

**STIHL**<sup>®</sup>

# STIHL FSA 45

Instruction Manual





# Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>	<b>8</b>	<b>Adjusting Trimmer for User</b>	<b>15</b>
<b>2</b>	<b>Guide to Using this Manual</b>	<b>2</b>	8.1	Adjusting Shaft Angle	15
2.1	Applicable Documentation	2	8.2	Adjusting Length of Shaft	16
2.2	Symbols used with warnings in the text	3	8.3	Adjusting the Loop Handle	16
2.3	Symbols in Text	3	8.4	Converting Trimmer to Edger	16
<b>3</b>	<b>Overview</b>	<b>3</b>	<b>9</b>	<b>Inserting and Removing Activation Key</b>	<b>17</b>
3.1	Trimmer and Charging Cable	3	9.1	Inserting the Activation Key	17
3.2	Cutting Attachments	4	9.2	Removing the Activation Key	17
3.3	Symbols	4	<b>10</b>	<b>Switching the Trimmer On/Off</b>	<b>17</b>
<b>4</b>	<b>Safety Precautions</b>	<b>5</b>	10.1	Switching On	17
4.1	Introduction	5	10.2	Switching Off	17
4.2	Warning Signs	5	<b>11</b>	<b>Testing the Trimmer</b>	<b>17</b>
4.3	Intended Use	6	11.1	Checking the Controls	17
4.4	The Operator	6	11.2	Inspecting the Cutting Attachment	18
4.5	Clothing and Equipment	6	11.3	Checking the Built-In Battery	18
4.6	Work Area and Surroundings	7	<b>12</b>	<b>Operating the Trimmer</b>	<b>19</b>
4.7	Safe Condition	8	12.1	Holding and Controlling the Trimmer	19
4.8	Built-in Battery	9	12.2	Edging	19
4.9	Operation	10	12.3	Mowing	19
4.10	Charging	10	<b>13</b>	<b>After Finishing Work</b>	<b>19</b>
4.11	Transporting	11	13.1	After Finishing Work	19
4.12	Storing	11	<b>14</b>	<b>Transporting</b>	<b>19</b>
4.13	Cleaning, Maintenance and Repairs	12	14.1	Transporting the Trimmer	19
<b>5</b>	<b>Preparing Trimmer for Operation</b>	<b>12</b>	<b>15</b>	<b>Storing</b>	<b>20</b>
5.1	Preparing Trimmer for Operation	12	15.1	Storing the Trimmer	20
<b>6</b>	<b>Charging the Trimmer, LEDs</b>	<b>13</b>	15.2	Storing the Blades	20
6.1	Charging the Trimmer	13	15.3	Storing the Charging Cable	20
6.2	State of Charge	13	<b>16</b>	<b>Cleaning</b>	<b>20</b>
6.3	LEDs	13	16.1	Cleaning the Trimmer	20
<b>7</b>	<b>Assembling the Trimmer</b>	<b>13</b>	16.2	Cleaning the Deflector and Cutting Attachment	20
7.1	Mounting the Deflector	13	16.3	Cleaning the charging cable	21
7.2	PolyCut 2-2 Mowing Head	14	<b>17</b>	<b>Maintenance and Repairs</b>	<b>21</b>
7.3	Mounting the Loop Handle	15	17.1	Maintenance Intervals	21



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17.2 Servicing and Repairing the Trimmer.....	21
17.3 Servicing and repairing the charging cable .....	21
<b>18 Troubleshooting.....</b>	<b>22</b>
18.1 Troubleshooting Trimmer or Charging Cable .....	22
<b>19 Specifications .....</b>	<b>23</b>
19.1 STIHL FSA 45 Trimmer .....	23
19.2 STIHL LK 45 Charging Cable .....	23
19.3 Noise and Vibration Data.....	23
19.4 REACH .....	23
<b>20 Combinations of Cutting Attachments and Deflectors .....</b>	<b>24</b>
20.1 STIHL FSA 45 Trimmer .....	24
<b>21 Spare Parts and Accessories.....</b>	<b>24</b>
21.1 Spare Parts and Accessories.....	24
<b>22 Disposal .....</b>	<b>24</b>
22.1 Disposing of Trimmer and Charging Cable .....	24
<b>23 EC Declaration of Conformity.....</b>	<b>24</b>
23.1 STIHL FSA 45 Trimmer .....	24
23.2 STIHL LK 45 Charging Cable .....	25

