

deli

User Instruction Manual

IMPACT DRILL

DL-CZ13-E5

DL-CZ13-E6

DL-CZ13-E5-G

DL-CZ13-E6-G

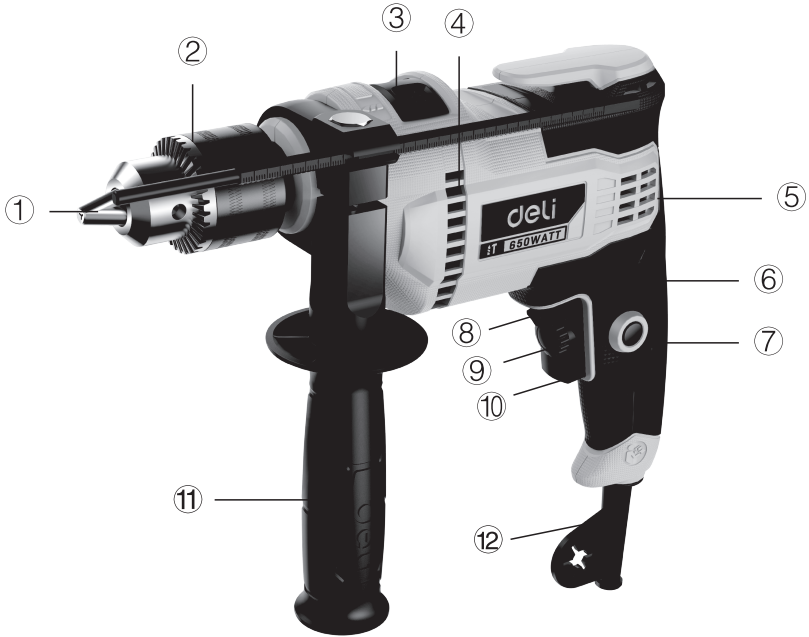
DC180



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1 Electric Drill Diagram



This diagram is for reference only
 Machine appearances vary as per different models, and actual product shall prevail!

Serial No.	Name	Serial No.	Name
①	Drill chuck	⑦	Constant lock key
②	Chuck revolving sleeve	⑧	Forward/reverse rotation key (E5/E5-G is rod type)
③	Gear key	⑨	Speed knob
④	Wind outlet	⑩	Start switch
⑤	Wind inlet	⑪	Auxiliary handle
⑥	Machine housing	⑫	Power cords

2 General Safety Warnings for Electric Tool

Warning

Read all warnings and instructions. Failure to obey the following warnings and instructions will cause electric shock, fire and/or serious injury. Save all warnings and instruction manual for future reference.

In all following warnings, the term "electric tool" refers to power-driven (wired) electric tool or battery-driven (wireless) electric tool.

Workplace safety

1. Keep workplace clean and bright. Chaotic and dark venues will lead to accidents.
2. Do not operate electric tool in an explosive environment, such as an environment with flammable liquid, gas or dust. Sparks from electric tool will ignite dust or gas.
3. When operating electric tool, keep away from children and bystanders. Inattention will cause the operator to lose control of the tool.

Electrical safety

1. Electric tool plug must match the socket. Never modify the plug in any manner. Do not use any adapter plug for the electric tool in need of grounding. Unmodified plug and matched socket will reduce electric shock danger.
2. Avoid human touch with grounded surface such as pipes, cooling fins and refrigerators. If your body is grounded, it will increase electric shock danger.
3. Do not expose electric tool to rain or humid environment. Water entering electric tool will increase electric shock danger.
4. Do not abuse wires. Never use wires to move, pull or unplug electric tool. Keep wires away from heat sources, oils, sharp edges or moving parts. Damaged or entangled wires will increase electric shock danger.
5. When using electric tool outdoors, use extension cords suitable for outdoors, and the wires suitable for outdoors will reduce electric shock danger.
6. If it is unavoidable to operate electric tool in a humid environment, use the power supply with residual current device [RCD] protection.

RCD can be used to reduce electric shock danger.

