

RGA 140

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 documents

The local safety regulations apply.

- ▶ In addition to this User Manual, you should also read, understand and retain the following documents:
 - User Manual for STIHL AR battery
 - User Manual for "AP belt bag with connecting cable"
 - Safety notices and precautions for STIHL AP battery
 - User Manual for STIHL AL 101, 301, 301-4, 500 chargers
 - Safety information for STIHL batteries and products with built-in battery:
www.stihl.com/safety-data-sheets

For further information on STIHL connected, compatible products and FAQs, please visit www.connect.stihl.com or available from a STIHL servicing dealer.

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. These word marks and logos are used by STIHL under license.

Batteries with  are equipped with a Bluetooth® radio interface. Local operating restrictions (in aircraft or hospitals, for example) must be observed.

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.

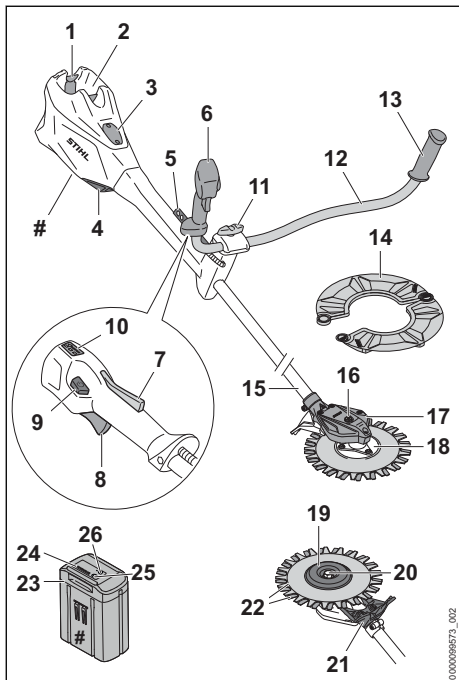
2.3 Symbols in Text



This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 Weeder and Battery



1 Locking lever

The locking lever holds the battery in the battery compartment.

2 Battery compartment

The battery compartment holds the battery.

3 Cover¹

The cover is the placeholder for a Smart Connector 2 A.

4 Air filter

The air filter filters the air entering the engine.

5 Carrying strip

Perforated strip for suspending the carrying system.

6 Control handle

The control handle operates, holds and directs the weeder.

7 Trigger lockout

The trigger lockout unlocks the trigger.

8 Trigger

The trigger switches the weeder on and off.

9 Unlock button

The unlock button switches on the weeder and selects the power level.

10 LEDs

These LEDs indicate the selected power level.

11 Wing screw

The wing screw secures the handlebar to the handle support.

12 Handlebar

The handlebar connects the control handle and the handle to the shaft.

13 Handle

The handle holds and directs the weeder.

14 Transport guard

The transport guard helps protect the user against contact with the blades.

15 Shaft

The shaft connects all components.

16 Screw plug

The screw plug closes the filler opening for STIHL gear grease.

17 Gear housing

The gear housing encloses the gearbox.

18 Blade mounting

The blade mounting secures the blades.

19 Rider plate

The rider plate covers the blade mounting.

20 Screw

The screw secures the rider plate to the KombiTools.

21 Machine support

The machine support is for resting the KombiTool on the ground.

22 Blade

The blades cut weeds and grass.

23 Battery

The battery supplies power to the weeder.

24 LEDs

The LEDs indicate the state of charge of the battery and any faults.

¹The cover is part of the motor housing. Only remove the cover to install a Smart Connector 2 A and store it safely for later re-installation. Always use the weeder with the cover or Smart Connector 2 A installed.

25 Pushbutton


The pushbutton activates the LEDs on the battery. The pushbutton activates and deactivates Bluetooth® radio interface (if available).


26 "BLUETOOTH" LED (only for batteries with )


The LED indicates the activation and deactivation of the Bluetooth® interface.


Rating plate with the machine number**3.2 Symbols**


Meaning of symbols that may be on the weeder and the battery:


 This symbol marks the filler opening for STIHL gear grease.


 1 LED lights up red. The battery is too warm or too cold.


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


 Press the unlock button to switch the weeder on and set the power levels.

 This symbol marks the unlock button.

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


 The battery is equipped with a Bluetooth® radio interface and can be paired with the STIHL connected app.


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

 Do not dispose of the product with domestic waste.

4 Safety Precautions**4.1 Warning symbols**

The warning symbols on the weeder or the battery have the following meanings:

 Observe safety warnings and take the necessary precautions.

 Read and understand the User Manual and keep it in a safe place for reference.



Wear protective glasses.



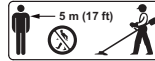
Wear safety boots.



Wear work gloves.



Do not touch the moving blades.



Maintain a safe distance.



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



Do not touch a hot surface.



Protect the battery against heat and fire.




Do not immerse the battery in liquids.

4.2 Intended Use

The STIHL RGA 140 weeder is designed to remove weeds and mow grass.

The weeder may be used in the rain.

The weeder is powered by a STIHL AP battery or a STIHL AR battery.

The battery with  in combination with the STIHL connected app enables customization and the transfer of information to the battery using Bluetooth® technology.

▲ WARNING

- Batteries not approved by STIHL for the weeder may cause fires and explosions. Persons may be seriously or fatally injured, and property may be damaged.
 - ▶ Operate the weeder with a STIHL AP battery or a STIHL AR battery.

- Using the weeder or the battery for purposes other than those intended may result in serious or fatal injuries and damage to property.
 - ▶ Use the weeder as described in this User Manual.
 - ▶ Use the battery as described in this User Manual, the STIHL AR battery User Manual, the STIHL connected app and at www.connect.stihl.com.

4.3 Requirements for the user

⚠ WARNING

- Users who have not received instruction cannot recognize and assess the dangers of the weeder and the battery. The user or other persons may sustain serious or fatal injuries.



- ▶ Read and understand the User Manual and keep it in a safe place.

