

#### Robert Bosch GmbH

Power Tools Division 70745 Leinfelden-Echterdingen Germany

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**F 016 L70 589** (2010.04) O / 19 **XXX** 



# **AHS**

54-20 LI



**BOSCH** 

en Original instructions

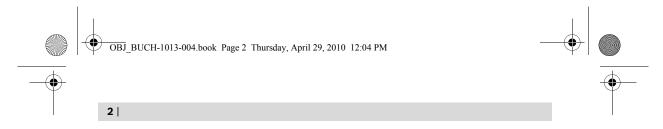




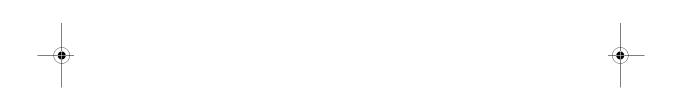


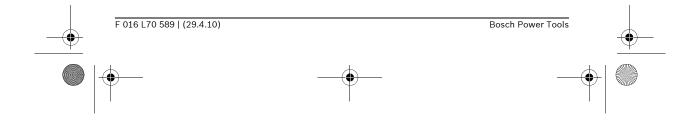


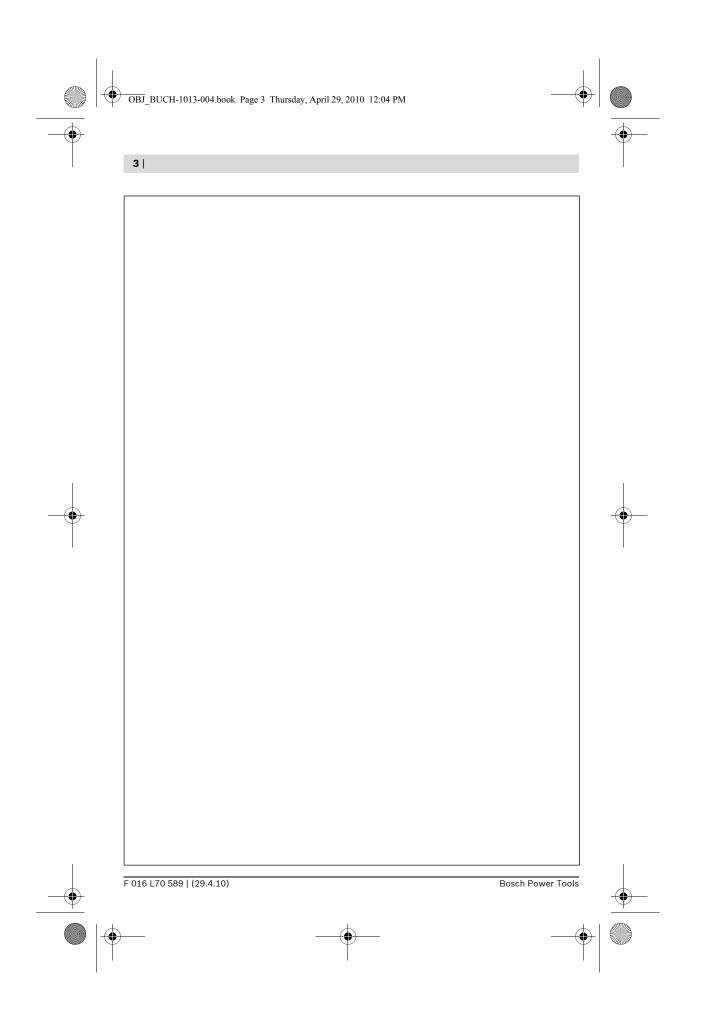


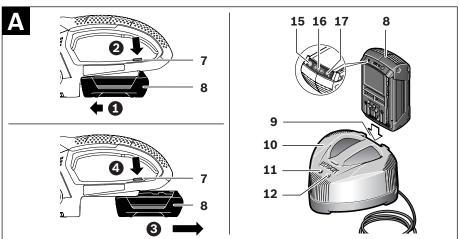


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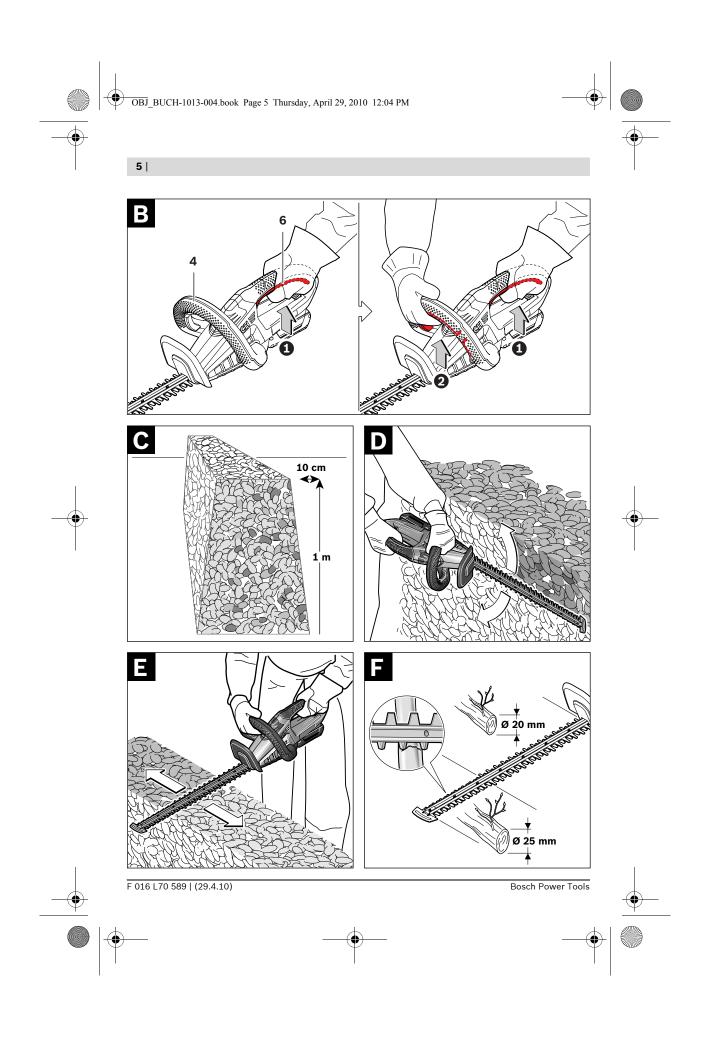




















### **Safety Notes**

#### **Explanation of symbols**



Read instruction manual.



Do not use the machine in the rain or leave it outdoors when it is raining.



Remove battery before adjusting or cleaning, and before leaving the machine unattended for any period.

### **General Power Tool Safety Warnings**

### **▲** WARNING

Read all safety warnings and all instructions. Failure to follow

the warnings and instructions may result in electric shock, fire and/or serious injury.

## Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### 1) Work area safety

- a) Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- b) Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- c) Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### 2) Electrical safety

a) Power tool plugs must match the outlet.
Never modify the plug in any way. Do not
use any adapter plugs with earthed
(grounded) power tools. Unmodified
plugs and matching outlets will reduce
risk of electric shock.

- b) Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- c) Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- d) Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.
- e) When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.
- f) If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of an RCD reduces the risk of electric shock.

### 3) Personal safety

- a) Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- b) Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- c) Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.



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- d) Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal inju-
- e) Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- f) Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.
  Loose clothes, jewellery or long hair can be caught in moving parts.
- g) If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- 4) Power tool use and care
  - a) Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
  - b) Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
