印刷颜色	■黑色	规格	140x210mm	包装设计图稿	货号 EDL-DZ20-E1D1
备注		材质及要求	骑马钉；封皮120g双胶纸，里纸80g双胶纸		货名 充电式起子电钻
批准		校验			零件名称 说明书
		制图	赵博文		
		审核			
		校对			
		日期		文件编号 1	版本 1.0

Product Certificate

Inspector:
01
Date of manufacture:

Reserved for future use

Version：1.0
Date: May, 2021

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

deli

User Manual

CORDLESS DRILL

GENERAL SAFETY RULES

(FOR ALL BATTERY OPERATED TOOLS)

⚠ WARNING: Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

Work area

1. **Keep your work area clean and well lit.**Cluttered benches and dark areas invite accident.
2. **Do not operate power tolls in explosive atmos-pheres, such as in the presence of flammable liquids, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tools.** Distractions

Electrical safety

4. **A battery operated toll with integral batteries or a separate battery pack must be recharged only with the specified charger for the battery.**
A charger that may be suitable for one type of battery may create a risk of fire when used with another battery.
5. **Use battery operated tool only with specifically designated battery pack.**
Use of any other batteries may create a risk of fire.

Personal Safety

6. **Stayed alert, watch what you are doing, and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
7. **Dress properly. Do not wear loose clothing, or have unprotected hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
8. **Avoid accidental starting. Be sure switch is in the locked or off position before inserting battery pack.** Carrying tools with your finger on the switch or inserting the battery pack into a tool with the switch on invites accidents.
9. **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
10. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enable better control of the tool in unexpected situations.
11. **Use safety equipment. Wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

12. **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
13. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
14. **Do not use tool if switch does not turn it on or off.** A tool that cannot be controlled with the switch is dangerous and must be repaired.
15. **Disconnect battery pack from tool or place the switch in the locked or off position before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
16. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
17. **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 sparks, burns or a fire.
18. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edge are less likely to bind and are easier to control.
19. **Check misalignment or binding of moving parts, breakage of parts, and any other connection that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
20. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may create a risk for injury when used on another tool.

Tool Use and Care

21. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in a risk of injury.
22. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance instructions may create a risk of shock injury.

SPECIFIC SAFETY RULES

DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to cordless drill safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.

1. **Hold tool by insulated gripping surfaces 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 tool "live" and shock the operator.
2. **Be aware that this tool is always in an operating condition,** because it does not have to be plugged into an electrical outlet.
3. **Always be sure you have a firm footing.**
4. **Be sure no one is below when using the tool in high locations.**
5. **Hold the tool firmly.**
6. **Keep hands away from rotating parts.**
7. **Do not leave the tool running.** Operate the tool only when hand-held.
8. **Do not touch the drill bit or the workpiece immediately after operation,** they may be extremely hot and could burn your skin.
9. **Some material contains chemicals which may be toxic.** Take caution to prevent working dust inhalation and skin contact. Follow material supplier safety data.

SYMBOLS

The following show the symbols used for tool.
V.....volts
n.....no load speed
⎓.....direct current
/min....revolutions or reciprocation per minute

SPECIFICATIONS

Model	DL-C220-E1DI
Rated voltage(v=)	20
Battery type	Lithium-ion
No-load speed(rpm)	0-350/0-1350
Max clutch(mm)	10
Max screw diameter(mm)	8
Drill weight (kg)	1.15
Charger input (V)	100-240V
Frequency(Hz)	50-60
Allowable temperature	0-50(℃)

Manufacturer reserves the right to change specifications without notice.
Specifications may differ from country to country.