## 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 information for STIHL batteries and products with built in batteries: [www.stihl.com/safety-data-sheets](http://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

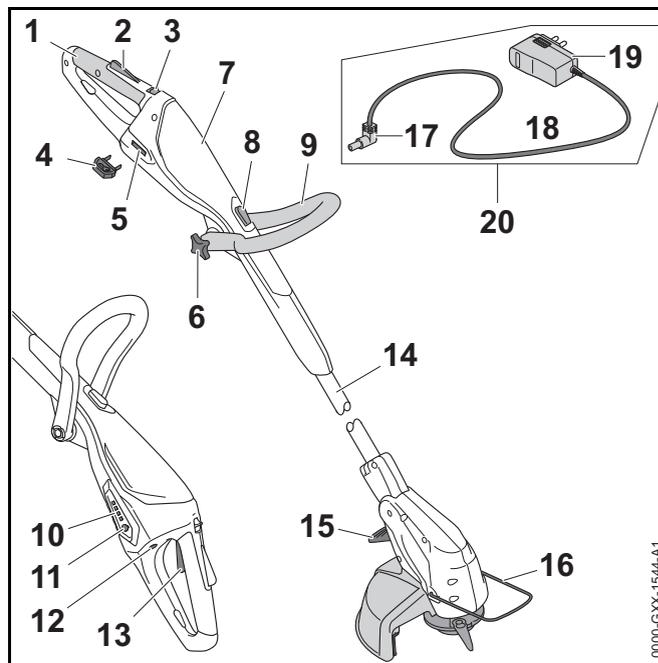


This symbol refers to a chapter in this instruction manual.

## 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 malfunctions.

**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**

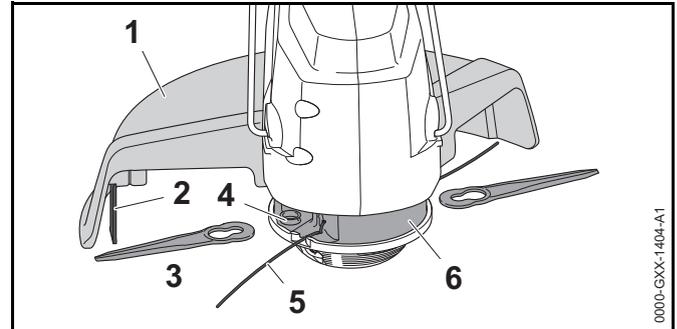
Connects charger plug to appliance plug.

**19 Appliance Plug**

Connects charging cable to wall outlet.

**20 Charging Cable**

Serves to charge the trimmer.

**# 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 Blades**

For cutting grass.

**4 Bushings**

Secure the blades in position.

**5 Mowing Line**

The mowing lines cut grass.

**6 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.

↑  
000  
↓ This symbols 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.

## 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 Signs

Meanings of warning signs and labels on the trimmer and charging cable:



Observe safety notices and take the necessary precautions.



Read, understand and save the instruction manual.



Wear safety glasses.



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



Always remove the activation key during work breaks, transport, charging, storage, maintenance or repairs.



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



Maintain safe distance.



Protect trimmer from heat and fire.



Observe trimmer'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.



- ▶ 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 must be legally recognized as an adult.
  - 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 your STIHL servicing dealer for assistance.

### 4.5 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.

## 4.6 Work Area and Surroundings

### 4.6.1 Trimmer

#### WARNING

- Bystanders, children and animals are not aware of the dangers of the trimmer or flying debris. Innocent bystanders, children and animals may be seriously injured and damage to property may occur.



- ▶ 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 trimmer unattended.
- ▶ Make sure that children cannot play with the trimmer.