  - c) Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.
  - d) Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

- e) Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- f) Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- g) Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- 5) Battery tool use and care
  - a) Recharge only with the charger specified by the manufacturer. A charger that is suitable for one type of battery pack may create a risk of fire when used with another battery pack.
  - b) Use power tools only with specifically designated battery packs. Use of any other battery packs may create a risk of injury and fire.
  - c) When battery pack is not in use, keep it away from other metal objects, like paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
  - d) Under abusive conditions, liquid may be ejected from the battery; avoid contact. If contact accidentally occurs, flush with water. If liquid contacts eyes, additionally seek medical help. Liquid ejected from the battery may cause irritation or burns.
- 6) Service
  - a) Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.





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#### Hedge trimmer safety warnings

- ➤ Keep all parts of the body away from the cutter blade. Do not remove cut material nor hold material to be cut when blades are moving. Make sure the switch is off when clearing jammed material. A moment of inattention while operating the hedge trimmer may result in serious personal injury.
- ➤ Carry the hedge trimmer by the handle with the cutter blade stopped. When transporting or storing the hedge trimmer always fit the cutting device cover. Proper handling of the hedge trimmer will reduce possible personal injury from the cutter blades.
- ▶ Hold power tool by insulated gripping surfaces only, because the cutter blade may contact hidden wiring. Cutting blades contacting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.

### Additional safety warnings

- ► This tool is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

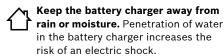
  Children should be supervised to ensure that they do not play with the appliance.
- When working with the machine, always hold it firmly with both hands and provide for a secure stance. The power tool is guided more secure with both hands.
- ➤ Always ensure all handles and guards are fitted when using the machine. Never attempt to use an incomplete machine or one fitted with an unauthorized modification.
- Wait until the machine has come to a standstill before placing it down.
- ► Do not open the battery. Danger of shortcircuiting.