- ▶ If the weeder or battery is passed on to another person: Always give them the User Manual.
- ▶ Make sure that the user meets the following conditions:
 - The user is rested.
 - The user has good hearing and eyesight and the necessary physical and mental fitness to operate and work with the weeder or batteries. If the user is able to operate the equipment but is physically, hearing, visually or mentally impaired, the user may only work with the equipment under the supervision of or after receiving instruction from a responsible person.
 - The user can recognize and assess the hazards of the weeder and battery.
 - The user is an adult or is being trained in an occupation under supervision according to national regulations.
 - The user has received instruction from a STIHL servicing dealer or other expert before operating the weeder for the first time.
 - The user is not under the influence of alcohol, medication or drugs.
- ▶ If you are unsure: Consult a STIHL servicing dealer.

4.4 Clothing and Equipment

⚠ WARNING

- Long hair can be pulled into the weeder during operation. This may result in serious injury to the user.
 - ▶ Tie up and confine long hair above your shoulders.
- Objects can be thrown at high speed during operation. This may result in injury to the user.
 - ▶ Wear close-fitting safety glasses. Suitable protective glasses tested to standard EN 166 or national standards and bearing the corresponding label are available from retailers.
 - ▶ Wear long pants made of robust 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.
- Unsuitable clothing can get caught on wood, undergrowth and in the weeder. Users not wearing suitable clothing may be seriously injured.
 - ▶ Wear close-fitting clothing.
 - ▶ Remove scarves and jewelry.
- The user can come into contact with the blades during operation. This may result in serious injury to the user.
 - ▶ Wear robust footwear.



- ▶ Wear steel-toed safety boots.
- ▶ Wear long pants made of robust material.
- The user can come into contact with the blades during cleaning or maintenance work. 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 non-slip soles.

4.5 Work Area and Surroundings

4.5.1 Weeder

⚠ WARNING

- Bystanders, children and animals cannot recognize and assess the dangers of the weeder and objects being thrown into the air. This may

result in serious injury to bystanders, children and animals and damage to property.



▶ Do not allow bystanders, children or animals within 5 meters of the work area.

- ▶ Maintain a distance of 3 meters from objects.
- ▶ Do not leave the weeder unattended.
- ▶ Make sure that children cannot play with the weeder.
- Electrical components of the weeder 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.

4.5.2 Battery

▲ WARNING

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



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

- ▶ Do not charge, use and store the battery outside of the specified temperature limits, 21.4.



- ▶ Do not immerse the battery in liquids.

- ▶ Keep battery away from small metal parts.
- ▶ Do not expose the battery to high pressure.
- ▶ Do not expose the battery to microwaves.
- ▶ Protect the battery from chemicals and salts.

4.6 Safe Condition

4.6.1 Weeder

The weeder is in a safe condition if the following requirements are met:

- The weeder is undamaged.
- The weeder is clean.
- The controls function properly and have not been modified.
- The gear housing is correctly attached.
- Original STIHL accessories designed for this weeder are attached.
- The accessories are correctly attached.

▲ WARNING

- If not in safe condition, components may no longer operate correctly and safety devices may be rendered ineffective. This can result in serious or fatal injuries.
 - ▶ Work only with an undamaged weeder.
 - ▶ If the weeder is dirty: Clean the weeder.
 - ▶ Do not modify the weeder.
 - ▶ If the controls do not function properly: Do not work with the weeder.
 - ▶ Attach original STIHL accessories for this weeder.
 - ▶ Attach gear housing 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 weeder's openings.
 - ▶ Replace worn or damaged labels.
 - ▶ If you are unsure: Consult a STIHL servicing dealer.

4.6.2 Blades

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

- The blades and mounting hardware are undamaged.
- The blades are not deformed.
- The blades are properly mounted.
- The blades are burr-free.

▲ WARNING


- If they are in an unsafe condition, parts of the blades may come off and be thrown at high speed. This can result in serious injuries.
 - ▶ Never work with damaged blades or damaged mounting hardware.
 - ▶ Sharpen the blades properly.
 - ▶ Deburr the cutting edges with a file.
 - ▶ If you have any queries: Contact a STIHL servicing dealer for assistance.

4.6.3 Battery

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

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

⚠ WARNING

- A battery that is not in a safe condition cannot operate safely. Persons may be seriously injured.
 - ▶ Never work with a damaged battery.
 - ▶ Never attempt to charge a damaged or defective battery.
 - ▶ If the battery is dirty: Clean the battery.
 - ▶ If the battery is wet or damp: Allow the battery to dry,  21.5.
 - ▶ Never attempt to modify the battery.
 - ▶ Never insert objects in the battery's openings.
 - ▶ Never bridge the battery's contacts with metallic objects (short circuit).
 - ▶ Do not open the battery.
 - ▶ Replace worn or damaged labels.
- Fluid may leak from a damaged battery. If that liquid comes into contact with the skin or eyes, the skin or eyes may be irritated.
 - ▶ Avoid contact with the liquid.
 - ▶ If skin contact occurs: Wash affected areas of skin with plenty of water and soap.
 - ▶ In the event of contact with eyes: Rinse eyes with plenty of water for at least 15 minutes and consult a doctor.
- A damaged or defective battery may smell unusual, emit smoke or burn. Persons may be seriously or fatally injured, and property may be damaged.
 - ▶ If the battery smells unusual or emits smoke: do not use the battery and keep it away from combustible substances.
 - ▶ If the battery catches fire: Attempt to extinguish the battery with a fire extinguisher or water.

4.7 Working

⚠ WARNING

- In certain situations, the user may no longer be able to concentrate on their work. This may result in the user stumbling, falling and suffering serious injury.
 - ▶ Work calmly and methodically.
 - ▶ If light and visibility are poor: Do not work with the weeder.
 - ▶ Operate the weeder without assistance.

- ▶ Keep the blades close to the ground.
- ▶ Watch out for obstacles.
- ▶ Work standing on the ground and keep your balance.
- ▶ If you start feeling fatigue: Take a break.
- The rotating blades can cut the user. This may result in serious injury to the user.



- ▶ Do not touch the rotating blades.
- ▶ If the blades are blocked by an object: Turn off the weeder and remove the battery. Only then remove the object.
- If the behavior of the weeder changes during operation or feels unusual, it may no longer be in a safe condition. This may result in serious injury to people and damage to property.
 - ▶ Stop working, remove the battery and consult a STIHL servicing dealer.
- Vibrations may occur while using the weeder.
 - ▶ Wear gloves.



