Keep manual for future reference.

HAHN A SYN s.r.o.
Lelkova 186/4
747 21 Kravaře
CZECH REPUBLIC
info@hahn-profi.cz

Hahn & Sohn GmbH
Janahof 53
93413 Cham
Deutschland
hahn@hahn-sohn.de

User manual

Cordless Bench Grinder

MODEL NUMBER: ☐ **CEDCBG50LI**
SERIAL NUMBER:

Model number and serial number should be on nameplate.
You should write them down and store in a safe place.

IDENTIFICATION

1. Spindle Shaft Lock button
2. Button of Battery Cartridge
3. Battery Cartridge
4. Right Safety Eye Shield
5. Right Adjustable Knob 1
6. Right Spindle Shaft Cover
7. Coarse Grit Wheel
8. Right Adjustable Knob 2
9. Dust collection case
10. Right Work Rest
11. Power Switch
12. Speed Adjusting Dial
13. Left Work Rest
14. Left Adjustable Knob 2
15. Fine Grit wheel
16. Left Spindle Shaft Cover
17. Left Adjustable Knob 1
18. Left Spark Deflector
Right Spark Deflector
20. Left Safety Eye Shield
21. Flexible shaft
22. Spindle Shaft Connector
23. Bristle Brush
24. W rench
25. Hex Wrench
26. Abrasive brush
27. Woolen Brush

SPECIFICATIONS

Model:	CEDCBG50LI
Rated voltage	D.C. 20V
Grinding Wheel diameter	50 mm
Grinding Wheel thickness	13 mm
Arbor Hole	12.7 mm
No load speed	3,000-9,000 min-1
Overall length (Bare tool)	219 mm
Net weight (Bare tool)	1.5 kg

- Due to our continuing program of research and development, the specifications herein are subject to change
- without notice. Specifications and battery cartridge may differ from country to country.

Applicable battery cartridge and charger

battery cartridge	CEDLi-Ion 2Ah, CEDLi-Ion 4Ah, CEDLi-Ion 6Ah
battery charger	CEDFCH2.4, CEDDCH3.0, CEDFCH3.5

- Some of the battery cartridges and chargers listed above may not be available depending on your region of residence.

⚠ ***WARNING:*** **Only use the battery cartridges and chargers listed above.** Use of any other battery cartridges and chargers may cause injury and/or fire.

Symbols

The followings show the symbols used for the equipment. Be sure that you understand their meaning before use.


Read instruction manual.


Wear protective mask.


Wear safety glasses.

Only for EU countries
Do not dispose of electric equipment or battery pack together with household waste material!
In observance of the European Directives, on Waste Electric and Electronic Equipment and Batteries and Accumulators and Waste Batteries and Accumulators and their implementation in accordance with national laws, electric equipment and batteries and battery pack(s) that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Intended use

The tool is intended for grinding cutting tools or other kind of tools, also used for common small parts grinding, deburring and cleaning work .

Noise

The typical A-weighted noise level determined according to EN62841-1:
Sound pressure level (LpA) : 85 dB(A)
Uncertainty (K) : 3 dB(A)

NOTE: The declared noise emission value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared noise emission value(s) may also be used in a preliminary assessment of exposure.

⚠ ***WARNING:*** **Wear ear protection.**

⚠ ***WARNING:*** **The noise emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

⚠ ***WARNING:*** **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

Vibration

The vibration total value (tri-axial vector sum) determined according to EN62841-1:
Vibration emission (a_h) : 2.5 m/s^{2}or less
Uncertainty (K) : 1.5 m/s2

NOTE: The declared vibration total value(s) has been measured in accordance with a standard test method and may be used for comparing one tool with another.

NOTE: The declared vibration total value(s) may also be used in a preliminary assessment of exposure.

⚠ ***WARNING:*** **The vibration emission during actual use of the power tool can differ from the declared value(s) depending on the ways in which the tool is used especially what kind of workpiece is processed.**

⚠ ***WARNING:*** **Be sure to identify safety measures to protect the operator that are based on an estimation of exposure in the actual conditions of use (taking account of all parts of the operating cycle such as the times when the tool is switched off and when it is running idle in addition to the trigger time).**

General power tool safety warnings

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

Save all warnings and instructions for future reference.

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

Work area safety

1. **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
2. **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.
3. **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

Electrical Safety

1. **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.
2. **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.
3. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
4. **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.
5. **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.
6. **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.

Personal Safety

1. **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.
2. **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.
3. **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.
4. **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.
5. **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
6. **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.
7. **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.

Power tool use and care

1. **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.
2. **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.
3. **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.
4. **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.
5. **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.
6. **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
7. **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.

Battery tool use and care

1. **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.
2. **Use power tools only with specifically designated battery packs.** Use of any other battery packs may create a risk of injury and fire.
3. **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.

4. **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.

Service

1. **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. **Follow instruction for lubricating and changing accessories.**
3. **Keep handles dry, clean and free from oil and grease.**

Cordless bench grinder safety warnings

SAVE THESE INSTRUCTIONS.

***WARNING:* DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.**

■**WEAR APPROPRIATE CLOTHING.** Do not wear loose clothing, neckties, or jewelry that can get caught in the tool's moving parts and cause personal injury, Non- solid footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.