IMPORTANT SAFETY INSTRUCTIONS FOR BATTERY

1. **Before using battery cartridge, read all instructions and cautionary markings on (1)battery charger, (2)battery, and (3) products 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 clean water and seek medical attention right away.** It may result in loose of your eyesight.
5. **Always cover the battery terminals with the battery cartridge when the battery cartridge is not used.**
6. **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.
7. **Do not store the tool and battery cartridge in locations where the temperature may reach or exceed 55℃ (122 oF).**
8. **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.
9. **Be careful not to drop or strike battery.**

IMPORTANT SAFETY INSTRUCTIONS FOR CHARGER

1. **Before using battery cartridge, read all instructions and cautionary markings on (1)battery charger, (2)battery, and (3) products using battery.**
2. **CAUTION: To reduce risk of injury, charge only the lithium-ion battery with this kit. Other types of batteries may burst, causing personal injury and damage.**
3. **Non-rechargeable batteries cannot be charged with this battery charger.**
4. **Use a power source with the voltage specified on the nameplate of the charger.**
5. **Do not charge the battery cartridge in presence of flammable liquids or gases.**
6. **Do not expose charger to rain or snow.**
7. **Never clamp charger by cord of yank it to disconnect from receptacle.**
8. **After charging or before attempting any maintenance or cleaning, unplug the charger from the power source. Pull by plug rather than cord whenever disconnecting charger.**
9. **Make sure cord is located so that it will not be stepped on, tripped over, or otherwise subjected to damage or stress.**
10. **Do not operate charger with damaged cord or plug-replace them immediately.**
11. **Do not operate or disassemble charger if it has received a sharp blow, been dropped, or otherwise damaged in any way, take it to a qualified servicemam. Incorrect use or reassembly may result in a risk of electric shock or fire.**
12. **The battery charger is not intended for use by young children or infirm persons without supervision.**
13. **Young children should be supervised to ensure that they do not play with the battery charger.**
14. **Do not charge battery cartridge when temperature is BELOW 10 ℃ (50 oF) or ABOVE 40 ℃ (104 oF).**
15. **Do not attempt to use a step-up transformer, an engine generator or DC power receptacle.**

Tips for maintaining maximum ba ttery life

1. Charge the battery before completely discharged. Always stop tool operation and charge the battery when you notice less tool power.
2. Never recharge a fully charged battery cartridge. Overcharging shorten the battery service life.
3. Charge the battery with room temperature 10 ℃~40 ℃ (50 oF ~ 104 oF). Let a hot battery cool down before charging it.
4. Charge the Lithium-ion battery when you do not use it for more than six months.

FUNCTIONAL DESCRIPTION

1. Button
2. Battery cartridge

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

Installing or removing battery cartridge

Always switch off the tool before insertion or removal of the battery cartridge.
To remove the battery cartridge, withdraw it from the tool while pressing the buttons on both sides of the cartridge.
To insert the battery cartridge, align the tongue on the battery cartridge with the groove in the housing and slip it into place. Always insert it all the way until it locks in place with a little click. If not, it may accidentally fall out of the tool, causing injury to you or someone around you.
Do not use force when inserting the battery cartridge. If the cartridge does not slide in easily, it is being inserted correctly.

1. Switch trigger

Switch action

⚠ CAUTION: Before inserting the battery cartridge into the tool, always check to see that the switch trigger actuates properly and returns to the "OFF" position when released.
To start the tool, simply pull the switch trigger. Tool speed is increased by increasing pressure on the switch trigger.
Release the switch trigger to stop.

1. Reversing switch lever

Electric brake

This tool is equipped with an electric brake. If the tool consistently fails to quickly stop after switch trigger release, have tool serviced at a service center.

Reversing switch action

This tool has a reversing switch to change the direction of rotation. Depress the reversing switch lever from the R side for clockwise or from the L side for neutral position, the switch trigger cannot be pulled.

⚠ CAUTION: Always check the direction of rotation before operation.
Use the reversing switch only after the tool comes to a complete stop. Changing the direction of rotation of before the tool stops may damage the tool.
When not operating the tool, always set the reversing switch lever to the neutral position.

1. Lamp

1. Graduations
2. Adjusting ring
3. Drill marking
4. Pointer

Lighting up the front lamp

⚠ CAUTION: Do not look in the light or see the source of light directly. Pull the switch trigger to light up the lamp. The lamp keeps on lighting while the switch trigger is being pulled.
Use a dry cloth to wipe the dirt off the lens of lamp. Be careful not to scratch the lens of lamp, or it may lower the illumination.

