

STIHL

STIHL AL 301-4

Instruction Manual



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STIHL

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1 Introduction

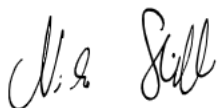
Dear Customer,

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, read, understand and keep the following documents:
 - User Manual for STIHL AR battery
 - Safety notices and precautions for STIHL AP battery

- Vehicle manufacturer's user manual (if the charger is installed in a vehicle)
- Safety information for STIHL batteries and products with built-in battery: www.stihl.com/safety-data-sheets

2.2 Warning Notices in Text

DANGER

This notice refers to risks which result in serious or fatal injury.

- ▶ Serious or fatal injuries can be avoided by taking the precautions mentioned.

WARNING

This notice refers to risks which can result in serious or fatal injury.

- ▶ Serious or fatal injuries can be avoided by taking the precautions mentioned.

NOTICE

This notice refers to risks which can result in damage to property.

- ▶ Damage to property can be avoided by taking the precautions mentioned.

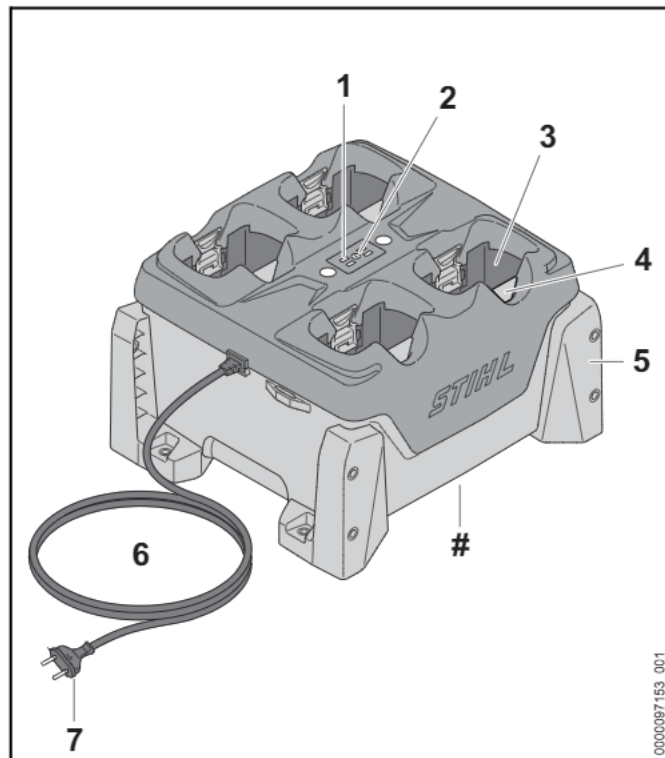
2.3 Symbols in Text



This symbol refers to a chapter in this instruction manual.

3 Overview

3.1 Charger



1 LEDs on charger

The LED indicates the operating status of the charger.

2 Button

The button activates the LEDs on the charger and the batteries.

3 Battery compartment

The battery compartment holds the battery.

4 Locking lever

The locking lever holds the battery in the battery compartment.

5 Holders

The holders are used to mount the charger at the wall, on the table, on a shelf or in a drawer.

6 Connecting cable

The connecting cable connects the charger to the mains plug.

7 Mains plug

The mains plug connects the connecting cable to a socket.

Rating plate with machine number

3.2 Icons

Meanings of symbols that may be on the charger:



Protect the power tool from rain and dampness.



Do not dispose of the product with domestic waste.



Read, understand and keep the User Manual.

4 Safety Precautions

4.1 Warning Symbols

Meanings of the warning signs on the charger:



Observe safety notices and take the necessary precautions.



Read, understand and keep the User Manual.



Protect the charger from rain and dampness.



Never stack more than three chargers.

4.2 Intended Use

The STIHL AL 301-4 charger can recharge up to four STIHL AP and AR batteries.

⚠ WARNING

- Batteries and chargers not explicitly approved by STIHL may cause a fire or explosion. Persons may be seriously or fatally injured and property may be damaged.
 - ▶ Use a STIHL AL 301-4 charger to recharge STIHL AP and AR batteries.
- Using the charger for purposes for which it is not designed may result in serious or fatal injuries and damage to property.
 - ▶ Use the charger as described in this User Manual.