Protect the battery against heat, e. g., against continuous intense sunlight, fire, water, and moisture. Danger of explosion.

- In case of damage and improper use of the battery, vapours may be emitted. Provide for fresh air and seek medical help in case of complaints. The vapours can irritate the respiratory system.
- When the battery is defective, liquid can escape and come into contact with adjacent components. Check any parts concerned.
  Clean such parts or replace them, if required.
- Use the battery only in conjunction with your Bosch power tool. This measure alone protects the battery against dangerous overload.

#### Safety Warnings for battery chargers



- ▶ Do not charge other batteries. The battery charger is suitable only for charging Bosch lithium ion batteries within the listed voltage range. Otherwise there is danger of fire and explosion.
- Keep the battery charger clean. Contamination can lead to danger of an electric shock.
- ▶ Before each use, check the battery charger, cable and plug. If damage is detected, do not use the battery charger. Never open the battery charger yourself. Have repairs performed only by a qualified technician and only using original spare parts. Damaged battery chargers, cables and plugs increase the risk of an electric shock.
- ▶ Do not operate the battery charger on easily inflammable surfaces (e. g., paper, textiles, etc.) or surroundings. The heating of the battery charger during the charging process can pose a fire hazard.
- Children should be supervised to ensure that they do not play with the battery charger.





























Products sold in GB only: Your product is fitted with an BS 1363/A approved electric plug with internal fuse (ASTA approved to BS 1362). If the plug is not suitable for your socket outlets, it should be cut off and an appropriate plug fitted in its place by an authorised customer service agent. The replacement plug should have the same fuse rating as the original plug.

The severed plug must be disposed of to avoid a possible shock hazard and should never be inserted into a mains socket elsewhere.

**Products sold in AUS and NZ only**: Use a residual current device (RCD) with a rated residual current of 30 mA or less.

### **Functional Description**



Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

#### **Intended Use**

The machine is intended for cutting and trimming hedges and bushes in domestic use.

### **Delivery Scope**

Carefully remove the garden product from its packaging and check if the following parts are complete:

- Hedgecutter
- Blade guard
- Battery
- Battery Charger

Bosch Power Tools

Operating instructions

When parts are missing or damaged, please contact your dealer.

#### **Product Features**

The numbering of the garden product features refers to the illustration of the garden product on the graphics page.

- 1 Cutting blade
- 2 Blade guard
- 3 Front handle guard
- 4 Front handle with On/Off switch lever
- 5 Ventilation slots
- 6 Rear handle with On/Off switch
- 7 Battery unlocking button
- 8 Battery
- 9 Charging compartment
- 10 Battery charger
- 11 Red LED indicator on the battery charger
- 12 Green LED indicator on the battery charger
- 13 Power plug \*\*
- 14 Serial number
- 15 Button for charge-control indicator
- 16 Battery charge-control indicator
- 17 Temperature control indicator
- \*\* country specific

Accessories shown or described are not part of the standard delivery scope of the product. A complete overview of accessories can be found in our accessories program.

























### **Technical Data**

| Cordless Hedgecutter                       |                   | AHS 54-20 LI  |
|--|-------------------|---|
| Article number                             |                   | 3 600 H4A 100   |
| No-load stroke rate                        | min <sup>-1</sup> | 2000  |
| Cutting length                             | mm                | 540   |
| Cutting width                              | mm                | 20  |
| Weight according to EPTA-Procedure 01/2003 | kg                | 3.5   |
| Serial number                              |                   | See serial number <b>14</b> (type plate) on the machine |
|  |                   |   |
| Battery                                    |                   | Li-lon  |
| Article number                             |                   | 2 607 336 001   |
| Rated voltage                              | V=                | 36  |
| Capacity                                   | Ah                | 1.3   |
| Charging period (battery discharged)       | min               | 45  |
| Number of battery cells                    |                   | 10  |
| Run time per battery charge                | min               | 50  |
| Battery Charger                            |                   | AL 3640 CV  |
| Article number                             |                   | 2 607 225 099 (EU)                                      |
|  |                   | 2 607 225 101 (UK)                                      |
|  |                   | 2 607 225 103 (AUS)                                     |
| Charging current                           | Α                 | 4.0   |
| Allowable charging temperature range       | °C                | 0-45  |
| Weight according to EPTA-Procedure 01/2003 | kg                | 1.0   |

#### **Noise/Vibration Information**

Measured sound values determined according to 2000/14/EC.

