

HILTI

AG 500-A18

Operating instructions

en

Mode d'emploi

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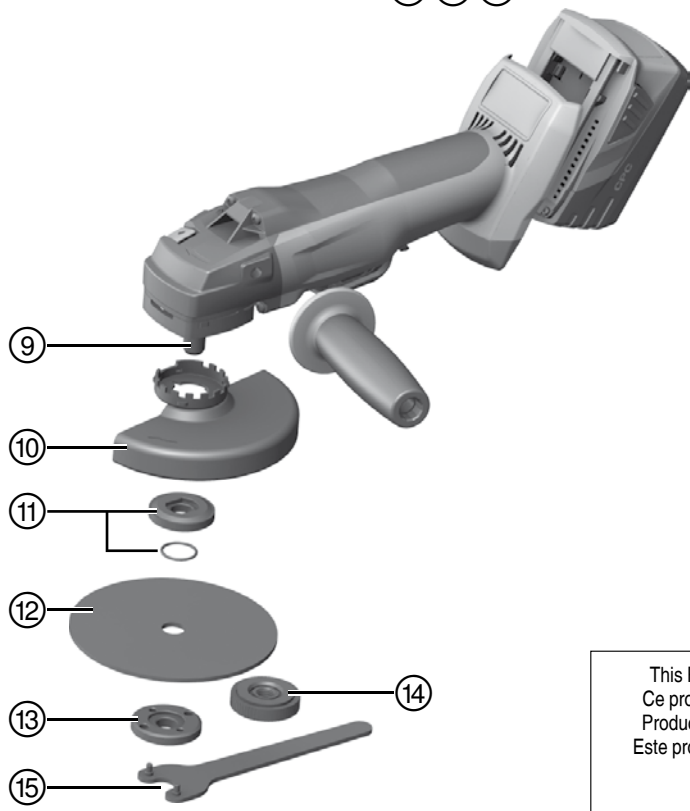
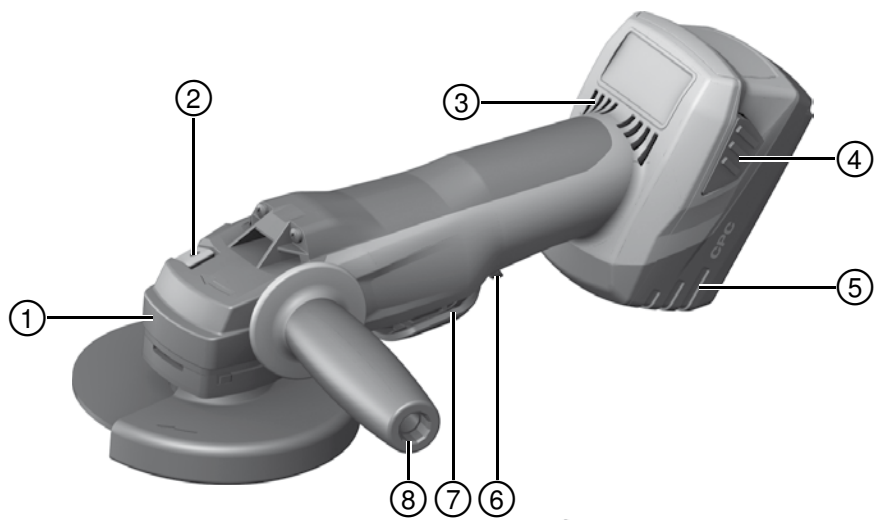
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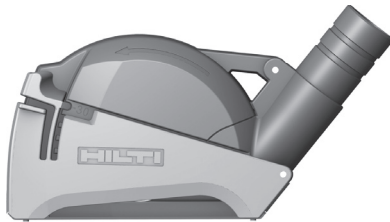
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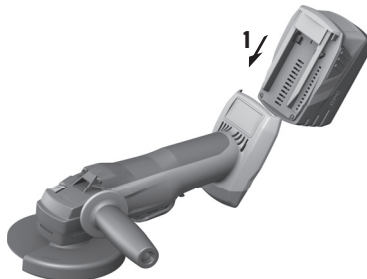
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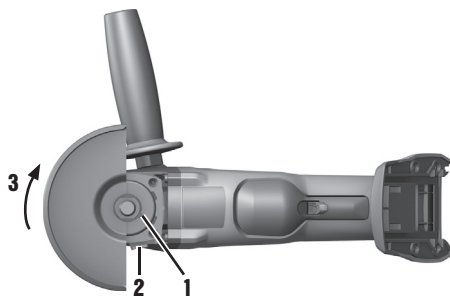
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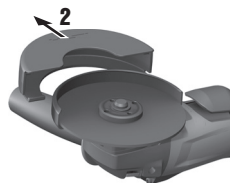
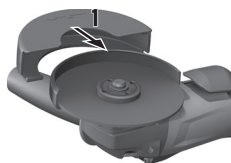
