or in an explosive environment.

4.5.2 Battery

WARNING

- Bystanders, children and animals cannot recognize or assess the dangers of the battery. Innocent children, bystanders and animals may be seriously injured.
 - ▶ Keep children, bystanders 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, it may catch fire or explode. This can result in serious injuries and damage to property.



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



- ▶ Use and store the battery at temperatures between -10°C and +50°C.



- ▶ Protect the battery from rain and damp – do not immerse it in fluids.

- ▶ Keep battery away from metallic objects.
- ▶ Do not expose battery to high pressure.
- ▶ Do not expose battery to microwaves.
- ▶ Protect battery from chemicals and salts.

4.5.3 Charger

⚠ WARNING

- Innocent children, bystanders and animals are not aware of and cannot assess the dangers of a charger or electric current. Innocent children, bystanders and animals may be seriously injured.
 - ▶ Keep children, bystanders and animals away from the work area.
 - ▶ Do not leave the charger unattended.
 - ▶ Make sure that children cannot play with the charger.
- The charger is not waterproof. Working in the rain or a damp location may result in an electric shock. This can result in injuries to the user and may damage the charger.



- ▶ Do not operate it in the rain or a damp location.

- 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 can result in serious injuries and damage to property.
 - ▶ Operate the charger in a dry place, indoors only.
 - ▶ Do not operate the charger in an easily combustible or explosive environment.

- ▶ Do not operate the charger on an easily combustible surface.
- ▶ Use and store the charger at a temperature between +5°C and +40°C.
- Persons may trip over the connecting cable. This can result in injuries and may damage the charger.
 - ▶ Lay the connecting cable flat on the floor.

4.6 Safe Condition

4.6.1 Trimmer

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

- The trimmer is not damaged.
- The trimmer is clean and dry.
- The controls function properly and have not been modified.
- A combination of cutting attachment and deflector recommended in this instruction manual is mounted.
- Cutting attachment and deflector are properly mounted.
- Only original STIHL accessories designed for this trimmer are fitted.
- Accessories are properly mounted.

⚠ 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.
 - ▶ Work only with an undamaged trimmer.
 - ▶ If the trimmer is dirty or wet: Clean the trimmer and allow it to dry.
 - ▶ Never attempt to modify your trimmer. Exception: Mounting one of the combinations of cutting attachment and deflector recommended in this instruction manual.

- ▶ If the controls do not function properly: Do not use your trimmer.
- ▶ Never mount metal cutting attachments.
- ▶ Only fit original STIHL accessories designed for this trimmer.
- ▶ Mount the cutting attachment and deflector as described in this instruction manual.
- ▶ Mount accessories as described in this instruction manual or the instructions supplied with the accessory.
- ▶ Never insert objects in the trimmer's openings.
- ▶ If you have any queries: Contact your STIHL servicing dealer for assistance.

4.6.2 Deflector

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

- The deflector is not damaged.
- The line limiter blade is correctly installed.

WARNING

- If the product does not comply with safety requirements, components will no longer function properly or safety devices may be rendered inoperative. This can result in serious injuries.
 - ▶ Work only with an undamaged deflector.
 - ▶ Work with a correctly installed line limiter blade.
 - ▶ If you have any queries: Contact your STIHL servicing dealer.

4.6.3 Mowing Head

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

- The mowing head is not damaged.
- The mowing head is not jammed.
- The mowing lines are properly installed.

WARNING

- If they are in an unsafe condition, parts of the mowing head or mowing lines may come off and be thrown at high speed. This can result in serious injuries.
 - ▶ Work only with an undamaged mowing head.
 - ▶ Never use metal elements in place of the nylon mowing lines.
 - ▶ If you have any queries: Contact your STIHL servicing dealer for assistance.

4.6.4 Battery

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

- Battery is undamaged.
- 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. This can result in serious injuries.
 - ▶ Never work with a damaged battery.
 - ▶ Never attempt to charge a damaged or defective battery.
 - ▶ If the battery is dirty or wet: Clean the battery and allow it to dry.
 - ▶ 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.
- Fluid may escape from a damaged battery. The fluid can cause irritation if it contacts the skin or eyes.
 - ▶ Avoid contact with the fluid.
 - ▶ In case of contact with the skin: Wash affected areas with plenty of water and soap.

- ▶ In case of contact with the eyes: Rinse eyes with plenty of water for at least 15 minutes and seek medical advice.
- A damaged or defective battery may smell unusual, emit smoke or burn. This can result in serious or fatal injuries and damage to property.
 - ▶ 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.

4.6.5 Charger

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

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

WARNING

- If the product does not comply with safety requirements, components will no longer function properly or 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 Operation

WARNING

- The user cannot concentrate on the work in certain situations. The user may stumble, fall and be seriously injured.
 - ▶ Work calmly and carefully.
 - ▶ If light and visibility are poor: Do not use your trimmer.
 - ▶ Operate the trimmer alone.
 - ▶ Keep the cutting attachment close to the ground.
 - ▶ Watch out for obstacles.
 - ▶ Stand on the ground while working and keep a good balance.
 - ▶ If you begin to feel tired: Take a break.
- The rotating cutting attachment can cut the user. This can result in serious injuries.
 - ▶ Do not touch the rotating cutting attachment.
 - ▶ If the cutting attachment is blocked by an object: Switch off the trimmer and remove the battery. Then remove the object causing the blockage.
- If the behavior of the trimmer changes during operation or feels unusual, it may no longer be in a safe condition. This can result in serious injuries and damage to property.
 - ▶ Stop work, remove the battery and contact your STIHL servicing dealer for assistance.
- Trimmer vibrations may occur during operation.
 - ▶ Wear gloves.
 - ▶ Take regular breaks.
 - ▶ If signs of circulation problems occur: Seek medical advice.