- **ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS.** Everyday eyeglasses are NOT safety glasses.
- **PROTECT YOUR LUNGS.** Wear a face or dust mask if the cutting operation is dusty.
- **PROTECT YOUR HEARING.** Wear hearing protection during extended periods of operation.
- **KEEP TOOL DRY, CLEAN, AND FREE FROM OIL AND GREASE.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean tool.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damage must be properly repaired or replaced by an authorized service center to avoid risk of personal injury.
- **USE ONLY identical replacement parts supplied with this bench grinder.** Use of any other parts may create a hazard or cause product damage. IF ANY PART OF THIS GRINDER IS MISSING or should break, bend, or fail in any way, or should any electrical component fail to perform properly, shut off the power switch, and have damaged, missing, or failed parts replaced before resuming operation.
- **USE RECOMMENDED ACCESSORIES.** The use of improper accessories may cause risk of injury.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

■**DO NOT use wheels with incorrect size bore.** NEVER use wheel washers or wheel that are defective or incorrect and NEVER touch grinding wheel or other moving parts.

■**NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor or sparking from grinding metal could ignite fumes.

- **DO NOT OVERREACH.** Keep proper footing and balance at all times.
- **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Disconnect all tools when not in use, before servicing, or when changing attachments, wheels, etc.
- **AVOID ACCIDENTAL STARTING.**
- NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the wheel is unintentionally contacted.
- **DIRECTION OF FEED.** Be aware of wheel rotation direction; never grind without the work rest being properly set. NEVER grind more than one work piece at a time.
- **NEVER reach to pick up a workpiece, a piece of scrap, or anything else that is in or near the grinding path of the wheel.**
- **AVOID AWKWARD OPERATIONS AND HAND POSITIONS where a sudden slip could cause your hand to move into the wheel.** ALWAYS make sure you have good balance.
- **NEVER stand or have any part of your body in line with the path of the wheel.**
- **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by an authorized service center.
- **DO NOT TURN THE MOTOR SWITCH ON AND OFF RAPIDLY.**This could cause the wheel to loosen and could create a hazard. Should this ever occur, stand clear and allow the wheel to come to a complete stop. Disconnect your grinder from the power supply and securely retighten the wheel nut.
- **MAKE SURE THE GRINDING WHEEL IS SECURELY MOUNTED** as described in the operating instructions before connecting the tool to a power supply.
- **DO NOT OVERTIGHTEN THE WHEEL NUT**, excessive tightening can cause the wheel to crack during operation.
- **INSPECT GRINDING WHEEL for visible defects.** Check the wheel for fissures and cracks, and test for normal operation prior to use.
- **ADJUST distance between wheel and work rest to maintain 1.6 mm. or less separation as the diameter of the wheel decreases with use.** The value of separation used in the marking is to be the separation recommended by the manufacturer but shall not be more than 3.2 mm.

- **ALWAYS EASE THE WORKPIECE AGAINST THE ABRASIVE WHEEL.** When starting to grind. A harsh impact can break the wheel. Use light pressure when starting to grind; too much pressure on a cold wheel can cause the wheel to crack.
- **RISK OF INJURY DUE TO ACCIDENTAL STARTING.**
- Do not use in an area where children may be present.
- **NEVER START THE GRINDER when the wheel is in contact with the workpiece.**
- **SECURE WORK.** Always hold workpiece firmly against the work rest.
- **DO NOT USE THE BENCH GRINDER if the flange nut or clamp nut is missing or if the spindle shaft is bent.**
- **FREQUENTLY clean grinding dust from beneath grinder.**
- **DO NOT OPERATE THIS TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR ANY MEDICATION.**
- **ALWAYS STAY ALERT.** Do not allow familiarity (gained from frequent use of grinder) to cause complacency. A careless fraction of a second is sufficient to inflict severe injury.
- **STAY ALERT AND EXERCISE CONTROL.** A story. Always be aware of what you are doing. Do not operate when you are tired. Do not rush.

WARNING: Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

lead from lead-based paints.
crystalline silica from bricks and cement and other masonry products, and

-arsenic and chromium from chemically treated timber. Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

WARNING: The operation of any grinding can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and a full-face shield when needed. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields.

Cordless mini die grinder safety warnings

1. **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.
2. **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 controlled.
3. **The arbour size of accessories must properly fit the collet of the power tool.** 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.
4. **Mandrel mounted accessories must be fully inserted into the collet or chuck.** If the mandrel is insufficiently held and/or the overhang of the wheel is too long, the mounted accessory may become loose and be ejected at high velocity.
5. **Do not use a damaged accessory. Before each use inspect the accessory such as abrasive wheels for chips and cracks. 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.** Dam aged accessories will normally break apart during this test time.
6. **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 dust mask or respirator must be capable of filtrating particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
7. **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.

8.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.

9. Always hold the tool firmly in your hand(s) during the start-up. The reaction torque of the motor, as it accelerates to full speed, can cause the tool to twist.

10.Use clamps to support workpiece whenever practical. Never hold a small workpiece in one hand and the tool in the other hand while in use. Clamping a small workpiece allows you to use your hand(s) to control the tool. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to bind or jump toward you.

11.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. **After changing the bits or making any adjustments, make sure the collet nut, chuck or any other adjustment devices are**

securely tightened. Loose adjustment devices can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.

12.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.

Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating 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.

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. The operator can control kickback forces, if proper precautions are taken.

b)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. **c)Do not attach a toothed saw blade.** Such blades create frequent kickback and loss of control **d)Always feed the bit into the material in the same direction as the cutting edge is exiting from the material (which is the same direction as the chips are**

thrown). Feeding the tool in the wrong direction causes the cutting edge of the bit to climb out of the work and pull the tool in the direction of this feed.

Safety Warnings Specific for Grinding:

a) **Use only wheel types that are recommended for your power tool and only for recommended applications.**

Additional safety warnings:

20.The tool is intended for use with bonded abrasive wheel points (grinding stones) permanently mounted on plain, unthreaded mandrel (shanks).

21.Make sure the wheel is not contacting the workpiece before the switch is turned on.

22. Before using the tool on an actual workpiece, let it run for a while. Watch for vibration or wobbling that could indicate poor installation or a poorly balanced wheel.

