

# Einhell

**TE-AG 18/100 Li**  
**TE-AG 18/100 Li-Solo**

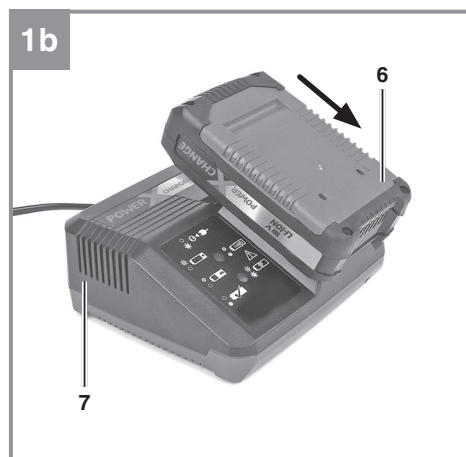
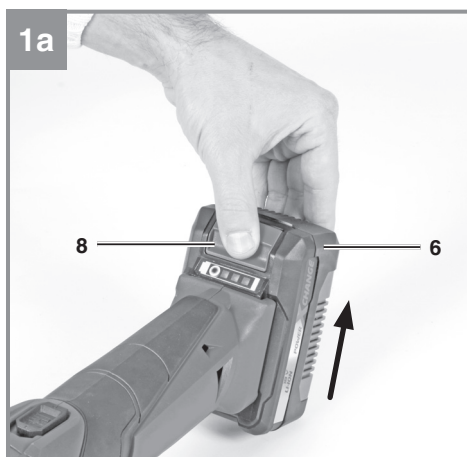
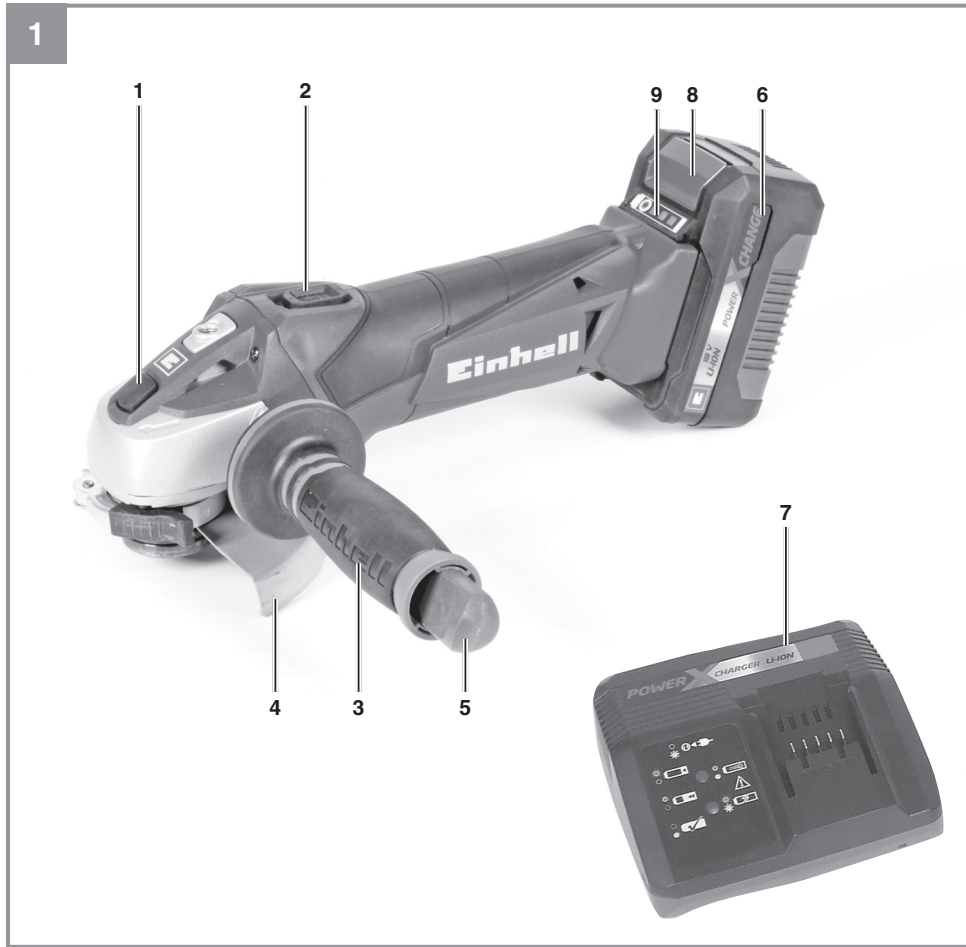
**GB Original operating instructions**  
**Cordless Angle Grinder**