Personal safety

1. Keep alert. When operating electric tool, focus on the operation and keep sober. Do not operate electric tool, when you feel tired or have drug, alcohol or treatment reaction. Momentary negligence when operating electric tool will cause serious personal injury.
2. Use personal protective device. Always wear goggles and safety device. For example, the use of dust masks, non -slip safety shoes, helmets, hearing protection and other devices under appropriate conditions can reduce personal injury.
3. Prevent accidental start. Ensure the switch in off position before connecting power supply and/or battery box, picking up or moving the tool. Putting fingers on the connected power switch or inserting plug when the switch is connected may cause danger.
4. Before electric tool is connected, take off all adjustment keys or wrenches. The wrenches or keys left on rotating parts of electric tool will cause personal injury.
5. Do not stretch hands too long. Always note standing point and body balance. so as to control electric tool in this way under unexpected circumstances.
6. Dress properly, rather than wear loose clothes or accessories. Keep clothes, gloves and hair away from moving parts. Loose clothes, accessories and long hair may get caught in moving parts.
7. If a device for connecting with chip removal and dust collection equipment is provided, Make sure they are connected well and used properly. The use of these devices may reduce the danger caused by dusts and chips.
8. Do not treat lightly due to familiarity arising from frequent use of tools, or ignore tool safety guidelines. A careless action may cause serious injury in an instant.

Electric tool use and precautions

1. Do not force the use of electric tool, but use appropriate electric tool according to applications. The selection of a properly designed electric tool will make your work more effective and safer.
2. If power supply of the tool cannot be connected or turned off by the switch, this electric tool cannot be used. Electric tool that cannot be controlled by the switch is dangerous and must be repaired.
3. Before making any adjustment, replacing accessories or storing electric tool, unplug from the power and/or dismount battery pack (if

detachable). Such protective measures will reduce the danger of accidental activation of the tool.

4. Store unused electric tool out of the reach of children, and do not allow those who are unfamiliar with it and do not understand these instructions to operate it. Electric tool is dangerous in the hands of untrained users.
5. Maintain electric tool and its accessories. Check whether moving parts are adjusted in place or jammed, damage of parts and other conditions affecting running of electric tool. In case of damage, repair before using electric tool. Many accidents are caused by poorly maintained electric tools.
6. Keep cutting tools sharp and clean. Properly maintained cutters with sharp cutting edges are not easily jammed and easy to control.
7. Choose the use of electric tool, accessories, tool cutter head in accordance with instruction manual, while considering operation conditions and operations performed. Using electric tool for operations at variance with the applications may lead to danger.
8. Keep the handle and grip surface dry, clean and free of grease. Under unexpected circumstances, wet and slippery handle cannot guarantee grip safety and tool control.

Repair

Electric tool is repaired by professional repair personnel using the same spare parts, which will ensure safety of electric tool repaired.

Wear earmuffs. Exposure to noise will cause hearing impairment.

Use the auxiliary handle provided with the tool, since loss of control will cause personal injury.

When operating in the place where cutting accessories may touch concealed wires or their flexible wires, grip the tool through the insulated grip surface. If cutting accessories touch the live lead, the exposed metal parts of tool are live, and thus the operator will suffer electric shock.

3 Function Explanation

Warning

Read all warnings, reminders and instructions. Failure to obey warnings, reminders and instructions may cause electric shock, fire and other serious injuries.

Open the machine decomposition diagram for reference when reading the operating guideline.

Safety instructions for machine

1. Wear earmuffs, as work noise will impair hearing.
2. Please use the auxiliary handle attached with electric tool. Uncontrolled electric tool is prone to cause injury.
3. Detect hidden wires using suitable detective device, or seek support from relevant local entities. Touching wires may cause fire and electric shock to the operator. A damaged gas pipe will cause explosion. Chiseling through water pipe will not only cause serious property damage, but also lead to electric shock.
4. During work, firmly hold electric tool with both hands, and ensure to stand securely, able to hold it stably with both hands.
5. Properly fix workpiece, and using a fixture or vise to fix is more sturdy than holding it with hands.
6. Do not process materials containing asbestos. Asbestos may cause cancer.
7. If machine operation will generate waste dusts that are harmful to health, flammable or may cause explosion, make sure to take proper preventive measures. For example, for some dusts that may cause cancer, make sure to wear a dust mask. If you can install a vacuum cleaner on the machine, add such apparatus as well.
8. The workplace must be kept clean. Different working dusts are easy to produce chemical reactions after mixing, which is very dangerous, and light metal dusts are easy to catch fire or cause explosion.
9. Do not put down the machine until waiting for electric tool to entirely stay still. The tool on machine may get clamped during work, thus making you lose control of electric tool.
10. Do not use electric tool with damaged wires. If power wires are damaged during work, do not touch the damaged wires and pull out the plug immediately, since the damaged wires will increase the danger of electric shock to the user.

