

FSA 45

STIHL



2 - 19

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 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 Documentation

Local safety regulations apply.

- Read, understand and save the following documents in addition to this instruction manual:
 - 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

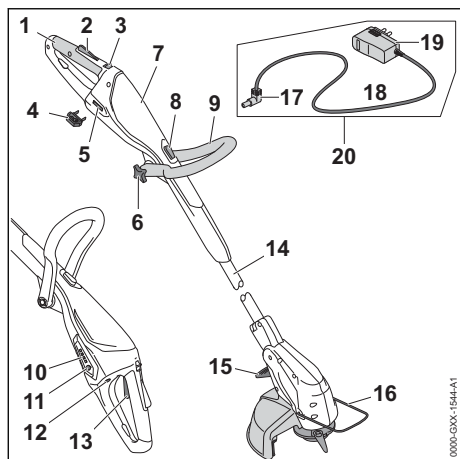


This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 Trimmer and Charging Cable

The rechargeable battery is built into the trimmer.



- 1 Control Handle**
For operating, holding and controlling the trimmer.
- 2 Trigger Lockout**
Locks trigger in position.
- 3 Release Slide**
Operated together with the trigger lockout to unlock the trigger.
- 4 Activation Key**
Activates the trimmer.
- 5 Key Socket**
Accommodates the activation key.
- 6 Star Knob Nut**
Secures loop handle to shaft.
- 7 Housing**
Contains the built-in rechargeable battery.
- 8 Lockout Button**
Locks the shaft at the required length.
- 9 Loop Handle**
For holding and controlling the trimmer.
- 10 LEDs**
Indicate trimmer's state of charge and mal-functions.
- 11 Button**
Activates the LEDs on the trimmer.
- 12 Charging Socket**
Accommodates the charger plug.
- 13 Trigger**
The trigger switches the motor on and off.
- 14 Shaft**
Connects all components.
- 15 Lever**
Locks selected angle between shaft and motor housing.
- 16 Bump Guard**
Protects objects from contact with the cutting attachment and maintains ground clearance when edging.
- 17 Charger Plug**
Connects charging cable to charger socket.
- 18 Connecting Cable**
Connects charger plug to appliance plug.
- 19 Appliance Plug**
Connects charging cable to wall outlet.
- 20 Charging Cable**
Serves to charge the trimmer.

15 Lever

Locks selected angle between shaft and motor housing.

16 Bump Guard

Protects objects from contact with the cutting attachment and maintains ground clearance when edging.

17 Charger Plug

Connects charging cable to charger socket.

18 Connecting Cable

Connects charger plug to appliance plug.

19 Appliance Plug

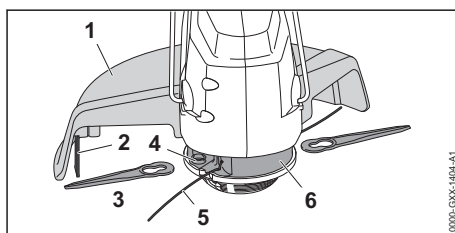
Connects charging cable to wall outlet.

20 Charging Cable

Serves to charge the trimmer.

Rating label with serial number

3.2 Deflector and Cutting Attachments



1 Deflector

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

2 Line-limiting blade

The line-limiting blade trims the surplus mowing line to correct length while working.

3 Blade

The blades cut the grass.

4 Mounting

The mounting secures the blades in position.

5 Mowing line

The mowing lines cut grass.
















6 Mowing head

The mowing head holds the mowing lines and cutting blades.

3.3 Symbols

Meanings of symbols that may be on the grass trimmer and charging cable:

← ■■■ This symbol indicates in what direction the release slide has to be pushed.

-  This symbol indicates that the length of the shaft is adjustable.
-  This symbol indicates that the control handle can be rotated 90°.
-  This symbol shows how far the mowing line has to be inserted.
-  This symbol shows in which direction the mowing line has to be inserted.
-  This symbol shows the direction of rotation of the cutting attachment.
-  **LWA** Guaranteed sound power level according to directive 2000/14/EC in dB(A) in order to make sound emissions of products comparable.
-  **LK 45** This symbol shows that an LK 45 charging cable must be used.
-  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.
-  Always remove the activation key during breaks in work, transport, charging, storage, maintenance and repairs.
-  Protect the brushcutter from rain and moisture – do not immerse it in fluids.
-  Maintain a safe distance.
-  Protect brushcutter from heat and fire.
-  Observe brushcutter's specified temperature range.

4.3 Intended Use

The STIHL FSA 45 grass trimmer/edger is designed for mowing dry grass.

The trimmer must not be used in the rain.

A built-in battery supplies the trimmer with power.

The STIHL LK 45 charging cable recharges the STIHL FSA 45 trimmer.

⚠ WARNING

- Charging cables 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.
 - Always recharge a STIHL FSA 45 trimmer with a STIHL LK 45 charging cable.
- Using the trimmer or the charging cable for purposes for which they were not designed may result in serious or fatal injuries and damage to property.
 - Use the trimmer and charging cable as described in this instruction manual.

4.4 The Operator

⚠ WARNING

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

4 Safety Precautions

4.1 Introduction

This product was designed for safe operation and features safety devices. Nevertheless, you should observe the following safety precautions in order to avoid possible dangers.