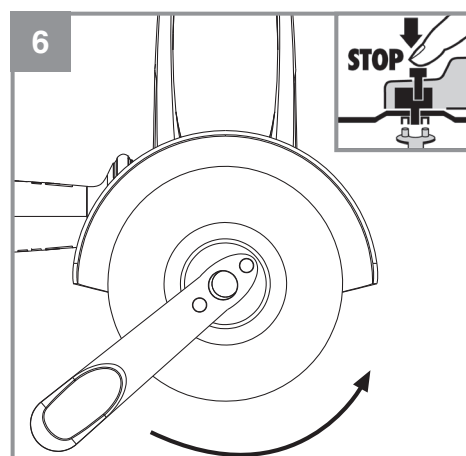
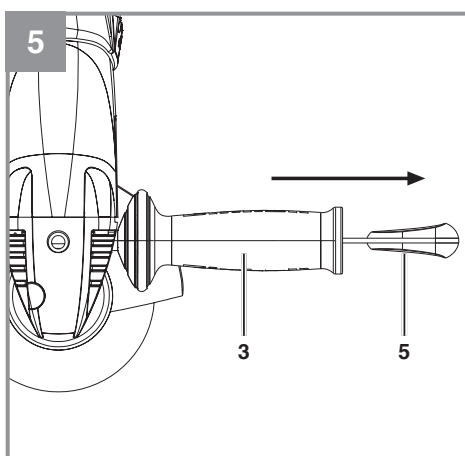
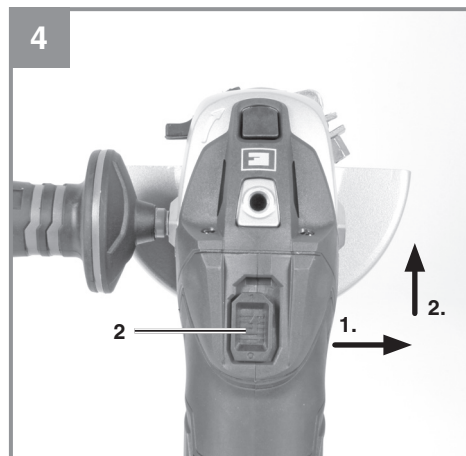
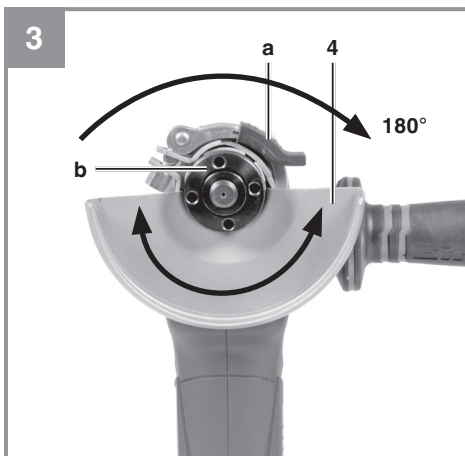
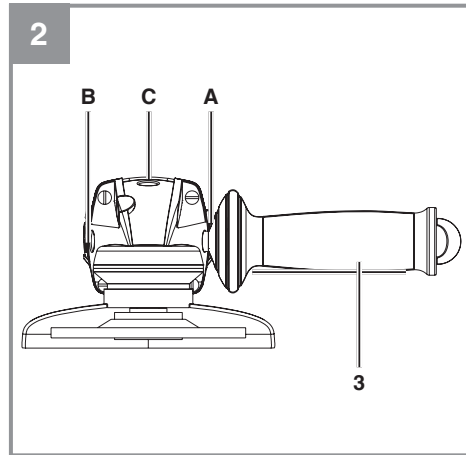
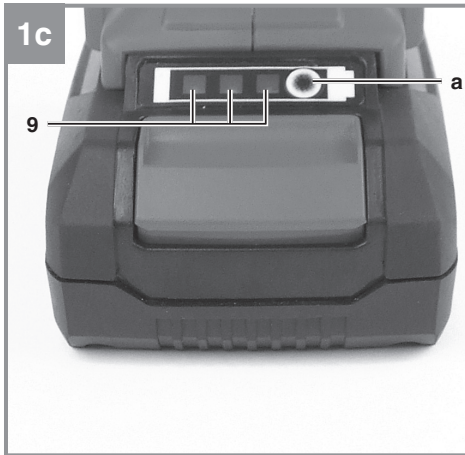


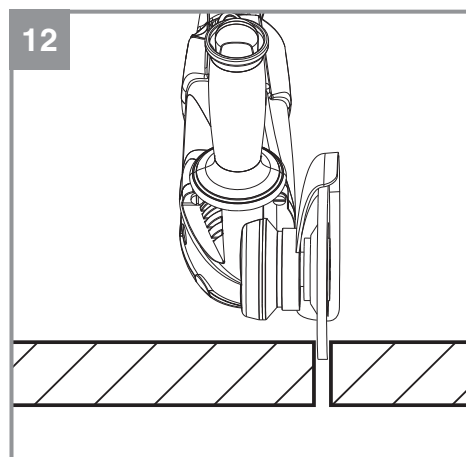
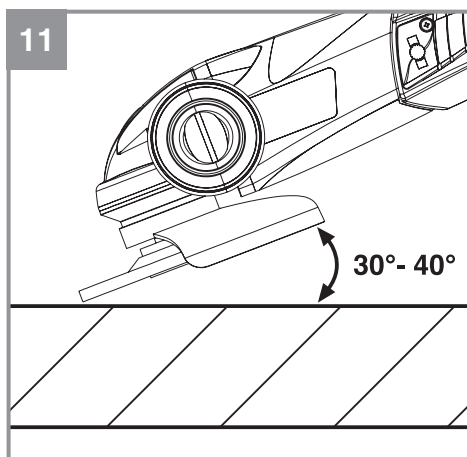
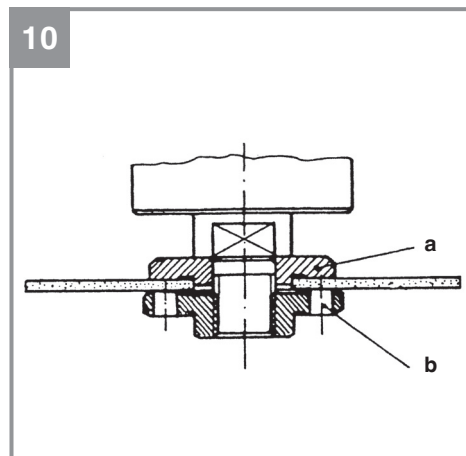
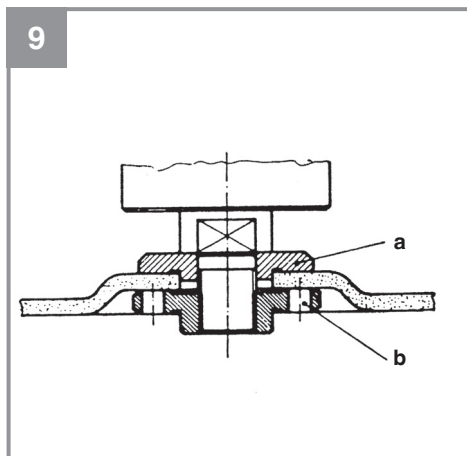
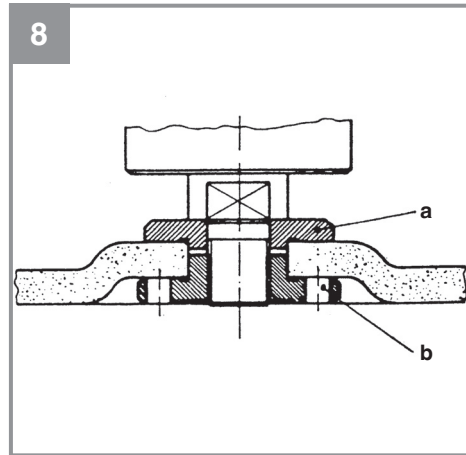
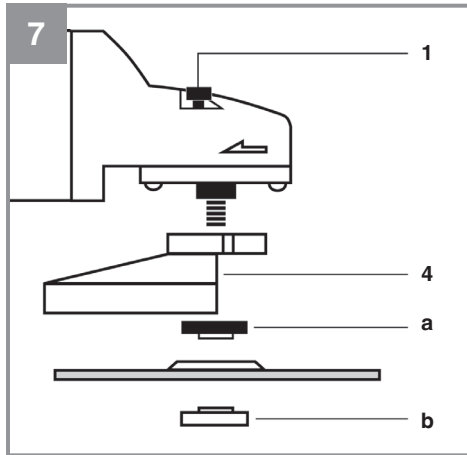
**Art.-Nr.: 44.311.27 (3,0 Ah)**  
**Art.-Nr.: 44.311.26 (Solo)**