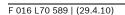
Typically the A-weighted noise levels of the product are: Sound pressure level 69 dB(A); sound power level 84 dB(A). Uncertainty K=3 dB.

Vibration total values (triax vector sum) determined according to EN 60745: Vibration emission value  $a_h = 2.5 \text{ m/s}^2$ , Uncertainty K = 1.5 m/s<sup>2</sup>.

The vibration emission level given in this information sheet has been measured in accordance with a standardised test given in EN 60745 and may be used to compare one tool with another. It may be used for a preliminary assessment of exposure.

The declared vibration emission level represents the main applications of the tool. However if the tool is used for different applications, with different accessories or poorly maintained, the vibration emission may differ. This may significantly increase the exposure level over the total working period.

























An estimation of the level of exposure to vibration should also take into account the times when the tool is switched off or when it is running but not actually doing the job. This may significantly reduce the exposure level over the total working period.

Identify additional safety measures to protect the operator from the effects of vibration such as: maintain the tool and the accessories, keep the hands warm, organisation of work patterns.

#### **Declaration of Conformity**

We declare under our sole responsibility that the product described under "Technical Data" is in conformity with the following standards or standardization documents: EN 60745 (battery powered product) and EN 60335 (battery charger) according to the provisions of the directives 2006/95/EC, 2004/108/EC,

2006/42/EC, 2000/14/EC.

2000/14/EC: Guaranteed sound power level 89 dB(A). Conformity assessment procedure according to Annex V.

Equipment category: 25

Technical file at:

Bosch Lawn and Garden Ltd., PT-LG/EAE, Stowmarket, Suffolk IP14 1EY, England

Dr. Egbert Schneider Senior Vice President Engineering

Dr. Eckerhard Strötgen Head of Product Certification

Robert Bosch GmbH, Power Tools Division D-70745 Leinfelden-Echterdingen 19.04.2010

### Assembly

### For Your Safety

► Warning: Switch off and remove battery from machine before adjusting or cleaning.

- ▶ The blades continue to move for a fraction of a second after the hedgecutter is switched off.
- ▶ Do not touch the moving blades.

#### Removing the Battery (see figure A)

The battery 8 is equipped with two locking levels that should prevent the battery from falling out when pushing the battery unlocking button 7 unintentionally. As long as the battery is inserted in the garden product, it is held in position by means of a spring.

Note: The garden product will not operate unless both locking levels are engaged.

To remove the battery 8:

- Push the battery against the base of the garden product and at the same time press the battery unlocking button 7.
- Pull the battery out of the garden product until a red stripe becomes visible.
- Press the battery unlocking button 7 again and pull out the battery completely.

#### **Battery Charging (see figure A)**

- ▶ Do not use other battery chargers. The supplied battery charger is designed for the Lithium-Ion battery in your garden product.
- ▶ Observe the mains voltage! The voltage of the power supply must correspond with the data given on the nameplate of the battery charger. Battery chargers marked with 230 V can also be operated with 220 V.

The battery is equipped with temperature monitoring that allows charging only in the temperature range between 0 °C and 45 °C. In this manner, a high battery service life is achieved.

Note: The battery is supplied partially charged. To ensure full capacity of the battery, completely charge the battery in the battery charger before using your power tool for the first time.

The lithium ion battery can be charged at any time without reducing its service life. Interrupting the charging procedure does not damage the battery.

































The "Electronic Cell Protection (ECP)" protects the lithium ion battery against deep discharging. When the battery is run down or discharged, the garden product is shut off by means of a protective circuit: The blade no longer moves.

### **▲** WARNING

Do not continue to press the On/Off switch after the garden

product has been automatically switched off. The battery can be damaged.

#### **Charging Procedure**

The charging procedure starts as soon as the mains plug of the battery charger is plugged into the socket outlet and the battery 8 is inserted into the charging compartment 9.

Due to the intelligent charging method, the charging condition of the battery is automatically detected and the battery is charged with the optimum charging current, depending on battery temperature and voltage.

This gives longer life to the battery and always leaves it fully charged when kept in the charger for storage.

### Meaning of the Indication Elements

Control of the charging procedure is indicated via the charge control LEDs 11 and 12:

### Rapid-charging Procedure



The rapid-charging procedure is indicated by flashing of the green charge control LED 12.

During the charging procedure, the three green LEDs light up one after the other and briefly go out. The battery is fully charged when the three green LEDs light up continuously. The three LEDs go out again approx. 5 minutes after the battery has been fully charged.

Note: The rapid-charging procedure is only possible when the battery temperature is within the allowable charging temperature range, see section "Technical Data".

### **Battery Charged**



Continuous lighting of the green charge control LED 12 signals that the battery is fully charged.