- ▶ Take breaks.
- ▶ If signs of a circulatory disturbance occur: Consult a doctor.
- Sparks can be produced if the rotating blade hits a hard object. 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.
- Note that the blades continue to run for a short period after you release the trigger. This can result in serious injuries.
 - ▶ Wait until the blades are no longer rotating.
- There is an increased risk of objects being thrown if cutting performance deteriorates or cuttings frequently become jammed. This may result in injury to the user.
 - ▶ Sharpen the blades as described in the User Manual.
- In an emergency, the user may start to panic and forget to take off the carrying system. This may result in serious injury to the user.
 - ▶ Practice taking off the carrying system.

⚠ DANGER

- Working near live electric cables can result in accidental contact with the blades and damage the cables. This may result in serious or fatal injury to the user.
 - ▶ Do not operate in the vicinity of live cables.
 - ▶ Also watch out for buried cables.

4.8 Transporting

4.8.1 Weeder

⚠ WARNING

- The gear housing can get hot during operation. There is a risk of burn injuries.
 - ▶ Do not touch a hot gear housing.



- The weeder may tip over or shift during transport. This may result in injury to people and damage to property.



- ▶ Remove the battery.
- ▶ Attach the transport guard.
- ▶ Secure the weeder with lashing straps, belts or a net to prevent it from tipping over and shifting position.

4.8.2 Battery

⚠ WARNING

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

4.9 Storing

4.9.1 Weeder

⚠ WARNING

- Children cannot recognize and assess the dangers of the weeder. Children may be seriously injured.



- ▶ Remove the battery.
- ▶ Attach the transport guard.
- ▶ Store the weeder out of the reach of children.
- Moisture may cause the electrical contacts on the weeder and metal components to corrode. The weeder may be damaged.



- ▶ Remove the battery.

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

4.9.2 Battery

⚠ WARNING

- Children are not aware of and cannot assess the dangers of the battery. Children may be seriously injured.
 - ▶ Store the battery out of the reach of children.
- The battery is not protected against all ambient conditions. If the battery is exposed to certain ambient conditions, the battery may be irreparably damaged.
 - ▶ Store the battery in a clean and dry condition.
 - ▶ Store the battery in an enclosed space.
 - ▶ Store battery separately from the weeder.
 - ▶ If the battery is stored in the charger, disconnect the mains plug and store the battery at a state of charge between 40% and 60% (2 lit green LEDs).
 - ▶ Do not store the battery outside of the specified temperature limits, 21.4.

4.10 Cleaning, maintenance and repair

⚠ WARNING

- The weeder may be switched on unintentionally if the battery is left in place during cleaning, maintenance or repair work. This may result in serious injury to people and damage to property.



- ▶ Remove the battery.

- The gear housing can get hot during operation. There is a risk of burn injuries.



- ▶ Do not touch a hot gear housing.

- Using harsh detergents and cleaning with a water jet or sharp objects can damage the weeder, blades or battery. If the weeder, blades or battery 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 weeder, blades and battery as described in this User Manual.
- If the weeder, gearbox, blades or battery are not 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 weeder and the battery yourself.
 - ▶ If the weeder or the battery require servicing or repairs: Contact a STIHL servicing dealer.
 - ▶ Maintain the gearbox and blades as described in this User Manual.
- The user can be cut by the sharp cutting edges while cleaning or servicing the blades. This may result in injury to the user.



- ▶ Wear work gloves made of robust material.

5 Preparing Weeder for Operation

5.1 Preparing Weeder for Operation

The following steps must be performed before commencing work:

- ▶ Ensure that the following components are in a safe condition:
 - Weeder, [11](#) 4.6.1.
 - Blades, [11](#) 4.6.2.
 - Battery, [11](#) 4.6.3.
- ▶ Check the battery, [11](#) 12.3.
- ▶ Fully charge battery as described in the User Manual for the STIHL AL 101, 301, 301-4, 500 chargers.
- ▶ Clean weeder, [11](#) 17.1.
- ▶ Mount the bike handle, [11](#) 8.1.
- ▶ Mount the gear housing, [11](#) 8.2.
- ▶ Check the blades, [11](#) 12.2.
- ▶ Fit and adjust the carrying system, [11](#) 9.1.
- ▶ Adjust the bike handle, [11](#) 9.2.
- ▶ Balance the weeder, [11](#) 9.3.
- ▶ Check the controls, [11](#) 12.1.
- ▶ If you cannot carry out these steps: Do not use the weeder; contact a STIHL servicing dealer for assistance.

5.2 Connecting a battery with Bluetooth® radio interface with the STIHL connected app

- ▶ Activate the Bluetooth® radio interface on the mobile device.
- ▶ Activating the Bluetooth® radio interface on the battery, [11](#) 7.1.
- ▶ Download the STIHL connected app to the mobile device from the App Store and create an account.
- ▶ Open and sign in to the STIHL connected app.
- ▶ Add the battery in the STIHL connected app and follow the instructions on the screen.

For contacts and other information, please visit <https://support.stihl.com> or see the STIHL connected app.

The STIHL connected app is available internationally.

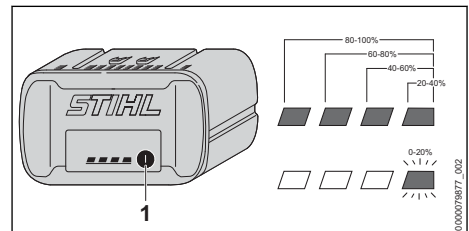
6 Charging the Battery, LEDs

6.1 Charging the Battery

The charging time depends on various factors, e.g. the battery temperature or the ambient temperature. For optimum performance, observe the recommended temperature ranges, [11](#) 21.5. The actual charging time may vary from the charging time indicated. The charging time is indicated at www.stihl.com/charging-times.

- ▶ Recharge the battery as described in the User Manual for the STIHL AL 101, 301, 301-4, 500 chargers.

6.2 Displaying the charge level




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

6.3 LEDs on the Battery

The LEDs can indicate the state of charge of the battery or any faults. The LEDs can be steady green, steady red or flashing.