**I.-Nr.: 21010**  
**I.-Nr.: 21010**







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**Danger!** - Read the operating instructions to reduce the risk of injury



**Caution! Wear ear-muffs.** The impact of noise can cause damage to hearing.



**Caution! Wear a breathing mask.** Dust which is injurious to health can be generated when working on wood and other materials. Never use the device to work on any materials containing asbestos!



**Caution! Wear safety goggles.** Sparks generated during working or splinters, chips and dust emitted by the device can cause loss of sight.



Store the battery only in dry rooms with an ambient temperature of +10°C to +40°C. Place only charged batteries in storage (charged at least 40%). (not included in items supplied)

**Danger!**

When using the equipment, a few safety precautions must be observed to avoid injuries and damage. Please read the complete operating instructions and safety regulations with due care. Keep this manual in a safe place, so that the information is available at all times. If you give the equipment to any other person, hand over these operating instructions and safety regulations as well. We cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety instructions.

## 1. Safety regulations

### General safety information for power tools

**Danger!****Read all safety regulations and instructions.**

Any errors made in following the safety regulations and instructions may result in an electric shock, fire and/or serious injury.

**Keep all safety regulations and instructions in a safe place for future use.**

The term „power tool“ used in the safety information and instructions refers to power tools operated from the mains power supply (with a power cable) and to battery operated power tools (without a power cable).

#### 1. Workplace safety

- a) **Keep your work area clean and well illuminated.** Untidy or unlit work areas can result in accidents.
- b) **Do not operate the electric tool in an environment where there is a risk of explosions and where there are inflammable liquids, gases or dust.** Electric tools produce sparks which could set the dust or vapours alight.
- c) **Keep children and other people away from the power tool while you are using it.** If you are distracted you may lose control of the power tool.

#### 2. Electrical safety

- a) **The connector plug from this electric tool must fit into the socket. The plug should never be altered in any way. Never use adapter plugs together with earthed electric tools.** Unaltered plugs and correct sockets reduce the risk of an electric shock.

- b) **Avoid bodily contact with earthed surfaces such as pipes, heating, ovens and fridges.** The risk of electric shock is increased if your body is earthed.
- c) **Keep the tool out of the rain and away from moisture.** The ingress of water into an electric tool increases the risk of an electric shock.
- d) **Do not use the power cable for a purpose for which it is not designed, for example to carry the power tool, hang it up or to pull the plug out of the socket. Keep the power cable away from heat, oil, sharp edges and moving parts.** Power cables that are damaged or tangled increase the risk of an electric shock.
- e) **If you use an electric power tool outdoors, use only extension cables that are suitable for outdoor use.** The use of an extension cable which is suitable for outdoor use reduces the risk of an electric shock.
- f) **If operation of the electric tool in a damp environment can not be avoided, use a earth-leakage circuit-breaker.** The earth-leakage circuit-breaker reduces the risk of an electric shock.

#### 3. Safety of persons

- a) **Be careful, watch what you are doing and use an electric tool sensibly. Do not use the tool if you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention when using the electric tool can result in serious injuries.
- b) **Wear personal protection equipment and always wear safety goggles.** Wearing personal protection (such as dust masks, non-slip safety shoes, safety helmet or ear protection, depending upon the type and use of the electric tool) reduces the risk of injury.
- c) **Make sure that the appliance cannot start up accidentally. Ensure that the electric tool is switched off before you connect it to the power supply and/or insert the battery, or pick up or carry the tool.** If your finger is on the switch whilst carrying the electric tool or if you connect the appliance to the mains when it is switched on, this can lead to accidents.
- d) **Remove all adjusting tools or wrenches before you switch on the power tool.** Any tool or wrench in a rotating part of the power tool could cause injuries.
- e) **Avoid abnormal working postures. Make sure you stand squarely and keep your**

**balance at all times.** This will enable you to control the power tool better in unexpected situations.

- f) **Wear suitable clothes. Never wear loose fitting clothes or jewelry.** Keep hair, clothing and gloves away from moving parts. Loose clothing, jewelry or long hair can be caught by moving parts.
  - g) **If dust extraction devices and dust collection devices can be fitted, they must be connected and must be used correctly.** The use of a dust extractor can reduce the dangers posed by dust.
  - h) **Do not allow yourself to be lulled into a false sense of security and do not ignore the safety regulations covering electric power tools, even if you are familiar with the power tool after having used it many times.** Carelessness can lead to serious injuries in just a fraction of a second.
4. **Using and handling the power tool**
- a) **Do not overload your power tool. Use the correct electric tool for the job in hand.** The correct tool will enable you to work better and more safely within the specific performance range.
  - b) **Do not use an electric power tool if the switch is defective.** An electric power tool that cannot be switched on or off is dangerous and must be repaired.
  - c) **Pull the plug out of the socket and/or remove the battery pack before making any adjustments to the tool, changing accessories or putting the power tool down.** These precautions will prevent the power tool starting accidentally.
  - d) **Keep unused electric tools out of the reach of children. Do not allow people who are not familiar with the power tool or who have not read these instructions to use the tool.** Electric tools are dangerous if they are used by inexperienced people.
  - e) **Look after power tools plug-in tools with care. Check that moving parts function correctly and do not jam, and whether any parts are broken or damaged such that they adversely affect the function of the power tool. Have damaged parts repaired before you use the power tool. Many accidents are caused by poorly maintained electric tools.**
  - f) **Keep cutting tools sharp and clean.** Carefully maintained cutting tools with sharp cutting edges will jam less and are easier to

control.