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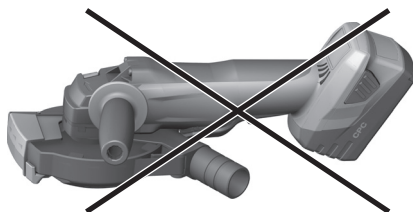
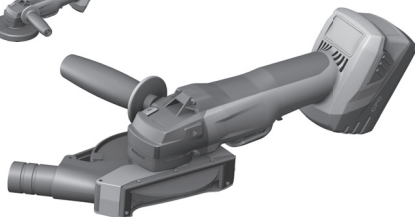
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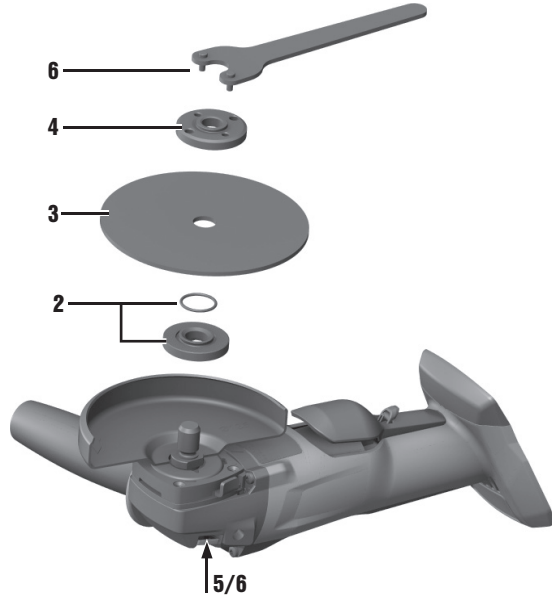
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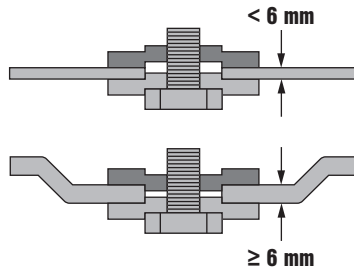
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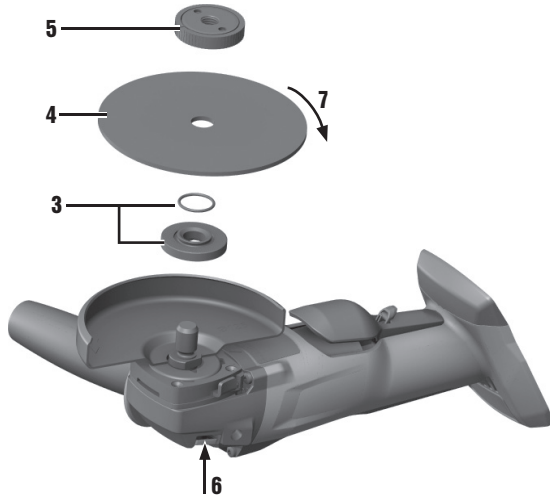
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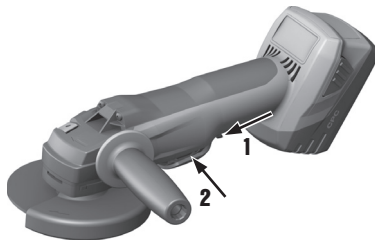
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ORIGINAL OPERATING INSTRUCTIONS