4.3 Requirements concerning the user

⚠ WARNING

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



▶ Read, understand and keep the User Manual.

- ▶ If the charger 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 must be in good physical condition and mental health to operate the charger. If the user is able to operate the equipment but has physical, sensory or mental restrictions, the user may only work with the equipment under the supervision of or after receiving instruction from a responsible person.
 - The user is able to recognize and assess the risks involved in using the charger.
 - 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 experienced user before using the charger for the first time.
 - The user is not under the influence of alcohol, medicines or drugs.
- ▶ If you have any doubts, be sure to consult a STIHL dealer.

4.4 Working Area and Surroundings

⚠ WARNING

- Bystanders, children and animals are not aware of and cannot assess the dangers of a charger or electric current. Bystanders, children and animals may be seriously or fatally injured.
 - ▶ Keep bystanders, children and animals away from the work area.
 - ▶ Make sure that children cannot play with the charger.

- The charger is not waterproof. If you work in the rain or in a damp environment, an electric shock may occur. The user may be injured and the charger may be damaged.



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

- The charger is not protected against all ambient conditions. If the charger is exposed to certain ambient conditions, it may catch fire or explode. This may result in serious injury to people and damage to property.
 - ▶ Operate the charger in an enclosed, dry room.
 - ▶ If the charger is installed and operated in a vehicle: Install and operate the charger in a closed and dry area in the vehicle.
 - ▶ Do not operate the charger in a flammable environment or in an explosive environment.
 - ▶ Do not operate the charger on a readily combustible surface.
 - ▶ Use and store the charger at temperatures between + 5 °C and + 40 °C.
- The connecting cable is a trip hazard. People may be injured and the charger may be damaged.
 - ▶ Lay the connecting cable flat on the floor.
- If the charger is used as a surface to store items or liquids containers, these objects maybe too heavy for the screw connections of the charger, or they may fall off and contents may leak. Persons may be injured or property damaged.
 - ▶ Do not use the charger as a storage surface.

4.5 Safe condition

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

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

- If there are batteries in the charger: The batteries have been properly inserted and locked in the battery compartment.

⚠ WARNING

- If not in safe condition, components may no longer operate correctly and safety devices may be disabled. This may result in serious or fatal injury to people.
 - ▶ Do not use a damaged charger.
 - ▶ If the charger is dirty or wet: Clean the charger and allow it to dry.
 - ▶ Insert the battery as described in this User Manual.
 - ▶ Never attempt to modify the charger.
 - ▶ Never insert objects in the charger's openings.
 - ▶ Never bridge the charger's contacts with metallic objects to short circuit them.
 - ▶ Do not open the charger.
 - ▶ Replace worn or damaged labels.
 - ▶ If you have any doubts, be sure to consult a STIHL dealer.

4.6 Charging

⚠ WARNING

- During charging, a damaged or defective charger may give off an unusual smell or smoke. Persons may be injured or property damaged.
 - ▶ Disconnect the mains plug from the power supply.
- Insufficient heat dissipation may cause the charger to overheat and a fire to break out. Persons may be seriously or fatally injured and property may be damaged.
 - ▶ Do not cover the charger.
- Several chargers can be stacked. Stacks of more than three chargers may easily tip over. This can result in severe injuries to the user and may damage the charger.



- ▶ Never stack more than three chargers.
- ▶ Do not stack chargers while a STIHL AR battery is being charged.
- ▶ If the charger is transported in a vehicle: Do not stack several chargers.

4.7 Connecting to the power supply

Contact with live components may occur for the following reasons:

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

⚠ DANGER

- Contact with live parts may result in electric shock. This may result in serious or fatal injury to the user.
 - ▶ Make sure that the connecting cable, extension cord and their mains plugs are undamaged.