- The trimmer 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 trimmer.



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

- Electrical components of the trimmer can produce sparks. Sparks may cause a fire or an explosion in an easily combustible or explosive environment. This can result in serious or fatal injuries and damage to property.

- ▶ Do not work in an easily combustible or explosive environment.

### 4.6.2 Charging Cable

#### WARNING

- Innocent bystanders, children and animals are not aware of and cannot assess the dangers of a charging cable or electric current. Innocent 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 injuries and damage to property.

- ▶ Protect the charging cable from rain and dampness.
- ▶ 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.

- Persons may trip over the connecting cable. 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 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.
  - ▶ Never recharge a damaged 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.
  - ▶ 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.
- ▶ Never bridge the contacts in the activation key socket with metallic objects (short circuit).
- ▶ Do not open the trimmer.
- ▶ If you have any queries: Contact your STIHL servicing dealer for assistance.
- Fluid may escape from a damaged trimmer. 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 trimmer may smell unusual, emit smoke or burn. This can result in serious or fatal injuries and damage to property.
  - ▶ If the trimmer smells unusual or emits smoke: Do not use the trimmer and keep it away from combustible substances.
  - ▶ If the trimmer catches fire: Extinguish the trimmer with a fire extinguisher or water.

### 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.
- Cutting blades are undamaged.
- The mowing lines or the blades are properly installed.

## **⚠ WARNING**

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

### 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 function 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 trimmer may catch fire or explode. This can result in serious or fatal injuries and damage to property.



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



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

- ▶ Keep trimmer away from metallic objects.
- ▶ Protect the trimmer from rain and damp – do not immerse it in fluids.
- ▶ Do not expose trimmer to high pressure.
- ▶ Do not expose trimmer to microwaves.
- ▶ Protect trimmer from chemicals and salts.

- ▶ Do not transport a damaged trimmer.
- 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 trimmer smells unusual or emits smoke: Do not use the trimmer and keep it away from combustible substances.
  - ▶ If the trimmer catches fire: Extinguish the trimmer with a fire extinguisher or water.

## 4.9 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 activation key. 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 activation key and contact your STIHL servicing dealer.
- Trimmer vibrations may occur during operation.
  - ▶ Wear gloves.
  - ▶ Take regular breaks.
  - ▶ If signs of circulation problems occur: Seek medical advice.
- 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.

## 4.10 Charging

### **⚠ WARNING**

Contact with live components may occur for the following reasons:

- Connecting cable is damaged.
- Plug is damaged.
- Wall outlet is not properly installed.
- Contact with live components can result in an electric shock. This may result in serious or fatal injuries.
  - ▶ Check that the connecting cable and plug are not damaged.
  - ▶ Insert the plug in a properly installed wall outlet.

- Overvoltage can occur in the charging cable if the line voltage or frequency are incorrect during charging. The charging cable may be damaged.
  - ▶ Make sure the line voltage and frequency agree with the data on the charging cable's rating label.
- A damaged or defective charging cable 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 charging cable 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 charging cable.
- If several charging cables 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 charging cable to a single wall outlet.
  - ▶ Do not connect the charging cable to multiple sockets.

#### 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 Repairs

## ⚠ WARNING

- The trimmer may start unintentionally if the activation key remains inserted during cleaning, maintenance or repair operations. This can result in serious injuries and damage to property.



- ▶ Remove the activation key.

- Aggressive cleaning agents, a water jet or pointed objects can damage the trimmer, deflector, cutting attachment and the charging cable. If the trimmer, deflector, cutting attachment or charging cable 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 and charging cable as described in this instruction manual.
- If the trimmer, 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 can result in serious or fatal injuries.
  - ▶ Do not attempt to service or repair the trimmer, deflector, cutting attachment or charging cable.
  - ▶ If the trimmer, 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 Trimmer for Operation

Perform the following steps before starting work:

- ▶ Make sure the following components are in a safe condition:
  - Trimmer, 4.7.1.
  - Deflector, 4.7.2.
  - Mowing head, 4.7.3.
  - Charging cable, 4.7.4.
- ▶ Check the built-in battery, 11.3.
- ▶ Fully charge the trimmer, 6.1.
- ▶ Clean the trimmer, 16.1.
- ▶ Mount the deflector, 7.1.
- ▶ Fit the mowing lines or blades, 7.2.1 or 7.2.3.
- ▶ Mount the loop handle, 7.3.
- ▶ Adjust length of shaft, 8.2.
- ▶ Adjust the loop handle, 8.3.
- ▶ Check the controls, 11.1.