23.Use the specified surface of the wheel to perform the grinding.

24.Watch out for flying sparks. Hold the tool so that sparks fly away from you and other persons or flammable materials.

25.Do not leave the tool running. Operate the tool only when hand-held.

26.Do not touch the workpiece immediately after operation; it may be extremely hot and could burn your skin.

27.Observe the instructions of the manufacturer for correct mounting and use of wheels. Handle and store wheels with care.

28.Check that the workpiece is properly supported.

29.Do not use the tool on any materials containing asbestos.

30.Always be sure you have a firm footing. Be sure no one is below when using the tool in high locations.

SAVE THESE INSTRUCTIONS.

WARNING: **DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to safety rules for the subject product. MISUSE or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.**

Important safety instructions for battery cartridge

1. **Before using battery cartridge, read all instructions and cautionary markings on (1) battery charger, (2) battery, and (3) product using battery.**
2. **Do not disassemble battery cartridge.**
3. **If operating time has become excessively shorter, stop operating immediately. It may result in a risk of overheating, possible burns and even an explosion.**
4. **If electrolyte gets into your eyes, rinse them out with clear water and seek medical attention right away. It may result in loss of your eyesight.**
5. **Do not short the battery cartridge:**
   - **(1) Do not touch the terminals with any conductive material.**
   - **(2) Avoid storing battery cartridge in a container with other metal objects such as nails, coins, etc.**
   - **(3) Do not expose battery cartridge to water or rain.**

   A battery short can cause a large current flow, overheating, possible burns and even a breakdown.
6. **Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 50 °C (122 °F).**
7. **Do not incinerate the battery cartridge even if it is severely damaged or is completely worn out. The battery cartridge can explode in a fire.**
8. **Be careful not to drop or strike battery.**
9. **Do not use a damaged battery. The contained lithium-ion batteries are subject to the Dangerous Goods Legislation requirements.** For commercial transports e.g. by third parties, forwarding agents, special requirement on packaging and labeling must be observed.
10. For preparation of the item being shipped, consulting an expert for hazardous material is required. Please also observe possibly more detailed national regulations.
    Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging.
11. **Follow your local regulations relating to disposal of battery.**

SAVE THESE INSTRUCTIONS.

CAUTION: **Only use genuine Cedrus batteries.** Use of non-genuine Cedrus batteries, or batteries that have been altered, may result in the battery bursting causing fires, personal injury and damage. It will also void the Cedrus warranty for the Cedrus tool and charger.

Tips for maintaining maximum battery life

1. **Charge the battery cartridge before completely discharged. Always stop tool operation and charge the battery cartridge when you notice less tool power.**
2. **Never recharge a fully charged battery cartridge. Overcharging shortens the battery service life.**
3. **Charge the battery cartridge with room temperature at 5 °C - 45 °C . Let a hot battery cartridge cool down before charging it.**
4. **Charge the battery cartridge if you do not use it for a long period (more than six months).**

UNPACKING

WARNING: If any parts are missing do not operate this machine until the missing parts are replaced. Failure to do so could result in possible serious injury.

- Carefully remove all parts from the shipping carton.
- Lift the bench grinder from the carton and place it on a work surface.
- Do not discard the packing materials until you have carefully inspected the machine, identified all loose parts, and satisfactorily operated your bench grinder.
- Examine all parts to make sure no breakage or damage has occurred during shipping.

- If all parts have been included, proceed to assembly.
- If any parts are damaged or missing, do not attempt to plug in the tool or turn it on until the damaged or missing parts are obtained and installed correctly.
- Contact your nearest dealer for assistance if parts are missing or damage.

FEATURES

KNOW YOUR BENCH GRINDER
Before attempting to use your new tool, familiarize yourself with all operating features and safety requirements. Carefully read this operator's manual before using your grinder.

POWER SWITCH

An easy access On/Off power switch convenience and safety.

MOTOR
Powered by a precision-built electric induction motor, your bench grinder has sufficient power to handle tough grinding jobs.

GRINDING WHEEL

Equipped with coarse and fine grinding wheels to suit most applications.

NOTE:
New wheels sometimes require dressing to true up the face of the wheel.

SAFETY EYE SHIELD AND SPARK DEFLECTOR

The safety shields and spark deflectors are adjustable for operator convenience. Operating the grinder without these features attached could result in serious injury. Do not grind with the safety shield raised; always wear safety glasses for personal protection.

WORK REST
The work rests are independently adjustable to compensate for wheel wear. Before grinding, make certain the work rests are adjusted properly. Generally the object being ground is done slightly above center of the grinding wheel.
Adjust the distance between the wheel and work rest to maintain 1.6 mm. or less separation as diameter of the wheel decreases with use.

COOLING OBJECT
When grinding, metal objects become heated quickly. It is important to keep moving the object back and forth across the grinding wheel to cool the object .

FUNCTIONAL DESCRIPTION

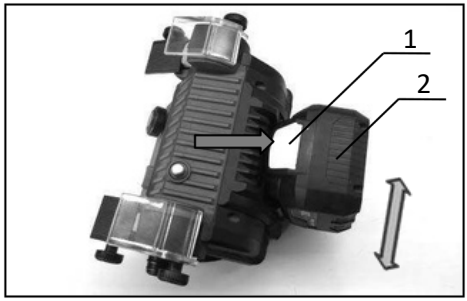
⚠ ***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.**

Installing or removing battery cartridge

⚠ ***CAUTION:*** **Always switch off the tool before installing or removing of the battery cartridge.**

⚠ ***CAUTION:*** **Hold the tool and the battery cartridge firmly when installing or removing battery cartridge.** Failure to hold the tool and the battery cartridge firmly may cause them to slip off your hands and result in damage to the tool and battery cartridge and a personal injury.