- If the cutting attachment makes contact with a foreign object during operation, the object or parts of it may be thrown at high speed. This may result in personal injuries and damage to property.
 - ▶ Clear away all foreign objects from the work area.
- Note that the cutting attachment continues to rotate for a short period after you release the trigger. This can result in serious injuries.
 - ▶ Wait until the cutting attachment comes to a complete stop.

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 Power Supply

Contact with live components may occur for the following reasons:


- The connecting cable or extension cable is damaged.
- Connecting cable plug or extension cable is damaged.
- Wall outlet is not properly installed.

DANGER

- Contact with live components can result in an electric shock. This can result in serious or fatal injuries.
 - ▶ Check that the connecting cable, extension cable and their plugs are not damaged.



If the connecting cable or extension cable is damaged:

- ▶ Do not touch damaged areas.
- ▶ Disconnect the plug from the wall outlet.
- ▶ Never touch the connecting cable, extension cable or their plugs with wet hands.
- ▶ Insert the appliance plug of the connecting cable or extension cable in a properly installed fused wall outlet with ground contact.
- ▶ Install the charger with a ground fault circuit interrupter (30 mA, 30 ms).
- A damaged or unsuitable extension cable can cause an electric shock. This can result in serious or fatal injuries.
 - ▶ Use an extension cable with the correct wire gauge,  19.4.

WARNING

- Overvoltage can occur in the charger if the line voltage or frequency are incorrect during charging. The charger may be damaged.
 - ▶ Make sure the line voltage and frequency agree with the data on the charger's rating plate.
- If several chargers are connected to one wall outlet, electric cables may be overloaded during the charging process. The cables can overheat and cause a fire. This can result in serious or fatal injuries and damage to property.
 - ▶ Connect the charger to a single wall outlet.
 - ▶ Do not connect the charger to multiple sockets.

- A carelessly laid connecting or extension cable can be damaged and cause others to trip or fall. This can result in injuries and may damage the connecting cable or extension cable.
 - ▶ Position and mark connecting cable and extension cable so they do not represent a trip hazard.
 - ▶ Position the connecting and extension cables so that they are not under tension or entangled.
 - ▶ Position the connecting and extension cables so that they cannot be damaged, kinked, pinched or chafed.
 - ▶ Protect the connecting cable and extension cable from heat, oil and chemicals.
 - ▶ Lay the connecting and extension cables on a dry surface.
- The extension cable becomes hot during operation. If the heat cannot dissipate, it may cause a fire.
 - ▶ If you use a cable drum: Unwind the extension cable to its full length.
- If electric cables or pipes are embedded in the wall, they may be damaged when the charger is mounted on a wall. Contact with live components can result in an electric shock. This can result in serious injuries and damage to property.
 - ▶ Check that there are no electric cables or pipes embedded in the wall.
- If the charger is not mounted on the wall as described in this instruction manual, the charger or the battery may fall down or the charger may overheat. This may result in personal injuries and damage to property.
 - ▶ Mount the charger on the wall as described in this instruction manual.
- If the charger is mounted on a wall with the battery inserted, the battery may fall out and be damaged. This may result in personal injuries and damage to property.
 - ▶ Mount the charger on the wall first and then insert the battery.

4.10 Transporting

4.10.1 Trimmer

⚠ WARNING

- The trimmer may turn over or shift during transport. This may result in personal injuries and damage to property.



- ▶ Remove the battery.

- ▶ Secure the trimmer with lashing straps or a net to prevent it turning over and moving.

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.
 - ▶ Store the battery in non-conductive packaging.
- The battery may turn over or shift during transport. This may result in personal injuries 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.

4.11 Storing

4.11.1 Trimmer

⚠ WARNING

- Children are not aware of and cannot assess the dangers of a trimmer and can be seriously injured.



- ▶ Remove the battery.

- ▶ Store the trimmer out of the reach of children.

- Dampness can corrode the electrical contacts on the trimmer and metal components. This can damage the trimmer.



- ▶ Remove the battery.

- ▶ Store the trimmer in a clean and dry condition.

4.11.2 Battery

⚠ WARNING

- Children are not aware of and cannot assess the dangers of the battery and can be seriously injured.
 - ▶ Store the battery out of the reach of children.
- The battery is not protected against all ambient conditions. The battery may be damaged if it is exposed to certain ambient conditions.
 - ▶ Store the battery in a clean and dry condition.
 - ▶ Store the battery in a confined space.
 - ▶ Store the battery separately from the trimmer and charger.
 - ▶ Store the battery in non-conductive packaging.
 - ▶ Use and store the battery at temperatures between -10°C and +50°C.