4.2 Warning Symbols

Meanings of warning symbols and labels on the brushcutter or charging cable:



Observe safety notices and take the necessary precautions.



Read, understand and keep the User Manual.



Wear safety glasses.



Observe the safety advice concerning flying objects and associated measures.



- ▶ Read, understand and save the instruction manual.

- ▶ If you pass the trimmer and charging cable on to another user: 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 and the charging cable. 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 and charging cable.
- 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 and using the charging cable 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.

4.5 Clothing and equipment

⚠ WARNING

- Objects can be thrown at high speed during operation. 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 face protection.
 - ▶ Wear long trousers made from resistant material.
- Dust can be whipped up during operation. Whipped up dust can damage the respiratory passages and cause allergic reactions.
 - ▶ If dust is generated: Wear a dust respirator mask.
- Inappropriate clothing can snag on wood, brush or the brushcutter. Users not wearing suitable clothing are at risk of serious injury.
 - ▶ Wear close-fitting clothing.
 - ▶ Remove scarves and jewelry.
- The user may come into contact with the rotating cutting attachment during operation. This may result in serious injury to the user.
 - ▶ Wear robust footwear.
 - ▶ Wear long trousers made from resistant material.
- There is a risk of the user coming into contact with the cutting attachment or the line limiting blade during cleaning and maintenance work and when the cutting attachment is mounted or removed. This may result in injury to the user.
 - ▶ Wear work gloves made from resistant material.
- 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.

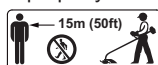


4.6 Work Area and Surroundings

4.6.1 Brushcutter

⚠ WARNING

- Bystanders, children and animals are not aware of the dangers of the brushcutter or flying debris. This may result in serious injury to bystanders, children and animals and damage to property.



- ▶ Do not allow bystanders, children or animals within 15 meters of the work area.

- ▶ Maintain a clearance of 15 meters from objects.
- ▶ Do not leave the brushcutter unattended.
- ▶ Make sure 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. This can result in injuries to the user and may damage the brushcutter.



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

- Electrical components of the brushcutter can produce sparks. Sparks may cause fires and explosions in highly flammable or explosive environments. Persons may be seriously or fatally injured and property may be damaged.
- ▶ Do not work in a highly flammable or explosive environment.

4.6.2 Charging cable

⚠ WARNING

- Onlookers, children and animals may be unaware of or unable to assess the dangers of a charging cable or electric current. Bystanders, children and animals may be seriously or fatally injured.
- ▶ Keep bystanders, children and animals away from the work area.
- ▶ Do not leave the charging cable unattended.
- ▶ Make sure that children cannot play with the charging cable.
- The charging cable is not protected against all ambient conditions. If the charging cable is exposed to certain ambient conditions, it may catch fire or explode. This can result in serious injury to people and damage to property.
- ▶ Protect the charging cable from rain and moisture.
- ▶ Operate the charging cable in a dry place, indoors only.
- ▶ Do not operate the charging cable in an easily combustible or explosive environment.
- ▶ Use and store the charging cable at a temperature between 0°C and 40 °C.

- The connecting cable is a trip hazard. This can result in injuries and may damage the charging cable.
- ▶ Lay the connecting cable flat on the floor.

4.7 Safe Condition

4.7.1 Brushcutter

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

- The brushcutter is not damaged.
- The brushcutter is clean and dry.
- The controls function properly and have not been modified.
- A combination of cutting attachment and deflector recommended in this user manual is mounted.
- The cutting attachment and deflector are properly mounted.
- Genuine STIHL accessories for this brushcutter are fitted.
- 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.
- ▶ Work only with an undamaged brushcutter.
- ▶ Do not charge a damaged brushcutter.
- ▶ If the brushcutter is dirty or wet: Clean the brushcutter and allow it to dry.
- ▶ Never attempt to modify your brushcutter. Exception: Mounting one of the combinations of cutting attachment and deflector recommended in this user manual.
- ▶ If the controls do not function properly: Do not use your brushcutter.
- ▶ Fit genuine STIHL accessories for this brushcutter.
- ▶ Mount the cutting attachment and deflector as described in this user manual.
- ▶ Attach accessories as described in this User Manual or in the User Manual for the accessories.
- ▶ Never insert objects into the openings of the brushcutter.
- ▶ Never connect or short-circuit the keyslot contacts with metallic objects.
- ▶ Do not open the brushcutter.
- ▶ Replace worn or damaged labels.
- ▶ If you have any doubts, be sure to consult a STIHL dealer.

4.7.2 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.

4.7.3 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.
- If a Polycut mowing head with polymer blades is used:
 - The polymer blades are free of damage and tears.
 - The polymer blades are properly mounted.
- The wear limits are not exceeded.

▲ WARNING

- If they are in an unsafe condition, parts of the mowing head, mowing lines or polymer blades may come off and be ejected at high speed. They may cause serious injury to persons.
 - ▶ Work only with an undamaged mowing head.
 - ▶ If a PolyCut mowing head with polymer blades is used: Never work with damaged polymer blades.
 - ▶ Never use metal objects in place of the nylon mowing lines or polymer blades.
 - ▶ Observe and remain inside the wear limits.
 - ▶ If you have any doubts, be sure to consult a STIHL dealer.

4.7.4 Charging Cable

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

- Charging cable is undamaged.
- Charging cable is clean and dry.