- ▶ If 3 LEDs flash red while you are checking the controls: Remove the activation key 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 Trimmer, LEDs

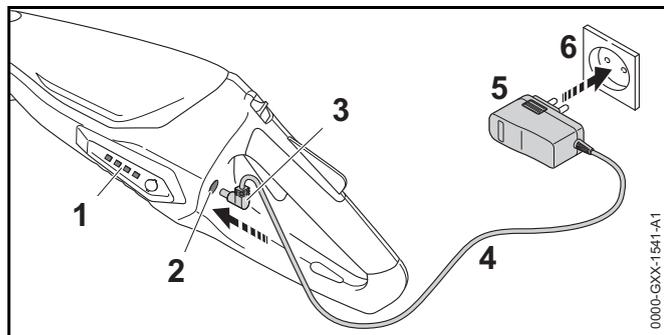
### 6.1 Charging the Trimmer

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](http://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.

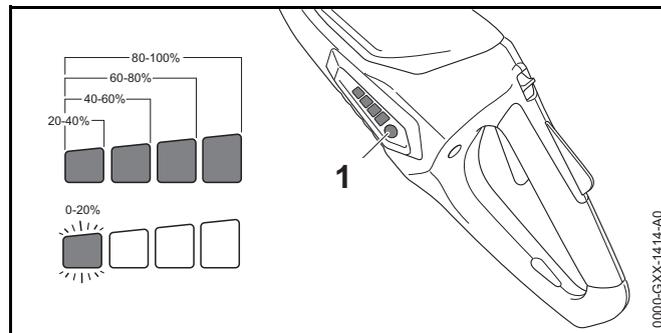
- ▶ Remove the activation key.



- ▶ 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.

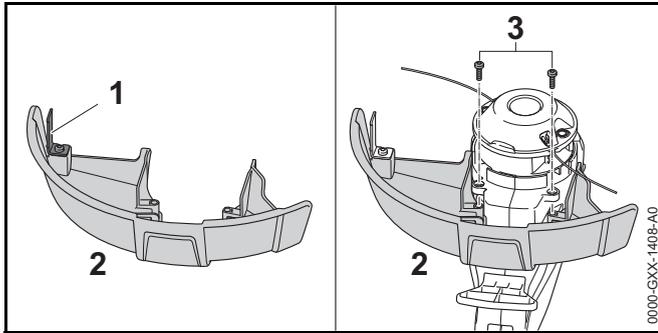
The state of charge is indicated when the LEDs glow or flash green.

- ▶ 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.



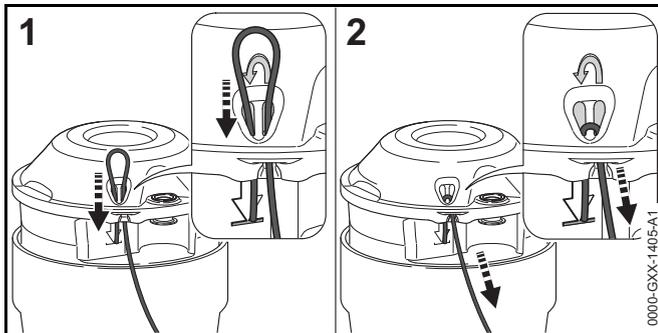
The line limiting blade (1) is already installed in the deflector (2) and must not be removed.