If the connecting cable or the extension cord is damaged:

- ▶ Do not touch the damaged area.
- ▶ Disconnect the mains plug from the power supply.
- ▶ Make sure your hands are dry before touching the connecting cable, extension cord or mains plugs.
- ▶ Plug the mains plug of the connecting cable or extension cord into a properly installed, shockproof socket with the correct fuse rating.
- ▶ Install the charger with a ground fault circuit interrupter (30 mA, 30 ms).

- A damaged or unsuitable extension cord can result in electric shock. This may result in serious or fatal injury to people.
 - ▶ Use an extension cord with the correct cross-section, 13.2.

⚠ WARNING

- Overvoltage can occur in the charger if the line voltage or frequency are incorrect during charging. The charger may be damaged.
 - ▶ Make sure that the mains voltage and the mains frequency of the power supply match the data on the rating plate of the charger.
 - ▶ If the charger is used in a vehicle: Make sure the line voltage and frequency in the vehicle agree with the data on the charger's rating plate.
- An incorrectly routed connecting cable or extension cord may be damaged and people may trip over it. People may be injured and the connecting cable or extension cord may be damaged.
 - ▶ Route and mark the connecting cable and extension cord so that people will not trip over them.
 - ▶ Route the connecting cable and extension cord so that they are not under tension or tangled.
 - ▶ Route the connecting cable and extension cord so that they will not be damaged, kinked or crushed and will not be chafed.
 - ▶ Protect the connecting cable and extension cord from heat, oil and chemicals.
 - ▶ Lay the connecting cable and extension cord on a dry surface.

4 Safety Precautions

- The extension cord warms up in operation. If that heat cannot escape, it may cause a fire.
 - ▶ If using a cable reel: Completely unroll the cable reel.
- If wiring and pipes are laid in the wall, they may be damaged if the charger is mounted on the wall. Contact with wiring can result in electric shock. This may result in serious injury to people and damage to property.
 - ▶ Make sure there is no wiring or pipes in the wall at the proposed mounting site.
- If the charger is not mounted on the wall as described in this User Manual, the charger may move, fall down, or overheat. Persons may be injured or property damaged.
 - ▶ Mount the charger on the wall as described in this User Manual.
 - ▶ Mount the charger on the wall first and then insert the batteries.
- The charger can be mounted in a vehicle. If the charger has not been professionally installed in the vehicle, vehicle components may be damaged. Persons may be injured or property damaged.
 - ▶ Observe the vehicle manufacturer's mounting instructions.
 - ▶ Applicable national installation regulations are observed when connecting the charger to the vehicle supply system.

4.8 Transport

⚠ WARNING

- If the charger is not permanently installed in the vehicle, the charger may tip over or move. Persons may be injured or property damaged.
 - ▶ Disconnect the mains plug from the power supply.
 - ▶ Remove all batteries.
 - ▶ Secure the charger with lashing straps, belts or a net to prevent it turning over and moving.
 - ▶ Do not stack several chargers.

- The connecting cable must not be used for carrying the charger. The connecting cable and the charger may be damaged.
 - ▶ Wind up the connecting cable and attach it to the charger.

4.9 Storage

⚠ WARNING

- Children are not aware of and cannot assess the dangers of a charger. Children can be seriously injured or killed.
 - ▶ Remove the battery.
 - ▶ Store the charger out of reach of children.
- The charger is not protected against all ambient conditions. If the charger is exposed to certain ambient conditions, the charger may be damaged.
 - ▶ Remove the battery.
 - ▶ If the charger is hot: Allow charger to cool down.
 - ▶ Store the charger in a clean, dry place.
 - ▶ Store the charger in an enclosed room.
 - ▶ Store the charger at temperatures between + 5 °C and + 40 °C.
- Several chargers can be stacked. Stacks of more than three chargers may easily tip over. This can result in severe injuries to the user and may damage the charger.
 - ▶ Never stack more than three chargers.



