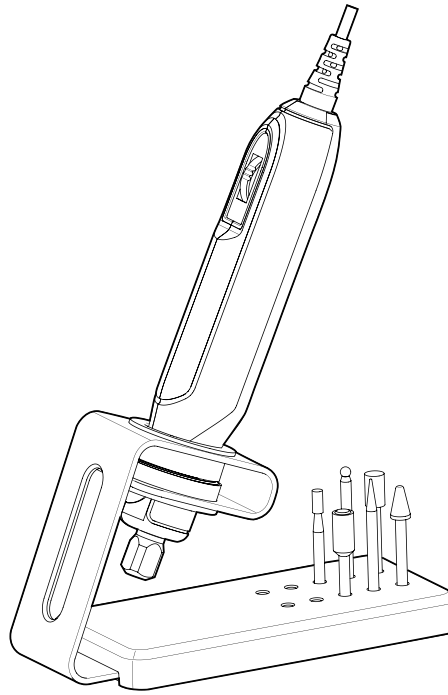
DCE861

Electric Grinder



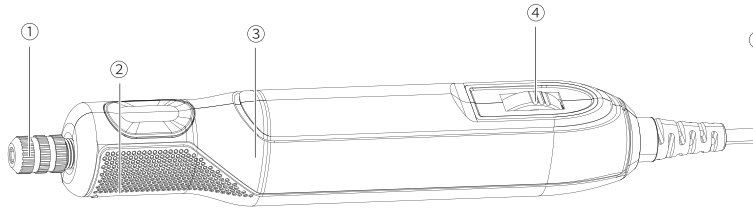
Contents

1. Overview

Thank you for purchasing and using Deli tool products.
This product offers multiple practical functions, including drilling, grinding, polishing, engraving, cutting, and rust removal. It is powered by a household 220V AC to 18V DC adapter. It is widely used on metal, glass, wood, and ceramics, etc.
The working principle is: when using large accessories such as polishing pads, please operate it at low speed; when using small accessories such as engraving and grinding bits, operate it at high speed.
It features safety in use, flexibility in operation, and convenience in portability. It is your reliable helper.

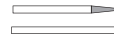
2. Product and Accessories

Before attempting to use any tool, please be familiar with all operational characteristics and safety requirements (see Figure 1).



The diagram is for reference only.
The appearance of the tool may vary depending on the model. Please refer to the actual product.

No.	Name	No.	Name
①	Chuck	④	On/Off roller
②	Self-locking button	⑤	Power cord
③	Machine body		

No.	Accessories	Quantity	Image	Application
1	Red grinding head	3		Used for polishing the surfaces of metals and orange peel-like surface.
2	Small sanding band	5		For polishing rough surfaces, removing rust from metal surfaces, and polishing rubber surfaces.
3	Small sanding band hammer	1		Used in conjunction with the small sanding band hammer
4	Stainless steel saw blade	2		For cutting wood, shells and other materials.
5	Cutting disc mandrel	1		Used with stainless steel saw blade and sandpaper.
6	Milling cutter	2		It is suitable for engraving operations on materials such as wood, plastic, steel, aluminum, brass, shells, jade and ceramics, etc.
7	Grinding needle	2		For polishing metals and wood, as well as for carving.
8	Sanding paper	8		For polishing metals and woods.
9	Felt mandrel	1		Used in conjunction with wool felt.
10	Wool felt	5		For polishing metals and plastics.
11	Wire brush	1		For cleaning work on materials such as wood, plastic, steel, aluminum, brass, shells, jade, ceramics, etc.

3. Specifications

Item No.	DCE861	Rated voltage	DC18V
Rated speed	0-22000/min	Speed regulation	Four-speed regulation
Size of collet	ø3.2mm		

4. Installation, Usage and Operation

Installation and use

Replace accessories

1. Turn off the machine and ensure that all rotating parts have come to a complete stop.
2. Press and hold the collet locking nut, then turn the collet locking nut until the shaft lock button is fully pressed down.
3. When the motor shaft is locked by the lock button, turn the collet locking nut downward and pull the attachment out of the tool.
4. Insert the new accessory into the collet of the electric grinder, and then press the lock button while tightening the collet's lock nut.
5. Finally, release the shaft lock button.
6. Assemble the small sanding band and hammer.
   Insert the small sand band into the sand band hammer.

Warning!