To remove the battery cartridge, slide it from the tool while sliding the button on the front of the cartridge.
To install the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Insert it all the way until it locks in place with a little click.



► **1.** Button **2.** Battery cartridge

⚠ ***CAUTION:*** **Always install the battery cartridge fully.** If not, it may accidentally fall out of the tool, causing injury to you or someone around you.

⚠ ***CAUTION:*** **Do not install the battery cartridge forcibly.** If the cartridge does not slide in easily, it is not being inserted correctly.

Indicating the remaining battery capacity

►**1.** Indicator lamps **2.** Check button

P r e s s the check button on the battery cartridge to indicate the remaining battery capacity. The indicator lamps light off immediately when release the check button.

Indicator lamps		Remaining capacity
Lighted	Off	
GREEN ORANGE RED		75% to 100%
ORANGE RED		25% to 50%
RED		10% to 25%

NOTE: Depending on the conditions of use and the ambient temperature, the indication may differ slightly from the actual capacity.

Tool / battery protection system

The tool is equipped with a tool/battery protection system. This system automatically cuts off power to the motor to extend tool and battery life. The tool will automatically stop during operation if the tool or battery is placed under one of the following conditions.

Overload protection

When the tool is operated in a manner that causes it to draw an abnormally high current, the tool automatically stops without any indication. In this situation, turn the tool off and stop the application that caused the tool to become overloaded. Then turn the tool on to restart.

Overheat protection

When the tool is overheated, the tool stops automatically.In this situation, let the tool cool before turning the tool on again.

If the tool does not start, the battery may be overheated.

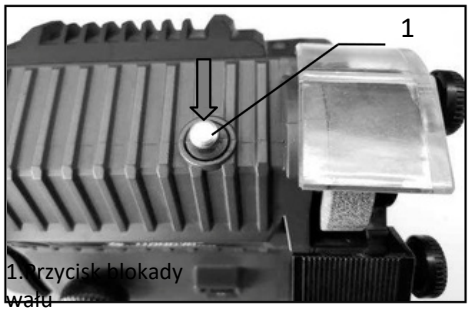
In this situation, let the battery cool before starting the tool again.

Over discharge protection

When the battery capacity is not enough, the tool stops automatically. In this case, remove the battery from the tool and charge the battery.

Wheel Shaft lock

Press the wheel shaft lock button to prevent spindle rotation when installing or removing accessories.



► **1.** Spindle shaft lock button

NOTICE: **Never actuate the wheel shaft lock button when the spindle is moving.** The tool may be damaged.

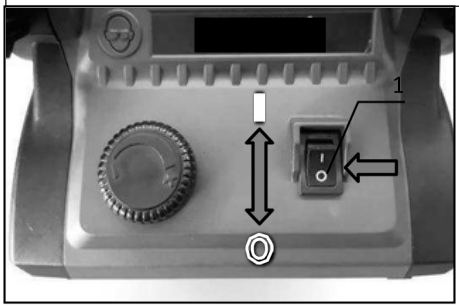
Switch action

CAUTION: **Before installing the battery cartridge into the tool, always check to see that the tool is switched off.**

NOTICE: **Do not turn the power switch forcibly.**

This may cause the switch to malfunction.

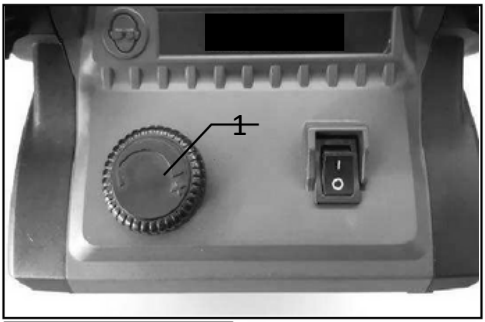
NOTICE: **Always set the power switch to the "O" side when not using the tool for long time.**

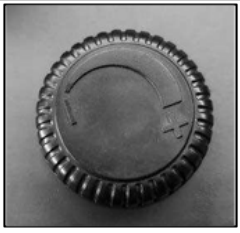


►**1.** Power switch

1. To start the tool, Press down the power switch toward the “I(ON)” position.
2. To stop the tool, Press down the power switch toward the “O(OFF)” position.

Speed adjusting dial





►**1.** Speed adjusting dial

The rotating speed can be changed by turning the speed adjusting dial.
Higher speed is obtained when the dial is turned clockwise and with the dial rotating to “position1” as shown in the figure to reach maximum speed.
Lower speed is obtained when it is turned anticlockwise and with the dial rotating to “position 2” as shown in the figure to reach minimum speed.
Refer to the table for the relationship between the speed mode and the kind of work.

Speed mode	No load speed	Usage
High	7,000~9,000min-1	Efficient Grinding
Middle	5,000~7,000min-1	Regular Grinding
Low	3,000~5,000min-1	Finish Grinding

NOTE: The table shows standard applications. They may differ under certain conditions.

NOTICE: **The speed adjusting dial can be turned only as far as the position shown in the figure. Do not force it past the position, or the speed adjusting function may no longer work.**

ASSEMBLY

CAUTION: **Always be sure that the tool is switched off and the battery cartridge is removed before adjusting or checking function on the tool.**

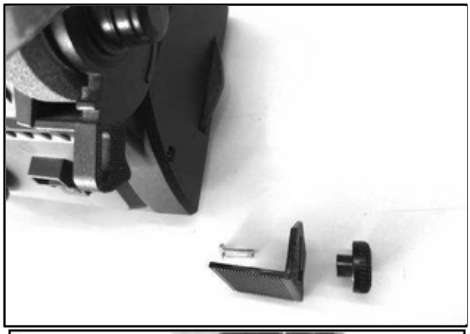
CAUTION: To prevent personal injury, never operate the bench grinder unless the work rests and safety eye shields are properly installed and in place.