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

4.10 Cleaning, Maintenance and Repair



⚠ WARNING

- Harsh detergents, cleaning with a water jet or sharp objects can damage the charger. If the charger is not cleaned correctly, components may no longer function properly or safety devices may be rendered inoperative. They may cause serious injury to persons.
 - ▶ Clean the charger as described in this User Manual.
- If the charger is not serviced or repaired correctly, components may no longer function properly or safety devices may be rendered inoperative. This may result in serious or fatal injury to people.
 - ▶ Do not attempt to service or repair the charger.
- If the connecting cable is faulty or damaged:
 - ▶ Have the connecting cable replaced by a STIHL dealer.

5 Preparing Charger for Use

5.1 Preparing Charger for Use

Perform the following steps before starting work:

- ▶ Make sure the charger is in a safe condition,  4.5.
- ▶ Clean the charger,  10.1.
- ▶ If you cannot carry out this work: Do not use the charger and contact your STIHL servicing dealer.

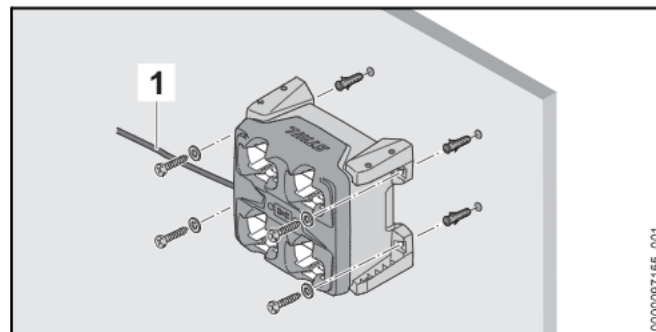
6 Charging the Battery, LEDs

6.1 Mounting the Charger

- ▶ Check the following points when mounting the charger on a wall:
 - Suitable fixing materials.
 - The diameter of the screws is 4.8 mm minimum.
 - Matching washers of 15 mm outside diameter are used.

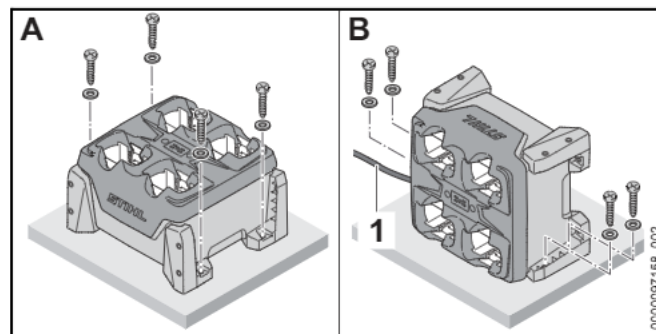
- The charger is level.
- The charger is not mounted higher than 1.8 m above floor level.
- If several chargers are mounted side by side: The connecting cable is laid below the charger.

Mounting the Charger on a Wall



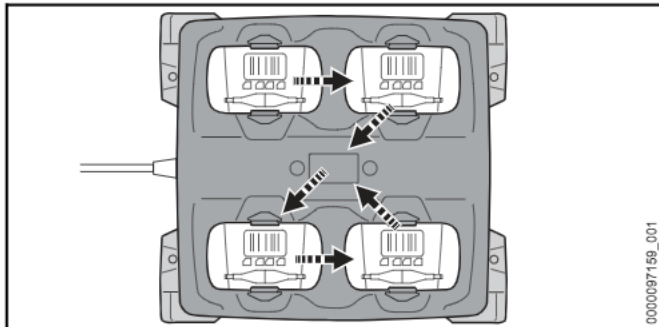
- ▶ Align the charger so that the connecting cable (1) is on the left.
- ▶ Use all four holders to mount the charger on the wall.

Mounting the Charger on a Table, in a Shelf or in a Drawer



- ▶ If the charger is mounted in position B as shown in the figure: Align the charger with the connecting cable (1) on the left-hand side.
- ▶ Use two or four holders to mount the charger on a table, in a shelf or drawer.