- ▶ 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

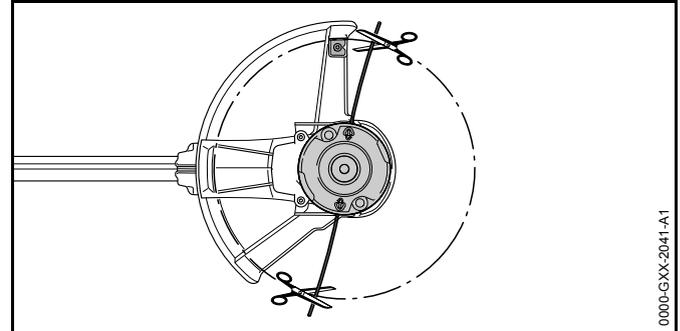
### 7.2.1 Fitting Mowing Lines

- ▶ 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.



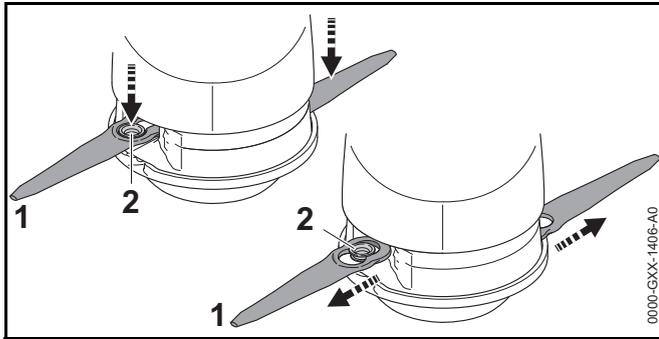
- ▶ Cut the mowing lines so that they extend as far as the line limiting blade.

### 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

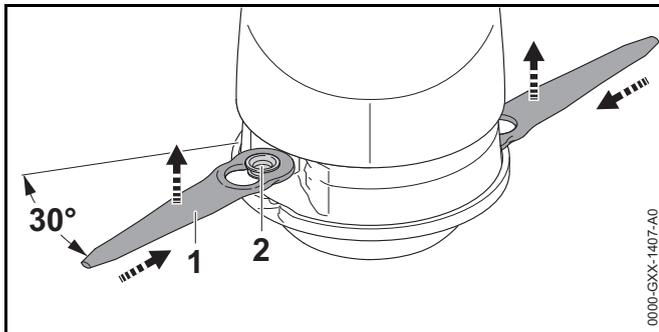
- ▶ Switch off the trimmer and remove the activation key.
- ▶ Place blades in a container filled with water for 12 to 24 hours before using.  
This makes the blades supple.



- ▶ 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

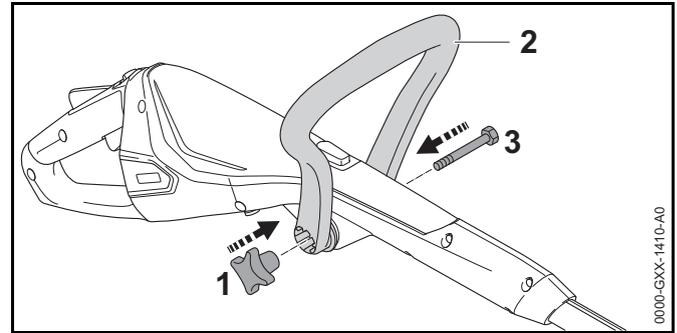
- ▶ Switch off the trimmer and remove the activation key.



- ▶ 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.



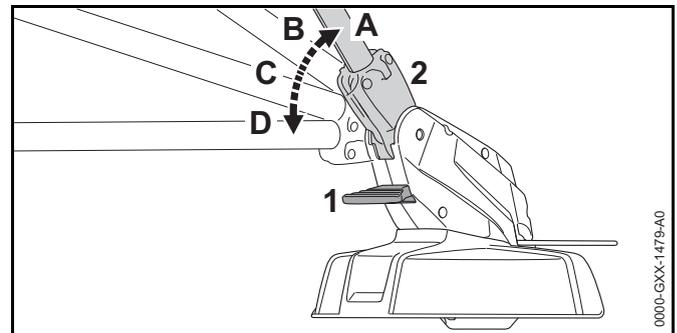
- ▶ Position the loop handle (2) so that the recess for the star knob nut (1) is on the right – viewed from the control handle.
  - ▶ Ease the ends of the loop handle (2) apart and push it onto the control handle until it engages in position.
  - ▶ Insert the screw (3) through the hole.
  - ▶ Fit the 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.