4.11.3 Charger

⚠ WARNING

- Children are not aware of and cannot assess the dangers of a charger. Children may sustain serious or fatal injuries.
 - ▶ Remove the battery.
 - ▶ Store the charger out of the reach of children.
- The charger is not protected against all ambient conditions. The charger may be damaged if it is exposed to certain ambient conditions.
 - ▶ Remove the battery.
 - ▶ If the charger is hot: Allow charger to cool down.
 - ▶ Store the charger in a clean and dry condition.
 - ▶ Store the charger in a confined space.
 - ▶ Store the charger at a temperature between +5°C and +40°C.
- The connecting cable must not be used for carrying or hanging up the charger. The connecting cable and the charger may be damaged.
 - ▶ Hold the charger by the housing. A recessed handle is provided on the back of the charger.
 - ▶ Hang the charger on the wall bracket.

4.12 Cleaning, Maintenance and Repairs

⚠ WARNING

- The trimmer may start unintentionally if the battery is left in place during cleaning, maintenance or repair operations. This can result in serious injuries and damage to property.



- ▶ Remove the battery.

- Aggressive cleaning agents, a water jet or pointed objects can damage the trimmer, deflector, cutting attachment, battery and the charger. If the trimmer, deflector, cutting attachment, battery or charger are not cleaned correctly, components may no longer function properly or safety devices may be rendered inoperative. This can result in serious injuries.
 - ▶ Clean the trimmer, deflector, cutting attachment, battery and charger as described in this instruction manual.
- If the trimmer, deflector, cutting attachment, battery and charger are not properly serviced or repaired, components may no longer function properly or safety devices may be rendered inoperative. This can result in serious or fatal injuries.
 - ▶ Do not attempt to service or repair the trimmer, deflector, cutting attachment, battery or charger.
 - ▶ If the trimmer, deflector, cutting attachment, battery or the charger require servicing or repairs: Contact your STIHL servicing dealer for assistance.

5 Preparing Trimmer for Operation

5.1 Preparing Trimmer for Operation

Perform the following steps before starting work:

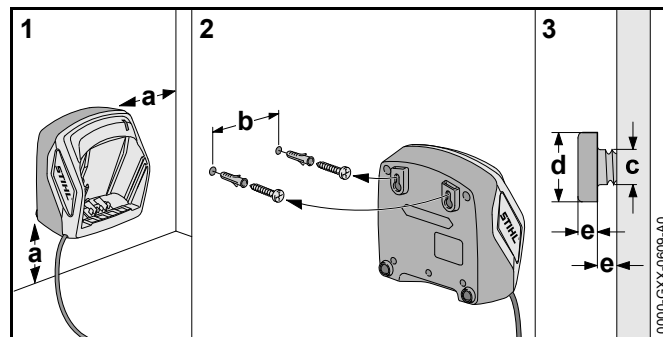
- ▶ Make sure the following components are in a safe condition:
 - Trimmer, 4.6.1.
 - Deflector, 4.6.2.
 - Mowing head, 4.6.3.
 - Battery, 4.6.4.
 - Charger, 4.6.5.
- ▶ Check the battery, 11.2.
- ▶ Fully charge the battery, 6.2.
- ▶ Clean the trimmer, 16.1.
- ▶ Mount the deflector, 7.1.
- ▶ Fit the spool, 7.2.1.

- ▶ Mount the loop handle, 7.3.
- ▶ Adjust length of shaft, 8.1.
- ▶ Adjust the loop handle, 8.2.
- ▶ Check the controls, 11.1.
 - ▶ If 3 LEDs flash red while you are checking the controls: Remove the battery and contact your STIHL servicing dealer. There is a malfunction in the trimmer.
- ▶ If you cannot carry out this work: Do not use your trimmer and contact your STIHL servicing dealer.

6 Charging the Battery, LEDs

6.1 Mounting the Charger on a Wall

The charger can be mounted on a wall.



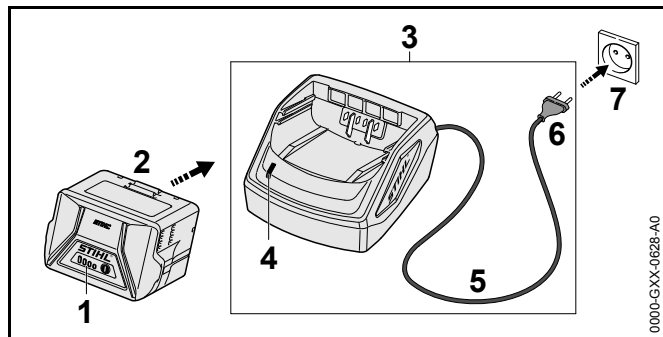
- ▶ Check the following points when mounting the charger on a wall:
 - Suitable fixing materials are used.
 - The charger is level.
 - The following dimensions are maintained:
 - a = at least 100 mm
 - b (for AL 101) = 75 mm
 - b (for AL 300 and AL 500) = 120 mm
 - c = 4.5 mm
 - d = 9 mm
 - e = 2.5 mm

6.2 Charging the Battery

The charging time depends on several factors, e.g. temperature of the battery or the ambient temperature. The actual charging time may differ from the specified charging time. For specified charging times see www.stihl.com/charging-times.