6.2 Charging the battery



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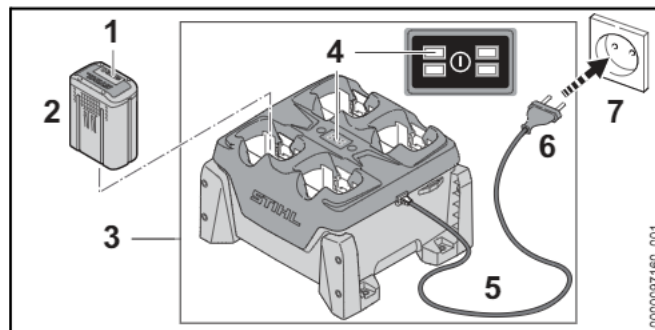
The charger can charge up to four batteries successively. Depending on the battery inserted first, the batteries are charged in the sequence shown. If one battery cannot be charged, the charging process will continue with the next battery.

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

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

The battery and the charger warm up during charging.

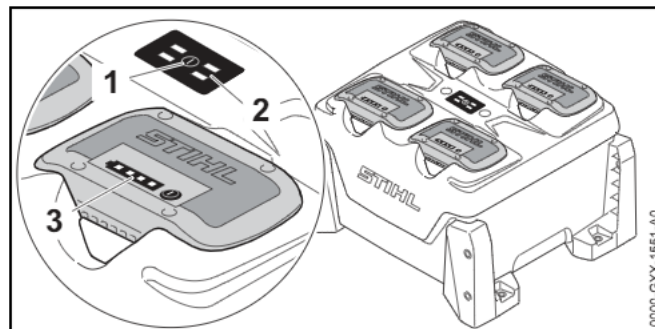
The charger has a built-in fan which may cut in and out during the charging process.



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- ▶ Insert the mains plug (6) in a convenient wall outlet (7). The charger (3) runs a self test. All LEDs (4) emit green light for about 1 second and then red for about 1 second.
- ▶ Fit the connecting cable (5).
- ▶ Insert the battery (2). The LED (4) for the respective battery compartment emits green light. The LEDs (1) on the battery emit green light and the battery (2) is being charged.
- ▶ When the LED (4) for the respective battery compartment and the LEDs (1) on the battery stop emitting light: The battery (2) is fully charged and can be taken out of the charger (3).
- ▶ If the charger (3) is no longer required. Disconnect the mains plug (6) from the wall outlet (7).

6.3 Displaying State of Charge



0000-GXX-1551-A0

- ▶ Press the button (1).
The LEDs (2) at the charger and the LEDs (3) at the batteries are activated and indicate the status of the charger and the charging status of the batteries.

6.4 LEDs on charger

The LED indicates the operating status of the charger or any malfunctions. The LEDs can emit green light or flash red.

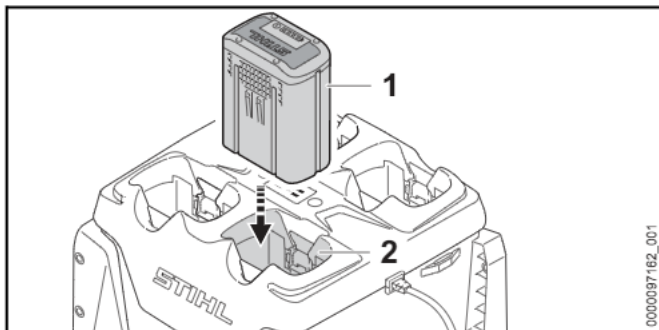
If the LED for the respective battery compartment emits green light, the battery is being charged or waits to be charged.

- ▶ If the LEDs flash red: Remedy the malfunction.
Malfunction in charger or battery.

7 Removing and Fitting the Battery

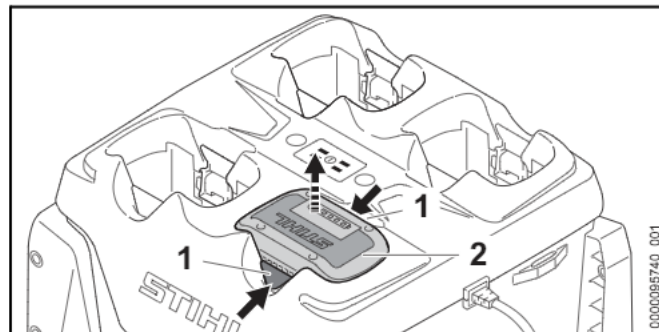
7.1 Inserting the battery

- ▶ Place the charger on a level surface or mount as described in this User Manual.