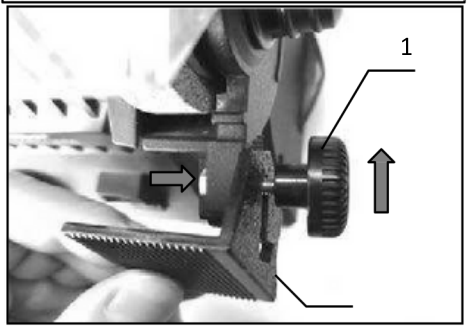
The work rest

CAUTION: **After install or adjusting the work rest position, make sure that the adjustable knob is firmly secured.**

CAUTION: **Before tightening the bolts, adjust the gap between the Grinding wheel and work rest to a maximum of 1.6 mm.**

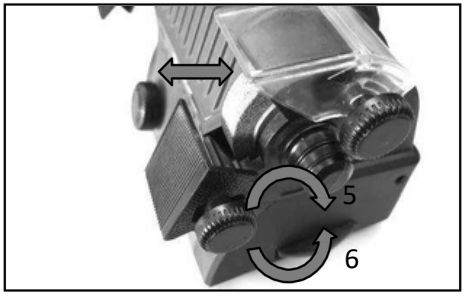
To install the left or right work rest onto the tool, align the grove on the tool body with the groove on the work rest, insert the hex bolt through the two groove and hold on, then secure it with the adjustable knob

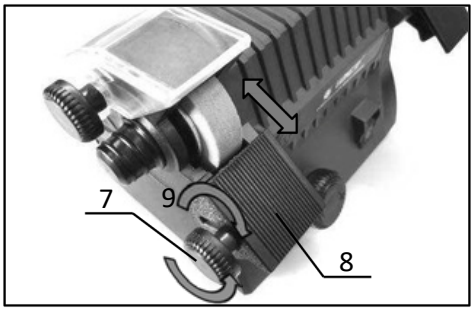




To remove the work rest, loosen the adjustable knob and then take it down.

To adjust the work rest position, loosen the right or left adjustable knob a little by twisting it clockwise or anticlockwise , then twist the right or left work rest to the desired work position and then retighten the adjustable knob by twisting it firmly.



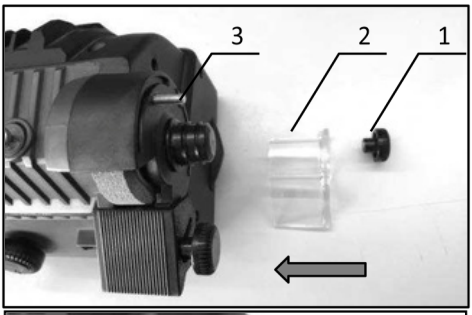


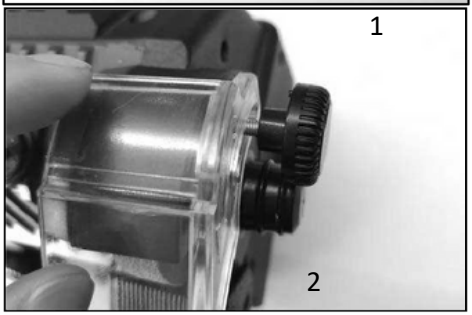
► **1.** Right Adjustable Knob **2.** Right Work Rest
3. Hex bolt **4.** Groove **5**. Tighten 6**.** Loosen
7. Left Adjustable Knob **8.** Left Work Rest
9**.** Tighten **10.** Loosen

The Safety Eye Shield

⚠ *CAUTION:* After installing or adjusting the safety eye shield position, make sure that the adjustable knob is firmly secured.

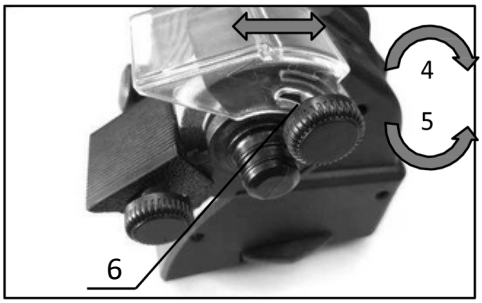
To install the safety eye shield onto the tool, insert the safety eye shield onto the screw directly , then secure it with the adjustable knob .





To remove the safety eye shield , loosen the adjustable knob and then take it down.

To adjust the safety eye shield position, loosen the right or left adjustable knob a little by twisting it clockwise or anticlockwise, then along the groove to twist the right or left safety eye shield to the desired work position and then retighten the adjustable knob by twisting it firmly.



► **1.** Right Adjustable Knob **2.** Right Safety Eye Shield
3. Screw **4**. Tighten **5.** Loosen **6.** Groove
7. Left Adjustable Knob 8**.** Left Safety Eye Shield
9. Tighten **10.** Loosen

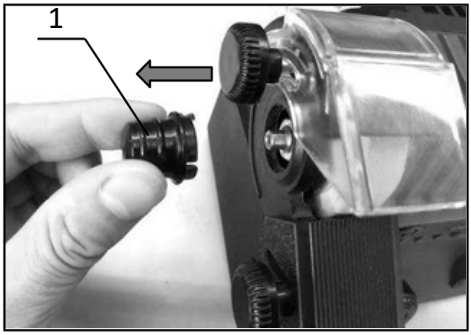
Installing or replacing the fine grit wheel

⚠ *CAUTION:* Make sure that the direction of the outer flange is correctly. That is, make sure he protruding part of the outer flange always upwards. Mounting the outer flange on the wrong side may result in the dangerous vibration.