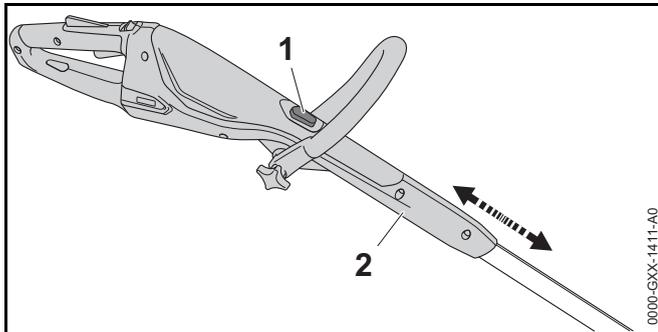


- ▶ Depress the lever (1) and hold it in that position.
- ▶ Move shaft (2) to the required position (A to D) until it engages.
- ▶ Release the lever (1).

## 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.

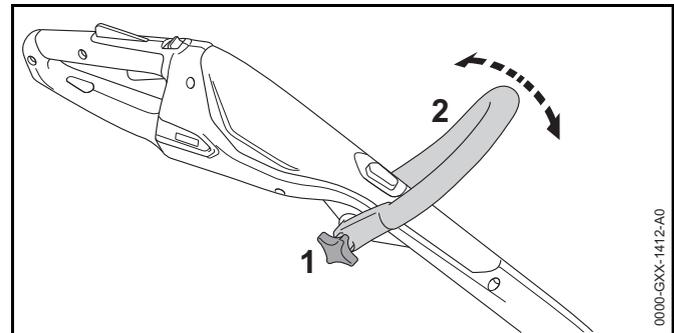


- ▶ Depress lock button (1) and hold it in that position.
- ▶ Pull or push the control handle (2) to the required position.
- ▶ Release the lock button (1).
- ▶ Move the control handle (2) back and forth until it engages.

## 8.3 Adjusting the Loop Handle

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

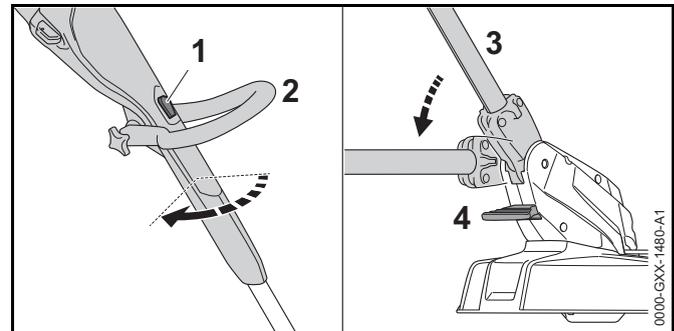
- ▶ Switch off the trimmer and remove the activation key.



- ▶ 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

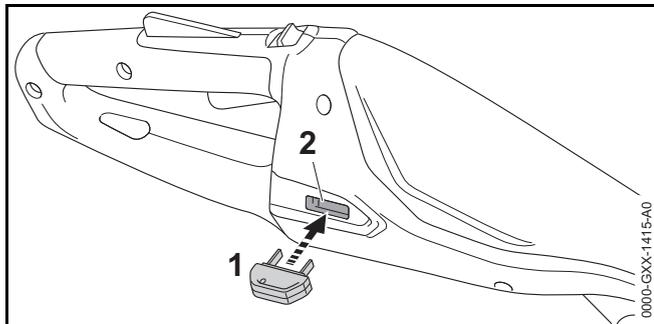
- ▶ Switch off the trimmer and remove the activation key.



- ▶ 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).