Additionally, a signal tone sounds for approx. 2 seconds, which acoustically indicates that the battery is fully charged.

Afterwards, the battery can be removed for immediate use.

With no battery inserted, continuous lighting of the green charge control LED 12 indicates that the mains plug is plugged into the socket and that the battery charger is ready for operation.

#### Battery Temperature below 0 °C and above 45 °C



Continuous lighting of the red LED 11 indicates that the battery temperature is not within the rapid-charging temperature

range of 0  $^{\circ}\text{C}$  –45  $^{\circ}\text{C}.$  As soon as the allowable temperature range is reached, the battery charger automatically switches to rapid charg-

When the battery is not within the allowable temperature range, the red battery LED lights up when inserting the battery into the battery charger.

#### No charging procedure possible



If a different malfunction of the charging procedure is present, this will be indicated through flashing of the red charge control LED 11.

The charging procedure can not be started and the battery cannot be charged (see "Troubleshooting").

#### **Charging Advice**

With continuous or several repetitive charging cycles without interruption, the charger can warm up. This is not meaningful and does not indicate a technical defect of the battery charger.

A significantly reduced working period after charging indicates that the battery is used and must be replaced.



























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#### **Battery Cooling (Active Air Cooling)**

The fan control integrated in the battery charger controls the temperature of the inserted battery. When the battery temperature is above 30 °C, a fan cools down the battery to the optimal charging temperature. The switched-on fan produces a fan noise.

The battery temperature is within the optimal charging temperature range when the fan is not running, or the fan may possibly be defective. In this case, the charging time of the battery extends.

### **Operation**

#### **Initial Operation**

#### Inserting the Battery (see figure A)

Insert the charged battery **8** from the rear into the handle of the garden product. Push the battery completely into the handle until the red stripe can no longer be seen and the battery is securely locked.

**Note:** The garden product will not operate unless both locking levels are engaged.

### Switching On (see figure B)

- Press and hold the On/Off switch 6 on the rear handle.
- 2 Then press the front On/Off switch 4.

### **Switching Off**

Release the front 4 or rear 6 On/Off switch.

### Working Advice (see figures C-E)

Warning: Hold the hedgecutter away from yourself using both hands. Stand in a secure and stable position.

Cuts stems up to 20 mm in thickness (max.), up to 25 mm in thickness (max.) at the tip end of the blade.

When cutting, move steadily along the line of cut, so that stems are fed directly into the cutter blades. The double edge cutting blade enables cutting in either direction, or with a side to side motion.

Cut the sides of the hedge first, then the top.

To cut the sides straightly, we recommend cutting from bottom to top in the direction of growth. Younger stems tend to move outwards when cutting them from top to bottom, resulting in shallow patches or holes in the hedge.

To reach a level finish, fasten a piece of string along the length of the hedge at the required height and use as an alignment guide. Cut the hedge just above the string.

In order to encourage strong, healthy growth of your hedge, it is recommended when trimming the top, to use the Collecto "clippings-collection" device (accessory).

This accessory conveniently gathers the clippings as you cut, allowing them to be easily tipped into a bag or sheet placed alongside the hedge, and thus preventing cut clippings from falling into the hedge.

Always take care to avoid cutting into objects such as wire, which could cause damage to the cutting blades and the drive.

#### **Anti Blocking**

The garden product has a patented feature which works as follows:

If the blade stalls on a tough material, the load of the motor increases. The intelligent microelectronics senses this overload condition and repeatedly reverses the motor, in order to prevent stalling and to cut the material through. This audible reversing cut action continues for up to 3 s.

After cutting through, the garden product continues in its normal mode, or in case the overload condition continues the blades automatically stop in the open position (e. g. in case a piece of metal fence accidentally blocks the garden product).

#### Sawing Function (see figure F)

Although the blade gap allow wood to be cut up-to  $\varnothing$  20 mm, the tip of the blade is designed to cut wood up to  $\varnothing$  25 mm.



























#### **Battery Charge-control Indication**

The battery 8 is equipped with a charge-control indicator 16 which indicates its charge condition. The charge-control indicator 16 consists of 3 green LEDs.

Press the button 15 to actuate the charge-control indicator 16. After approx. 5 seconds, the charge-control indicator goes out automatically.

The charge condition can also be checked when the battery is removed.

| LED Indicators                      | Battery Capacity |
|-------------------------------------|------------------|
| Continuous lighting of 3 green LEDs | ≥ 2/3            |
| Continuous lighting of 2 green LEDs | ≥ 1/3            |
| Continuous lighting of 1 green LED  | ≤ 1/3            |
| Flashing of 1 green LED             | Reserve          |

When no LED lights up after actuating the button 15, the battery is defective and must be replaced.