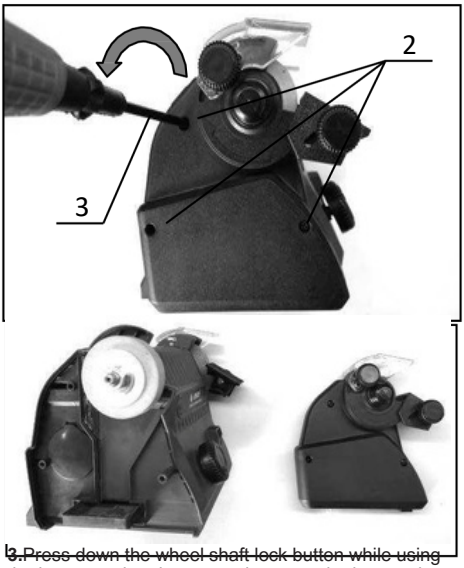
⚠ *CAUTION:* Only use grinding wheel specified in this manual by Cedrus . The use of any other wheel might present a risk of injury to persons or a damage of the tool.

To uninstall or replacing the fine grit wheel on the left side of the tool, perform the following steps:

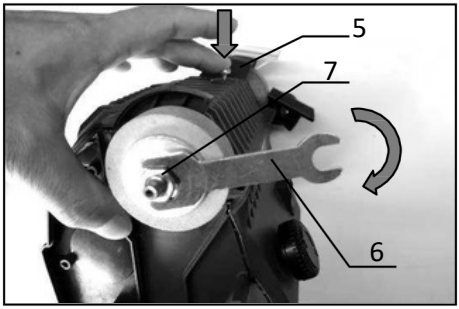
1. Pull out to remove the left wheel shaft cover directly.



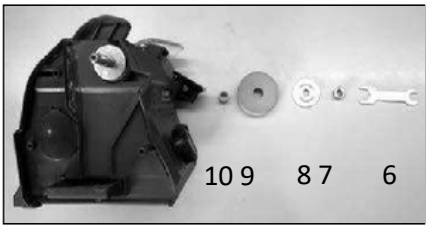
2. Using a screwdriver to loosen and remove the three tapping screws by twisting them anticlockwise and then take down the left side cover from the tool.



3.Press down the wheel shaft lock button while using the hex wrench to loosen and remove the hex nut by twisting it clockwise.



4.Take down the nut, outer flange, fine grit wheel, plastic bearing in order. Replace the fine grit wheel with a new one if necessary.



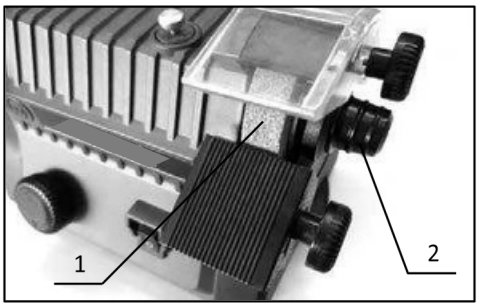
► **1.** Left spindle shaft cover **2.** Tapping screw **3.**Screwdriver **4**. Left side cover **5.** Spindle shaft lock button **6.** Hex wrench **7.** Hex nut **8.** Outer flange **9.** Fine grit wheel **10.** plastic bearing

To install the fine grit wheel onto the tool, perform the uninstall procedure in reverse.

WARNING: **BE SURE TO TIGHTEN THE HEX NUT SECURELY. Also be careful not to tighten the nut forcibly. Slipping your hand from the hex wrench can cause a personal injury.**

Installing or replacing the coarse grit wheel

To install or replacing the coarse grit wheel on the right side of the tool, follow the procedure of **"installing or replacing the fine grit wheel"**



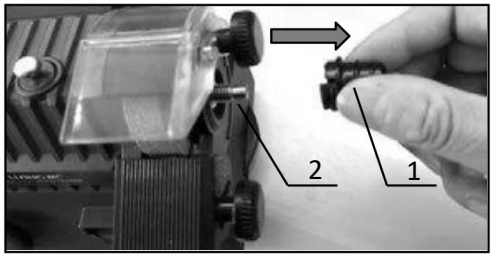
►**1.** Coarse grit wheel **2.** Right spindle shaft cover

NOTICE: while using the hex wrench to loosen and remove the hex nut on the right side, twist it anticlockwise.

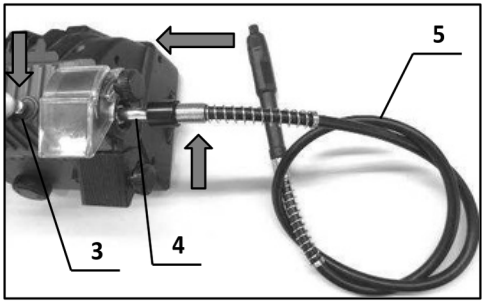
Using the tool as a mini die grinder

To use the tool as a mini die grinder, perform the following steps:

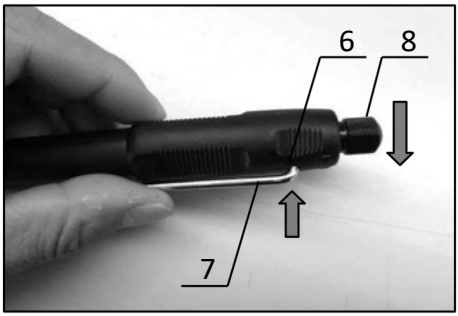
1. Pull out to remove the right wheel shaft cover directly.



2. Depress down the spindle shaft lock button and attach the flexible shaft onto the tool by twisting the flexible shaft connector clockwise while screwing it onto the thread of the spindle shaft as far as it can go.