AG 500-A18 angle grinder

It is essential that the operating instructions are read before the power tool is operated for the first time.

Always keep these operating instructions together with the power tool.

Ensure that the operating instructions are with the power tool when it is given to other persons.

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1 These numbers refer to the illustrations. You can find the illustrations at the beginning of the operating instructions.

In these operating instructions, the designation "the tool" always refers to the AG 500-A18 cordless angle grinder.

Operating controls and parts **1**

- ① Guard release button
- ② Spindle lockbutton
- ③ Ventilation slots
- ④ Release buttons with additional function (charge status display activation)
- ⑤ Battery
- ⑥ Switch-on interlock
- ⑦ On / off switch
- ⑧ Vibration-absorbing side handle
- ⑨ Spindle
- ⑩ Guard
- ⑪ Clamping flange with O-ring
- ⑫ Abrasive cutting disc / abrasive grinding disc
- ⑬ Clamping nut
- ⑭ "Kwik lock" quick-release clamping nut (optional)
- ⑮ Wrench

en

1 General information

1.1 Safety notices and their meaning

DANGER

Draws attention to imminent danger that will lead to serious bodily injury or fatality.

WARNING

Draws attention to a potentially dangerous situation that could lead to serious personal injury or fatality.

CAUTION

Draws attention to a potentially dangerous situation that could lead to slight personal injury or damage to the equipment or other property.

NOTE

Draws attention to an instruction or other useful information.

1.2 Explanation of the pictograms and other information

Warning signs



General warning

Obligation signs



Wear eye protection



Read the operating instructions before use.

Symbols

n

/min

RPM



Rated speed

Revolutions
per minute

Revolutions
per minute

Diameter

en

Location of identification data on the power tool

The type designation and serial number can be found on the type identification plate on the machine or tool. Make a note of this data in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: _____

Generation: 01 _____

Serial no.: _____

2 Safety instructions

NOTE

The safety rules in section 2.1 contain all general safety rules for power tools which, in accordance with the applicable standards, must be listed in the operating instructions. Accordingly, some of the rules listed may not be relevant to this power tool.

2.1 General power tool safety warnings

a) WARNING

Read all safety warnings and 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.

2.1.1 Work area safety

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- 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.
- Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

2.1.2 Electrical safety

- 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.
- 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.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

- 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 or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- 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.
- 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.

2.1.3 Personal safety

- 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.
- 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.
- 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.
- 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 injury.
- Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- 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.

2.1.4 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.

2.1.5 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.

2.1.6 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.

2.2 Safety warnings common for grinding, sanding, wire brushing, polishing or abrasive cutting-off operations

- a) **This power tool is intended to function as a grinder, wire brush or cut-off tool. Read all safety warnings, instructions, illustrations and specifications provided with this power tool.** Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.
- b) **Operations such as sanding and polishing are not recommended to be performed with this power tool** Operations for which the power tool was not designed may create a hazard and cause personal injury.
- c) **Do not use accessories which are not specifically designed and recommended by the tool manufacturer.** Just because the accessory can be attached to your power tool, it does not assure safe operation.
- d) **The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- e) **The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- f) **Threaded mounting of accessories must match the grinder spindle thread. For accessories mounted by flanges, the arbour hole of the accessory must fit the locating diameter of the flange.** Accessories that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- g) **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks, backing pad for cracks, tear or excess wear, wire brush for loose or cracked wires. If power tool or accessory is dropped, inspect for damage or install an undamaged accessory. After inspecting and installing an accessory, position yourself and bystanders away from the plane of the rotating accessory and run the power tool at maximum no-load speed for one minute. Damaged accessories will normally break apart during this test time.**
- h) **Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and workshop apron capable of stopping small abrasive or workpiece fragments. The eye protection must be capable of stopping flying debris generated by various operations. The eye protection must be capable of stopping flying debris generated by various opera-**

tions. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.

- i) **Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of workpiece or of a broken accessory may fly away and cause injury beyond immediate area of operation.
- j) **Hold the power tool by insulated gripping surfaces only, when performing an operation where the cutting tool may contact hidden wiring.** Contact with a "live" wire will also make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- k) **Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged and your hand or arm may be pulled into the spinning accessory.
- l) **Never lay the power tool down until the accessory has come to a complete stop.** The spinning accessory may grab the surface and pull the power tool out of your control.
- m) **Do not run the power tool while carrying it at your side.** Accidental contact with the spinning accessory could snag your clothing, pulling the accessory into your body.
- n) **Regularly clean the power tool's air vents.** The motor's fan will draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- o) **Do not operate the power tool near flammable materials.** Sparks could ignite these materials.
- p) **Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.

2.3 Kickback and related warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel, backing pad, brush or any other accessory. Pinching or snagging causes rapid stalling of the rotating accessory which in turn causes the uncontrolled power tool to be forced in the direction opposite of the accessory's rotation at the point of the binding.

For example, if an abrasive wheel is snagged or pinched by the workpiece, the edge of the wheel that is entering into the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. The wheel may either jump toward or away from the operator, depending on direction of the wheel's movement at the point of pinching. Abrasive wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- a) **Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces. Always use auxiliary handle, if provided, for maximum control over kickback or torque reaction during start-up.** The operator can

control torque reactions or kickback forces, if proper precautions are taken.

- b) **Never place your hand near the rotating accessory.** Accessory may kickback over your hand.
- c) **Do not position your body in the area where power tool will move if kickback occurs.** Kickback will propel the tool in direction opposite to the wheel's movement at the point of snagging.
- d) **Use special care when working corners, sharp edges etc. Avoid bouncing and snagging the accessory.** Corners, sharp edges or bouncing have a tendency to snag the rotating accessory and cause loss of control or kickback.
- e) **Do not attach a saw chain woodcarving blade or toothed saw blade.** Such blades create frequent kickback and loss of control.