Component introduction

Drill chuck: three-jaw chuck for clamping drilling accessories.

Chuck revolving sleeve: tighten and loosen drill chuck.

Gear key: choose drill function or impact drill function.

Wind outlet: wind outlet after the motor is started.

Wind inlet: wind inlet after the motor is started.

Housing: electric drill appearance.

Constant lock key: after pressing the start switch, press constant lock key to achieve long start of machine.

Power cord: power input cord for electric drill.

Forward/reverse rotation adjusting rod: achieve forward/reverse rotation of drill bit. Top housing of adjusting rod is marked with forward rotation (R or ←) and reverse rotation (L or →).

Speed knob: press “+” and “-” on the knob to instruct rotation and achieve adjustment of fast and slow speed.

Start switch: button to start motor after the power is connected.

Install and replace chuck

Reverse rotate the chuck revolving sleeve (2) to loosen three-jaw drill chuck (1), insert the clamping part of drilling tool into three-jaw hole and then forwardly rotate the chuck until locking (lock using a key for the key chuck). Use only after confirming the drilling tool is locked, so as to avoid damage to human body caused by falling off during the drilling process.

On/off

After power cord (12) is connected, press the start switch (10) to start motor rotation. Ensure power start switch in a disconnected state before turning on power to avoid damage to human body caused by uncontrollable tool when turning on power.

Forward/reverse rotation

Push forward/reverse rotation adjusting rod (8) when the motor is stopped, and adjust to the desired direction. Operate when the motor stops rotation to avoid damage to the use of machine.

Speed control

Turn speed knob (9) in “+” direction to increase rotating speed when the motor is stopped, and turn speed knob (9) in “-” direction to reduce rotating speed when the motor is stopped. Operate when the motor stops rotation to avoid damage to the use of machine.

Gear key

Turn gear key (3) of electric impact drill to switch between two gears of drilling and impact when the motor is stopped. Operate when the motor stops rotation to avoid damage to the use of machine.

Use machine as stipulated

Electric drill of this electric tool is matched with the

corresponding drill bit (drill bit is not provided with the machine) to perform normal drilling function on metal, wood, ceramics and plastics. Electric impact drill can perform normal drilling function on metal, wood, ceramics, plastics, concrete, brick wall and stone. Machines equipped with electronic adjusting device and forward/reverse rotation switch also enable turning in/out screw or tapping.

Name		Electric Impact Drill	Electric Impact Drill
Cargo No.		DC180 DL-CZ13-E5 DL-CZ13-E5-G	DL-CZ13-E6 DL-CZ13-E6-G
Specification		φ 13mm	φ 13mm
Speed control		Yes	Yes
Impact function		Yes	Yes
Auxiliary handle		Yes	Yes
Forward/reverse rotation function		Yes	Yes
Active chuck		Metal	Metal
Rated power		650W	820W
Rated speed		3000r/min	3000r/min
Insulation level		Class II	Class II
Shock frequency		48000 bpm	48000 bpm
Maximum drilling diameter	Wood	φ 30mm	φ 35mm
	Steel	φ 13mm	φ 13mm
	Concrete	φ 13mm	φ 13mm

Warning

1. Use safety glasses, preferably wear a mask in the event of lots of chips or dusts, and make sure to always wear goggles.
2. Do not arbitrarily drill holes in machine parts during use to prevent electric leakage.
3. When putting down electric drill after work, first confirm whether electric drill stops completely, otherwise it will damage other objects.
4. In case of accidental damp, damage caused by falling or natural damage after long-term use, please hand it over to a professional for repair in time, and use only after passing insulation test.
5. During use, ensure wind inlet and outlet of the machine unclogged by debris to prevent from damaging the machine by heat.