- g) **Use the power tool, accessories, plug-in tools, etc. as set out in these instructions. Take account of the conditions in your work area and the job in hand.** Using electric tools for purposes other than the one for which they are designed can result in dangerous situations.
- h) **Keep the handles and grip surfaces dry, clean and free from oil and grease.** If the handles and grip surfaces are slippery, it will not be possible to operate and control the power tool safely in unforeseen situations.

#### 5. Using and handling the cordless tool

- a) **Only charge the batteries in chargers that are recommended by the manufacturer.** A charger that is designed for a certain type of battery may pose a fire risk if it is used with other types of battery.
- b) **Use only the correct batteries in the electric tools.** The use of other batteries may result in injuries and a fire risk.
- c) **Keep unused batteries away from paper clips, coins, keys, nails, screws and other metallic objects that could cause a short circuit between the contacts.** A short circuit between the battery contacts may cause burns or a fire.
- d) **In case of incorrect use, fluid may escape from the battery. Avoid contact with it. If you touch it by accident, rinse the affected area with water. If you get the fluid in your eyes, also seek medical advice.** Leaking battery fluid can cause skin irritation or burns.
- e) **Never use damaged or altered rechargeable batteries.** Damaged or altered rechargeable batteries can behave unpredictably and lead to a risk of fire, explosion or injury.
- f) **Never expose a rechargeable battery to fire or high temperatures.** Fire or temperatures over 130°C pose a risk of explosion.
- g) **Follow all the instructions on charging and never charge the rechargeable battery or cordless tool outside the specified allowable charging temperature range.** Incorrect charging or charging outside the allowable charging temperature range could cause irreparable damage to the battery and increase the risk of fire.



## 6. Service

- a) **Have your electric tool repaired only by trained personnel using only genuine spare parts.** This will ensure that your electric tool remains safe to use.
- b) **Never perform maintenance work on damaged rechargeable batteries.** All maintenance work on rechargeable batteries should only be performed by the manufacturer or authorized after sales service outlets.

### Additional safety instructions

We pay a great deal of attention to the design of every battery pack to ensure that we supply you with batteries which feature maximum power density, durability and safety. The battery cells have a wide range of safety devices. Each individual cell is initially formatted and its electrical characteristic curves are recorded. These data are then used exclusively to be able to assemble the best possible battery packs. **Despite all the safety precautions, caution must always be exercised when handling batteries. The following points must be obeyed at all times to ensure safe use.**

**Safe use can only be guaranteed if undamaged cells are used. Incorrect handling can cause cell damage.**

**Important:** Analyses confirm that incorrect use and poor care are the main causes of the damage caused by high performance batteries.

### Information about the battery

1. The battery pack supplied with your cordless tool is not charged. The battery pack has to be charged before you use the tool for the first time.
2. For optimum battery performance avoid low discharge cycles. Charge the battery pack frequently.
3. Store the battery pack in a cool place, ideally at 15°C and charged to at least 40%.
4. Lithium-ion batteries are subject to a natural ageing process. The battery pack must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements and therefore pose a safety risk.
5. Do not throw battery packs into an open fire. There is a risk of explosion!
6. Do not ignite the battery pack or expose it to fire.

7. **Do not exhaustively discharge batteries.** Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partly discharged batteries. Stop working as soon as the performance of the battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after it has been fully charged.
8. **Protect batteries and the tool from overloads.** Overloads will quickly result in overheating and cell damage inside the battery housing without this overheating actually being apparent externally.
9. **Avoid damage and shocks.** Replace batteries which have been dropped from a height of more than one meter or which have been exposed to violent shocks without delay, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In this respect, please also read the waste disposal information.
10. If the battery pack suffers overloading and overheating, the integrated protective cut-off will switch off the equipment for safety reasons. **Important.** Do not press the ON/OFF switch any more if the protective cut-off has actuated. This may damage the battery pack.
11. Use only original battery packs. The use of other batteries may result in injuries, explosion and a fire risk.
12. **Protect your rechargeable battery against moisture, rain and high humidity.** Moisture, rain and high humidity can cause dangerous cell damage. Never charge or work with batteries which have been exposed to moisture, rain or high humidity – replace them immediately.
13. If your equipment is fitted with a detachable battery, remove the battery for safety reasons after you have finished your work

### Information on chargers and the charging process

1. Please check the data marked on the rating plate of the battery charger. Be sure to connect the battery charger to a power supply with the voltage marked on the rating plate. Never connect it to a different mains voltage.
2. Protect the battery charger and its cable from damage and sharp edges. Have damaged cables repaired without delay by a qualified electrician.
3. Keep the battery charger, batteries and the

- cordless tool out of children's reach.
4. Do not use damaged battery chargers.
  5. Do not use the supplied battery charger to charge other cordless tools.
  6. In heavy use the battery pack will become warm. Allow the battery pack to cool to room temperature before commencing with the charging.
  7. **Do not over-charge batteries.** Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of a charged or partly charged battery pack will result in over-charging and cell damage. Do not leave batteries in the charger for days on end.
  8. **Never use or charge batteries if you suspect that the last time they were charged was more than 12 months previously.** There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).
  9. Charging batteries at a temperature below 10°C will cause chemical damage to the cell and may cause a fire.
  10. Do not use batteries which have heated during the charging process, as the battery cells may have suffered dangerous damage.
  11. Do not use batteries which have suffered curvature or deformation during the charging process or which show other non-typical symptoms (gassing, hissing, cracking,...)
  12. Never fully discharge the battery pack (recommended depth of discharge max. 80%)  
A complete discharge of the battery pack will lead to premature ageing of the battery cells.
  13. Never charge the batteries unsupervised.

#### Protection from environmental influences

1. Wear suitable work clothes. Wear safety goggles.
2. **Protect your cordless tool and the battery charger from moisture and rain.** Moisture and rain can cause dangerous cell damage.
3. Do not use the cordless tool or the battery charger near vapors and inflammable liquids.
4. Use the battery charger and cordless tools only in dry conditions and an ambient temperature of 10-40°C.
5. Do not keep the battery charger in places where the temperature is liable to reach over 40°C. In particular, do not leave the battery charger in a car that is parked in the sunshine.
6. **Protect batteries from overheating.** Overloads, over-charging and exposure to direct sunlight will result in overheating and cell

damage. Never charge or work with batteries which have been overheated – replace them immediately if possible.