▲ WARNING

- If the product does not comply with safety requirements, components will no longer func-

tion properly or safety devices may be rendered inoperative. This can result in serious or fatal injuries.

- ▶ Do not use a damaged charging cable.
- ▶ If the charging cable is dirty or wet: Clean the charging cable and allow it to dry.
- ▶ Do not modify the charging cable.
- ▶ **Never bridge the charging cable's contacts with metallic objects (short circuit).**
- ▶ Do not open the charging cable.

4.8 Built-in battery

▲ WARNING

- The built-in battery is not protected against all ambient conditions. If the built-in battery is exposed to certain ambient conditions, the brushcutter may catch fire, explode or be irreparably damaged. Persons may be seriously or fatally injured, and property may be damaged.



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



- ▶ Use and store your brushcutter at temperatures between 0°C and +50°C.

- ▶ Keep the brushcutter away from small metal parts.
- ▶ Protect the brushcutter from rain and moisture – do not immerse it in fluids.
- ▶ Do not expose the brushcutter to high pressure.
- ▶ Do not expose the brushcutter to micro-waves.
- ▶ Protect the brushcutter from chemicals and salts.
- ▶ Do not transport a damaged brushcutter.
- Fluid may escape 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 brushcutter produces an unusual smell or emits smoke: Do not use the brushcutter and keep it away from combustible substances.
- ▶ If the brushcutter catches fire: Extinguish the brushcutter with a fire extinguisher or water.

4.9 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 suffering serious injury.
 - ▶ Work carefully and in a considered manner.
 - ▶ 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.
 - ▶ Work standing on the ground and keep your balance.
 - ▶ If you feel tired, take a break.
- The rotating cutting attachment can cut the user. This may result in serious injury to the user.
 - ▶ Do not touch the rotating cutting attachment.
 - ▶ If the cutting attachment is blocked by an object: Switch off the brushcutter and remove the activation key. Only then should you remove the object.
- If the behavior of the trimmer changes during operation or feels unusual, it may no longer be in a safe condition. There is a risk of serious injury to people and damage to property.
 - ▶ Stop work, remove the activation key and contact your STIHL servicing dealer.
- Vibrations may occur during brushcutter operation.
 - ▶ Wear gloves.
 - ▶ Take breaks.
 - ▶ If signs of a circulatory disturbance occur: Consult a doctor.
- If the cutting attachment makes contact with a foreign object during operation, the object or parts of it may be thrown at high speed. Persons may be injured or property damaged.
 - ▶ Remove foreign objects from the working area.
- If the rotating cutting attachment makes contact with a hard object, sparks may occur and the cutting attachment may be damaged.

Sparks can cause fires in a flammable environment. Persons may be seriously or fatally injured and property may be damaged.

- ▶ Do not use in a flammable environment.
- ▶ Make sure the cutting attachment is in a safe condition.
- Note that the cutting attachment continues to rotate for a short period after you release the trigger. This could cause serious injury to persons.
 - ▶ Wait until the cutting attachment comes to a complete stop.

4.10 Charging

Contact with live components may occur for the following reasons:

- The connecting cable is damaged.
- The mains plug 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 and mains plug are undamaged.
 - ▶ Plug the mains plug into a correctly installed socket.
- Overvoltage can occur in the charging cable if an incorrect grid voltage or frequency is used during charging. The charging cable may be damaged.
 - ▶ Make sure the grid voltage and frequency match the data on the charging cable's rating label.
- If the charging cable is connected to a power strip, electrical components may be overloaded during the charging process. The electric 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 charging cable and of all electrical devices connected to the power strip.
- A damaged or defective charging cable may produce an unusual smell or emit smoke during the charging process. Persons may be injured, or property may be damaged.
 - ▶ Disconnect the mains plug from the power supply.
- The charging cable can overheat and cause a fire if heat dissipation is inadequate. Persons may be seriously or fatally injured, and property may be damaged.

- ▶ Do not cover the charging cable.

4.11 Transporting

⚠ WARNING

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



- ▶ Remove the activation key.

- ▶ Pack the trimmer in packaging or a transport box in such a way that it cannot move.
- ▶ Secure the packaging or transport box with lashing straps or a net so that the packaging or transport box cannot move.

4.12 Storing

4.12.1 Trimmer

⚠ WARNING

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



- ▶ Remove the activation key.

- ▶ Store the trimmer out of the reach of children.
- Dampness can corrode the electrical contacts in the activation key socket and metal components. This can damage the trimmer.



- ▶ Remove the activation key.

- ▶ Store the trimmer in a clean and dry condition.
- The trimmer is not protected against all ambient conditions. The trimmer may be damaged if it is exposed to certain ambient conditions.
 - ▶ Store the trimmer in a clean and dry condition.
 - ▶ Store the trimmer in a confined space.
 - ▶ Store the activation key separately from the trimmer.

4.12.2 Charging Cable

⚠ WARNING

- Children are not aware of and cannot assess the dangers of a charging cable. Children may sustain serious or fatal injuries.

- ▶ Keep the charging cable out of the reach of children.

- The charging cable is not protected against all ambient conditions. The charging cable may be damaged if it is exposed to certain ambient conditions.

- ▶ If the charging cable is hot: Allow the charging cable to cool down.

- ▶ Store the charging cable in a clean and dry condition.

- ▶ Store the charging cable in a confined space.

- ▶ Store the charging cable within temperature range of 0°C to +40°C.