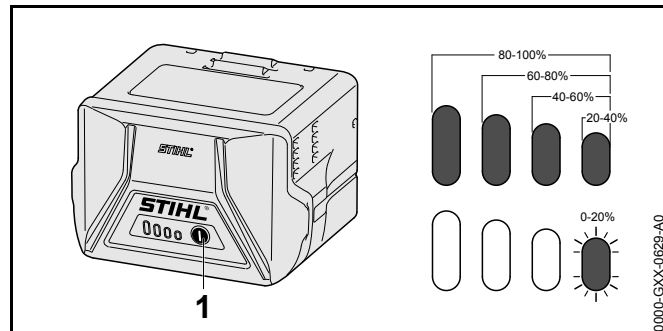
The charging process starts automatically when the plug is inserted in a wall outlet and the battery is fitted in the charger. The charger switches itself off automatically when the battery is fully charged.

The battery and charger heat up during the charging process.



- ▶ Insert the plug (6) in a convenient wall outlet (7).
The charger (3) runs a self test. The LED (4) glows green for about 1 second and then red for about 1 second.
- ▶ Lay the connecting cable (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.
- ▶ If the LED (4) and the LEDs (1) stop glowing: Disconnect the plug (6) from the wall outlet (7).
Battery is fully charged.
- ▶ Remove the battery (2).

6.3 State of Charge



- ▶ Press the button (1).
The LEDs (5) glow 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.
Malfunction in trimmer or battery.

6.5 LED on Charger

The LED indicates the operating status of the charger.

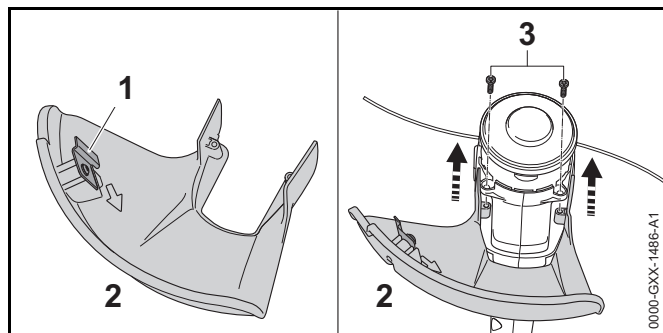
If the LED glows green, the battery is being charged.

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

7 Assembling the Trimmer

7.1 Mounting the Deflector

- ▶ Switch off the trimmer and remove the battery.



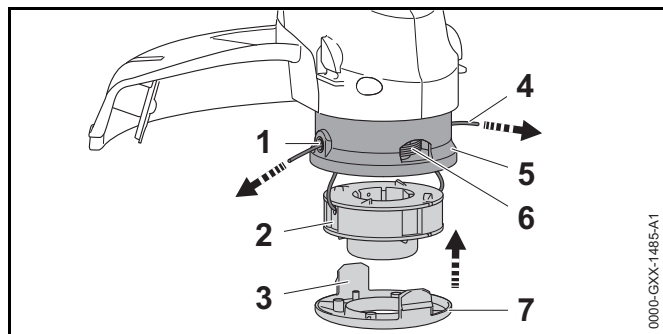
The line limiting blade (1) is already installed in the deflector (2) and must not be removed.

- ▶ Push the deflector (2) into the guides on the housing as far as stop.
The deflector (2) is tight against the housing.
- ▶ Insert and tighten down the screws (3) firmly.
The deflector (2) must not be removed again.

7.2 STIHL AutoCut 2-2 Mowing Head

7.2.1 Installing the Spool

- ▶ Switch off the trimmer and remove the battery.
- ▶ Place spools in a container filled with water for 12 to 24 hours before installing.
This makes the nylon mowing lines supple.

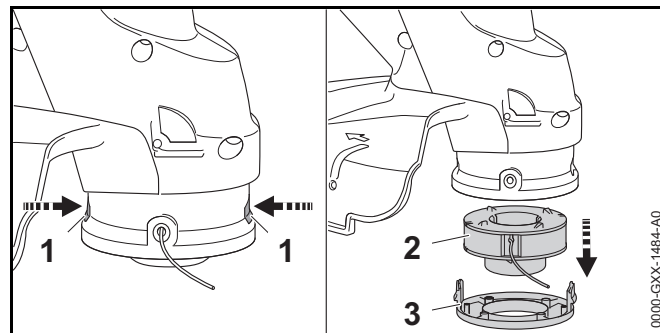


- ▶ Thread the ends of the nylon lines (4) from the spool (2) through the openings (1) in the mowing head (5).

- ▶ Insert the spool (2) in the mowing head (5).
- ▶ Fit the cover (7) on the mowing head (5) so that its tabs (3) line up with the openings (6) in the mowing head (4).
- ▶ Push the cover (7) onto the mowing head (5) as far as stop.
The tabs (3) engage audibly.

7.2.2 Removing the Spool

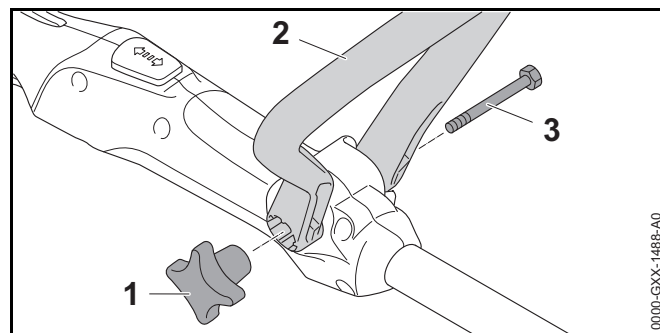
- ▶ Switch off the trimmer and remove the battery.



- ▶ Press in the tabs (1) and remove the cover (3).
- ▶ Remove the spool (2).