7. **Storage of batteries, battery chargers and cordless tools.** Store the charger and your cordless tool only in dry places with an ambient temperature of 10-40°C. Store your lithium-ion battery pack in a cool, dry place at a temperature of 10-20°C. Protect them from humidity and direct sunlight. Only place fully charged batteries in storage (charged at least 40%).
8. Prevent the lithium-ion battery pack from freezing. Battery packs which were stored below 0°C for more than 60 minutes must be disposed of.
9. When handling batteries beware of electrostatic charge: Electrostatic discharges cause damage of the electronic protection system and the battery cells. Avoid electrostatic charging and never touch the battery poles.

Batteries and cordless electric equipment contain materials that are potentially harmful to the environment. Never place any rechargeable batteries or cordless electric machines or tools in your household refuse.

The rechargeable battery should be taken to a suitable collection center for proper disposal. If you do not know the whereabouts of such a collection center, you should ask in your local council offices.

**To ensure that any defective/damaged lithium-ion batteries are properly packaged and delivered when you send them to us, please contact our customer service or the point of sale at which the equipment was purchased.**

**When shipping or disposing of batteries and cordless tools, always ensure that they are packed individually in plastic bags to prevent short circuits and fires.**

#### Safety Information for all Applications

- a) **This electric tool is designed for use as a grinder/sander and cutting-off machine. Obey all the safety instructions, general instructions, illustrations and data supplied with the tool.** If you fail to obey the following instructions, you may suffer an electric shock, fire and/or serious injuries.

- b) **This electric tool is not designed for sanding, working with wire brushes or polishing.** Use of the electric tool in ways it was not intended could lead to dangerous situations and injuries.
- c) **Do not use any accessories which have not been designed and recommended by the manufacturer specifically for this electric tool.** Just because you can attach an accessory to your electric tool, this does not guarantee that you can use it safely.
- d) **The maximum speed of the plug-in tool must be at least as high as the maximum speed specified on the electric tool.** Accessories which rotate faster than the maximum speed may break and be catapulted out of the tool.
- e) **The external diameter and thickness of the plug-in tool must comply with the dimension specifications of your electric tool.** Plug-in tools of the wrong size cannot be adequately screened or checked.
- f) **Plug-in tools with thread must fit exactly on the thread of the grinding spindle. In the case of plug-in tools that are flange-fitted, the hole diameter of the plug-in tool must fit the mounting diameter of the flange.** Plug-in tools that are not exactly secured to the electric tool will rotate irregularly, vibrate a great deal and might result in you losing control.
- g) **Do not use damaged plug-in tools. Before use, check plug-in tools such as grinding/sanding wheels for splintering and cracks, grinding/sanding disks for cracks, wear or heavy wear, and wire brushes for loose or broken wires. If the electric tool or the plug-in tool is dropped, check whether it is damaged or use an undamaged plug-in tool. When you have checked and fitted the plug-in tool, make sure that you and other persons in the vicinity are not on a level with the rotating plug-in tool and allow the electric tool to run for one minute at maximum speed.** Damaged plug-in tools will generally break during this test time.
- h) **Wear personal protection equipment. Use face guards, eye protection or goggles depending on the application. If reasonable, wear a dust mask, ear protection, safety gloves or special aprons to keep small grinding and material particles away from you.** Protect your eyes from flying foreign bodies which may be created by a range of applications. Dust masks or respiration masks must filter the dust generated by the application. If you are exposed to loud noise for a lengthy period of time, you may suffer hearing loss.
- i) **Ensure that others keep a safe distance away from where you are working. Anybody who enters the area must wear personal protection equipment.** Pieces of the workpiece or broken plug-in tools may be catapulted into the air and cause injuries even outside the immediate vicinity of where you are working.
- j) **Hold the tool only by the insulated handles when carrying out work during which the plug-in tool could strike concealed power cables or its own mains lead.** Contact with a live cable will also make the metal parts of the tool live and will cause an electric shock.
- k) **Keep the power cable away from rotating plug-in tools.** If you lose control of the machine, the mains lead may be cut or caught and your hand or arm might be pulled into the rotating plugin tool.
- l) **Never put the electric tool down until the plug-in tool has reached a complete standstill.** The rotating plug-in tool may come into contact with the surface on which you place it which could result in you losing control of the electric tool.
- m) **Never leave the electric tool running whilst you are carrying it.** Your clothing can come into contact with the rotating plug-in tool and the plugin tool could thus bore into your body.
- n) **Clean the ventilation slots on your electric tool at regular intervals.** The motor fan draws dust into the housing and a heavy accumulation of metal dust can pose electric risks.
- o) **Never use the electric tool in the vicinity of inflammable materials.** Sparks may ignite these materials.
- p) **Do not use any plug-in tools which require liquid coolant.** Use of water or other liquid coolants could result in electric shocks.
- Other safety information for all applications**  
Recoil is the sudden reaction as a result of a jammed or blocked rotating plug-in-tool, such as a grinding wheel, grinding disks, wire brushes etc. Jamming or blocking leads to an abrupt stop of the rotating plugin-tool. This causes acceleration of any uncontrolled electric tools rotating in the

opposite direction to the plug-in-tool at the point of blockage.

If for example a grinding wheel gets jammed or blocked by the workpiece, the edge of the grinding wheel could get stuck and the grinding wheel could break free or recoil, if it should come into contact with the workpiece. The grinding wheel moves toward or away from the operator, depending upon the direction of rotation of the disk at the point of blockage. Grinding wheels could also be broken if this occurs.

Recoil is the result of incorrect or wrong use of the electric tool. It can be prevented by suitable precautions, as described below.

- a) **Hold the electric tool securely and move your body and your arms into a position in which you can absorb the force created by the recoil. Always use the additional handle (if there is one) to give you the maximum possible control over recoil forces or reaction moments whilst the tool is operating at full speed.** The operator can manage the recoil and reaction forces by taking suitable precautions.
- b) **Never move your hand into the vicinity of rotating plug-in tools.** The plug-in tool may catch your hand if it suffers recoil.
- c) **Keep your body out the area into which the electric tool will be moved if it suffers recoil.**  
Recoil will throw the electric tool into the direction opposite to the grinding/sanding wheel at the point at which it is blocked.
- d) **Work with particular care around corners, sharp edges, etc. Ensure that the plug-in tool does not bounce off or jam in the workpiece.**  
At corners, sharp edges or if it bounces, the rotating plug-in tool will tend to jam. This will result in loss of control or recoil.
- e) **Do not use chain saw blades or toothed saw blades.** These plug-in tools often cause recoil or loss of control of the electric tool.