4 Troubleshooting

Failures	Causes	Troubleshooting Methods
The motor does not rotate after the machine is powered on	<ol style="list-style-type: none"> 1. Power cut 2. Loose connector 3. Poor switch contact 4. Burnt armature or stator coil 5. Open circuit of stator coil 6. Electric brush used up 	<ol style="list-style-type: none"> 1. Repair power 2. Check all joints 3. Repair or replace switch 4. Replace armature or stator coil 5. In case of breakage at the outlet, use it after re-welding, otherwise rewinding is required 6. Replace with a new pair of electric brushes
The machine makes abnormal sound when power on, fails to rotate or rotates very slowly	<ol style="list-style-type: none"> 1. Switch contact burned out 2. Mechanical part is jammed or moving and static parts rub 3. Drill bit engages with or hits rebar 4. Loose special nut 5. Small amount of short circuit or open circuit in armature 6. Chips are jammed when drilling deep holes 7. Too low power supply voltage 	<ol style="list-style-type: none"> 1. Repair or replace switch 2. Check mechanical part 3. Stop advancing or choose a drilling position separately 4. Send to repair department for repair 5. Repair or replace armature 6. Pull out drill bit and clear away chips 7. Adjust power supply voltage
Excessive heat on housing surface	<ol style="list-style-type: none"> 1. Excessive load or sluggish drill bit 2. Humid winding 3. Inaccurate assembly, armature running failure 4. Power supply voltage declines 	<ol style="list-style-type: none"> 1. Replace drill bit 2. Stop advancing 3. Repair or replace armature 4. Adjust power supply voltage
Commutator produces ring fire or large sparks	<ol style="list-style-type: none"> 1. Short circuit or open circuit of armature 2. Poor contact between electric brush and commutator 3. Unsmooth and unclean commutator surface 	<ol style="list-style-type: none"> 1. Repair armature 2. Improve its contact 3. Remove debris and make commutator surface smooth and clean
Overheating reduction gearbox	<ol style="list-style-type: none"> 1. Lack of lubricating grease or dirty lubricating grease in gearbox 2. Bad accessories of transmission part or debris falling inside 	<ol style="list-style-type: none"> 1. Add or replace lubricating oil 2. Check transmission part or clear away debris

Remarks: Non -professionals shall not disassemble the machine for repair, to avoid machine failure caused by improper repair!

5 Troubleshooting

Repair and cleaning

1. Before repairing electric tool or replacing parts and accessories, make sure to unplug from the socket.
2. Keep both electric tool and ventilation gap clean to improve work quality and safety.
3. If dust cover is damaged, replace it immediately, and preferably entrust the customer service of our company to replace it.

Clean tool connector after completion of each operation.

All electric tools of the company have undergone strict quality inspection. If the machine still fails, please deliver it to customer service authorized by the company for repair.

When inquiring and ordering accessories, make sure to provide models of the machine parts.