7.3 Mounting the Loop Handle

- ▶ Switch off the trimmer and remove the battery.



- ▶ Line up the loop handle (2) so that the recess for the star knob nut (1) is on the right of the control handle and the openings in the loop handle (2) are facing the operator.

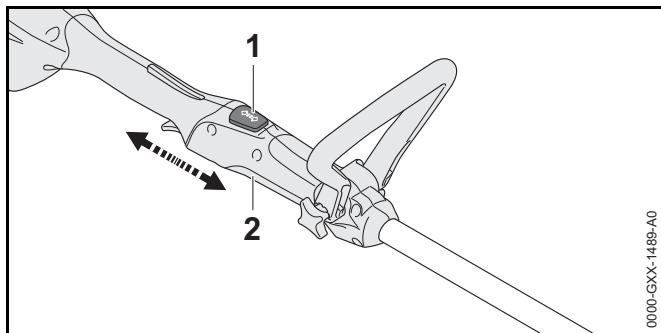
- ▶ Ease the ends of the loop handle (2) apart and push it onto the control handle until it engages in position.
 - ▶ Insert the screw (3) through the hole.
 - ▶ Fit the star knob nut (1) and tighten it down.
- The loop handle (2) must not be removed again.

8 Adjusting Trimmer for User

8.1 Adjusting Length of Shaft

The length of the shaft can be adjusted to suit the height and reach of the user.

- ▶ Switch off the trimmer and remove the battery.
- ▶ Hold the shaft firmly.

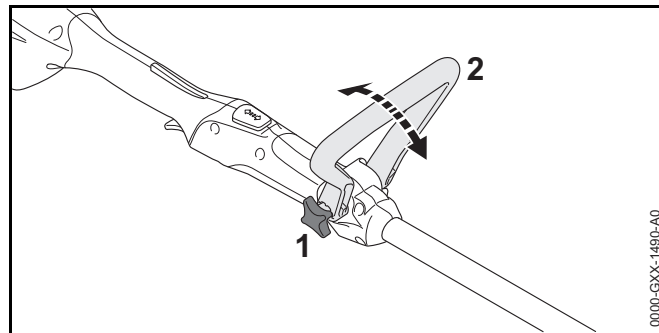


- ▶ Depress lock button (1) and hold it in that position.
- ▶ Pull or push the control handle (2) to the required position.
- ▶ Release the lock button (1).
- ▶ Move the control handle (2) back and forth until it engages.

8.2 Adjusting the Loop Handle

The loop handle can be set in different positions to suit the height and reach of the user.

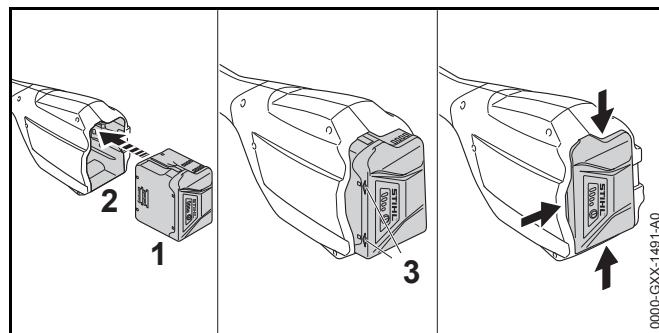
- ▶ Switch off the trimmer and remove the battery.



- ▶ Loosen the star knob nut (1).
- ▶ Swing the loop handle (2) to the required position.
- ▶ Tighten down the star knob nut (1) firmly.

9 Removing and Fitting the Battery

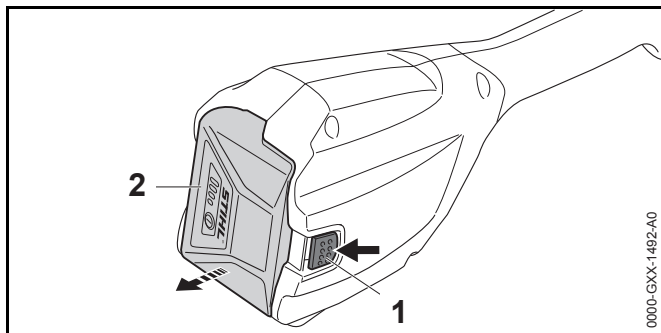
9.1 Fitting the Battery



- ▶ Insert the battery (1) in the battery compartment (2) and press it home until you hear a click. Arrows (3) on battery (1) are still visible and battery (1) is held securely in battery compartment (2). There is no electrical contact between the trimmer and battery (1).
- ▶ Push the battery (1) into the battery compartment (2) as far as stop. The battery (1) engages with a second click and is flush with the trimmer's housing.

9.2 Removing the Battery

- ▶ Stand the trimmer on a level surface.
- ▶ Hold one hand in front of the battery compartment to ensure the battery does not fall out.

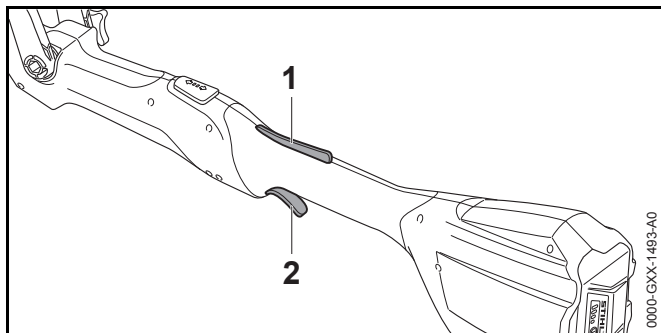


- ▶ Press the locking lever (1) with your other hand. The battery (2) is unlocked and can be removed.