3. Insert the wrench into the hole on the flexible shaft head and hold on to lock the spindle shaft of the flexible shaft ,then loosen the Collet nut by twisting it anticlockwise.



4. Insert the Wheel point into the hole of the Collet nut And then tighten the Collet nut by twisting it clockwise.

►**1.** Right wheel shaft cover **2.** Thread of the spindle shaft **3.** Spindle shaft lock button **4.** Flexible shaft connector **5.** flexible shaft **6.** Hole Wrench **8.** Collet nut

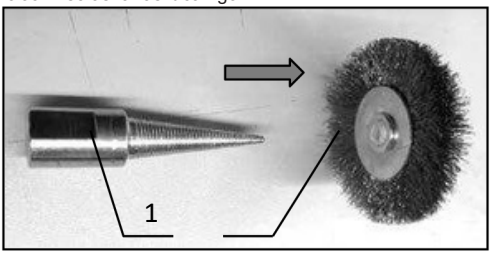
⚠*CAUTION:* After attaching the flexible shaft , make sure that the flexible shaft is firmly secured.

⚠*CAUTION:* After attaching the collet nut, make sure that the collet nut is firmly secured.

Using the spindle shaft connector for side brushing

To use the side brushing function, perform the following steps:

1. Attach the bristle brush onto the spindle shaft connector by twisting the spindle shaft connector clockwise as far as it can go.

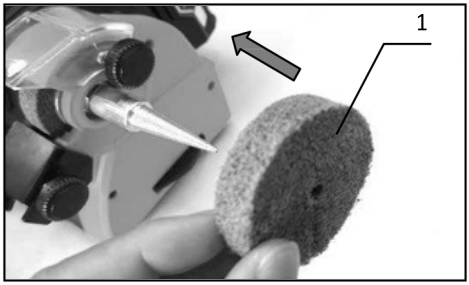


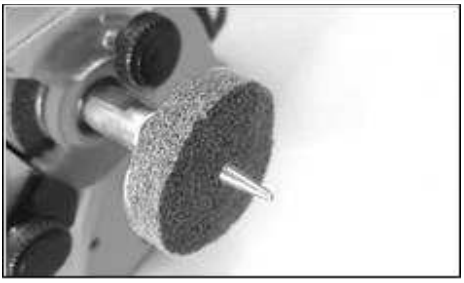
2. Depress down the spindle shaft lock button and attach the spindle shaft connector onto the tool by twisting the spindle shaft connector clockwise as far as it can go.

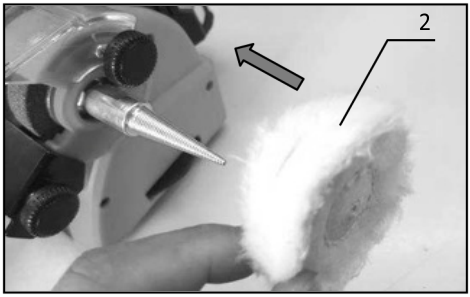
►**1.** Spindle shaft connector **2.** Bristle brush

⚠*CAUTION:* After attaching the spindle shaft connector , make sure that the spindle shaft connector is firmly secured.

3. Remove the bristle brush and then you can replace it with the abrasive brush or woolen brush by attaching them directly onto the spindle shaft connector.







► **1.** Abrasive brush **2.** Woolen brush

OPERATION

Conventional Grinding

⚠*WARNING:* Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

⚠*WARNING:* Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, wear a dust mask.

⚠*WARNING:* Never sharpen or grind anything made of aluminum.

⚠*WARNING:* Excessive pressure on a cold wheel can cause the wheel to crack.

⚠*WARNING:* Do not use any attachments or accessories not recommended by the manufacturer of this tool. The use of attachments or accessories not recommended can result in serious personal injury.

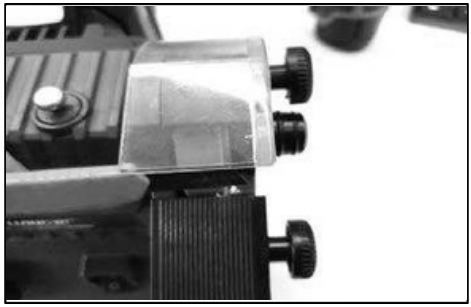
⚠*WARNING:* Do not use wheels rated less than the speed of this tool. Failure to heed this warning could result in personal injury.

To be efficient and work as designed, your tools should be kept sharp. Dull tools can and will cause accidents.

Bench Grinders are ideal for sharpening small tools such as chisels, planer blades, scissors, etc., and for removing rust or corrosion.

The proper way to sharpen a tool and avoid overheating is:

- Keep a tool on the work rest firmly at the correct the wheel.
- Keep the object in constant motion, moving it at an even pace.
- Never force a tool against the grinding wheel.
- Keep the grinding wheel cool by using a pan of water.
- The grinding wheel should rotate “into” the object being sharpened.
- Always select the proper speed while operating.

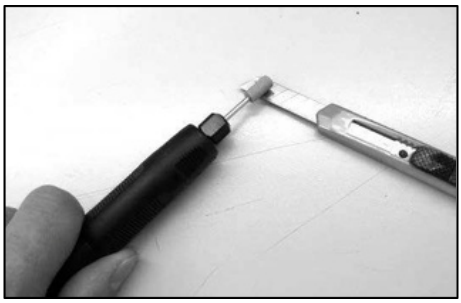


***NOTICE:* Excessive pressure may damage the tool, cause the motor to overheat, and prematurely wear down the grinding wheel.**

Mini Die Grinder Operation

⚠***CAUTION:*** Apply light pressure on the tool. Excessive pressure on the tool will only cause a poor finish and overloading of the motor.

Turn the tool on without the wheel point making any contact with the work piece and wait until the wheel point reaches maximum speed. Then apply the wheel point to the work piece gently. To obtain a good finish, move the tool in the leftward direction slowly.