1. Before using the tool, ensure it is properly prepared and safe to use.
2. Do not use the tool in damp environments.
3. Never use the tool near flammable gases or liquids.
4. Do not force the equipment when it is slowing down or stopping. Turn off the equipment and complete the work process.
5. Wear safety glasses when using the tool.
6. Do not touch the drill bit or grinding head during operation, even at low speeds, as this can cause injury!
7. Do not press the lock button while the machine is running to avoid damaging the machine or causing a safety incident.

Using the On/Off button

1. Use: Turn on the power supply, when using, turn the switch from the OFF position to the digital position to start using it. After use, please roll the switch to the OFF position and then disconnect the power supply.
   Note: When turning on the power supply, please confirm that the switch is in the OFF state and turn the switch.
2. Speed adjustment: When adjusting the rotational speed, please push the knob forward and backward. The larger the displayed number, the faster the rotational speed.
   Note: (1) The actual rotational speed only serves as a guide. The correct rotational speed depends on the type of accessories used and the material being processed.
   (2) The speed cannot be adjusted when working.

Tips and precautions for use

1. After prolonged use, the temperature of the product will rise. In such cases, turn off the machine and wait until it cools down before using it again.
2. Do not apply excessive radial pressure while polishing, cleaning, sanding, or grinding. Excessive force on the spindle can affect the precision of the product. Applying more pressure does not mean that you can complete the work faster. On the contrary, excessive pressure will cause the machine to slow down or stop. For your safety, use a plier or screw clamp to secure small workpieces.
3. Maintain a keen sense of touch when performing delicate work.
4. When drilling into metal, use a center punch to mark the drilling point first. This will help prevent the drill bit from wobbling or slipping.
5. Ensure that there is maximum contact area between the shaft and the collet when assembling components.
6. To avoid motor damage, it is important to occasionally remove the tool from the load during prolonged low-speed operation. Periodically run the tool at full speed for about one minute to allow cooling air to cool the motor.

Warning

1. Use safety glasses. Wear a mask when working in a dusty environment. Always wear protective goggles at all times.
2. Do not drill holes on a machine randomly during use to prevent electric leakage.
3. When finishing work and putting down the electric grinder, ensure that the grinder has completely stopped to avoid damaging other items.
4. If the tool is accidentally damaged due to moisture, impact, or natural wear from prolonged use, have it repaired by a professional. It should only be used after passing insulation testing.
5. During use, ensure that the machine's air vents are free of obstructions to prevent overheating and potential damage.
6. When changing accessories, make sure to turn off the switch.
7. If the product is unable to turn or shows sluggish speed, immediately turn off the switch.
8. Regularly check the wall thickness of the collet, especially when using the same collet for extended periods.
9. After use, make sure to turn off the switch and unplug the tool.
10. Do not attempt to repair the electric tool yourself.
11. Do not leave a running tool unattended.

5. General safety warning for power tools

Warning
Read all warnings and instructions. Failure to follow the warnings and instructions below may result in electric shock, fire and/or serious injury. Save all warnings and instructions for reference. The term "power tool" refers to mains-operated (corded) power tools or battery-operated (cordless) power tools in all the following warnings.

Work area safety

1. Keep working areas clean and well lit. Accidents may easily occur within chaotic or dark areas.
2. Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Sparks produced by power tools may ignite the dust or gases.
3. Keep children and bystanders away while operating the power tool. Distraction during working may cause the operator to lose control of the power tool.

Electrical safety

1. The plug of power tools must match the socket. Never modify the plug in any way. Power tools that require grounding cannot use any conversion plugs. Use of unmodified connector plugs and their matching sockets helps reduce the risk of electric shock.
2. Avoid human contact with the grounded surfaces, such as pipes, cooling fins and refrigerators. The risk of electric shock may increase if your body comes into contact with the grounding surfaces.
3. Do not expose power tools to rain or damp environments. Ingress of water into the power tools may increase the risk of electric shock.
4. Do not arbitrarily use the wires. Never transport and pull the power tools or remove the plugs with wires. Keep the wires away from heat sources, oil, sharp edges, or moving parts. Damaged or twisted wires increase the risk of electric shock.
5. When the power tool is used outdoors, use the extension wires suitable for outdoor use. The wires suitable for outdoor use will reduce the risk of electric shock.
6. If it is unavoidable to operate a power tool in a damp location, a residual current device (RCD) protected power supply should be used. The use of RCD may reduce the risk of electric shock.