10 Switching the Trimmer On/Off

10.1 Switching On

- ▶ Hold the trimmer with one hand on the control handle - wrap your thumb around the control handle.
- ▶ Hold the trimmer with the other hand on the loop handle - wrap your thumb around the loop handle.



- ▶ Depress the trigger lockout (1) with your hand and hold it there.
- ▶ Pull the trigger (2) with your index finger and hold it there. The motor accelerates and the cutting attachment rotates.

10.2 Switching Off

- ▶ Release the trigger and lockout lever at the same time.
- ▶ Wait for the cutting attachment to come to a standstill.
- ▶ If the cutting attachment continues to rotate: Remove the battery and contact your STIHL servicing dealer. The trimmer has a malfunction.

11 Testing the Trimmer and Battery

11.1 Checking the Controls

Trigger lockout lever and trigger

- ▶ Remove the battery.
- ▶ Attempt to pull the trigger without depressing the lockout lever.
- ▶ If the trigger can be pulled: Contact your STIHL servicing dealer for assistance. The trigger lockout is faulty.
- ▶ Depress the trigger lockout lever and hold it in that position.
- ▶ Pull the trigger and then let it go.
- ▶ If the trigger or trigger lockout is stiff or does not spring back to the idle position: Do not use your trimmer and contact your STIHL dealer for assistance. Trigger or trigger lockout is faulty.

Switching On

- ▶ Fit the battery.
- ▶ Depress the trigger lockout lever and hold it in that position.
- ▶ Pull the trigger and hold it there. The cutting attachment rotates.

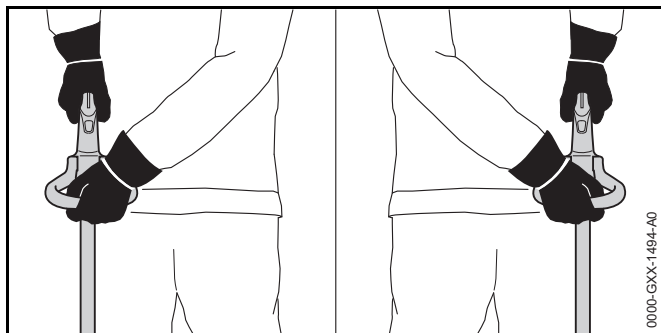
- ▶ If 3 LEDs flash red: Remove the battery and contact your STIHL dealer for assistance.
There is a malfunction in the trimmer.
- ▶ Release the trigger.
The cutting attachment stops rotating after a brief delay.
- ▶ If the cutting attachment continues to rotate: Remove the battery and contact your STIHL dealer for assistance.
The trimmer has a malfunction.

11.2 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.

12 Operating the Trimmer

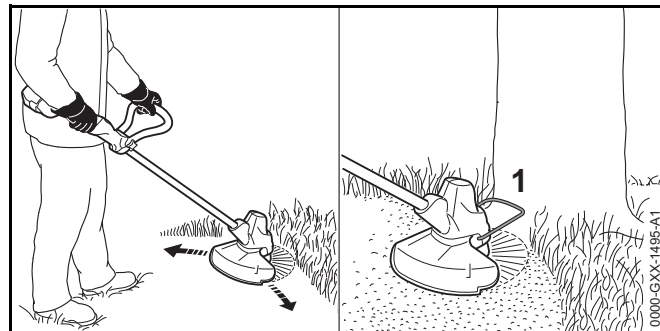
12.1 Holding and Controlling the Trimmer



- ▶ Hold the trimmer with one hand on the control handle - wrap your thumb around the control handle.
- ▶ Hold the trimmer with the other hand on the loop handle - wrap your thumb around the loop handle.

12.2 Mowing

The cutting height is determined by the distance of the cutting attachment from the ground.



- ▶ Swing the trimmer back and forth in an arc.
- ▶ Walk slowly and steadily forwards.
- ▶ If you work with a bump guard: Extend the bump guard (1) fully.

12.3 Adjusting Nylon Line

- ▶ Tap the rotating mowing head on the ground.
About 30 mm of fresh nylon line is advanced.

The line limiting blade in the deflector trims the mowing lines to the correct length.

Automatic feed does not operate if the mowing lines are shorter than 25 mm.

- ▶ Switch off the trimmer and remove the battery.
- ▶ Press the button on the mowing head and hold it depressed.
- ▶ Pull out the mowing lines.
- ▶ If the mowing lines cannot be pulled out to required length: Install a new spool with mowing line.
The spool is empty.

13 After Finishing Work

13.1 After Finishing Work

- ▶ Switch off the trimmer and remove the battery.
- ▶ If the trimmer is wet: Allow the trimmer to dry.
- ▶ If the battery is wet: Allow the battery to dry.
- ▶ Clean the trimmer.
- ▶ Clean the deflector.
- ▶ Clean the cutting attachment.
- ▶ Clean the battery.

14 Transporting

14.1 Transporting the Trimmer

- ▶ Switch off the trimmer and remove the battery.
- ▶ Adjust shaft to its shortest length.
- ▶ Carry the trimmer properly balanced by the shaft with the cutting attachment behind you.
- ▶ Transporting the trimmer in a vehicle: Secure the trimmer to prevent turnover and movement.