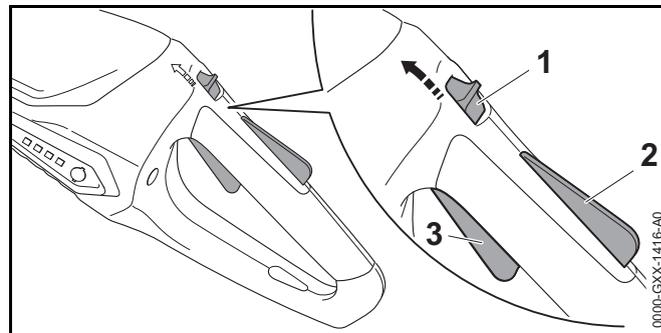
### 9.2 Removing the Activation Key

- ▶ 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.

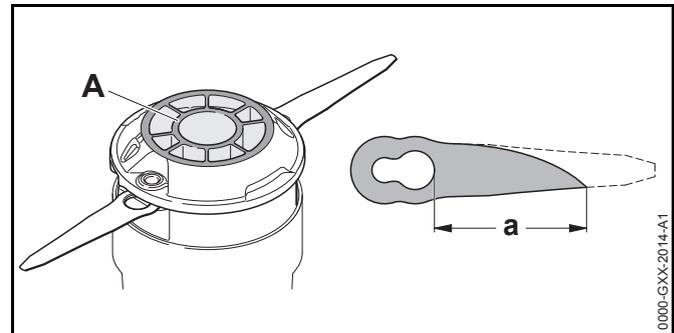
- ▶ Push the release slide (1) in the direction of the loop handle with your thumb and hold it there.
- ▶ Depress the trigger lockout lever and hold it in that position.
- ▶ Pull the trigger.
- ▶ Let go of the trigger, trigger lockout and release slide.
- ▶ If the trigger, trigger lockout or release 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 trimmer and remove the activation key.



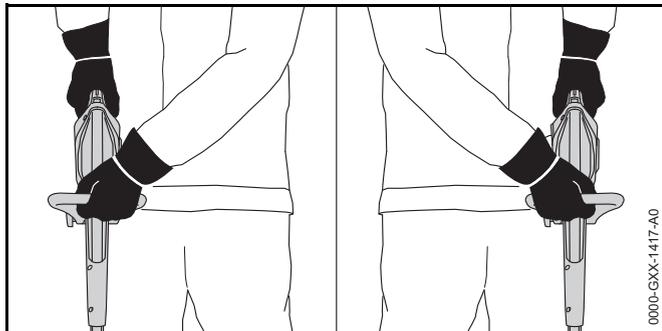
- ▶ If the wear mark (A) on the underside of the PolyCut 2-2 head is visible: Have the PolyCut 2-2 mowing head replaced by a STIHL servicing dealer.
- ▶ If the length of one of the blades, measured from the large bore to the tip, is less than 'a' = 45 mm: Replace both blades.

## 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

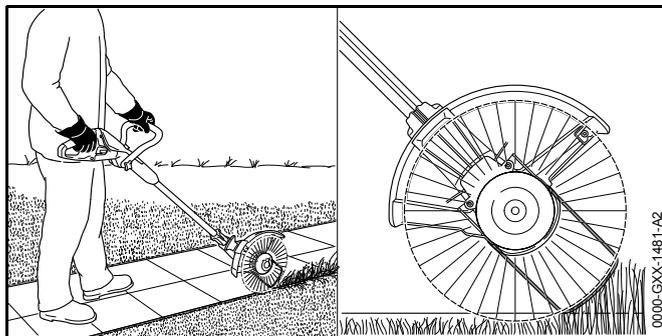
### 12.1 Holding and Controlling the Trimmer



- ▶ 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

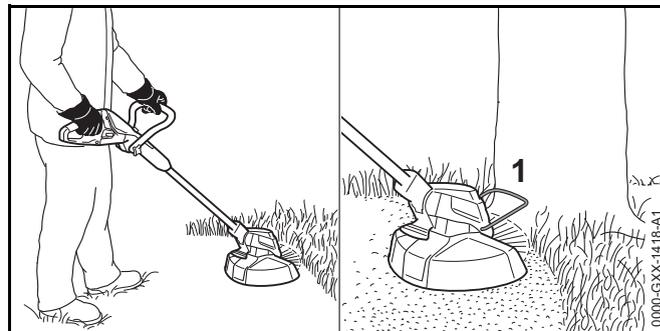
- ▶ Convert the trimmer to an edger.
- ▶ Extend the bump guard fully.