If the LEDs are steady or flashing green, this indicates the state of charge of the battery.

- ▶ If the LEDs glow or flash red: Troubleshooting,  20.1.


There is a fault in the weeder or battery.

7 Activating and Deactivating Bluetooth® Radio Interface

7.1 Activating the Bluetooth® Radio Interface

- ▶ If the battery has a Bluetooth® radio interface: Press and hold the pushbutton until the "BLUETOOTH®" LED next to the  symbol lights up blue for approximately 3 seconds. The Bluetooth® radio interface on the battery is activated.

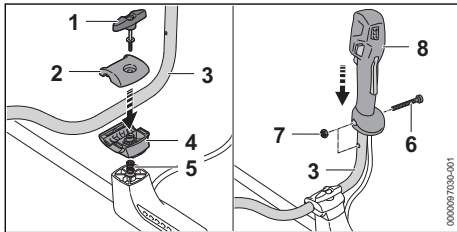
7.2 Deactivating the Bluetooth® Radio Interface


- ▶ If the battery has a Bluetooth® radio interface: Press and hold the pushbutton until the "BLUETOOTH®" LED next to the  symbol lights up blue six times. The Bluetooth® radio interface on the battery is deactivated.

8 Assembling Weeder

8.1 Mounting the Bike Handle

- ▶ Switch off the weeder and remove the battery.

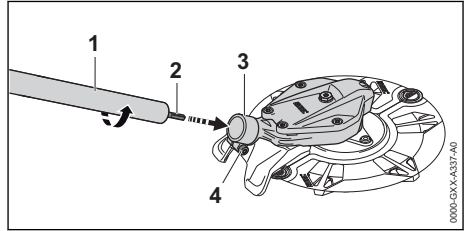


- ▶ Remove the wing screw (1).
- ▶ Remove the clamp moldings (2 and 4).
- ▶ Place the handlebar (3) in the lower clamp molding  (4).
- ▶ Fit the upper clamp molding (2).
- ▶ Insert the spring (5) from below into the lower clamp molding (4).
- ▶ Place the clamp moldings (2 and 4) on the shaft and insert the wing screw (1).
- ▶ Swing the handlebar (3) up.
- ▶ Tighten the wing screw (1).
- ▶ Remove the screw (6).

- ▶ Position the control handle (7) on the handlebar (3), trigger facing the gear housing, and line up the hole in the control handle with the hole in the handlebar.
- ▶ Fit the nut (7).
- ▶ Screw in and securely tighten the screw (6).

It is not necessary to remove the bike handle again.

8.2 Mounting the gear housing

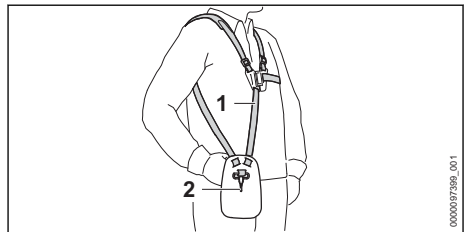


- ▶ Loosen the screw (4).
- ▶ Push the shaft (1) into the gear housing (3) and turn it until the gear shaft (2) engages.
- ▶ Tighten the screw (4) slightly.
- ▶ Position the gear housing (3) so that it faces upward.
- ▶ Tighten the screw (4) securely.

The gear housing does not need to be removed again.

9 Adjusting Weeder for User

9.1 Fitting and Adjusting the Full Harness

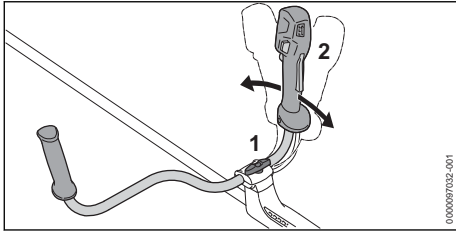


- ▶ Putting on the Full harness (1).
- ▶ Adjust the full harness (1) so that the carabiner (2) is about a hand's width below your right hip.

9.2 Adjusting the Bike Handle

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

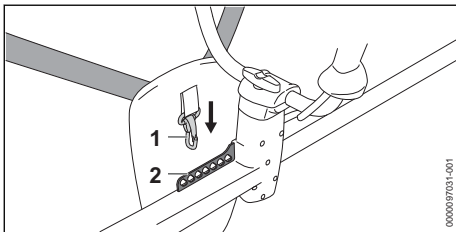
- ▶ Switch off the weeder and remove the battery.
- ▶ Use the perforated strip to hook the weeder into the carabiner of the carrying system.



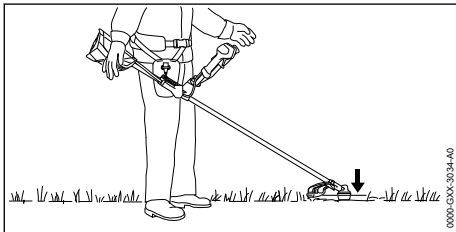
- ▶ Loosen the wing screw (1).
- ▶ Swing the bike handle (2) to the required position.
- ▶ Tighten the wing screw (1) securely.

9.3 Balancing the weeder

- ▶ Switch off the weeder.



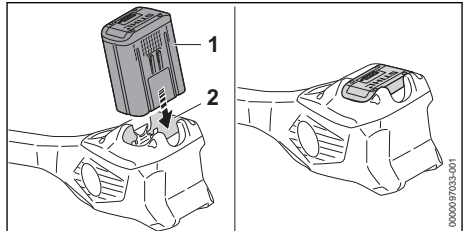
- ▶ Hook the perforated strip (2) into the carabiner (1).



- ▶ The weeder should be balanced so that the rider plate just rests on the ground.
- ▶ If the weeder cannot be balanced: Hook the carabiner (1) into another hole in the perforated strip (2) and check the balance again.

10 Removing and Fitting the Battery

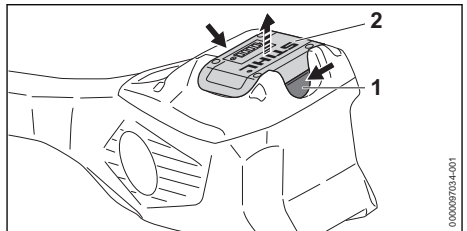
10.1 Inserting the Battery



- ▶ Insert the battery (1) up to the limit stop into the battery compartment (2). The battery (1) engages with a click and is now locked.