2.4 Safety warnings specific for grinding and abrasive cutting-off operations

- a) **Use only wheel types that are recommended for your power tool and the specific guard designed for the selected wheel.** Wheels for which the power tool was not designed cannot be adequately guarded and are unsafe.
- b) **The grinding surface of centre depressed wheels must be mounted below the plane of the guard lip.** An improperly mounted wheel that projects through the plane of the guard lip cannot be adequately protected.
- c) **The guard must be securely attached to the power tool and positioned for maximum safety, so the least amount of wheel is exposed towards the operator.** The guard helps to protect operator from broken wheel fragments, accidental contact with wheel and sparks that could ignite clothing.
- d) **Wheels must be used only for recommended applications. For example: do not grind with the side of cut-off wheel.** Abrasive cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- e) **Always use undamaged wheel flanges that are of correct size and shape for your selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage. Flanges for cut-off wheels may be different from grinding wheel flanges.
- f) **Do not use worn down wheels from larger power tools.** Wheel intended for larger power tool is not suitable for the higher speed of a smaller tool and may burst.

2.5 Additional safety warnings specific for abrasive cutting-off operations

- a) **Do not "jam" the cut-off wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut.** Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
- b) **Do not position your body in line with and behind the rotating wheel.** When the wheel, at the point

of operation, is moving away from your body, the possible kickback may propel the spinning wheel and the power tool directly at you.

- c) **When wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the power tool motionless until the wheel comes to a complete stop. Never attempt to remove the cut-off wheel from the cut while the wheel is in motion otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel binding.
- d) **Do not restart the cutting operation in the workpiece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the workpiece.
- e) **Support panels or any oversized workpiece to minimize the risk of wheel pinching and kickback.** Large workpieces tend to sag under their own weight. Supports must be placed under the workpiece near the line of cut and near the edge of the workpiece on both sides of the wheel.
- f) **Use extra caution when making a "pocket cut" into existing walls or other blind areas.** The protruding wheel may cut gas or water pipes, electrical wiring or objects that can cause kickback.

2.6 Safety warnings specific for wire brushing operations

- a) **Be aware that wire bristles are thrown by the brush even during ordinary operation. Do not overstress the wires by applying excessive load to the brush.** The wire bristles can easily penetrate light clothing and/or skin.
- b) **If the use of a guard is recommended for wire brushing, do not allow any interference of the wire wheel or brush with the guard.** Wire wheel or brush may expand in diameter due to work load and centrifugal forces.

2.7 Additional safety instructions

2.7.1 Personal safety

- a) **Modification of the machine or tampering with its parts is not permissible.**
- b) **Wear ear protectors.** Exposure to noise can cause hearing loss.
- c) **Always hold the power tool securely with both hands on the grips provided. Keep the grips dry, clean and free from oil and grease.**
- d) **Breathing protection must be worn if the power tool is used without a dust removal system for work that creates dust.**
- e) **Improve the blood circulation in your fingers by relaxing your hands and exercising your fingers during breaks between working.**
- f) **Avoid touching rotating parts. Switch the power tool on only after bringing it into position at the workpiece.** Touching rotating parts, especially rotating insert tools, may lead to injury.

- g) **The appliance is not intended for use by debilitated persons who have received no special training. Keep the appliance out of reach of children.**
- h) Dust from materials, such as paint containing lead, some wood species, concrete / masonry / stone containing silica, and minerals as well as metal, may be harmful. Contact with or inhalation of the dust may cause allergic reactions and/or respiratory or other diseases to the operator or bystanders. Certain kinds of dust are classified as carcinogenic such as oak and beech dust, especially in conjunction with additives for wood conditioning (chromate, wood preservative). Material containing asbestos must only be treated by specialists. **Where the use of a dust-extraction device is possible it shall be used. To achieve a high level of dust collection, use a suitable dust extractor. When indicated wear a respirator appropriate for the type of dust generated. Ensure that the workplace is well ventilated. Follow national requirements for the materials you want to work with.**
- i) **The user and any other persons in the vicinity must wear suitable eye protection, a hard hat, ear protection, protective gloves and breathing protection while the tool is in use.**
- j) If the electric tool detects that it is being operated beyond its limits or if the battery is fully discharged, it may happen that the disc is no longer braked by the motor.