For safety reasons, the charge condition of the battery can only be checked when the garden product is at a standstill.

During the charging procedure, the three green LEDs light up one after the other and briefly go out. The battery is fully charged when the three green LEDs light up continuously. The three LEDs go out again approx. 5 minutes after the battery has been fully charged.

#### **Temperature Control Indicator**

The red LED 17 signals that the battery or the electronics of the garden product (with battery inserted) are not within the optimum temperature range. When this occurs the garden product will not operate or not at full capacity.

#### **Temperature Control of the Battery**

The red LED 17 flashes when pushing button 15 or pressing the On/Off switch 6 (when the battery is inserted): The battery is not wihin the temperature range for operation of -10 °C to +60 °C.

The battery switches off at a temperature above 70 °C until the optimum temperature range is reached again.

#### **Temperature Control of the Garden Product Electronics**

The red LED 17 lights up continuously when pressing the On/Off switch 6: The temperature of the garden product electronics is below 5 °C or above 75 °C.

At a temperature above 90 °C, the electronics of the garden product switch off until the temperature is within the allowable temperature range again.





























### **Troubleshooting**

The following chart lists problem symptoms, possible causes and corrective action, if your garden product does not operate properly. If these do not identify and correct the problem, contact your service agent.

## ▶ Warning: Switch off and remove the battery prior to any troubleshooting.

| tery charge indicator 12 tery charger  | Problem                        | Possible Cause                        | Corrective Action                            |
|--|--------------------------------|---------------------------------------|--|
| Hedgecutter operates intermitently Hedgecutter operates intermitently  Internal wiring of garden product damaged On/Off switch defective On/Off switch defective Contact Service Agent Working Advice" (Anti Blocking)  Motor runs but blades remain stationary  Cutting blade hot  Cutting blade dull Cutting blade has dents Have blade inspected/overhauled Too much friction, due to lack of lubricant  Blade will not move  Battery discharged Recharge battery; also see "Battery Charging" Garden product defective Contact Service Agent  Cutting time per battery charge following to look of lubricant  Excessive vibrations/noise Cutting time per battery charge following time per battery charge Too much friction, due to lack of lubricant  Excessive vibrations/noise Cutting time per battery charge following time per battery charge Too much friction, due to lack of lubricant Blade needs cleaning Clean blade Poor cutting technique Battery not fully charged Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible Battery contacts contaminated Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  battery several times) or replace the battery   | Hedgecutter does not operate   | Battery discharged                    |  |
| tently before the tently and the tently before the befo |                                | Battery not fully connected           | •  |
| Motor reverses repeatedly then stalls after 3 s.         see "Working Advice" (Anti Blocking)           Motor runs but blades remain stationary         Internal fault         Contact Service Agent           Cutting blade hot         Cutting blade dull         Have blade sharpened           Cutting blade has dents         Have blade inspected/overhauled           Too much friction, due to lack of lubricant         Apply lubricant spray           Blade will not move         Battery discharged         Recharge battery; also see "Battery Charging"           Garden product defective         Contact Service Agent           Excessive vibrations/noise         Garden product defective         Contact Service Agent           Cutting time per battery charge too low         Too much friction, due to lack of lubricant         Apply lubricant spray           Excessive vibrations/noise         Blade needs cleaning         Clean blade           Poor cutting technique         see "Working Advice"           Battery not fully charged         Recharge battery; also see "Battery Charging"           Continuous lighting of the battery charge indicator 12         Battery not (properly) inserted         Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery   |                                |                                       | Contact Service Agent                        |
| Motor runs but blades remain stationaryInternal faultContact Service AgentCutting blade hotCutting blade dullHave blade sharpenedCutting blade hotCutting blade has dentsHave blade inspected/overhauledToo much friction, due to lack of lubricantApply lubricant sprayBlade will not moveBattery dischargedRecharge battery; also see "Battery Charging"Excessive vibrations/noiseGarden product defectiveContact Service AgentCutting time per battery charge too lowToo much friction, due to lack of lubricantApply lubricant sprayBlade needs cleaningClean bladePoor cutting techniquesee "Working Advice"Battery not fully chargedRecharge battery; also see "Battery Charging"Continuous lighting of the battery charge indicator 12Battery not (properly) insertedProperly insert battery into battery chargerNo charging procedure possibleBattery contacts contaminatedClean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  |                                | On/Off switch defective               | Contact Service Agent                        |
| Stationary  Cutting blade hot  Cutting blade dull  Cutting blade has dents  Blade will not move  Battery discharged  Garden product defective  Contact Service Agent  Excessive vibrations/noise  Cutting time per battery charge too low  Cutting time per battery charge too low  Blade needs cleaning  Poor cutting technique  Battery not fully charged  Battery Charging"  Contact Service Agent  Excessive vibrations/noise  Clean blade  Poor cutting technique  Battery not fully charged  Recharge battery; also see  "Battery Charging"  Clean blade  Recharge battery; also see  "Battery Charging"  Clean blade  Poor cutting technique  Battery not fully charged  Recharge battery; also see  "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible  Battery contacts contaminated  Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  Battery charge indicator 12   |                                |                                       |  |