4.13 Cleaning, Maintenance and Repair

⚠ WARNING

- The brushcutter may start unintentionally if the activation key remains inserted during cleaning, maintenance or repair operations. There is a risk of serious injury to people and damage to property.



- ▶ Remove activation key.

- Aggressive cleaning agents, cleaning with a water jet, or sharp objects can damage the brushcutter, deflector, cutting attachment and charging cable. If the brushcutter, deflector, cutting attachment or charging cable are not cleaned correctly, components may no longer function properly or safety devices may be rendered inoperative. They may cause serious injury to persons.

- ▶ Clean the brushcutter, deflector, cutting attachment and charging cable as described in this instruction manual.

- If the brushcutter, deflector, cutting attachment or charging cable are not serviced or repaired correctly, components may no longer function properly or safety devices may be rendered inoperative. This may result in serious or fatal injury to people.

- ▶ Do not attempt to service or repair the brushcutter, deflector, cutting attachment or charging cable.

- ▶ If the brushcutter, deflector, cutting attachment or charging cable require servicing or repairs: Contact your STIHL servicing dealer for assistance.

5 Preparing Trimmer for Operation

5.1 Preparing the Brushcutter for Operation

The following steps must be performed before commencing work:

- ▶ Ensure that the following components are in safe condition:
 - Brushcutter, [16.1](#) 4.7.1.
 - Deflector, [16.1](#) 4.7.2.
 - Mowing head, [16.1](#) 4.7.3.
 - Charging cable, [16.1](#) 4.7.4.
- ▶ Check the built-in battery, [16.1](#) 11.3.
- ▶ Fully charge the brushcutter, [16.1](#) 6.1.
- ▶ Clean the brushcutter, [16.1](#) 16.1.
- ▶ Mount the deflector, [16.1](#) 7.1.
- ▶ Fit the mowing lines or blades, [16.1](#) 7.2.1 or [16.1](#) 7.2.3.
- ▶ Mount the loop handle, [16.1](#) 7.3.
- ▶ Adjust length of shaft, [16.1](#) 8.2.
- ▶ Adjust the loop handle, [16.1](#) 8.3.
- ▶ Check the controls, [16.1](#) 11.1.
- ▶ If you cannot carry out this work: Do not use your brushcutter and contact your STIHL dealer for assistance.

6 Charging the Trimmer, LEDs

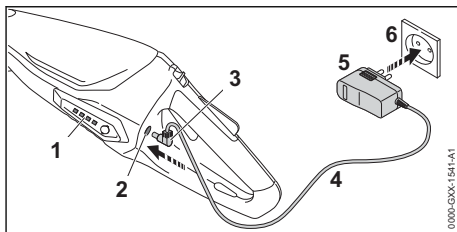
6.1 Charging the Trimmer

The charging time depends on several factors, e.g. temperature of the trimmer or 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 charging cable is connected to the trimmer. The charging process stops automatically when the trimmer is fully charged.

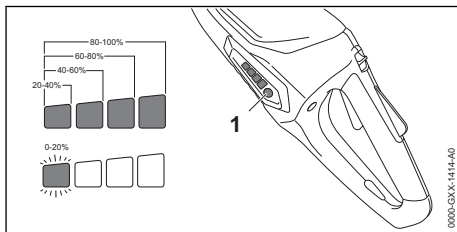
The trimmer and charging cable heat up during the charging process.

- ▶ Remove the activation key.



- ▶ Insert the plug (5) in a convenient wall outlet (6).
- ▶ Lay the connecting cable (4).
- ▶ Insert the charger plug (3) in the charge socket (2).
The LEDs (1) glow green and show the state of charge.
- ▶ If the LEDs (1) stop glowing: Disconnect the charger plug (3) from the charge socket (2). The trimmer is fully charged.
- ▶ Disconnect the plug (5) from the wall outlet (6).

6.2 State of Charge



- ▶ Press the button (1).
The LEDs (5) glow green for about 5 seconds and indicate the state of charge.
- ▶ If the left LED flashes green: Recharge the trimmer.

6.3 LEDs

Indicate state of charge or malfunctions in the trimmer. The LEDs can glow or flash green or red.

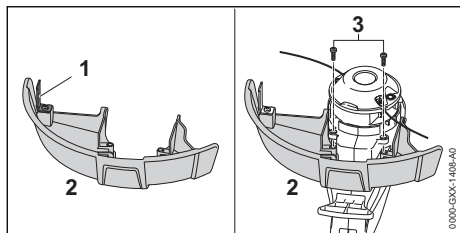
The state of charge is indicated when the LEDs glow or flash green.

- ▶ If the LEDs glow or flash red: Troubleshooting, [18](#).
There is a malfunction in the trimmer.

7 Assembling the Trimmer

7.1 Mounting the Deflector

- ▶ Switch off the trimmer and remove the activation key.



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.

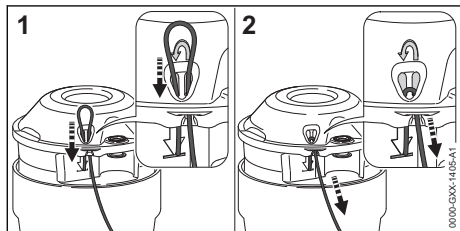
7.2 PolyCut 2-2 Mowing Head

7.2.1 Fitting Mowing Lines

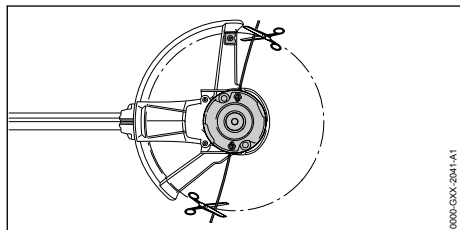
- Switch off the trimmer and remove the activation key.