2.7.2 Power tool use and care

- a) **Grinding discs must be stored and handled carefully in accordance with the manufacturer's instructions.**
- b) **Never use the power tool without the guard.**
- c) **Secure the workpiece. Use clamps or a vice to secure the workpiece.** The workpiece is thus held more securely than by hand and both hands remain free to operate the power tool.
- d) **Do not use cutting discs for grinding.**
- e) **Tighten the disc and flange securely.** If the nut securing the disc and flange is not tightened firmly, the disc may work loose from the spindle due to the braking effect of the power tool's motor after switching off.

2.7.3 Electrical safety

- a) **Before beginning work, check the working area (e.g. using a metal detector) to ensure that no concealed electric cables or gas and water pipes are present.** External metal parts of the power tool may become live, for example, when an electric cable is damaged accidentally. This presents a serious risk of electric shock.
- b) **Dirty or dusty power tools that have been used frequently for work on conductive materials should be checked at regular intervals at a Hilti Service Center.** Under unfavorable circumstances, dampness or dust adhering to the surface of the tool,

especially dust from conductive materials, may lead to damage to the tool.

2.7.4 Careful handling and use of batteries

- a) **Observe the special guidelines applicable to the transport, storage and use of Li-ion batteries.**
- b) **Do not expose batteries to high temperatures and keep them away from fire.** This presents a risk of explosion.
- c) **Do not disassemble, squash or incinerate batteries and do not subject them to temperatures over 80°C (176°F).** This presents a risk of fire, explosion or injury through contact with caustic substances.
- d) **Do not charge or continue to use damaged batteries (e.g. batteries with cracks, broken parts, bent or pushed-in and/or pulled-out contacts).**

- e) If the battery is too hot to touch it may be defective. **Place the tool in a location where it can be kept under observation, well away from flammable materials, and allow it to cool down. Contact Hilti Service after the battery has cooled down.**

2.7.5 Work area safety

- a) **If the work involves breaking right through, take the appropriate safety measures at the opposite side.** Parts breaking away could fall out and / or fall down and injure other persons.
- b) Slits cut in loadbearing walls of buildings or other structures may influence the statics of the structure, especially when steel reinforcing bars or load-bearing components are cut through. **Consult the structural engineer, architect, or person in charge of the building project before beginning the work.**

3 Description

3.1 Use of the product as directed

The power tool is designed for cutting, grinding and brushing metals and mineral materials.

Do not use the battery as a power source for other unspecified appliances.

Working with metals: Only using synthetic resin-bonded, fiber-reinforced grinding or cutting discs.

Working with mineral materials: Cutting and slitting using the corresponding guard (DC-EX 125/5"-C), grinding using the corresponding guard (DG-EX 125/5").

The power tool may be used only for dry cutting or grinding.

It is recommended that a dust removal system consisting of matched components, i.e. dust removal hood and a suitable Hilti vacuum cleaner, are used for working on mineral materials such as concrete or stone. These serve to protect the operator and increase the life of the power tool and disc used.

Working on materials hazardous to the health (e.g. asbestos) is not permissible.

Observe the national health and safety requirements.

To avoid the risk of injury, use only genuine Hilti accessories and insert tools.

The power tool is designed for professional use and may be operated, serviced and maintained only by trained, authorized personnel. This personnel must be informed of any special hazards that may be encountered. The power tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or when used not as directed.

3.2 Items supplied as standard

- 1 Power tool
- 1 Side handle
- 1 Standard guard
- 1 Front cover
- 1 Clamping flange
- 1 Clamping nut
- 1 Wrench
- 1 Operating instructions

NOTE

Approved accessories are available from your Hilti Center or can be ordered online at www.hilti.com.

3.3 Additional items required for operating the tool:

A suitable battery of the specified type (see table in the Technical Data section) and a suitable battery charger from the C 4/36 series.

3.4 Temperature-dependent motor protection

The temperature-dependent motor protection system prevents the power tool overheating by monitoring current input and motor temperature.

In the event of motor overload due to application of excessive pressure to the disc, performance will drop noticeably or the power tool may stop running (avoid stalling the power tool in this way).

If the power tool has been overloaded, release the pressure applied and then allow it to run under no load for approx. 30 seconds.

3.5 Guard with front cover 2

CAUTION

When grinding with straight grinding discs and cutting with cutting discs in metalworking applications, use the guard with front cover.

3.6 DC-EX 125/5"-C compact dust removal hood for cutting 3

For cutting mineral materials using diamond discs.

CAUTION

Use of this guard for working on metal is not permissible.

3.7 DG-EX 125/5" dust removal hood for grinding 4

The grinding system is suitable only for occasional use with diamond cup wheels for grinding mineral materials.

CAUTION

Use of this guard for working on metal is not permissible.