- ▶ 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.

7.2 Removing the Battery



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

8 Transporting

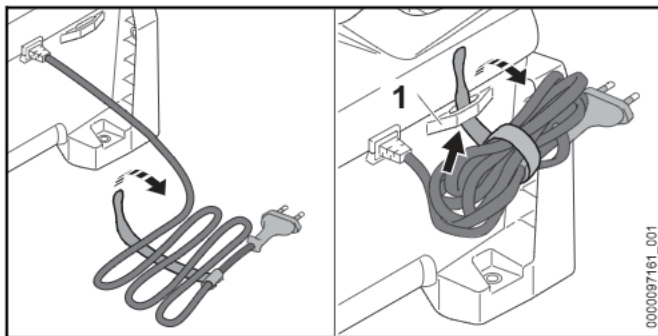
8.1 Transporting the Charger

- ▶ Disconnect the mains plug from the power supply.
- ▶ Remove all batteries.
- ▶ Wind up the connecting cable and attach it to the charger.
- ▶ For transporting a not permanently installed charger in a vehicle:
 - ▶ Secure the charger with lashing straps, belts or a net to prevent it turning over and moving.
 - ▶ Do not stack several chargers.

9 Storing

9.1 Storing the Charger

- ▶ Disconnect the mains plug from the power supply.
- ▶ Remove the battery.



- ▶ Wind up the connecting cable and attach it to the charger.
- ▶ Observe the following points when storing the charger:
 - Charger is out of the reach of children.
 - The charger is clean and dry.
 - Charger is in an enclosed space.
 - Charger is stored separately, away from the battery.
 - The charger is not suspended from the connecting cable or the holder (1) for the connecting cable.
 - Charger is in a temperature range between + 5°C and + 40°C.

10 Cleaning

10.1 Cleaning the Charger

- ▶ Disconnect the mains plug from the power supply.
- ▶ Clean the charger 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.

11 Maintenance and Repairs

11.1 Servicing and Repairing the Charger

The charger cannot be serviced or repaired by the user.

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

12 Troubleshooting

12.1 Troubleshooting the Charger

Fault	LEDs on charger	LEDs on the battery	Cause	Remedy
Battery not being charged.	The LED for the respective battery compartment emits green light.	1 LED on battery emits red light.	The battery is too warm or too cold.	▶ Leave battery inserted in charger. Charging starts automatically as soon as the permitted temperature range is reached.
	The LED for the respective battery compartment flashes red.		No electrical contact between charger and battery.	▶ Remove the battery. ▶ Clean electrical contacts in the battery compartment. ▶ Insert battery.
		4 LEDs on battery flash red.	There is a fault in the battery.	▶ Do not use the battery. Consult a STIHL dealer.
	The LED for the respective battery compartment does not emit light or flash when you insert the battery.		There is a malfunction in the charger.	▶ Do not use the charger and contact your STIHL dealer for assistance.
	2 or 4 LEDs flash red.		There is a malfunction in the charger.	▶ Do not use the charger and contact your STIHL dealer for assistance.
The charger does not run a self test.	The LEDs do not emit green light for about 1 second and then red for about 1 second.		Electrical contact to charger was briefly interrupted.	▶ Disconnect the mains plug from the power supply. ▶ Wait for 1 minute. ▶ Insert the mains plug in a wall outlet.

13 Specifications

13.1 STIHL AL 301-4 Charger

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

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

13.2 Extension Cords

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

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

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

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

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


13.3 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.

14 Spare Parts and Accessories

14.1 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.

15 Disposal

15.1 Disposal

Contact your STIHL servicing dealer for information on disposal.

- ▶ Dispose of the charger and packaging in accordance with local regulations and environmental requirements.

16 EC Declaration of Conformity

16.1 Notice of Conformity for Chargers

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

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

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

0458-829-0121-A

englisch



www.stihl.com



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