Personal safety

1. Stay alert. Watch what you are doing and use common sense when operating the power tool. Do not use power tools while you are tired or under the influence of drugs, alcohol, or therapeutic reaction. A moment of negligence while operating power tools may result in serious personal injuries.
2. Use personal protective equipment. Always wear protective goggles and safety equipment such as dust mask, non-skid safety shoes, safety helmets or hearing protection which are used for appropriate conditions will reduce personal injuries.
3. Avoid accidental starts. Ensure that the switch is in the OFF position before connecting the power supply and/or battery case, picking up or transporting tools. Placing your fingers on a switch that has been turned on or inserting the plug while the switch is turned on may cause danger.
4. Remove any adjusting keys or wrench before turning on power tools. A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.
5. Do not overreach Always maintain proper footing and body balance. In this way, the power tools may be well controlled in unexpected situations.
6. Dress properly, and do not wear loose clothing or jewelry. Keep your clothing, gloves and hair away from moving parts. Loose clothes, jewelry and long hair can get caught in moving parts.
7. If devices are provided for the connection to dust extraction and collection facilities, ensure these are properly connected and used. Use of these facilities may reduce dust-related hazards.
8. Do not take it lightly because of familiarity gained from frequent use of tools and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

Use and precautions of power tools

1. Don't use power tools reluctantly. Use the correct power tools for your purpose. The correct power tools ensure that you will work in a better and safer manner.
2. Do not use the power tools if the switches do not turn them on/off. Any power tools that cannot be controlled with the switches are dangerous and must be repaired.
3. Before making any adjustments, changing accessories or storing power tools, the plug must be unplugged from the power supply and/or the battery pack must be removed from the power tools. Such preventive safety measures may reduce the risk of starting tool accidentally.

4. Store unused power tools out of the reach of children. and do not allow individuals who are unfamiliar with the power tools or these instructions to operate them. Power tools are dangerous for untrained users.
5. Maintain power tool and accessories. Check whether the moving parts are properly adjusted or stuck, check the damage of the parts and other conditions that affect the operation of power tool. If damaged, the power tools shall be 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 get stuck and are easier to be controlled.
7. Use power tools, accessories and cutting heads in the manner specified in instruction manual, taking into account the working conditions and the work to be performed. Using power tools for operations that do not match their intended purposes may lead to danger.
8. Keep the handle and the gripping surface dry, clean and free of grease. Slippery handles do not allow for safe handling and control of the tool in unexpected situations.

Repair

Ask the professional maintenance staff to repair the power tools with the same spare parts. This will ensure the safety of the repaired power tools.

1. Wear earmuffs properly. Exposure to noise can cause hearing damage.
2. Use the auxiliary handle provided with the tool. Improper operation or losing control of the tool can cause personal injury.
   When operating in conditions where the cutting accessory may touch hidden wires or its own flexible cord, hold the tool through the insulating grip. When the cutting accessory touches a live wire, the exposed metal parts of the tool will become electrically live, causing the operator to suffer electric shock.
3. Ask the professional maintenance staff to repair the power tools with the same spare parts. This will ensure the safety of the power tools to be repaired.
4. Never repair a damaged battery pack. The battery pack can only be repaired by the manufacturer or its authorized repair service provider.

General safety rules for electric grinders

1. General safety warning for electric grinders

1. This power tool is designed for achieving the functions of grinding wheels, cutting and sanding. Please read all safety warnings, instructions, illustrations and regulations provided with the power tool. Failure to understand the instructions listed below can result in electric shock, fire, and/or serious injury.
2. It is not recommended to use this power tool for operations such as brushing and wire brushing. Failure to operate power tools in accordance with the designated functions may lead to danger and cause personal injury.
3. Do not use accessories not specifically designed and recommended by the tool manufacturer. Otherwise, this accessory may be installed on your power tool, but it cannot guarantee safe operation.
4. The rated speed of accessories must be at least equal to the maximum speed specified on the power tool. The accessories will burst and splash when they run at a speed higher than their rated speed.
5. The outer diameter and thickness of the accessories must be within the range of the rated capacity of the power tool. Accessories with incorrect sizes cannot be properly protected or controlled.
6. The shaft hole dimensions of grinding wheels, flanges, sanding drums or any other accessories must be suitable for installation onto the main shaft of the power tool. Accessories with shaft holes that do not match the installation parts of power tools will become unstable, vibrate excessively and may cause loss of control.
7. Do not use damaged accessories. Before each use, inspect accessories such as grinding wheels for chips and cracks, sanding drums for cracks, tears, or excessive wear, and wire brushes for loose wires or cracks. If the power tool or accessory falls, inspect it for damage or replace the accessory with a good one. After inspecting and installing the accessory, keep 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 usually will break apart during this test.