#### Special safety information for grinding/sanding and cutting-off

- a) **Use only grinding/sanding wheels that have been approved for your electric tool and the safety hood designed for these grinding/sanding wheels.** Grinding/sanding wheels which are not designed for the electric tool cannot be shielded adequately and are unsafe.

- b) **The safety hood must be securely fastened to the electric tool and adjusted so that it offers maximum safety, in other words it prevents the smallest possible part of the grinding/sanding wheel from striking the operator.** The safety hood helps to protect the operator from broken pieces, accidental contact with the cutting-off wheel, and sparks which could ignite clothing.
- c) **Grinding/sanding wheels may only be used for the applications for which they are recommended. For example: Never grind/sand a side surface area with a cutting off wheel.** Cutting-off wheels are designed for removing material with the edge of the wheel. Applying lateral force to these cutting-off wheels can cause them to break.
- d) **Always use undamaged clamping flanges of the correct size and shape for the grinding/sanding wheel you have selected.** Suitable flanges support the grinding/sanding wheel and thus reduce the risk of the grinding/sanding wheel breaking. Flanges for cutting-off wheels may differ from the flanges for other grinding/sanding wheels.
- e) **Do not used worn grinding/sanding wheels from larger electric tools.** Grinding/sanding wheels for larger electric tools are not designed for the higher speeds of smaller electric tools and may break.
- f) **Offset grinding wheels must be fitted such that their grinding face does not project beyond the level of the guard hood edge.** An incorrectly fitted grinding wheel that projects beyond the level of the guard hood edge cannot be adequately shielded.

#### Other special safety information for cutting-off wheels

- a) **Avoid blocking the cutting-off wheel or applying excessive contact pressure. Do not make any excessively deep cuts.** Overloading the cutting-off wheel will increase the stress on it and its susceptibility to jam or block and therefore the possibility of recoil or of the grinding wheel breaking.
- b) **Avoid the area in front of and behind the rotating cutting-off wheel.** If you move the cutting-off wheel in the workpiece away from yourself, in the event of recoil the electric tool and the rotating wheel may be catapulted directly towards you.
- c) **If the cutting-off wheel jams or you interrupt your work, switch off the tool and**

**hold it still until the wheel has reached a complete standstill. Never attempt to pull the cuttingoff wheel out of the cut whilst it is still rotating, otherwise it may suffer recoil.** Find and rectify the cause of the jam.

- d) **Do not switch the electric tool on again whilst it is inside the workpiece. Allow the cuttingoff disk to reach its full speed before you continue the cut with care.** Otherwise the wheel may catch, jump out of the workpiece or cause recoil.
- e) **Support panels or large workpieces to reduce the risk of recoil by a jammed cuttingoff wheel.** Large workpieces may sag under their own weight. The workpiece must be supported on both sides of the wheel both near the cut and also at the edge.
- f) **Be particularly careful with “pocket cuts” in existing walls or in areas which you cannot see clearly.** As the cutting-off disk enters the cut it may suffer recoil if it cuts into gas or water pipes, electric cables or other objects.

## 2. Layout and items supplied

### 2.1 Layout (Fig. 1)

1. Spindle lock
2. ON/OFF switch
3. Additional handle
4. Guard
5. Flange nut wrench
6. Battery
7. Charging unit
8. Pushlock button
9. Battery capacity indicator

### 2.2 Items supplied

Please check that the article is complete as specified in the scope of delivery. If parts are missing, please contact our service center or the sales outlet where you made your purchase at the latest within 5 working days after purchasing the product and upon presentation of a valid bill of purchase. Also, refer to the warranty table in the service information at the end of the operating instructions.

- Open the packaging and take out the equipment with care.
- Remove the packaging material and any packaging and/or transportation braces (if available).
- Check to see if all items are supplied.

- Inspect the equipment and accessories for transport damage.
- If possible, please keep the packaging until the end of the guarantee period.

### Danger!

**The equipment and packaging material are not toys. Do not let children play with plastic bags, foils or small parts. There is a danger of swallowing or suffocating!**

- Angle grinder
- Battery charger (Not supplied with Art. No. 44.311.26)
- Battery (Not supplied with Art. No. 44.311.26)
- Additional handle
- Flange nut wrench
- Original operating instructions
- Safety instructions

## 3. Proper use

The angle grinder is designed for grinding metal and stone when using the appropriate grinding wheel and guard.

**Warning!** To cut metal and stone the grinder/sander may only be used when the guard (available as an accessory) is mounted.

The equipment is to be used only for its prescribed purpose. Any other use is deemed to be a case of misuse. The user / operator and not the manufacturer will be liable for any damage or injuries of any kind caused as a result of this.

Please note that our equipment has not been designed for use in commercial, trade or industrial applications. Our warranty will be voided if the machine is used in commercial, trade or industrial businesses or for equivalent purposes.

## 4. Technical data

Motor power supply: ..... 18 V DC  
 Rated speed: ..... 8500 min<sup>-1</sup>  
 Max. wheel diameter: ..... 100 mm  
 Grinding wheels: ..... 100 x 16 x 6 mm  
 Cutting wheel: ..... 100 x 16 x 3 mm  
 Mounting spindle thread: ..... M10  
 Battery charger output voltage: ..... 20 V DC  
 Battery charger output current: ..... 3 A  
 Charging unit supply  
 voltage: ..... 200-250V~ 50-60Hz  
 Battery type: ..... Lithium-ion  
 Number of battery cells: ..... 10  
 Battery capacitance: ..... 3.0 Ah  
 Weight: ..... 1.21 kg

### Wear ear-muffs.

The impact of noise can cause damage to hearing.

### Keep the noise emissions and vibrations to a minimum.

- Only use appliances which are in perfect working order.
- Service and clean the appliance regularly.
- Adapt your working style to suit the appliance.
- Do not overload the appliance.
- Have the appliance serviced whenever necessary.
- Switch the appliance off when it is not in use.
- Wear protective gloves.