10.2 Removing the Battery

- ▶ Place the weeder on a level surface.

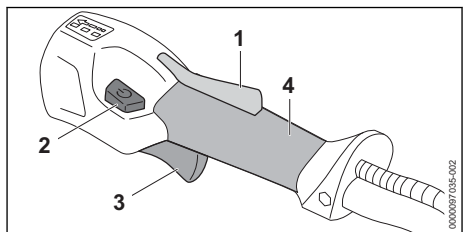


- ▶ Press both locking levers (1). The battery (2) is unlocked and can be removed.

11 Switching the Weeder On/Off

11.1 Switching the weeder on

- ▶ Hold the weeder firmly with your right hand on the control handle so that your thumb wraps around the control handle.
- ▶ Hold the weeder with your left hand on the handle so that your thumb wraps around the handle.



- ▶ Press the trigger lockout (1) with your hand and keep it pressed.
- ▶ Press the unlock button (2).
The LEDs emit light to indicate the power level used last.
- ▶ Press the trigger (3) with your index finger and keep it depressed.
The weeder accelerates and the blades rotate.

The more you press the trigger (3), the faster the blades rotate.

The weeder can also be switched on by first pressing the release button (2) and then pressing the trigger lockout (1) within 5 seconds (as long as the LEDs are flashing). The trigger (3) is now unlocked, and the weeder is ready for use.

The LEDs continue flashing for 5 seconds after the trigger (3) and trigger lockout (1) are released after the weeder is switched on. As long as the LEDs are flashing, the weeder can be switched on again without having to press the unlock button (2).

11.2 Switching the weeder off

- ▶ Release the trigger and trigger lockout.
- ▶ Wait until the blades are no longer rotating.
- ▶ If the blades continue to rotate: Remove the battery and contact a STIHL servicing dealer.
The weeder is defective.

12 Checking Weeder and Battery

12.1 Checking the Controls

Trigger lockout and trigger

- ▶ Remove the battery.
- ▶ Try pressing the trigger without pressing the trigger lockout.
- ▶ If the trigger can be pressed: Do not use the weeder; consult a STIHL servicing dealer.
The trigger lockout is defective.
- ▶ Press and hold the trigger lockout.
- ▶ Press and release the trigger.
- ▶ If the trigger or trigger lockout is stiff or does not spring back to the idle position: Do not use the weeder; contact a STIHL serving dealer.
The trigger or the trigger lockout is defective.

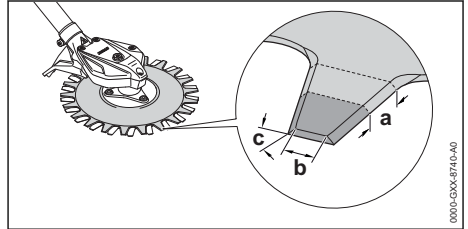
Switching the weeder on

- ▶ Insert battery.
- ▶ Press and hold the trigger lockout.
- ▶ Press the unlock button.
- ▶ Press and hold the trigger.
The blades rotate.

- ▶ If 3 LEDs on the battery flash red: Remove the battery and contact a STIHL servicing dealer.
There is a fault in the weeder.
- ▶ Release the trigger.
The blades stop rotating after a short period of time.
- ▶ If the blades continue to rotate: Remove the battery and contact a STIHL servicing dealer.
The weeder is defective.

12.2 Checking the Blades

- ▶ Switch off the weeder.



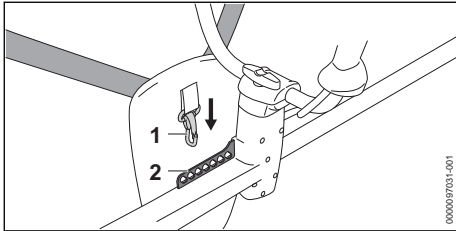
- ▶ Measure the following points on the blades:
 - Length a
 - Width b
 - Angle c
- ▶ Compare measurements, [12.2](#).
- ▶ If the length is below the minimum: Offset the blades, [18.4](#).
- ▶ If the width is below the minimum: Replace the blades, [18.3](#).
- ▶ If the sharpening angle is not correct: Sharpen the blades, [18.5](#).
- ▶ If you are unsure: Consult a STIHL servicing dealer.

12.3 Testing the Battery

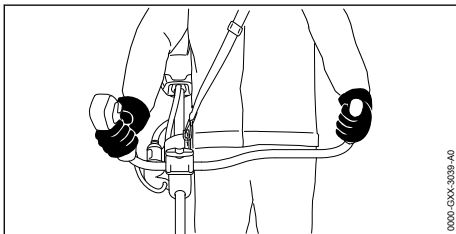
- ▶ Press button on battery.
The LEDs glow or flash.
- ▶ If the LEDs do not glow or flash: Do not use the battery and contact your STIHL servicing dealer.
There is a malfunction in the battery.

13 Working with the Weeder

13.1 Holding and guiding the weeder



- ▶ Hook the perforated strip (2) into the carabiner (1).

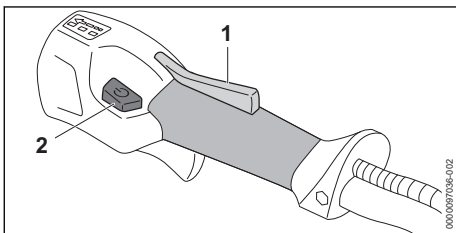


- ▶ Hold the weeder firmly with your right hand on the control handle so that your thumb wraps around the control handle.
- ▶ Hold the weeder with your the left hand on the handle so that your thumb wraps around the handle.

13.2 Setting the Power Level

Depending on the application, you can set 3 power levels. The LEDs indicate the selected power level. The higher the power level, the faster the blades will rotate.

The selected power level affects the battery's runtime. The lower the power level, the longer the runtime.