3.8 Lithium-ion battery charge status

When the lithium-ion battery is in use, the charge status can be indicated by gently pressing one of the battery release buttons (press until resistance is felt - do not release the battery). The display on the rear of the battery provides the following information:

LEDs light constantly	LEDs blink	Charge status C
LED 1, 2, 3, 4	-	$C \geq 75 \%$
LED 1, 2, 3	-	$50 \% \leq C < 75 \%$
LED 1, 2	-	$25 \% \leq C < 50 \%$
LED 1	-	$10 \% \leq C < 25 \%$
-	LED 1	$C < 10 \%$

NOTE

Indication of the charge status is not possible while the power tool is in operation or immediately after operation. If the battery charge status LEDs flash, please refer to the information given in the Troubleshooting section.

4 Consumables

Discs with a diameter of max. 5", designed for a speed of 11000/min and a peripheral speed of 80 m/sec, and with a maximum thickness of 1/4" (abrasive grinding discs) or 1/8" (abrasive cutting discs).

Discs / wire brushes	Application	Designation	Material
Abrasive cutting disc	Cutting, slitting	AC-D	metal
Diamond cutting disc	Cutting, slitting	DC-D	mineral
Abrasive grinding disc	Rough grinding	AG-D, AF-D, AN-D	metal
Diamond grinding disc	Rough grinding	DG-CW	mineral
Wire brushes	Wire brushes	3CS, 4CS, 3SS, 4SS	metal

Assignment of discs to the equipment used

Item	Equipment	AC-D	AG-D	AF-D	AN-D	DG-CW	DC-D	3CS/3SS/4CS/4SS
A	Guard	X	X	X	X	X	X	X
B	Front cover (in combination with A)	X	-	-	-	-	X	-
C	DG-EX 125/5" surface guard	-	-	-	-	X	-	-
D	DC-EX 125/5"-C compact guard (in combination with A)	-	-	-	-	-	X	-
E	Side handle	X	X	X	X	X	X	X
F	DC BG 125 hoop grip (optional for E)	X	X	X	X	X	X	X
G	Clamping nut (not for use with accessories with integrated thread)	X	X	X	X	X	X	-
H	Clamping flange (not for use with accessories with integrated thread)	X	X	X	X	X	X	-
I	Kwik lock (optional for G)	X	X	X	X	-	X	-

5 Technical data

Right of technical changes reserved.

Power tool	AG 500-A18
Rated voltage	21.6 V
Rated speed	9,500/min
Max. washer diameter	Ø 125 mm (5")
Weight	2.7 kg (5.95 lb)

Battery	B 18/2.6 Li-Ion (01)	B 18/3.3 Li-Ion (01)
Rated voltage	21.6 V	21.6 V
Capacity	2.6 Ah	3.3 Ah
Energy capacity	56.16 Wh	71.28 Wh
Weight	0.78 kg (1.72 lb)	0.78 kg (1.72 lb)

Information about the power tool and applications

Drive spindle thread (arbor size)	M 14
Spindle length	22 mm (7/8")

6 Before use

6.1 Inserting the battery **5**

CAUTION

Check that the power tool is switched off and the switch interlock activated before fitting the battery.

CAUTION

Before inserting the battery in the power tool, check to ensure that the battery terminals and the contacts in the power tool are free from foreign objects.

1. **CAUTION** If the battery is not fitted correctly it may drop out and fall while the work is in progress.

CAUTION A falling battery may present a risk of injury to yourself and others.

Before beginning the work, check that the battery is securely seated in the tool.

6.2 Removing the battery from the power tool **6**

6.3 Transport and storage of batteries

CAUTION

Fire hazard. Never transport batteries in loose, bulk form. There is a risk of short circuiting.

Pull the battery out of the locked position (working position) and move it into the first latching position (transport position).

Observe national and international transport regulations when shipping batteries (transportation by road, rail, sea or air).

6.4 Fitting the side handle

Screw the side handle into one of the threaded bushings provided.

6.5 Guards

CAUTION

Wear gloves when fitting or removing parts, when making adjustments or when remedying malfunctions.

Read the instructions for fitting the corresponding guard.

6.5.1 Fitting the guard **7**

NOTE

The guard is equipped with locating lugs that ensure only guards of a type suitable for use with the power tool can be fitted. The locating lugs of the guard fit into the guard mount on the power tool.

1. Fit the guard onto the drive spindle collar so that the two triangular marks on the guard and on the power tool are in alignment.
2. Push the guard onto the drive spindle collar; press the guard release button.

3. Rotate the guard until it engages and the guard release button jumps back into its original position.

6.5.1.1 Adjusting the guard

Press the guard release button and then rotate the guard until it engages in the desired position.