- Place mowing lines in a container filled with water for 12 to 24 hours before using.

This makes the nylon mowing lines supple.



- Push mowing line up through the right opening from below.
- Thread the mowing line through the left opening from above until the end of the line reaches the symbol.
- Hold the short end of the mowing line firmly.
- Pull the long end of the mowing line until it is tight against the mowing head.



- Cut the mowing lines so that they extend as far as the line limiting blade.

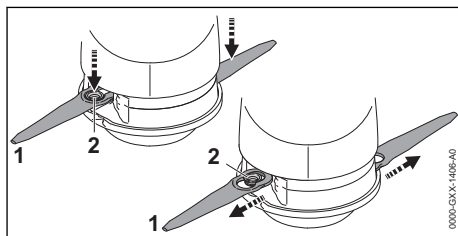
7.2.2 Removing Mowing Lines

- Switch off the trimmer and remove the activation key.
- Push the short end of the mowing line upwards out of the mowing head.
- Pull the short end of the mowing line upwards out of the mowing head.
- Pull the mowing line out of the mowing head.

7.2.3 Mounting the Blades

- Switch off the trimmer and remove the activation key.
- Place blades in a container filled with water for 12 to 24 hours before using.

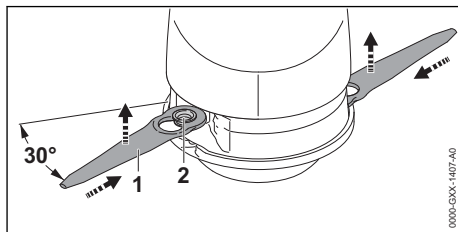
This makes the blades supple.



- Position the blade (1) on the mowing head so that the bushing (2) locates in the large bore in the blade (1).
- Pull the blade (1) outwards until the bushing (2) engages the small bore in the blade (1).

7.2.4 Removing the Blades

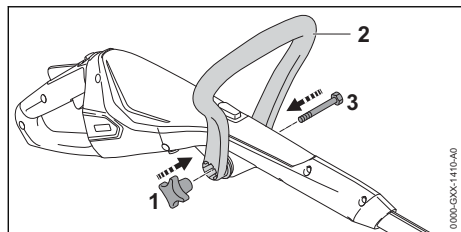
- Switch off the trimmer and remove the activation key.



- Push the blade (1) inwards until the bushing (2) is released from the small bore in the blade (1).
- Remove the blade (1) upwards.

7.3 Mounting the Loop Handle

- Switch off the trimmer and remove the activation key.



- ▶ Position the loop handle (2) so that the recess for the star knob nut (1) is on the right – viewed from the control handle.
- ▶ 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.

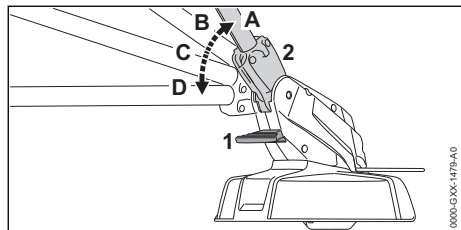
The loop handle (2) must not be removed again.

8 Adjusting Trimmer for User

8.1 Adjusting Shaft Angle

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

- ▶ Switch off the trimmer and remove the activation key.

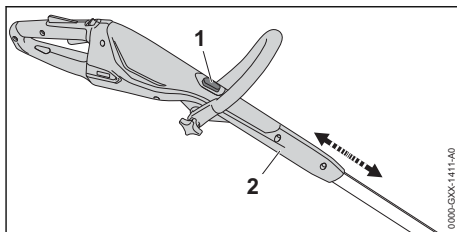


- ▶ Depress the lever (1) and hold it in that position.
- ▶ Move shaft (2) to the required position (A to D) until it engages.
- ▶ Release the lever (1).

8.2 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 activation key.
- ▶ Hold the shaft firmly.

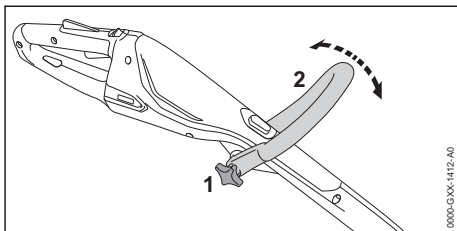


- ▶ Depress lock button (1) and hold it in that position.
- ▶ Pull or push the control handle (2) to the required position.
- ▶ Release the lock button (1).
- ▶ Move the control handle (2) back and forth until it engages.

8.3 Adjusting the Loop Handle

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

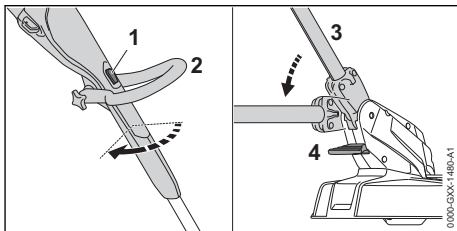
- ▶ Switch off the trimmer and remove the activation key.