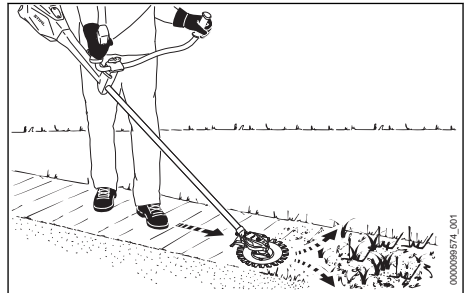


- ▶ Press and hold the trigger lockout (1).
 - ▶ Press the unlock button (2).
- The LEDs illuminate to indicate the selected power level.

- ▶ Press and hold the unlock button (2). This selects the next power level. After the third performance level, it starts again with the first performance level.
- ▶ Push the unlock button (2) as many times as necessary to set the desired power level.

13.3 Weeding and Mowing Grass

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



- ▶ Move the weeder evenly back and forth.
- ▶ Walk forward slowly and steadily.

For optimum performance, observe the recommended temperature ranges, 21.5.

14 After Finishing Work

14.1 After Finishing Work

- ▶ Switch off the weeder and remove the battery.
- ▶ If the weeder is wet: Allow the weeder to dry.
- ▶ If the battery is moist or wet: Allow the battery to dry, 21.5.
- ▶ Clean the weeder.
- ▶ Clean the blades.
- ▶ Clean the battery.
- ▶ Attach the transport guard.

15 Transporting

15.1 Transporting the weeder

- ▶ Switch off the weeder and remove the battery.
- ▶ Attach the transport guard.

Carrying the weeder

- ▶ Carry the weeder in one hand by the shaft so that the blades are behind you and the weeder is properly balanced.

Transporting the weeder in a vehicle

- ▶ Secure the weeder so that it cannot tip over or shift position.

15.2 Transporting the Battery

- ▶ Switch off the weeder and remove the battery.

- ▶ Check that the battery is in a safe condition.
- ▶ Pack the battery in packaging in such a way that it cannot move inside the packaging.
- ▶ Secure the packaging so that it cannot move.

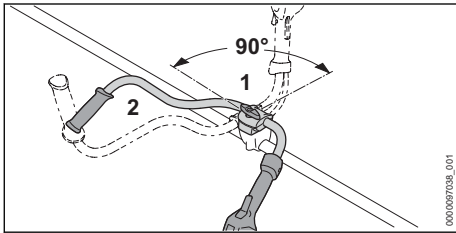
The battery is subject to the Carriage of Dangerous Goods regulations. The battery is classified as UN 3480 (lithium ion batteries) and has been tested pursuant to UN Manual Tests and Criteria Part III, Subsection 38.3.

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

16 Storing

16.1 Storing the weeder


- ▶ Switch off the weeder and remove the battery.
- ▶ Attach the transport guard.



- ▶ Loosen the wing screw (1) and unscrew it until the handlebar (2) can be rotated.
- ▶ Turn the handlebar (2) clockwise through 90° and fold it down.
- ▶ Tighten the wing screw (1) securely.
- ▶ Make sure that the following conditions are met when storing the weeder:
 - The weeder is out of the reach of children.
 - The weeder is clean and dry.

16.2 Storing the Battery

STIHL recommends keeping the battery in a charging state between 40% and 60 % (2 green LEDs lit).

- ▶ The battery should be stored in such a way that the following conditions are fulfilled:
 - The battery is out of the reach of children.
 - The battery is clean and dry.
 - The battery is in an enclosed space.
 - The battery is separated from the weeder.
 - If the battery is stored in the charger, disconnect the mains plug and store the battery at a state of charge between 40% and 60% (2 lit green LEDs).
 - Do not store the battery outside of the specified temperature limits,  21.4.

NOTICE

- If the battery is not stored as described in this User Manual, the battery may become deeply discharged and irreparably damaged.
 - ▶ Charge a discharged battery before storing it. STIHL recommends keeping the battery state of charge between 40% and 60% (2 lit green LEDs).
 - ▶ Store battery separately from the weeder.

17 Cleaning

17.1 Cleaning the Weeder

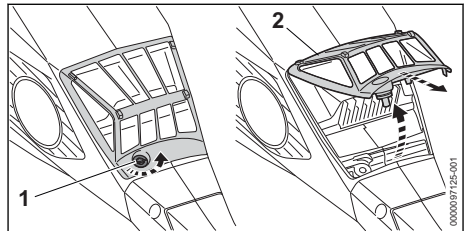
- ▶ Switch off the weeder and remove the battery.
- ▶ Allow gear housing to cool down.
- ▶ Clean the weeder with a damp cloth.
- ▶ Clean vents with a paintbrush.
- ▶ Remove foreign objects from the battery compartment and clean the battery compartment with a damp cloth.
- ▶ Clean the electrical contacts in the battery compartment with a paintbrush or soft brush.

17.2 Cleaning the Blades

- ▶ Switch off the weeder.
- ▶ Spray the blades with STIHL resin solvent.
- ▶ Switch on weeder for 5 seconds. The blades rotate. The STIHL resin solvent is distributed evenly.

17.3 Cleaning the Air Filter

- ▶ Switch off the weeder and remove the battery.



- ▶ Clean the area around the air filter (2) with a damp cloth or paintbrush.
- ▶ Turn the screw (1) counterclockwise until the air filter (2) can be removed.
- ▶ Swing the air filter (2) upwards and pull it off.
- ▶ Pass the air filter (2) under running water to rinse off coarse dirt from the outside.
- ▶ If the air filter (2) is damaged: Install a new air filter (2).
- ▶ Allow the air filter (2) to dry in the air.

- ▶ Install the air filter (2) in the housing and fold it down.
The air filter (2) must sit flush in the housing at all sides.
- ▶ Insert and firmly tighten the screw (1).

17.4 Cleaning the Battery

- ▶ Clean the battery with a damp cloth.

18 Maintenance

18.1 Maintenance intervals

Maintenance intervals depend on the ambient conditions and the operating conditions. STIHL recommends the following maintenance intervals:

After every 25 hours of operation

- ▶ Lubricate the gearbox.

After every 50 hours of operation

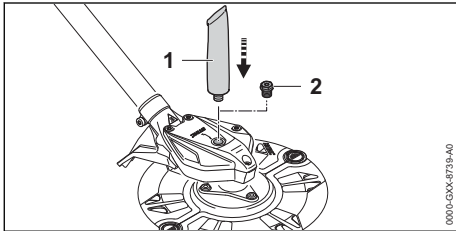
- ▶ Clean the air filter.