6.5.2 Removing the guard (hood)

Press the guard release button and remove the guard.

6.5.3 Fitting and removing the front cover **8**

NOTE

If you use the front cover, fit it by pushing it onto the guard.

1. Press the front cover onto the standard guard, with the closed side positioned as shown in the illustration, until it engages.
2. To remove the front cover, release the catch and then pull the front cover away from the standard guard.

6.5.4 Positioning the DC-EX 125/5" cutting guard **9**

NOTE

Take care to ensure that the on / off switch is freely accessible and operable at all times.

6.6 Fitting and removing discs

NOTE

Diamond discs must be replaced when the cutting or grinding performance drops significantly. This generally is the case when the diamond segments reach a height of less than 2 mm (1/16"). Other discs must be replaced when the cutting performance drops significantly or other parts of the angle grinder (not the disc) come into contact with the material you are working on. Abrasive discs generally have to be replaced when the durability date has been reached.

6.6.1 Fitting discs **10 11**

WARNING

Tighten the disc and flange securely. If the nut securing the disc and flange is not tightened firmly, the disc may work loose from the spindle due to the braking effect of the power tool's motor after switching off.

1. Remove the battery from the power tool.
2. **CAUTION** The clamping flange is equipped with an O-ring. **If this O-ring is missing, the clamping flange must be replaced.**
Fit the clamping flange onto the drive spindle (keyed fit to prevent slipping/rotation).
3. Fit the disc.
4. Screw on the clamping nut corresponding to the type of disc fitted **11**.

5. **CAUTION** The spindle lockbutton may be pressed only when the drive spindle is motionless. There is otherwise a risk of causing irreparable damage to the gearing or that the disc works loose.
Press the spindle lockbutton and hold it in this position.
6. Use the wrench to tighten the clamping nut securely, then release the spindle lockbutton and remove the wrench.

6.6.2 Removing discs

1. Remove the battery from the power tool.
2. Press the drive spindle lockbutton and hold it in this position.
3. Release the clamping nut by gripping it with the wrench and turning the nut counterclockwise.
4. Release the drive spindle lockbutton and remove the disc.

6.7 Fitting and removing discs using Kwik lock

NOTE

The Kwik lock nut may be used instead of the standard clamping nut. No tools are then required for changing discs.

CAUTION

When operating the power tool, take care to ensure that the Kwik lock nut does not come into contact with the working surface. Do not use a damaged Kwik lock nut.

6.7.1 Fitting discs using the Kwik lock clamping nut 12

NOTE

The arrow on the upper surface of the nut must be within the index marks. If the arrow is not within the index marks when the nut is tightened it will be impossible to release the nut by hand. In this case, use the pin wrench to release the Kwik lock nut (do not use a pipe wrench!).

1. Remove the battery from the power tool.
2. Clean the clamping flange and the quick-release clamping nut.
3. **CAUTION** The clamping flange is equipped with an O-ring. **If this O-ring is missing, the clamping flange must be replaced.**
Fit the clamping flange onto the drive spindle.
4. Fit the disc.
5. Screw the Kwik lock clamping nut onto the spindle until it contacts the disc (the side with the lettering should be visible after the nut is screwed on).
6. **CAUTION** The spindle lockbutton may be pressed only when the drive spindle is motionless. There is otherwise a risk of causing irreparable damage to the gearing or that the disc works loose.
Press the spindle lockbutton and hold it in this position.
7. Use the wrench to tighten the clamping nut or, respectively, rotate the disc firmly by hand in a clockwise direction until the Kwik lock nut is tight, then release the spindle lockbutton and remove the wrench (where applicable).

6.7.2 Removing discs secured with Kwik lock

1. Remove the battery from the power tool.
2. Release the Kwik lock nut by turning the knurled ring counterclockwise. (Use the pin wrench to release the Kwik lock nut if very tight. Do not use a pipe wrench.)

7 Operation

WARNING

Always use the side handle with the power tool (use the hoop handle as an option).

CAUTION

The insert tool may get hot during use. **Wear protective gloves when changing insert tools.**

7.1 Rough grinding

CAUTION

Never use abrasive cutting discs for grinding.

Best results are obtained when the disc maintains an angle of 5° to 30° with the working surface when grinding. Move the power tool to and fro while applying moderate pressure. This will avoid overheating and discoloration of the workpiece and ensure an even surface finish.

7.2 Cutting

When cutting, apply moderate feed pressure and do not tilt the power tool or, respectively, the cutting disc (hold at approx. 90° to the surface being cut). For best results, start cutting at the smallest cross section when cutting profiles and square tube.