- ▶ 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 trimmer back and forth in an arc.
- ▶ Walk slowly and steadily forwards.
- ▶ 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 Trimmer

- ▶ Switch off the trimmer and remove the activation key.
- ▶ 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.
- ▶ If the trimmer has to be packed: Observe the following points when packing the trimmer:
  - Packaging or transport box must be non-conductive.
  - Make sure the trimmer cannot shift inside the packaging or transport box.
  - Secure the packaging or transport box so that the packaging or transport box cannot move.

Owing to the built-in battery, the trimmer is subject to the requirements for transporting dangerous goods. The trimmer is classified as UN 3481 (lithium-ion batteries in equipment) 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](http://www.stihl.com/safety-data-sheets)

## 15 Storing

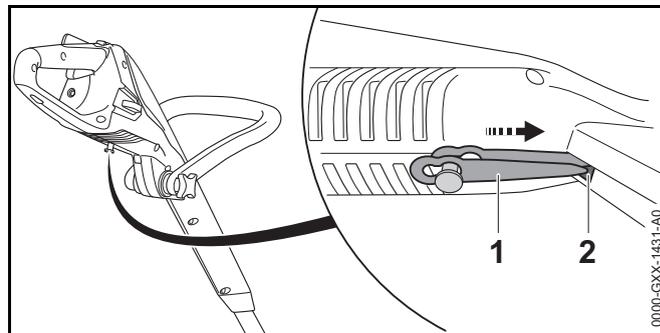
### 15.1 Storing the Trimmer

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

- ▶ Switch off the trimmer and remove the activation key.
- ▶ Remove the mowing lines.
- ▶ Observe the following points when storing the trimmer:
  - The trimmer is out of the reach of children.
  - The trimmer is clean and dry.
  - Trimmer is in an enclosed space.
  - Trimmer is separated from the charging cable.
  - Trimmer is in a temperature range between 0°C and +50°C.

### 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 Trimmer

- ▶ Switch off the trimmer and remove the activation key.
- ▶ Clean the trimmer with a damp cloth.

### 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.

- ▶ 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.

## 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 servicing dealer.
		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 your STIHL servicing dealer.

## 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
- 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](http://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](http://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/s<sup>2</sup>.

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/s<sup>2</sup>
  - Loop handle: 1.7 m/s<sup>2</sup>

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](http://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](http://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:

- AutoCut 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 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 Disposing of Trimmer and Charging Cable

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

- ▶ Have trimmer disposed of by STIHL servicing dealer. The STIHL dealer removes the built-in battery from the trimmer for separate disposal.
- ▶ Dispose of the deflector, cutting attachment, charging cable, accessories and packaging in accordance with local regulations and environmental requirements.

## 23 EC Declaration of Conformity

### 23.1 STIHL FSA 45 Trimmer

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

declare in exclusive responsibility that

- Category: Cordless grass trimmer/edger
- Make: STIHL
- Model: STIHL FSA 45:
- Serial identification: 4512

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 50636-2-91 (Paragraph 7.1 modified using Art. 3 of Directive 2003/10/EU)

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

Notified body: Intertek House, Cleeve Road, Leatherhead, Surrey KT22 7SB, UK

- Measured sound power level: 94 dB(A)
- Guaranteed sound power level: 96 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 written in a cursive style with a large initial 'T'.

Thomas Elsner, Director Product Management and Services

### **23.2 STIHL LK 45 Charging Cable**

This charging cable is 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 charger.

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

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englisch



[www.stihl.com](http://www.stihl.com)



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