Annually

- ▶ Have the weeder checked by a STIHL servicing dealer.

18.2 Lubricating the Gearbox

- ▶ Switch off the weeder.



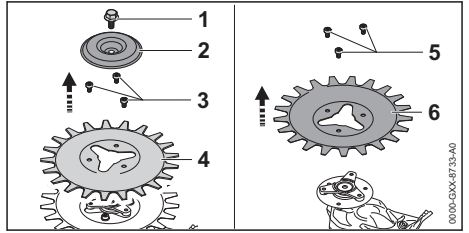
- ▶ Remove screw plug (2).
- ▶ If no grease can be seen on the end of the screw plug (2):
 - ▶ Screw in the tube of STIHL gear lubricant (1).
 - ▶ Squeeze 10 g of STIHL gear grease into the gear housing.
 - ▶ Unscrew the tube of STIHL gear lubricant (1).
 - ▶ Insert and tighten the screw plug (2) securely.
 - ▶ Switch on the KombiEngine for 1 minute.
The STIHL gear lubricant is evenly distributed.

18.3 Removing and Attaching the Blade

18.3.1 Removing the Blades

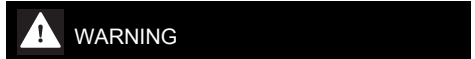


- The cutting edges of the blades are sharp.
There is a risk of cutting oneself.
 - ▶ Wear work gloves made of robust material.
- ▶ Switch off the weeder.

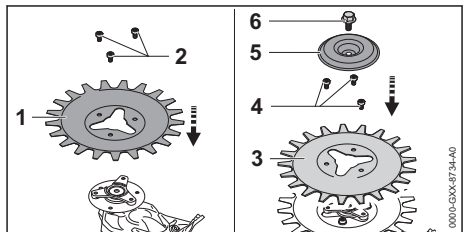


- ▶ Unscrew the screw (1) clockwise.
- ▶ Remove the rider plate (2).
- ▶ Unscrew the screws (3) counterclockwise.
- ▶ Remove the blades (4).
- ▶ Unscrew the screws (5) counterclockwise.
- ▶ Remove the blades (6).

18.3.2 Installing the Blades



- The cutting edges of the blades are sharp.
There is a risk of cutting oneself.
 - ▶ Wear work gloves made of robust material.
- ▶ Switch off the weeder.

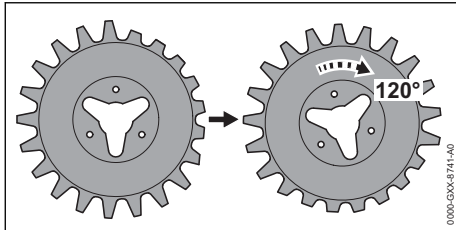


- ▶ Fit blades (1).
- ▶ Screw in the screws (2) clockwise and tighten them securely.
- ▶ Fit blades (3).
- ▶ Screw in the screws (4) clockwise and tighten them securely.
- ▶ Fit the rider plate (5).
- ▶ Screw in the screw (6) and tighten it securely counterclockwise.

18.4 Offsetting the Blades

! WARNING

- The cutting edges of the blades are sharp. There is a risk of cutting oneself.
 - ▶ Wear work gloves made of robust material.
- ▶ Switch off the weeder.
- ▶ Remove blades.

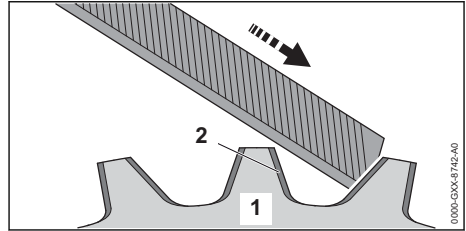



- ▶ Install the blades offset by 120°.
- ▶ If the blades have already been offset twice: Replace blades.
- ▶ If you are unsure: Consult a STIHL servicing dealer.

18.5 Sharpening the Blades

! WARNING

- The cutting edges of the blades are sharp. There is a risk of cutting oneself.
 - ▶ Wear work gloves made of robust material.
- ▶ Switch off the weeder.
- ▶ Remove blades.



- ▶ Use a STIHL flat file to sharpen the cutting edge (2). The file only sharpens on the forward stroke. Maintain the specified sharpening angle,  21.2.
- ▶ Sharpen the other cutting edges.
- ▶ Install the blades.
- ▶ If you are unsure: Consult a STIHL servicing dealer.

19 Repairing

19.1 Repairing the Weeder

The user cannot repair the weeder.

- ▶ If the weeder is damaged: Do not use the weeder; contact a STIHL servicing dealer.

19.2 Servicing and Repairing the Battery




The battery requires no servicing and cannot be repaired.

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

20 Troubleshooting

20.1 Troubleshooting the Weeder or Battery

Fault	LEDs on the battery	Cause	Remedy
The weeder does not start when switched on.	1 LED flashes green.	State of charge of the battery is too low.	▶ Recharge the battery fully as described in the User Manual for the STIHL AL 101, 301, 301-4, 500 chargers.
	1 LED emits red light.	The battery is too warm or too cold.	▶ Remove the battery. ▶ Allow the battery to cool down or warm up.
	3 LEDs flash red.	There is a fault in the weeder.	▶ Remove the battery. ▶ Clean electrical contacts in the battery compartment. ▶ Insert battery. ▶ Switch on weeder. ▶ If 3 LEDs continue to flash red: Do not use the weeder; contact a STIHL servicing dealer.
	3 LEDs light up red.	The weeder is too warm	▶ Remove the battery. ▶ Allow the weeder to cool down.
	4 LEDs flash red.	There is a fault in the battery.	▶ Remove battery and reinsert it. ▶ Switch on weeder.