8. Please wear personal protective equipment. As appropriate, wear a face mask, safety goggles or safety glasses, dust mask, hearing protection, gloves, and a workshop apron that can protect you against small abrasive or workpiece fragments. Safety goggles must prevent flying debris generated by various operations. Dust masks or respirators must be capable of filtering particles generated during the operation. Long-term exposure to high-intensity noise can cause deafness.
9. Keep bystanders at a safe distance from the work area. Anyone entering the work area must wear personal protective equipment. Workpieces or broken accessory fragments may fly out and cause damage outside the operating area. If the cutting tool contacts a live wire, the exposed metal parts of the power tool may also become live, potentially causing an electric shock to the operator.
10. When operating in conditions where the cutting accessory may touch the concealed wires or its own wires, hold the power tool through the insulating grip. When the cutting accessory touches a live wire, the exposed metal parts of the power tool will become electrically live, and pose an electric shock hazard to the operator.
11. Keep the flexible wire away from the rotating accessories. If not properly controlled, the power cord may get cut or caught, potentially pulling your arm into the rotating accessory.
12. Do not put down the power tool until the accessory has completely stopped moving. Rotating accessories may catch on the surface of objects and pull the power tool, causing you to lose control of it.
13. Do not turn on the electric tool when carrying it. Accidentally touching the rotating accessory may entangle your clothes and cause injury to your body.
14. Clean the power tool's ventilation openings regularly. The motor fan will suck dust into the casing. Excessive accumulation of metal powder can cause electrical hazards.
15. Do not operate the power tool near flammable materials. Sparks may ignite these materials.
16. Do not use accessories that require liquid coolants. Using water or other liquid coolants may result in electric shock or electrical hazards.

2. Kickback and related warnings

Kickback is a sudden reaction force caused by the stuck or entangled rotating grinding wheel, sanding drums, steel wire brush or other accessories. Jamming or entanglement can cause rapid blockage of the rotating accessory, which in turn leads to the out-of-control power tool moving at the jamming point in the opposite direction to the rotation of the accessory.

For example, when a grinding wheel is entangled or jammed by the workpiece, the wheel's edge entering the jammed point may cut into the material's surface, causing the wheel to hop out or kick back. The grinding wheel may bounce towards or away from the operator, depending on the direction of movement at the jammed point. Under these conditions, the grinding wheel may also break.

Kickback is the result of improper use of the power tool and/or incorrect operating procedures or conditions. It can be avoided by taking the following precautions:

1. Keep holding the power tool tightly, so that your body and arms are in the correct state to resist the kickback force. If an auxiliary handle is provided, it should be used all the time to maximize control over the kickback force or counter-torque during start-up. By taking appropriate precautions, the operator can control the reaction torque or kickback force.
2. Never bring your hands close to the rotating accessory. The accessory may rebound and hit your hand.
3. Do not stand where the power tool might move to in case of a rebound. The rebound will drive the tool to move against the direction of the grinding wheel at the entanglement point.
4. Pay special attention when working at sharp corners and sharp edges. Avoid the bouncing and entanglement of the accessories. Sharp corners, sharp edges and bounces may entangle the rotating accessories and cause out-of-control rebounds.
5. Do not attach saw chains, wood carving blades or toothed saw blades. These saw blades will rebound frequently and get out of control.

3. Specific safety warnings for grinding and sanding cutting operations

1. Only use the recommended grinding wheel models and the guards specially designed for the selected grinding wheels. Grinding wheels not designed for power tools cannot be fully protected and are unsafe.
2. The guard must be securely installed on the power tool and positioned in the most safe way, with only the smallest part of the grinding wheel exposed to the operator. The guard helps protect the operator from the danger of flying fragments from a burst grinding wheel and accidental contact with the wheel.
3. Grinding wheels are only used for the recommended purposes. For example, do not use the side of a cutting wheel for grinding. The force applied to the side of the grinding wheel may break it.
4. Always select an undamaged grinding wheel flange with appropriate specifications and shapes for the chosen grinding wheel. Appropriate grinding wheel flange that supports the grinding wheel can reduce the possibility of grinding wheel breaking. The flange for cutting grinding wheels can be different from that of grinding wheels.
5. Do not use worn-out grinding wheels left over from large-sized power tools. Grinding wheels designed for large-sized power tools are not suitable for high-speed operation on smaller-sized tools and may burst.