### Caution!

#### Residual risks

**Even if you use this electric power tool in accordance with instructions, certain residual risks cannot be ruled out. The following hazards may arise in connection with the equipment's construction and layout:**

1. Lung damage if no suitable protective dust mask is used.
2. Damage to hearing if no suitable ear protection is used.
3. Health damage caused by hand-arm vibrations if the equipment is used over a prolonged period or is not properly guided and maintained.

## 5. Before starting the equipment

### Warning!

Always remove the battery pack before making adjustments to the equipment.

Be sure to read the following information before you put the cordless equipment into operation:

- Charge the battery pack with the charger. An empty battery pack requires a charging period of approximately 0.5 to 1 hour.

### 5.1 Fitting the additional handle (Fig. 2)

- The angle grinder must not be used without the additional handle (3).
- The additional handle can be secured in any of three positions (A, B, C).

Tool side	Suitable for
Left (position A / as shown)	Right-handed users
Right (position B)	Left-handed users
Top (position C)	Using cutting wheels

### 5.2 Replacing and adjusting the guard (Fig. 3)

#### Replacing:

- Remove the flange nut (b) and the clamping flange underneath.
- Open the clamp lever (a) on the guard (4).
- Turn the guard (4) through 180° in clockwise direction so that the guard points upwards.
- Remove the guard (4).

To mount, proceed in the reverse order.

#### Adjusting:

- Adjust the guard (4) to protect your hands so that the material being ground is directed away from your body.
- The position of the guard (4) can be adjusted to any specific working conditions. Undo the clamp handle (a) and turn the cover (4) into the required position.
- Ensure that the guard (4) correctly covers the gear wheel casing.
- Secure the clamp handle (a) again.
- Ensure that the guard (4) is secure.

**⚠ Take care that the safety device is secure.**



**⚠ Never use the angle grinder without the guard.**

### 5.3 Test run for new grinding Wheels

Allow the right-angle grinder to run in idle for at least 1 minute with the grinding or cutting wheel fitted in place. Vibrating wheels are to be replaced immediately.

## 6. Operation

### 6.1 Charging the Li battery pack (Fig. 1a-1b)

1. Remove the battery pack (6) from the handle, pressing the pushlock button (8) downwards to do so.
2. Check that your mains voltage is the same as that marked on the rating plate of the battery charger. Insert the power plug of the charger (7) into the mains socket outlet. The green LED will then begin to flash.
3. Push the battery pack onto the battery charger.

In section 10 (Charger indicator) you will find a table with an explanation of the LED indicator on the charger.

If the battery pack fails to charge, check for the following:

- voltage at the power socket
- whether there is good contact at the charging contacts of the charging unit

If the battery pack still fails to charge, send

- the charger and charging adapter
  - and the battery pack
- to our customer service center.

To ensure that the Li battery pack provides long service you should take care to recharge it promptly. You must recharge the battery pack when you notice that the power of the cordless equipment drops.

### 6.2 Switch (Fig. 4)

The angle grinder comes with a safety switch which is designed to prevent accidents. To switch on, push the On/Off switch (2) to the right and then forwards. To switch off the angle grinder, depress the On/Off switch (2) at the back. The On/Off switch (2) will jump back into its starting position.

**Wait until the machine has reached its top speed. You can then position the angle grinder on the workpiece and machine it.**

### 6.3 Battery capacity indicator (Fig. 1c/Item 9)

Press the battery capacity indicator switch (a). The battery capacity indicator (9) shows the charge status of the battery using 3 LEDs.

#### All 3 LEDs are lit:

The battery is fully charged.

#### 2 or 1 LED(s) are lit:

The battery has an adequate remaining charge.

#### 1 LED blinks:

The battery is empty, recharge the battery.

#### All LEDs blink:

The battery pack has undergone exhaustive discharge and is defective. Do not use or charge a defective battery pack.

### 6.4 Changing the grinding wheels (Fig. 5 / 6)

Use the face spanner (5) supplied to change the grinding wheels. The face spanner (5) is stored in the additional handle (3). Pull the face spanner (5) out of the additional handle (3) when you need it.

**Danger!** For safety reasons, the angle grinder must not be operated with the face spanner (5) inserted in it.

#### Warning!

- Simple wheel change by spindle lock:
- Press the spindle lock and allow the grinding wheel to latch in place.
- Open the flange nut with the face spanner. (Fig. 6)
- Change the grinding or cutting wheel and tighten the flange nut with the face spanner.

#### Notice!

**Only ever press the spindle lock when the motor and grinding spindle are at a stand-still! You must keep the spindle lock pressed while you change the wheel!**

For grinding or cutting wheels up to approx. 3 mm thick, screw on the flange nut with the flat side facing the grinding or cutting wheel.

### 6.5 Flange arrangements when using grinding wheels and cutting wheels (Fig. 7-10)

- Flange arrangement when using a depressed-centre or straight grinding wheel (Fig. 8)
  - a) Clamping flange
  - b) Flange nut
- Flange arrangement when using a depressed-centre cutting wheel (Fig. 9)
  - a) Clamping flange
  - b) Flange nut
- Flange arrangement when using a straight cutting wheel (Fig. 10)
  - a) Clamping flange
  - b) Flange nut

### 6.6 Motor

It is vital for the motor to be well ventilated during operation. Be sure, therefore, to keep the ventilation holes clean at all times.

### 6.7 Grinding Wheels

- Never use a grinding or cutting wheel bigger than the specified diameter.
- Before using a grinding or cutting wheel, check its rated speed.
- The maximum speed of the grinding or cutting wheel used must be higher than the idle speed of the angle grinder.
- Use only grinding and cutting wheels that are approved for a minimum speed of 8,500 rpm and a peripheral speed of 52 m/sec.
- Check the direction of rotation when you use diamond cutting wheels. The directional arrow on the diamond cutting wheel must point in the direction in which the tool rotates.

Take special care that the grinding/sanding wheels are properly stored and transported. Ensure that the grinding/sanding wheels are never exposed to shock, jolts or sharp edges (for example during transport or storage in a toolbox). This could cause damage (such as cracks) to the grinding/sanding wheels and place the user in serious danger.

### Warning!

#### 6.8 Operating Modes

##### 6.8.1 Rough grinding (Fig. 11)

For the best rough grinding results, hold the grinding wheel at an angle of between 30° and 40° to the workpiece surface and guide back and forth over the workpiece in steady movements.