Fault	LEDs on the battery	Cause	Remedy
			<ul style="list-style-type: none"> ▶ If 4 LEDs continue to flash red: Do not use the battery; contact a STIHL authorized dealer.
	-	There is a break in the electrical connection between the weeder and the battery.	<ul style="list-style-type: none"> ▶ Remove the battery. ▶ Clean electrical contacts in the battery compartment. ▶ Insert battery.
		The weeder or battery is damp.	<ul style="list-style-type: none"> ▶ Allow the weeder or battery to dry,  21.5.
		Trigger is pressed before operating the unlock button.	<ul style="list-style-type: none"> ▶ Switch on the weeder as described in this User Manual.
The weeder cuts out during operation.	3 LEDs light up red.	The weeder is too warm	<ul style="list-style-type: none"> ▶ Remove the battery. ▶ Allow the weeder to cool down.
	-	There is an electrical fault.	<ul style="list-style-type: none"> ▶ Remove the battery and reinsert it. ▶ Switch on weeder.
The weeder's runtime is too short	-	The battery is not fully charged.	<ul style="list-style-type: none"> ▶ Recharge the battery fully as described in the User Manual for the STIHL AL 101, 301, 301-4, 500 chargers.
		The battery life has been exceeded.	<ul style="list-style-type: none"> ▶ Replace battery.
The power levels cannot be set.	-	The trigger is pressed and the weeder is switched on.	<ul style="list-style-type: none"> ▶ Release the trigger and hold only the trigger lockout pressed. ▶ Select the power level as described in this User Manual.
STIHL connected app is unable to find the battery with  .		Bluetooth® radio interface on the battery or mobile device is deactivated.	<ul style="list-style-type: none"> ▶ Activate Bluetooth® radio interface on the battery or mobile device.
		Excessive distance between battery and mobile device.	<ul style="list-style-type: none"> ▶ Reduce distance,  21.3. ▶ If the battery still cannot be found with the STIHL connected app: Contact a STIHL authorized dealer for assistance.

20.2 Product Support and Assistance on Use

Product support and assistance on use are available from STIHL servicing dealers.

For contacts and other information, please visit <https://support.stihl.com> or www.stihl.com.

21 Specifications

21.1 STIHL RG 140 Weeder

- Permitted batteries:
 - STIHL AP
 - STIHL AR
- Weight without battery: 6.4 kg
- Length: 1970 mm


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

21.2 Blades

- Thickness: 1.25 mm

- Minimum width (tooth): 5 mm
- Minimum length (tooth): 10 mm
- Sharpening angle: 45°

21.3 STIHL AP battery

- Battery technology: lithium-ion
- Voltage: 36 V
- Capacity in Ah: see rating label
- Energy content in Wh: see rating label
- Weight in kg: see rating label
- Bluetooth® radio interface (only for batteries with ):

- Data connection: Bluetooth® 5.1. The mobile appliance must be compatible with Bluetooth® Low Energy 5.0 and support Generic Access Profile (GAP).
- Frequency band: ISM band 2.4 GHz
- Maximum RF power transmitted: 1 mW
- Signal range: approx. 10 m. The signal strength depends on the ambient conditions and the mobile terminal. Signal range can vary greatly depending on local conditions, including the receiver. The range may be perceptibly reduced inside enclosed rooms and through metal barriers (such as walls, shelves or cases).
- Mobile appliance operating system requirements: Android or iOS (current version or higher)

21.4 Temperature limits



WARNING

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

21.5 Recommended temperature ranges

For optimum performance of the weeder and battery, observe the following temperature ranges:

- Charging: 5°C to 40°C
- Use: - 10 °C to + 40 °C
- Storage: - 20 °C to + 50 °C

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

If the battery is wet or moist, allow the battery to dry for at least 48 h between 15°C and 50°C and with less than 70% humidity. Higher humidity may extend the drying time.

21.6 Sound Values and Vibration Values

The K-value for the sound pressure levels is 2 dB(A). The K-value for the sound power levels

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

STIHL recommends wearing ear defenders.

- Sound pressure level L_{pA} measured as specified in EN 50636-2-91: 81 dB(A)
- Sound power level L_{WA} measured according to EN 50636-2-91: 93 dB(A)
- Vibration level a_{hv} measured according to EN 50636-2-91
 - Control handle: 2.4 m/s²
 - Left handle: 2.3 m/s²

The vibration levels indicated were measured according to a standardized test method and can be used as a basis for comparing electric power tools. The vibration levels actually occurring may vary from the values indicated, depending on the type of application. The vibration levels indicated can be used for an initial estimate of the vibration stress. The actual vibration stress has to be estimated. The times can be taken into account in the estimate when the electric power tool is switched off and also when it is switched on but running without any load.

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


21.7 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.

22 Spare Parts and Accessories

22.1 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.

23 Disposal

23.1 Disposal of the Weeder and Battery

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

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

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

24 EC Declaration of Conformity

24.1 STIHL RGA 140 Weeder

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

declares under our sole responsibility that

- Design: battery-powered weeder
- Manufacturer's brand: STIHL
- Model: RGA 140
- Series identification: FA02

conforms to the relevant provisions of Directives 2011/65/EU, 2006/42/EC and 2014/30/EU 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 62233, EN 60335-1 and EN ISO 12100, taking EN 50636-2-91 into account.

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

The year of manufacture, country of manufacture and serial number are shown on the weeder.

Waiblingen, 2022-08-01

ANDREAS STIHL AG & Co. KG

pp 

Robert Olma, Vice President, Regulatory Affairs & Global Governmental Relations

25 UKCA Declaration of Conformity

25.1 STIHL RGA 140 Weeder

**UK
CA**

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

declares under our sole responsibility that

- Design: battery-powered weeder
- Manufacturer's brand: STIHL
- Model: RGA 140
- Series identification: FA02

complies with the relevant provisions of the UK regulations The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012, Supply of Machinery (Safety) Regulations 2008 und Electromagnetic Compatibility Regulations 2016 and and has been developed and manufactured in accordance with the versions of the following standards valid on the date of manufacture: EN 55014-1, EN 55014-2, EN 62233, EN 60335-1 and EN ISO 12100, taking into account the standard EN 50636-2-91.

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 weeder.

Waiblingen, 2022-08-01

ANDREAS STIHL AG & Co. KG

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Robert Olma, Vice President, Regulatory Affairs & Global Governmental Relations

www.stihl.com



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