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

8.4 Converting Trimmer to Edger

- ▶ Switch off the trimmer and remove the activation key.

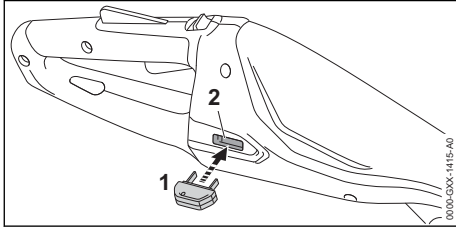


- ▶ Depress lock button (1) and hold it in that position.
- ▶ Rotate control handle (2) 90° until it engages.
- ▶ Release the lock button (1).
- ▶ Depress the lever (4) and hold it in that position.

- Swing the shaft (2) to the flattest position until it engages.
- Release the lever (4).
- Extend the bump guard (5) fully.

9 Inserting and Removing Activation Key

9.1 Inserting the Activation Key



- Insert the activation key (1) in the socket (2).

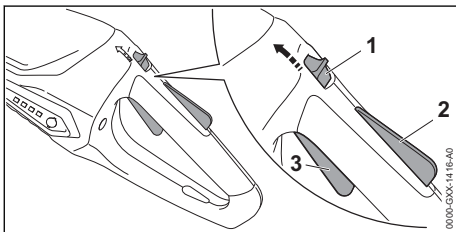
9.2 Removing the Activation Key

- Stand the trimmer on a level surface.
- Remove the activation key.
- Keep the activation key out of the reach of children.

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.



- Push the release slide (1) in the direction of the loop handle with your thumb and hold it there.
- Depress the trigger lockout (2) with your hand and hold it there.
You can let go of the release slide (1).
- Pull the trigger (3) 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 activation key and contact your STIHL servicing dealer.
The trimmer has a malfunction.

11 Testing the Trimmer

11.1 Checking the Controls

Release slide, trigger lockout and trigger

- Remove the activation key.
- Attempt to pull the trigger lever without depressing the release slide and the trigger lockout.
- If the trigger can be pulled: Do not use your trimmer and contact your STIHL servicing dealer.
Release slide or trigger lockout is faulty.
- Push the release slide (1) in the direction of the loop handle with your thumb and hold it there.
- Depress the trigger lockout lever and hold it in that position.
- Pull the trigger.
- Let go of the trigger, trigger lockout and release slide.
- If the trigger, trigger lockout or release slide is stiff or does not spring back to the idle position: Do not use your trimmer and contact your STIHL servicing dealer.
The trigger, trigger lockout or release slide has a malfunction.

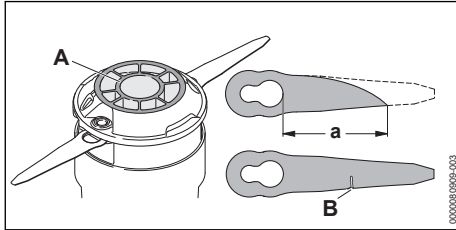
Switching On

- Insert the activation key.
- Push the release slide (1) in the direction of the loop handle with your thumb and hold it there.
- 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 activation key and contact your STIHL servicing dealer.
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 activation key and contact your STIHL servicing dealer. The trimmer has a malfunction.

11.2 Inspecting the Cutting Attachment

- ▶ Switch off the brushcutter and remove the activation key.



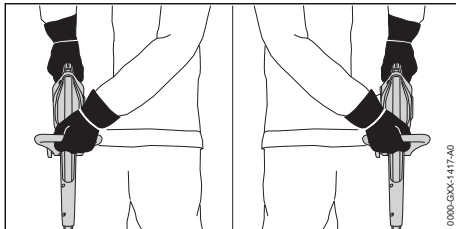
- ▶ If the wear mark (A) on the underside of the PolyCut 2-2 head is visible: Have the PolyCut 2-2 mowing head replaced by a STIHL servicing dealer.
- ▶ If the length of one of the blades, measured from the large bore to the tip, is less than 'a' = 45 mm: Replace both blades.
- ▶ If one blade is damaged (B): Replace both blades.

11.3 Checking the Built-In Battery

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

12 Operating the Trimmer

12.1 Holding and Controlling the Trimmer

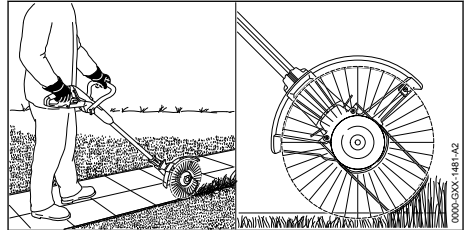


- ▶ Hold the trimmer with one hand on the control handle - wrap your thumb around the control handle.

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

12.2 Edging

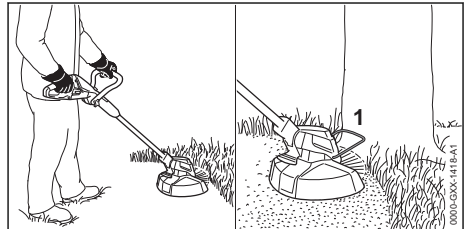
- ▶ Convert the trimmer to an edger.
- ▶ Extend the bump guard fully.



- ▶ Guide the trimmer along the edge of the lawn. The bump guard maintains the required ground clearance.