Adjusting the fastening torque

The fastening torque can be adjusted in 19 steps by turning the adjusting ring so that its graduations are aligned with the pointer on the tool body. The fastening torque is minimum when the number 1 is aligned with the pointer, and maximum when the 🔨 marking is aligned with the pointer. The clutch will slip at various torque levels when set at the number 1 to 18. The clutch is designed not to slip at the 🔨 marking.
Before actual operation, drive a trial screw into your material or a piece of duplicate material to determine which torque level is required for a particular application.

NOTE:

The adjusting ring does not lock when the pointer is positioned only halfway between the graduations.
Do not operate the tool with the adjusting ring set between the number 18 and the 🔨 marking. The tool may be damaged.

ASSEMBLY

1. Sleeve
2. Ring

⚠ CAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before carrying out any work on the tool.

Installing or removing driver bit or drill bit

Hold the ring and turn the sleeve counterclockwise to open the chuck jaws, place the bit in the chuck as far as it will go.
Hold the ring firmly, and turn the sleeve clockwise to tighten the chuck.
To remove the bit, hold the ring and turn the sleeve counter-clockwise.
Place the point of the driver bit in the screw head and apply pressure to the tool. Start the tool slowly and then increase the speed gradually. Release the switch trigger as soon as the clutch cuts in.

Screw driving operation

Place the point of the driver bit in the screw head and apply pressure to the tool. Start the tool slowly and then increase the speed gradually. Release the switch trigger as soon as the clutch cuts in.

⚠ CAUTION: Make sure that the driver bit is inserted straight in the screw head, or the screw and/or bit may be damaged.

NOTE

When driving wood screws, pre drill pilot holes to make driving easier and to prevent splitting of the workpiece.
See the chart.

Drilling operation

First, turn the adjusting ring, so that the pointer points to the marking. Then proceed as follows.

Drilling in wood

When drilling in wood, the best results are obtained with wood
drills equipped with a guide screw. The guide screw makes
drilling easier by pulling the bit into the workpiece.

Drilling in metal

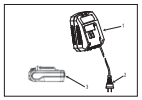
To prevent the bit from slipping when starting a hole, make an indentation with a center-punch and hammer at the point to be
drilled.
Place the point of the bit in the indentation and start drilling.
Use a cutting lubricant when drilling metals. The exceptions
are iron and brass which should be drilled dry.

OPERATION

Nominal diameter of wood screw (mm)	Recommended size of pilot hole (mm)
3.1	2.0 -2.2
3.5	2.2 -2.5
3.8	2.5 -2.8
4.5	2.9 -3.2
4.8	3.1 -3.4
5.1	3.3 -3.6
5.5	3.5 -3.9
5.8	3.8 -4.1
8.0	5.0 -5.5

⚠ CAUTION: pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the tool.
There is a tremendous force exerted on the tool/bit at the time of hole break through. Hold the tool firmly and exert care when the bit begins to break through the work piece.
A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool may back out abruptly if you do not hole it firmly.Always secure small workpieces in a vise or similar hold down device.
If the tool is operated continuously until the battery cartridge has discharged, allow the tool to rest for 15 minutes before proceeding with a

CHARGING



1. Pilot lamp
2. 3.Charger negative pole
3. Battery negative pole

Before using the driver drill, charge the battery as follows.

1. Plug the battery charger into the proper AC voltage source. The charging light will lighten in green color.
2. Engage the charger negative pole with the battery negative pole, the charging light will turn red if the battery runs low.
3. When the charging light turns red to green, the charging cycle is complete.
4. After charging, unplug the charger from the power source.

⚠ CAUTION: The battery charger is for charging the lithium-ion battery with this kit. Never use it for other purposes or for other manufacturer's batteries.
When you charge a battery cartridge which is new or has not been used for a long period of time, it may not accept a full charge until after discharging it completely and recharging a couple of times.
If you charge a battery from a just operated tool or a battery which has been exposed to direct sunlight or heat for a long time, the charging light may lighten in red color. If this occurs, wait for a while. Charging will begin after the battery cools.

MAINTENANCE

⚠ CAUTION: Always be sure that the tool is switched off and the battery cartridge is removed before attempt to perform inspection or maintenance.
To maintain product SAFETY and RELIABILITY, repairs, any other maintenance or adjustment should be performed by Professional Service Center, always using our replacement parts.

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 modification 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)