| Cutting blade has dentsHave blade inspected/over-hauledToo much friction, due to lack of lubricantApply lubricant sprayBlade will not moveBattery dischargedRecharge battery; also see "Battery Charging"Excessive vibrations/noiseGarden product defectiveContact Service AgentCutting time per battery charge too lowToo much friction, due to lack of lubricantApply lubricant sprayBlade needs cleaningClean bladePoor cutting techniquesee "Working Advice"Battery not fully chargedRecharge battery; also see "Battery Charging"Continuous lighting of the battery charge indicator 12Battery not (properly) insertedProperly insert battery into battery chargerNo charging procedure possibleBattery contacts contaminatedClean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery   |                                | Internal fault                        | Contact Service Agent                        |
| Hauled Too much friction, due to lack of lubricant spray of lubricant  Blade will not move Battery discharged Recharge battery; also see "Battery Charging" Garden product defective Contact Service Agent  Cutting time per battery charge too low Blade needs cleaning Poor cutting technique Battery not fully charged Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible Battery contacts contaminated Recharge indicator 12  No charging procedure possible Battery contacts contaminated Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  Continuous lighting of replace the battery several times) or replace the battery several times) or replace the battery several times or replace the sever | Cutting blade hot              | Cutting blade dull                    | Have blade sharpened                         |
| Blade will not move  Battery discharged  Recharge battery; also see "Battery Charging"  Garden product defective  Contact Service Agent  Cutting time per battery charge too low  Excessive vibrations/noise  Garden product defective  Contact Service Agent  Too much friction, due to lack of lubricant spray  Blade needs cleaning  Clean blade  Poor cutting technique  Battery not fully charged  Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible  Battery contacts contaminated  Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  Contact Service Agent  Contact Service Agent  Contact Service Agent  Contact Service Agent  Apply lubricant spray  Clean blade  Recharge battery; also see "Battery Charging"  Continuous lighting of the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery   |                                | Cutting blade has dents               |  |
| Excessive vibrations/noise Garden product defective Contact Service Agent  Cutting time per battery charge too low  Excessive vibrations/noise  Cutting time per battery charge too low  Excessive vibrations/noise  Excessive vibrations/noise  Cutting time per battery charge too low  Excessive vibrations/noise  Excessive vibrations/noise  Contact Service Agent  Apply lubricant spray  Clean blade  Poor cutting technique see "Working Advice"  Excessive vibrations/noise  Excessive vibrations/noise  Excessive vibrations/noise  Excessive vibrations/noise  Contact Service Agent  Apply lubricant spray  Clean blade  Recharge battery; also see "Battery Charging"  Excessive vibrations/noise  Excessive vibr |                                | -                                     | Apply lubricant spray                        |
| Excessive vibrations/noise  Garden product defective  Contact Service Agent  Apply lubricant spray of lubricant  Blade needs cleaning Poor cutting technique  Battery not fully charged  Continuous lighting of the battery charge indicator 12  No charging procedure possible  Carden product defective Contact Service Agent  Apply lubricant spray Clean blade See "Working Advice"  Recharge battery; also see "Battery Charging"  Properly insert battery into battery charge indicator 12  Battery not (properly) inserted tery charger  Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery   | Blade will not move            | Battery discharged                    |  |
| Cutting time per battery charge too low  For cutting technique  Battery not fully charged  Continuous lighting of the battery charge indicator 12  No charging procedure possible  Room cutting technique  Battery not fully charged  Battery not (properly) inserted tery charger  Clean blade  Recharge battery; also see "Battery Charging"  Properly insert battery into battery charge indicator 12  Battery contacts contaminated  Clean the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  |                                | Garden product defective              | Contact Service Agent                        |
| too low  of lubricant  Blade needs cleaning  Clean blade  Poor cutting technique  see "Working Advice"  Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible  Battery contacts contaminated  Battery contacts contaminated battery several times) or replace the battery  branch and removing the battery several times) or replace the battery   | Excessive vibrations/noise     | Garden product defective              | Contact Service Agent                        |
| Poor cutting technique see "Working Advice"  Battery not fully charged Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible No charging procedure possible Settlement of the battery contacts contaminated Settlement of the battery contacts (e.g. by inserting and removing the battery several times) or replace the battery   |                                | · · · · · · · · · · · · · · · · · · · | Apply lubricant spray                        |
| Battery not fully charged Recharge battery; also see "Battery Charging"  Continuous lighting of the battery charge indicator 12  No charging procedure possible No charging procedure possible battery contacts contaminated battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  |                                | Blade needs cleaning                  | Clean blade                                  |
| Continuous lighting of the battery charge indicator 12  No charging procedure possible Rattery contacts contaminated battery contacts (e.g. by inserting and removing the battery several times) or replace the battery  |                                | Poor cutting technique                | see "Working Advice"                         |
| tery charge indicator 12 tery charger  No charging procedure possible Battery contacts contaminated by inserting and removing the battery several times) or replace the battery  |                                | Battery not fully charged             |  |
| by inserting and removing the battery several times) or replace the battery  | 9 9                            | Battery not (properly) inserted       | Properly insert battery into battery charger |
| Battery defective Replace the battery  | No charging procedure possible | Battery contacts contaminated         | battery several times) or re-                |
|  |                                | Battery defective                     | Replace the battery                          |