14.2 Transporting the Battery

- ▶ Switch off the trimmer and remove the battery.
- ▶ Make sure the battery is in a safe condition.
- ▶ Observe the following points when packing the battery:
 - The packaging must be non-conductive.
 - Make sure the battery cannot shift inside the packaging.
- ▶ Secure the packaging so that it cannot move.

The battery is subject to the requirements for the transport of dangerous goods. The battery is classified as UN 3480 (lithium-ion batteries) and has been tested in accordance with UN Manual of Tests and Criteria, Part III, sub-section 38.3.

For transport regulations see www.stihl.com/safety-data-sheets

15 Storing

15.1 Storing the Trimmer

- ▶ Switch off the trimmer and remove the battery.
- ▶ Remove the spool.
- ▶ Observe the following points when storing the trimmer:
 - The trimmer is out of the reach of children.
 - The trimmer is clean and dry.

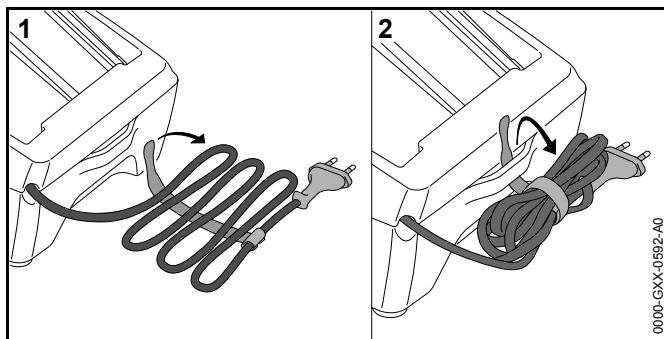
15.2 Storing the Battery

STIHL recommends that you store the battery with a charge between 40 % and 60 % (2 LEDs glow green).

- ▶ Observe the following points when storing the battery:
 - Battery is out of the reach of children.
 - Battery is clean and dry.
 - Battery is in an enclosed space.
 - Store the battery separately from the trimmer and charger.
 - Battery is in non-conductive packaging.
 - Battery is in a temperature range between -10°C and +50°C.

15.3 Storing the Charger

- ▶ Unplug the mains plug from the socket.
- ▶ Remove the battery.



- ▶ Roll up the connecting cord and attach it to the charger.
- ▶ The charger should be stored in such a way that the following conditions are met:
 - The charger is out of the reach of children.
 - The charger is clean and dry.
 - The charger is in an enclosed room.
 - The charger is separate from the battery.
 - The charger is not hung up by the connecting cord.
 - The charger is stored at temperatures between + 5 °C and + 40 °C.

16 Cleaning

16.1 Cleaning the Trimmer

- ▶ Switch off the trimmer and remove the battery.
- ▶ Clean the trimmer with a damp cloth.
- ▶ Remove foreign matter from the battery compartment and clean the battery compartment with a damp cloth.
- ▶ Clean electrical contacts in the battery compartment with a soft brush.

16.2 Cleaning the Deflector and Cutting Attachment

- ▶ Switch off the trimmer and remove the battery.
- ▶ Clean the deflector and cutting attachment with a damp cloth or a soft brush.

16.3 Cleaning the Battery

- ▶ Clean the battery with a damp cloth.

16.4 Cleaning the Charger

- ▶ Disconnect the plug from the wall outlet.
- ▶ Clean the charger with a damp cloth.
- ▶ Clean the charger's electrical contacts with a soft brush.

17 Maintenance and Repairs

17.1 Servicing and Repairing the Trimmer

The trimmer cannot be serviced or repaired by the user.

- ▶ If your trimmer has a malfunction or is damaged or requires servicing: Contact your STIHL servicing dealer.

17.2 Servicing and Repairing the Battery

The battery requires no servicing and cannot be repaired.

- ▶ If the battery has a malfunction or is damaged: Replace the battery.

17.3 Servicing and Repairing the Charger

The charger requires no servicing and 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 connecting cable replaced by a STIHL servicing dealer.

18 Troubleshooting

18.1 Troubleshooting Trimmer or Battery

Condition	LEDs on Battery	Cause	Remedy
Trimmer does not start when switched on.	1 LED flashes green.	Battery has low charge.	► Charge the battery.
	1 LED glows red.	Battery too hot or too cold.	► Remove the battery. ► Allow battery to cool down or warm up.
	3 LEDs flash red.	There is a malfunction in the trimmer.	► Remove the battery. ► Clean contacts in battery compartment. ► Fit the battery. ► Switch on the trimmer. ► If 3 LEDs continue to flash red: Do not use your trimmer and contact your STIHL dealer for assistance.
	3 LEDs glow red.	Trimmer is too hot.	► Remove the battery. ► Allow trimmer to cool down.
	4 LEDs flash red	There is a malfunction in the battery.	► Remove battery and insert it again. ► Switch on the trimmer. ► If 4 LEDs continue to flash red: Do not use the battery and contact your STIHL dealer for assistance.
		No electrical contact between trimmer and battery.	► Remove the battery. ► Clean contacts in battery compartment. ► Fit the battery.
		Trimmer or battery damp.	► Allow trimmer or battery to dry.
Trimmer cuts out during operation.	3 LEDs glow red.	Trimmer is too hot.	► Remove the battery. ► Allow trimmer to cool down.
		There is a electrical malfunction.	► Remove battery and insert it again. ► Switch on the trimmer.