NOTICE: A 1/8" collet cone is provided as standard equipment and used to install with a 1/8" shank wheel point.

Side brushing

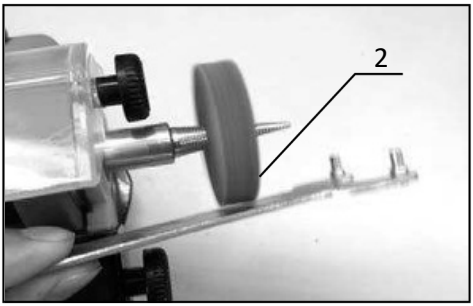
⚠ ***CAUTION:*** Apply light pressure on the tool. Excessive pressure on the tool will only cause a poor finish and overloading of the motor.

Use the side brushing function for cleaning flat or smooth surfaces or grooves in materials like plastic or metal.

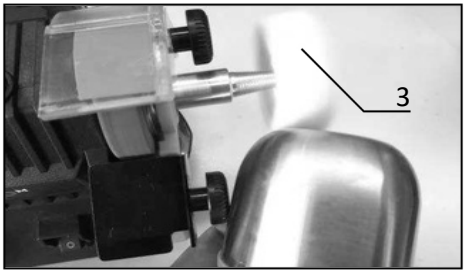
Turn the tool on without the brush making any contact with the work piece and wait until the brush reaches maximum speed. Then apply the brush to the work piece gently. To obtain a good finish, select the right kind of brush and move the work piece around the tool.

1.The bristle brush is a strong helper for removing paint and rust of the cast iron or alloy products with rough finish in grooves.

2.The abrasive brush is a strong helper against almost any kind of dirt, to bring back the shine to the cast iron or alloy products with rough finish on flat surfaces.



3.The woolen brush is a strong helper to bring back the shine to the stainless steel product with finishing polishing on smooth surfaces .

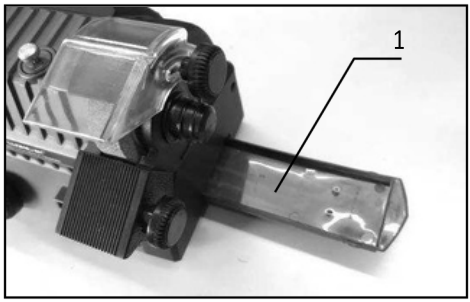


► **1.** Bristle brush **2.** Abrasive brush **3.** Woolen brush

Emptying dust collection case

For more efficient operation, empty the dust collection case when it is no more than half full. When the dust case is about half full, switch off the tool, pull out the dust case from the tool directly and empty it. Tap the dust case lightly to remove particles adhering inside, which might hamper further collection.

Always empty and clean the dust collection case thoroughly upon completion of a grinding operation and before placing the bench grinder in storage.



► **1.** Dust collection case

MAINTENANCE

⚠ ***CAUTION:*** **Always be sure that the tool is switched off and the battery cartridge is removed before attempting to perform inspection or maintenance.**

NOTICE: **Never use gasoline, benzine, thinner, alcohol or the like. Discoloration, deformation or cracks may result.**

Keep the bench grinder clean. Remove dust from working parts and beneath the grinder frequently.

Make sure the bench grinder operates properly.

Check screws, nuts, and bolts for tightness.

To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Cedrus Authorized or Factory Service Centers, always using Cedrus replacement parts.

OPTIONAL ACCESSORIES

⚠ ***CAUTION:*** **These accessories or attachments are recommended for use with your Cedrus tool specified in this manual.** The use of any other accessories or attachments might present a risk of injury to persons. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Cedrus Service Center.

- Coarse Grit Wheel
- Fine Grit wheel
- Flexible shaft
- Spindle Shaft Connector
- Bristle Brush
- Wrench
- Cedrus genuine battery and charger

NOTE: Some items in the list may be included in the tool package as standard accessories. They may differ from country to country.

TROUBLESHOOTING

This section covers the most common problems encountered during operation and what to do about them. Do not make any adjustments until machine is switched off and moving parts have come to a complete stop.

State of abnormality	Probable cause (malfunction)	Remedy
The machine does not start.	No electricity	Install charged battery cartridges.
	The switch is not turned on.	Turn on the switch.
	Damaged battery or electric circuit	Contact an authorized service center for repairs.
Motor overheats.	Motor overloaded.	Reduce load on motor.
Machine slows when operating.	Depth of cut is too great.	Slow down the of rate of movement of the workpiece into wheel.
Wavy condition on surface of workpiece.		1. Make sure machines is securely mounted on a solid surface. 2. Use a holding device to firmly retain the workpiece. 3. Dress the grinding wheel. 4. Use softer wheel, or reduce the feed rate.
Lines on surface of workpiece.	1. Impurity on wheel surface. 2. Workpiece not being held tightly.	1. Dress the grinding wheel. 2. Use a holding device to firmly retain the workpiece.
Burning spots or cracks in the workpiece.	1. Improper type of grinding wheel. 2. Improper feed rate. 3. Coolant required.	1. Try a wheel which is softer style or coarser grit. 2. Slow down the rate of movement of the workpiece into wheel. 3. Add optional coolant system or introduce coolant by hand.
Wheel dulls quickly, grit falls off.	1. Depth of cut too great. 2.Wheel is too soft for the material being. Select harder bond. 3.Wheel diameter too small. 4. Bad wheel dress. 5. Defective wheel bonding.	1.Slow down the rate of movement of the workpiece into wheel. 2.Wheel is too hard for the material being. Select softer bond. 3. Replace the wheel. 4. Dress the wheel. 5.Consult manufacturer of grinding wheel.