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| Problem   | Possible Cause  | Corrective Action   |
|---|---|---|
| The blades are running slow or<br>the anti blocking feature is not<br>functioning | Battery discharged                                      | Recharge battery; also see<br>"Battery Charging"  |
|   | Battery stored outside of battery temperature           | Allow battery to warm naturally to room temperature (within battery operating temperature 0-45 °C)                                    |
| Battery charge indicator <b>12</b> does not light up                              | Mains plug of battery charger not plugged in (properly) | Insert mains plug (fully) into the socket outlet  |
|   | Socket outlet, mains cable or battery charger defective | Check the mains voltage; have<br>the battery charger checked by<br>an authorised after-sales serv-<br>ice agent for Bosch power tools |

### **Maintenance and Service**

#### **Maintenance and Cleaning**

- Warning: Switch off and remove battery from machine before adjusting or cleaning.
- ► For safe and proper working, always keep the garden product clean.

**Note:** To ensure long and reliable service, carry out the following maintenance regularly.

Regularly check for obvious defects such as loose fixings, and worn or damaged components.

Check that covers and guards are undamaged and correctly fitted. Carry out necessary maintenance or repairs before using.

When the battery is no longer operative, please refer to an authorised after-sales service agent for Bosch power tools.

If the replacement of the supply cord is necessary, this has to be done by Bosch or an authorized Bosch service agent in order to avoid a safety hazard.

If the garden product should happen to fail despite the care taken in manufacture and testing, repair should be carried out by an authorised customer service agent for Bosch garden products.

In all correspondence and spare parts orders, please always include the 10-digit article number given on the type plate of the garden product.

#### After Use/Storage

Warning: Switch the machine off and remove the battery. Ensure battery is removed before storage.

Clean the exterior of the machine thoroughly using a soft brush and cloth. Do not use water, solvents or polishes. Remove all debris, especially from the ventilation slots **5** of the motor.

Always lubricate the cutting blade with protective spray before storage.

Store the hedgecutter in a secure, dry place out of the reach of children. Do not place other objects on top of the machine.

The battery should be stored between 0  $^{\circ}\text{C}$  and 45  $^{\circ}\text{C}.$ 

## After-sales Service and Customer Assistance

Our after-sales service responds to your questions concerning maintenance and repair of your product as well as spare parts. Exploded views and information on spare parts can also be found under:

### www.bosch-pt.com

Our customer service representatives can answer your questions concerning possible applications and adjustment of products and accessories.



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#### **Transport**

Dispatch batteries only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.

When dispatching lithium-ion batteries, compulsory labeling may be required. Please observe the respective national regulations.

### Disposal

The machine, accessories and packaging should be sorted for environmental-friendly recycling.

### Only for EC countries:



Do not dispose of power tools into household waste!
According the European Guideline 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national

right, power tools that are no longer usable must be collected separately and disposed of in an environmentally correct manner.























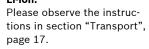






### **Battery packs/batteries:**





Do not dispose of battery packs/batteries into household waste, fire or water. Battery packs/batteries should, if possible, be discharged, collected, recycled or disposed of in an environmental-friendly manner.

### Only for EC countries:

Defective or dead out battery packs/batteries must be recycled according the guideline 2006/66/EC.

Batteries no longer suitable for use can be directly returned at:

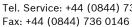
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Subject to change without notice.



















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