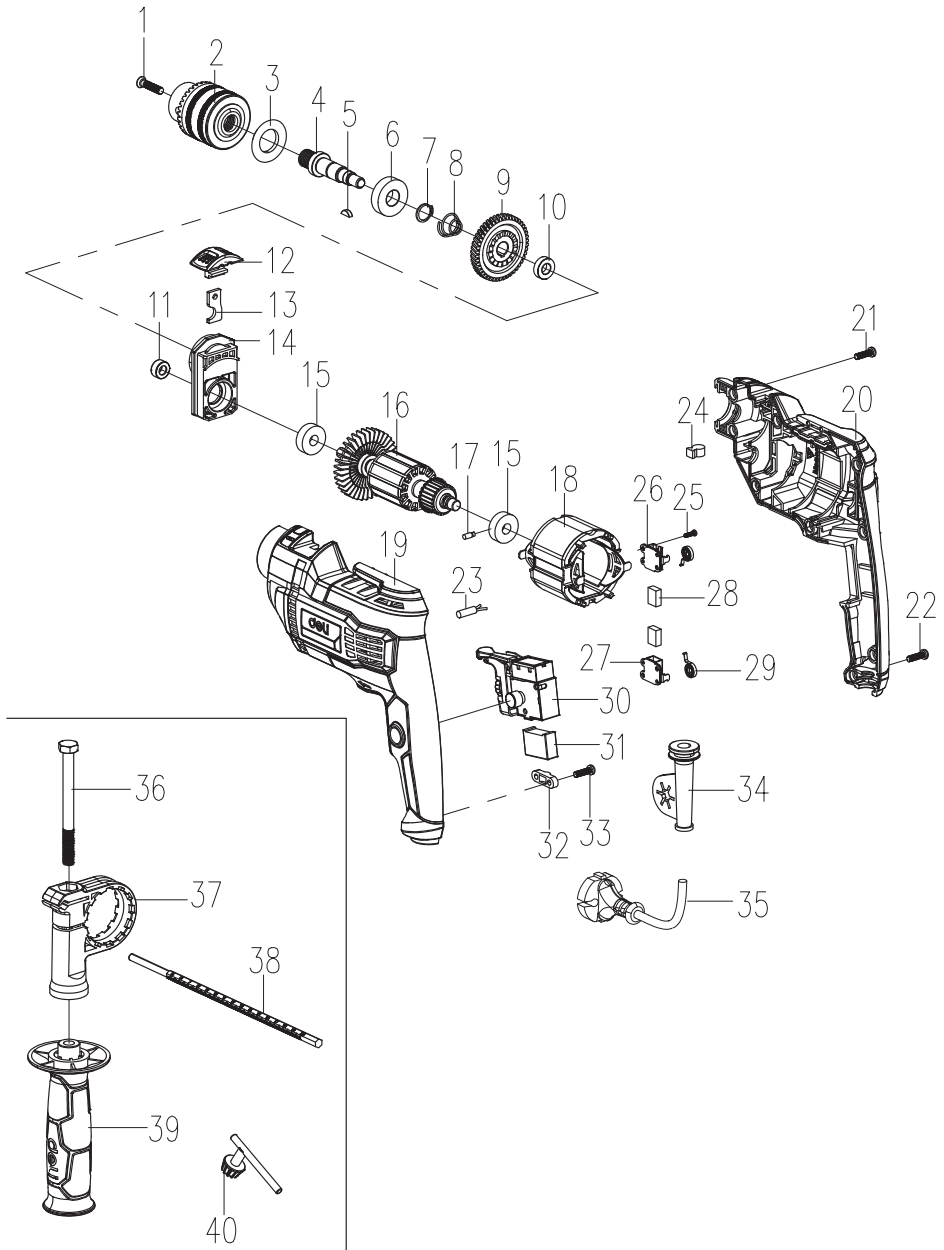
Waste disposal

Recycle the damaged machine, accessories and waste packaging materials in an eco-friendly manner.