12.3 Mowing

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



- ▶ Swing the brushcutter steadily back and forth in an arc.
- ▶ Move forward slowly in a controlled manner.
- ▶ If you work with a bump guard (1): Extend the bump guard (1) fully.

13 After Finishing Work

13.1 After Finishing Work

- ▶ Switch off the trimmer and remove the activation key.
- ▶ Clean the trimmer.
- ▶ Clean the deflector.
- ▶ Clean the cutting attachment.

14 Transporting

14.1 Transporting the brushcutter

- ▶ Switch off the brushcutter and remove the activation key.
- ▶ Adjust the shaft to its shortest length.

Carrying the brushcutter

- ▶ Carry the brushcutter in one hand properly balanced by the shaft, with the cutting attachment behind you.

Transporting the trimmer in a vehicle

- ▶ Secure the brushcutter to prevent it tipping over or moving.
- ▶ If the brushcutter is to be packaged: Package the brushcutter in such a way that it cannot move inside its packaging and secure the packaging in such a way that it cannot move.

Owing to the built-in battery, the brushcutter is subject to the requirements for transporting dangerous goods. The brushcutter is classified as UN 3481 (lithium-ion batteries in equipment) and has been tested pursuant to UN Manual Tests and Criteria Part III, Subsection 38.3.

The transport regulations can be found at www.stihl.com/safety-data-sheets.

15 Storing

15.1 Storing the brushcutter

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

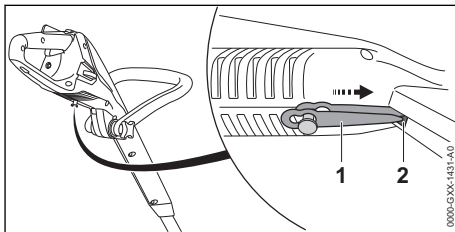
- ▶ Switch off the brushcutter and remove the activation key.
- ▶ Remove the mowing lines.
- ▶ Ensure that the following conditions are met when storing the brushcutter:
 - The brushcutter is out of the reach of children.
 - The brushcutter is clean and dry.
 - The brushcutter is in an enclosed space.
 - The brushcutter is separated from the charging cable.
 - The brushcutter is in a temperature range between 0°C and 50°C.

NOTICE

- If the brushcutter is not stored as described in this User Manual, the installed battery may become deep discharged and irreparably damaged.
 - ▶ Charge a discharged brushcutter before storing it. STIHL recommends that you store the brushcutter with a charge between 40% and 60% (2 green LEDs lit).

15.2 Storing the Blades

Up to 6 blades can be kept directly on the trimmer.



- ▶ Attach blade (1) to the underside of the trimmer.
- ▶ Push the tip of the blade (1) into the opening (2) in the trimmer.
- ▶ Fit the next blade on top of the first and so on.

15.3 Storing the Charging Cable

- ▶ Disconnect the plug from the wall outlet.
- ▶ Observe the following points when storing the charging cable:
 - Charging cable is out of the reach of children.
 - Charging cable is clean and dry.
 - Charging cable is in an enclosed space.
 - Charging cable is separated from the trimmer.
 - Charging cable is in a temperature range between 0°C and +40 °C.

16 Cleaning

16.1 Cleaning the Brushcutter

- ▶ Switch off the brushcutter and remove the activation key.
- ▶ Clean the brushcutter with a damp cloth.
- ▶ Clean vents with a paintbrush.

16.2 Cleaning the Deflector and Cutting Attachment

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

16.3 Cleaning the charging cable

- ▶ Disconnect the plug from the wall outlet.
- ▶ Disconnect the charger plug from the charge socket.
- ▶ Clean the charging cable with a damp cloth.

17 Maintenance and Repairs

17.1 Maintenance Intervals

The maintenance intervals are dependent on the environmental and operating conditions. STIHL recommends the following maintenance intervals:

Every 12 months

- Have the trimmer checked by a STIHL servicing dealer.

17.2 Servicing and Repairing the Trimmer

The trimmer cannot be serviced or repaired by the user.

18 Troubleshooting

18.1 Troubleshooting Trimmer or Charging Cable

Condition	LEDs on trimmer	Cause	Remedy
Trimmer does not start when switched on.	1 LED flashes green.	Trimmer has low charge.	► Recharge the trimmer.
	3 LEDs glow red.	Trimmer is too hot.	► Remove the activation key. ► Allow trimmer to cool down.
	3 LEDs flash red.	There is a electrical malfunction.	► Remove the activation key. ► Do not use your trimmer and contact your STIHL dealer for assistance.
		The trimmer is damp.	► Allow the trimmer to dry.
Trimmer cuts out during operation.	3 LEDs glow red.	Trimmer is too hot.	► Remove the activation key. ► Allow trimmer to cool down.
		There is a electrical malfunction.	► Switch off the trimmer, wait 5 seconds and then switch on again.
Trimmer runtime is too short.		The trimmer is not fully charged.	► Fully charge the trimmer.
		Normal trimmer life has been exceeded.	► Replace the trimmer.
Trimmer is not being charged.	3 LEDs glow red.	Trimmer is too hot.	► Remove the activation key. ► Allow trimmer to cool down.
		Malfunction in trimmer or charging cable.	► Remove the activation key. ► Contact a STIHL servicing dealer for assistance.