7.3 On / off switch with switch-on interlock 13

The on / off switch with safety lock (switch-on interlock) gives you full control of the switch function and avoids unintentional restarting.

1. Push the safety lock (switch-on interlock) forward to unlock the on / off switch and then press the switch fully.
2. The safety lock (switch-on interlock) returns automatically to the locked position when the on / off switch is released.

8 Care and maintenance

WARNING

Repairs to the electrical section of the power tool may be carried out only by trained electrical specialists.

CAUTION

Before beginning cleaning, remove the battery in order to prevent the electric tool starting unintentionally.

8.1 Care of the power tool

DANGER

Under extreme conditions, when used for working on metal, conductive dust may accumulate inside the tool. This may have an adverse effect on the tool's protective insulation. **In this case, use of a stationary dust extraction system and frequent cleaning of the ventilation slots are recommended.**

Never operate the power tool when the air vents are blocked. Regularly clean the power tool's air vents carefully with a dry brush. Do not permit foreign objects to enter the interior of the tool. The motor's fan will draw dust into the casing and an excessive accumulation of conductive dust (e.g. metal, carbon fiber) may cause electrical hazards. Clean the outside of the power tool at regular intervals with a slightly damp cloth. Do not use a spray, steam pressure cleaning equipment or running water for cleaning. This may negatively affect the electrical safety of the tool. Always keep the grip surfaces

of the tool free from oil and grease. Do not use cleaning agents which contain silicone.

NOTE

Frequent work on conductive materials (e.g. metal, carbon fiber) may make shorter maintenance intervals necessary. Take your individual work place risk assessment into account.

8.2 Care of the Li-ion battery

NOTE

Battery performance drops at low temperatures.

NOTE

Store the battery in a cool and dry place.

In order to achieve maximum battery life, stop using the battery as soon as a significant drop in battery performance is noticed.

NOTE

- If use continues, further battery discharge will be stopped automatically before the battery cells suffer damage.
- Charge the batteries using the specified and approved Hilti battery chargers for Li-ion batteries.

8.3 Checking the power tool after care and maintenance

After carrying out care and maintenance work on the power tool, check that all protective and safety devices are fitted and that they function faultlessly.

9 Troubleshooting

Fault	Possible cause	Remedy
The battery runs down more quickly than usual.	Very low ambient temperature.	Allow the battery to warm up slowly to room temperature.
The battery doesn't engage with an audible click.	The retaining lugs on the battery are dirty.	Clean the retaining lugs and push the battery in until it engages. Contact Hilti Service if the problem persists.
LED 1 blinks.	The battery is discharged.	Charge the battery.
	The tool is overloaded (application limits exceeded).	Use the right power tool for the job (don't use a low-powered tool for heavy work).
The power tool doesn't run and 1 LED blinks.	The battery is discharged.	Charge the battery and charge the empty battery.
	The battery is too hot or too cold.	Bring the battery to the recommended working temperature.
The tool doesn't work and all 4 LEDs blink.	The power tool has been overloaded briefly.	Release the switch and press it again.
	The overheating prevention cut-out has been activated.	Allow the power tool to cool down.

Fault	Possible cause	Remedy
The power tool or the battery becomes very warm.	Electrical fault.	Switch the power tool off immediately, remove the battery from the tool and allow it to cool down while keeping an eye on it, contact Hilti Service.
	The power tool has been overloaded (application limits exceeded).	Use the right power tool for the job (don't use a low-powered tool for heavy work).
The power tool doesn't achieve full power.	A battery with inadequate capacity was used.	Use a battery with a capacity of at least 2.6 Ah.
No braking function.	The battery is discharged.	Charge the battery.
	The tool is overloaded (application limits exceeded).	Switch the power tool off and on again.

10 Disposal

CAUTION

Improper disposal of the equipment may have serious consequences: the burning of plastic components generates toxic fumes which may present a health hazard. Batteries may explode if damaged or exposed to very high temperatures, causing poisoning, burns, acid burns or environmental pollution. Careless disposal may permit unauthorized and improper use of the equipment. This may result in serious personal injury, injury to third parties and pollution of the environment.

CAUTION

Dispose of defective batteries right away. Keep them out of reach of children. Do not disassemble or incinerate the batteries.

CAUTION

Batteries that have reached the end of their life must be disposed of in accordance with national regulations or returned to Hilti.



Most of the materials from which Hilti power tools or appliances are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old power tools or appliances for recycling. Please ask your Hilti customer service department or Hilti representative for further information.

11 Manufacturer's warranty - tools

Please contact your local Hilti representative if you have questions about the warranty conditions.



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