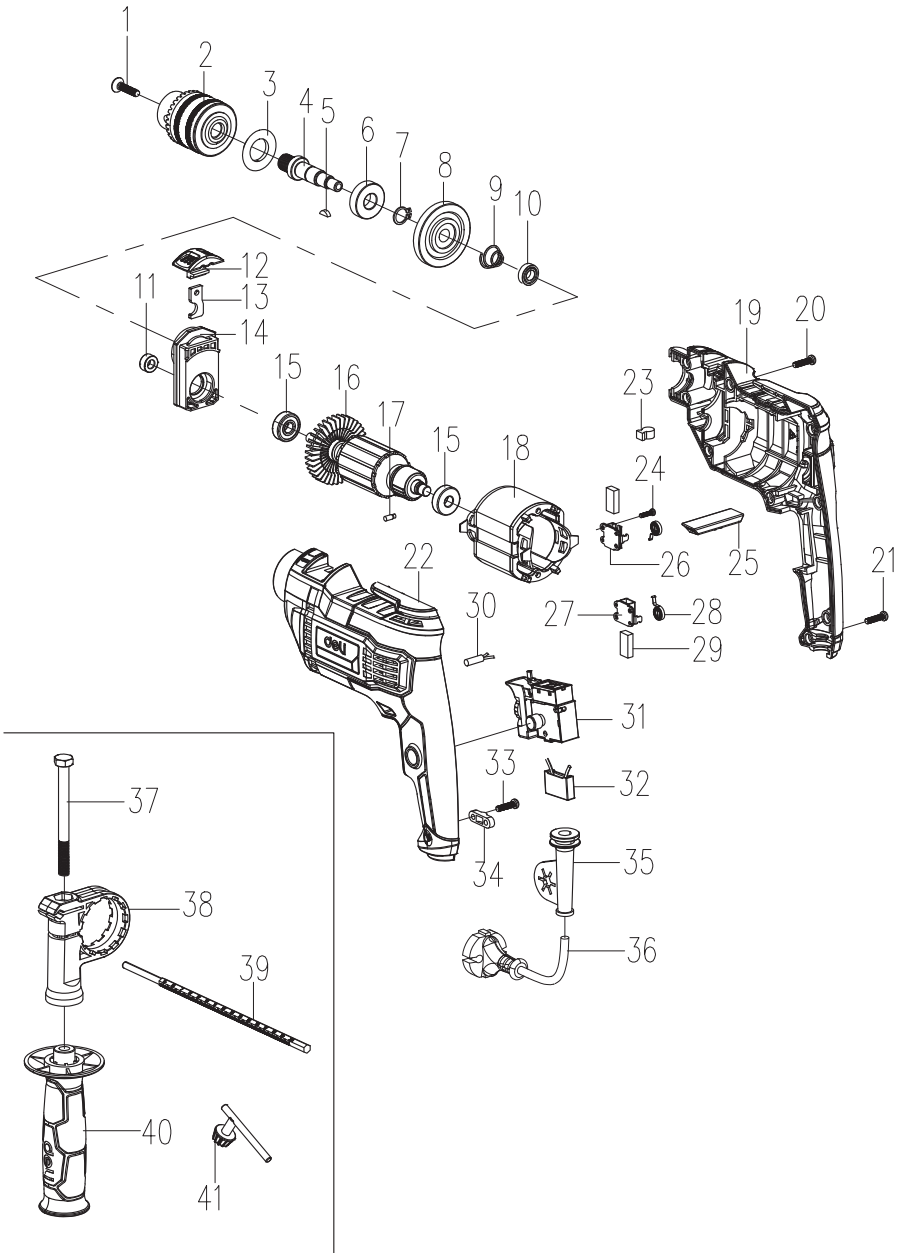
Service and customer inquiry

For relevant machine decomposition diagram, spare part data and other relevant warranty, repair or part replacement matters, please consult a qualified dealer.

DC180
DL-CZ13-E5



No	Name	QTY
1	Screw M5 × 25 - left	1
2	chuck 13 mm	1
3	Dust ring	1
4	output shaft	1
5	Semicircular key 10 × 3	1
6	Bearing 6001	1
7	Circlip for shaft 12	1
8	Taper spring	1
9	big gear	1
10	688 bearing	1
11	oil retaining ring	1
12	Impact block	1
13	Impact iron sheet	1
14	Impact Bracket ass.	1
15	608 bearing	2
16	Armature	1
17	Rubber column 4 ×9.5	1
18	stator	1
19	Motor housing-Left	1
20	Motor housing-Right	1
21	screw ST4 ×16	8
22	screw ST4 ×14	1
23	inductance	2
24	Wool block	1
25	screw ST3×10	4
26	Carbon brush holder -Left	1
27	Carbon brush holder -Right	1
28	Carbon brush	2
29	Coil spring	2
30	switch	1
31	Capacitance	1
32	Wire plate	1
33	screw ST4 ×14	2
34	Cord guard	1
35	power cord	1
36	External hexagon bolt M8×100	1
37	bracket	1
38	Depth guage	1
39	Auxiliary handle	1
40	Key	1



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1	Screw M5× 25 - left	1
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5	Semicircular key 10 × 3	1
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7	Circlip for shaft 12	1
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10	688 bearing	1
11	oil retaining ring	1
12	Impact block	1
13	Impact iron sheet	1
14	Impact Bracket ass.	1
15	608 bearing	2
16	Armature	1
17	Rubber column 4 × 9.5	1
18	stator	1
19	Motor housing-Right	1
20	screw ST4 × 16	8
21	screw ST4 × 14	1
22	Motor housing-Left	1
23	Wool block	1
24	screw ST3x10	4
25	switch block	1
26	Carbon brush holder -Left	1
27	Carbon brush holder -Right	1
28	Coil spring	2
29	Carbon brush	2
30	inductance	1
31	switch	1
32	Capacitance	1
33	screw ST4 × 14	2
34	Wire plate	1
35	Cord guard	1
36	power cord	1
37	External hexagon bolt M8 × 100	1
38	bracket	1
39	Depth guage	1
40	Auxiliary handle	1
41	Key	1

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)

Product Certificate

Inspector:

01

Date of manufacture:

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Reserved for future use

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