##### 6.8.2 Cutting (Fig. 12)

When you use the right-angle grinder for cutting purposes, avoid tilting it in the cutting plane. The cutting wheel must have a clean cutting edge. A diamond cutting wheel is best used to cut hard stone.

**⚠ It is prohibited to use the machine on asbestos materials!**

**⚠ Never use a cutting wheel for rough grinding.**

## 7. Cleaning, maintenance and ordering of spare parts

### Danger!

Always pull out the battery pack before starting any cleaning work.

#### 7.1 Cleaning

- Keep all safety devices, air vents and the motor housing free of dirt and dust as far as possible. Wipe the equipment with a clean cloth or blow it with compressed air at low pressure.
- We recommend that you clean the device immediately each time you have finished using it.
- Clean the equipment regularly with a moist cloth and some soft soap. Do not use cleaning agents or solvents; these could attack the plastic parts of the equipment. Ensure that no water can seep into the device. The ingress of water into an electric tool increases the risk of an electric shock.



### **7.2 Maintenance**

There are no parts inside the equipment which require additional maintenance.

### **7.3 Ordering replacement parts:**

Please quote the following data when ordering replacement parts:

- Type of machine
- Article number of the machine
- Identification number of the machine
- Replacement part number of the part required

## **8. Disposal and recycling**

The equipment is supplied in packaging to prevent it from being damaged in transit. The raw materials in this packaging can be reused or recycled. The equipment and its accessories are made of various types of material, such as metal and plastic. Never place defective equipment in your household refuse. The equipment should be taken to a suitable collection center for proper disposal. If you do not know the whereabouts of such a collection point, you should ask in your local council offices.

## **9. Storage**

Store the equipment and accessories in a dark and dry place at above freezing temperature. The ideal storage temperature is between 5 and 30 °C. Store the electric tool in its original packaging.

## 10. Charger indicator

Indicator status		Explanations and actions
Red LED	Green LED	
Off	Flashing	<p><b>Ready for use</b> The charger is connected to the mains and is ready for use; there is no battery pack in the charger</p>
On	Off	<p><b>Charging</b> The charger is charging the battery pack in quick charge mode. The charging times are shown directly on the charger. Important! The actual charging times may vary slightly from the stated charging times depending on the existing battery charge.</p>
Off	On	<p><b>The battery is charged and ready for use.</b> The unit then changes over to gentle charging mode until the battery is fully charged. To do this, leave the rechargeable battery on the charger for approx. 15 minutes longer. <b>Action:</b> Take the battery pack out of the charger. Disconnect the charger from the mains supply.</p>
Flashing	Off	<p><b>Adapted charging</b> The charger is in gentle charging mode. For safety reasons the charging is performed less quickly and takes more time. The reasons can be: - The rechargeable battery has not been used for a very long time. - The battery temperature is outside the ideal range. <b>Action:</b> Wait for the charging to be completed; you can still continue to charge the battery pack.</p>
Flashing	Flashing	<p><b>Fault</b> Charging is no longer possible. The battery pack is defective. <b>Action:</b> Never charge a defective battery pack. Take the battery pack out of the charger.</p>
On	On	<p><b>Temperature fault</b> The battery pack is too hot (e.g. due to direct sunshine) or too cold (below 0° C). <b>Action:</b> Remove the battery pack and keep it at room temperature (approx. 20° C) for one day .</p>

Subject to technical changes

## Warranty certificate

Dear Customer,

All of our products undergo strict quality checks to ensure that they reach you in perfect condition. In the unlikely event that your device develops a fault, please contact our service department at the address shown on this guarantee card. You can also contact us by telephone using the service number shown. Please note the following terms under which guarantee claims can be made:

1. These guarantee terms apply to consumers only, i.e. natural persons intending to use this product neither for their commercial activities nor for any other self-employed activities. These warranty terms regulate additional warranty services, which the manufacturer mentioned below promises to buyers of its new products in addition to their statutory rights of guarantee. Your statutory guarantee claims are not affected by this guarantee. Our guarantee is free of charge to you.
2. The warranty services cover only defects due to material or manufacturing faults on a product which you have bought from the manufacturer mentioned below and are limited to either the rectification of said defects on the product or the replacement of the product, whichever we prefer.  
Please note that our devices are not designed for use in commercial, trade or professional applications. A guarantee contract will not be created if the device has been used by commercial, trade or industrial business or has been exposed to similar stresses during the guarantee period.
3. The following are not covered by our guarantee:
  - Damage to the device caused by a failure to follow the assembly instructions or due to incorrect installation, a failure to follow the operating instructions (for example connecting it to an incorrect mains voltage or current type) or a failure to follow the maintenance and safety instructions or by exposing the device to abnormal environmental conditions or by lack of care and maintenance.
  - Damage to the device caused by abuse or incorrect use (for example overloading the device or the use of unapproved tools or accessories), ingress of foreign bodies into the device (such as sand, stones or dust, transport damage), the use of force or damage caused by external forces (for example by dropping it).
  - Damage to the device or parts of the device caused by normal or natural wear or tear or by normal use of the device.
4. The guarantee is valid for a period of 24 months starting from the purchase date of the device. Guarantee claims should be submitted before the end of the guarantee period within two weeks of the defect being noticed. No guarantee claims will be accepted after the end of the guarantee period. The original guarantee period remains applicable to the device even if repairs are carried out or parts are replaced. In such cases, the work performed or parts fitted will not result in an extension of the guarantee period, and no new guarantee will become active for the work performed or parts fitted. This also applies if an on-site service is used.
5. To make a claim under the guarantee, please register the defective device at: [www.Einhell-Service.com](http://www.Einhell-Service.com). Please keep your bill of purchase or other proof of purchase for the new device. Devices that are returned without proof of purchase or without a rating plate shall not be covered by the guarantee, because appropriate identification will not be possible. If the defect is covered by our guarantee, then the item in question will either be repaired immediately and returned to you or we will send you a new replacement.

Of course, we are also happy offer a chargeable repair service for any defects which are not covered by the scope of this guarantee or for units which are no longer covered. To take advantage of this service, please send the device to our service address.

Also refer to the restrictions of this warranty concerning wear parts, consumables and missing parts as set out in the service information in these operating instructions.

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