4. Specific safety warnings for sanding cutting operations

1. Do not "pinch" the cutting wheel or apply excessive pressure. Do not attempt to make an excessive depth of cut. Applying excessive stress to the grinding wheel increases the load during cutting, making it prone to entanglement or jamming, and raising the possibility of rebound or wheel burst.
2. Don't face the rotating grinding wheel, nor stand behind it. When the grinding wheel is moved away from the operator's operation point, the possible rebound may push the rotating grinding wheel and the power tool towards you.
3. When the grinding wheel is jammed or the cutting is interrupted for any reason, turn off the power tool and hold the tool still until the grinding wheel stops completely. Never try to remove the cutting wheel from the cutting position while it is still rotating, otherwise it may rebound. Inspect and take corrective measures to eliminate the causes of grinding wheel jamming.
4. Do not restart the cutting operation on the workpiece. Allow the grinding wheel to reach full speed before carefully re-entering the cutting. If the power tool is restarted on the workpiece, the grinding wheel may get stuck, hop out or rebound.
5. Supporting the plate or oversized workpiece can minimize the risk of the grinding wheel getting stuck or rebounding. Large workpieces tend to sag naturally due to their own weight. Supports must be placed near the cutting line on the workpiece and on both sides of the grinding wheel close to the edge of the workpiece.
6. Be extra careful when performing blind cutting into walls or other blind spots. The protruding grinding wheel may cut gas or water pipes, electrical wires, or objects that can cause kickback.

Additional safety instructions for sanding operations

Specific safety warnings for sanding operations

1) Do not use oversized sanding paper when sanding. Choose sanding paper according to the manufacturer's recommendation. Large sanding paper beyond the sanding pad is in danger of tearing and will cause the disk to entangle, tear or rebound.

Additional safety instructions for polishing operations

Specific safety warnings for polishing operations

1. Never rotate, fold or adjust the loose attached rope at will when there is any loose part in the polishing cap or attached rope. Loose and rotating attached ropes can entangle fingers or get stuck on the workpiece.

Additional safety instructions for wire brush operations

Specific safety warnings for wire brush operation

1. Be aware that the steel wire may fly out with the brush even during normal operation. Do not apply excessive load to the wire brush to avoid over-stressing the wire. Wire brush bristles can easily penetrate light clothing and/or skin.
2. If a guard is recommended for the wire brush, it must not interfere with the wire wheel or wire brush in any way. The diameter of wire wheels or wire brushes will increase under the action of working load and centrifugal force.

Cleaning

Try to keep all safety devices, vents and motor housings free of dirt and dust. Wipe the machine with a clean cloth or blow it off with low-pressure compressed air. We suggest that you clean the device immediately after use.
Clean the device regularly with a damp cloth and soap. Do not use cleaners or solvents; they may corrode the plastic parts of the device. Ensure that no water gets into the device.

Repair

There are no components inside the machine that require additional maintenance.

Environmental protection

Discarded electrical products should not be disposed of with household waste.
Please recycle at places where facilities are available. Consult the local government or retailers for recycling advice.

Product Warranty Card

Dear users :
Thank you for buying our products. In order to ensure your profit, users who buy our products can contact local distributor or Specified repair stations with invoice and warranty cards if the product failures due to quality problems.

Warranty Notice:

1. From _____ (Year/Month/Day) to _____ (Year/Month/Day),If the failure happen in normal use, our company will provide free warranty, parts replacement and other services according to the failure situation.
2. This warranty card and purchase invoice are the voucher of after-sales service provided by our company to customers. The card must be detailed only after filling in the following form and affixing the official seal with the distributor.
3. In one of the following cases, free warranty service will be invalid, and maintenance fees will be required:
   (1) Exceed the expiration date.
   (2) Failure or damage caused by not following the requirements of the product manual, maintenance or improper storage.
   (3) Failure or damage caused by disassembling, repairing or modication of the product without the permission of our company.
   (4) Machine breakdown or damage caused by force majeure.
   (5) Consumable accessories.

This card is issued with the product. One card for one machine, to ensure that you can fully enjoy the right to free warranty service provided by the company, please keep this card properly, lost will not be replaced.

Purchase Date: _____ (Year/Month/Day)

Product Certificate

Inspector:

01

Date of manufacture:

NINGBO DELI TOOLS CO., LTD.
No. 128 Chezhan West Road, Huangtan Town,
Ninghai County, Ningbo, Zhejiang, China
delitoolsglobal@nbdeli.com
www.delitoolsglobal.com
+86 574 87562689
MADE IN CHINA