Condition	LEDs on Battery	Cause	Remedy
Trimmer runtime is too short.		Battery not fully charged.	► Fully charge the battery.
		Normal battery life has been exceeded.	► Replace the battery.
Charge process does not start when battery is inserted in the charger.	1 LED glows red.	Battery too hot or too cold.	► Leave battery in the charger. Charge process starts automatically as soon as permissible temperature range is reached.

18.2 Troubleshooting Charger

Condition	LED on Charger	Cause	Remedy
Battery not being charged.	LED flashes red.	No electrical contact between charger and battery.	► Remove the battery. ► Clean contacts on charger. ► Fit the battery.
		Malfunction in charger.	► Do not use the charger and contact your STIHL servicing dealer.

19 Specifications

19.1 STIHL FSA 56 Trimmer

- Approved battery: STIHL AK
- Weight without battery, cutting attachment and deflector: 2.1 kg
- Length without cutting attachment: 1470 mm up to 1670 mm

For battery life see www.stihl.com/battery-life.

19.2 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
- Permissible temperature range for operation and storage: -10°C to +50°C

19.3 Charger STIHL AL 101

- Rated voltage: see rating plate
- Frequency: see rating plate
- Rated power: see rating plate
- Charging current: see rating plate
- Permissible temperature range for use and storage: + 5 °C to + 40 °C

The charging times are indicated at www.stihl.com/charging-times.

19.4 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:

220 V to 240 V

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

100 V to 127 V

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

19.5 Noise and Vibration Data

K-value for sound pressure level is 2 dB(A). K-value for sound power level is 2 dB(A). K-value for vibration level is 2 m/s².

STIHL recommends that you wear hearing protection.

- Sound pressure level L_{pA} measured according to EN 50636-2-91: 72 dB(A)
- Sound power level L_{wA} measured according to EN 50636-2-91: 86 dB(A)
- Vibration measurement a_{hv} measured according to EN 50636-2-91; control handle and loop handle: 3.5 m/s²

The vibration values quoted above have been measured according to a standardized test procedure and may be used to compare electric power tools. Depending on the type of usage, the vibrations that actually occur may differ from the values quoted. The vibration values quoted may be used for an initial assessment of the user's exposure to vibrations. The actual exposure to vibrations has to be estimated. This process may also take into account times during which the electric power tool is switched off and times during which it is switched on but running off load.

Information on compliance with Vibration Directive 2002/44/EC is available at www.stihl.com/vib.

19.6 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 Combinations of Cutting Attachments and Deflectors

20.1 STIHL FSA 56 Trimmer

The following mowing heads may be mounted together with the deflector for mowing heads:

- AutoCut 2-2 mowing head with 1.6 mm diameter “round, quiet” nylon line

Mowing head cannot be installed by the user.

- ▶ Have the required mowing head installed by a STIHL servicing dealer.

21 Spare Parts and Accessories

21.1 Spare Parts and Accessories

STIHL® These symbols identify original STIHL replacement parts and original STIHL accessories.

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

Original STIHL replacement parts and original STIHL accessories are available from STIHL servicing dealers.

22 Disposal

22.1 Disposal of Trimmer, Battery and Charger

Contact your STIHL servicing dealer for information on disposal.

- ▶ Dispose of the trimmer, deflector, cutting attachment, battery, charger, accessories and packaging in accordance with local regulations and environmental requirements.

23 EC Declaration of Conformity

23.1 STIHL FSA 56 Trimmer

ANDREAS STIHL AG & Co. KG
Badstrasse 115
D-71336 Waiblingen
Germany

declare in exclusive responsibility that

- Category: Cordless electric trimmer
- Make: STIHL
- Model: FSA 56
- Serial identification: 4522

conforms to the relevant provisions of Directives 2011/65/EU, 2006/42/EC, 2014/30/EU and 2000/14/EC and has been developed and manufactured in compliance with the following standards in the versions valid on the date of production: EN 55014-1, EN 55014-2, EN 60335-1 and EN ISO 12100 taking EN 50636-2-91 into account.

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

Notified body involved: TÜV Rheinland Product Safety GmbH, Am Grauen Stein, 51105 Cologne, Germany

- Measured sound power level: 86 dB(A)
- Guaranteed sound power level: 88 dB(A)

Technical documents are deposited at ANDREAS STIHL AG & Co. KG Produktzulassung (Product Licensing).

The year of manufacture, country of manufacture and serial number are applied to the trimmer.

Done at Waiblingen, 01.03.2017

ANDREAS STIHL AG & Co. KG

A handwritten signature in black ink, reading "Thomas Elsner". The signature is fluid and cursive, with the first name "Thomas" and last name "Elsner" clearly distinguishable.

Thomas Elsner, Director Product Management and Services

23.2 STIHL AL 101 Charger Conformity Notice

This charger has been manufactured and put on the market in accordance with the following directives: 2014/35/EU, 2014/30/EU and 2011/65/EU.

The year of manufacture, country of manufacture and serial number are applied to the blower.

The complete EC Declaration of Conformity is available from ANDREAS STIHL AG & Co. KG, Badstrasse 115, 71336 Waiblingen, Germany.

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www.stihl.com



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