19 Specifications

19.1 STIHL FSA 45 Trimmer

- Weight with cutting attachment and deflector: 2.3 kg
- Length: 1100 mm up to 1310 mm
- Battery technology: Lithium-ion
- Voltage: 18 V
- Capacity in Ah: see rating label
- Energy content in Wh: see rating label

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

17.3 Servicing and repairing the charging cable

The charging cable requires no servicing and cannot be repaired.

- If the charging cable is defective or damaged: Replace the charging cable.

- Permissible temperature range for operation and storage: 0°C up to +50°C

If the trimmer is used at temperatures higher than +30°C the battery runtime may be shortened and the trimmer's performance reduced.

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

19.2 STIHL LK 45 Charging Cable

- Voltage: 100-240 V, 50–60 Hz
- Power rating: 14.6 W

- Charge current: 0.65 A
- Permissible temperature range for operation and storage: 0°C up to 40 °C

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

19.3 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.

STIHL FSA 45 with PolyCut 2-2 mowing head equipped with 1.6 mm diameter "round, quiet" nylon line

- Sound pressure level L_{pA} measured according to EN 50636-2-91: 80 dB(A)
- Sound power level L_{WA} measured according to EN 50636-2-91: 94 dB(A)

STIHL FSA 45 with PolyCut 2-2 and cutting blades

- Sound pressure level L_{pA} measured according to EN 50636-2-91: 77 dB(A)
- Sound power level L_{WA} measured according to EN 50636-2-91: 87 dB(A)
- Vibration level a_{HV} measured according to EN 50636291
 - Control handle: < 4.9 m/s²
 - Loop handle: 1.7 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.

19.4 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 45 Trimmer

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

- PolyCut 2-2 mowing head with 1.6 mm diameter "round, quiet" nylon line
- PolyCut 2-2 mowing head with cutting blades


Using the PolyCut 2-2 mowing head with nylon lines may shorten the battery runtime.

Mowing head cannot be installed by the user.

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

21 Spare Parts and Accessories

21.1 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.

22 Disposal

22.1 Disposing of Brushcutter and Charging Cable

Contact the local authorities or your STIHL dealer for information on disposal.

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

The brushcutter contains a built-in rechargeable battery which must be disposed of separately.

- Have brushcutter disposed of by STIHL servicing dealer.

The STIHL servicing dealer will remove the built-in battery from the brushcutter for separate disposal.

- Take STIHL products including packaging to a suitable collection point for recycling in accordance with local regulations.

► Do not dispose with domestic waste.

23 EC Declaration of Conformity

23.1 STIHL FSA 45 Brushcutter

ANDREAS STIHL AG & Co. KG

Badstraße 115

D-71336 Waiblingen

Germany

declare under our sole responsibility that

- Designation: Cordless grass trimmer/lawn edge trimmer
- Manufacturer's brand: STIHL
- Model: STIHL FSA 45
- Serial number: 4512

conforms to the specifications of Directives 2011/65/EU, 2006/42/EC, 2014/30/EU and 2000/14/EC and has been developed and built in compliance with the versions of the following standards valid at the production date: EN 55014-1, EN 55014-2, EN 60335-1 and EN 50636-2-91.

Applied conformity assessment procedure in accordance with Directive 2000/14/EC, Annex VI.

Notified body: Intertek Deutschland GmbH (NB0905), Stangenstraße 1, 70771 Leinfelden-Echterdingen, Germany

- Measured sound power level: 94 dB(A)
- Guaranteed sound power level: 96 dB(A)

The technical documents are stored at ANDREAS STIHL AG & Co. KG Produktzulassung.

The year of manufacture, country of manufacture and serial number are specified on the rating plate of the brushcutter.

Waiblingen, 15.07.2021

ANDREAS STIHL AG & Co. KG



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Dr. Jürgen Hoffmann, Director Product Certification & Regulatory Affairs

24 UKCA Declaration of Conformity

24.1 STIHL FSA 45 Brushcutter

**UK
CA**

ANDREAS STIHL AG & Co. KG

Badstraße 115

D-71336 Waiblingen

Germany

declare under our sole responsibility that

- Designation: Cordless grass trimmer/lawn edge trimmer
- Manufacturer's brand: STIHL
- Model: STIHL FSA 45
- Serial number: 4512

conforms to the relevant provisions of UK regulations The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, Supply of Machinery (Safety) Regulations 2008, Electromagnetic Compatibility Regulations 2016 and Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001 and has been 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 50636-2-91.

Applied conformity assessment procedure in accordance with UK regulations Noise Emission in the Environment by Equipment for use Outdoors Regulations 2001, Schedule 9.

Notified body: Intertek Testing & Certification Ltd (BN: 0359), Academy Place, 1-9 Brook Street, Brentwood Essex, CM14 5NQ, United Kingdom

- Measured sound power level: 94 dB(A)
- Guaranteed sound power level: 96 dB(A)

The technical documents are stored at ANDREAS STIHL AG & Co. KG.

The year of manufacture, country of manufacture and serial number are shown on the rating plate of the brushcutter.

Waiblingen, 15.07.2021

ANDREAS STIHL AG & Co. KG



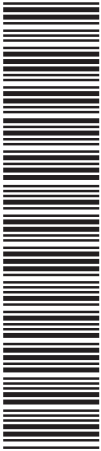
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Dr. Jürgen Hoffmann, Director Product Certification & Regulatory Affairs

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