

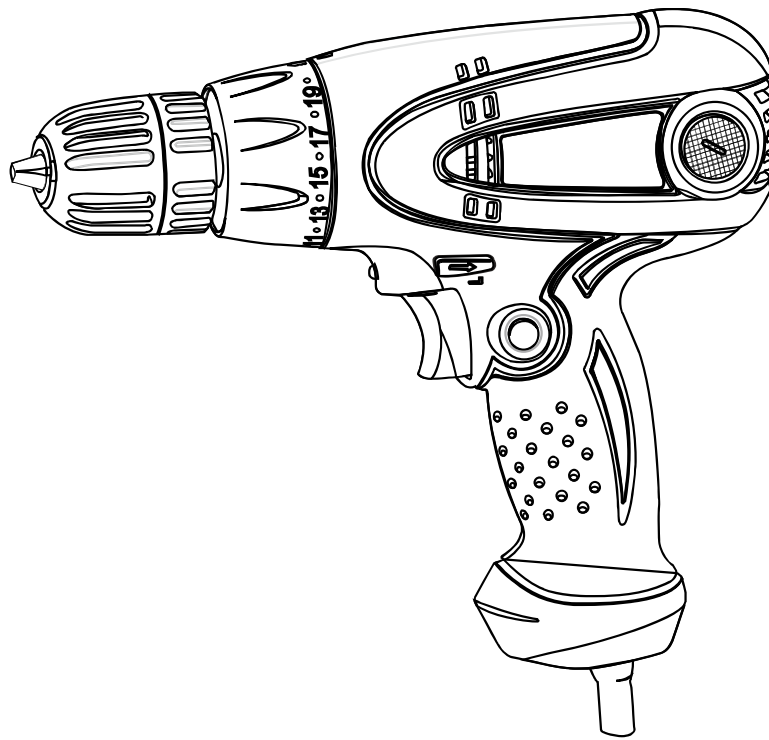
POWER ACTION[®]

Power action tools are your smart choice

Electric Drill

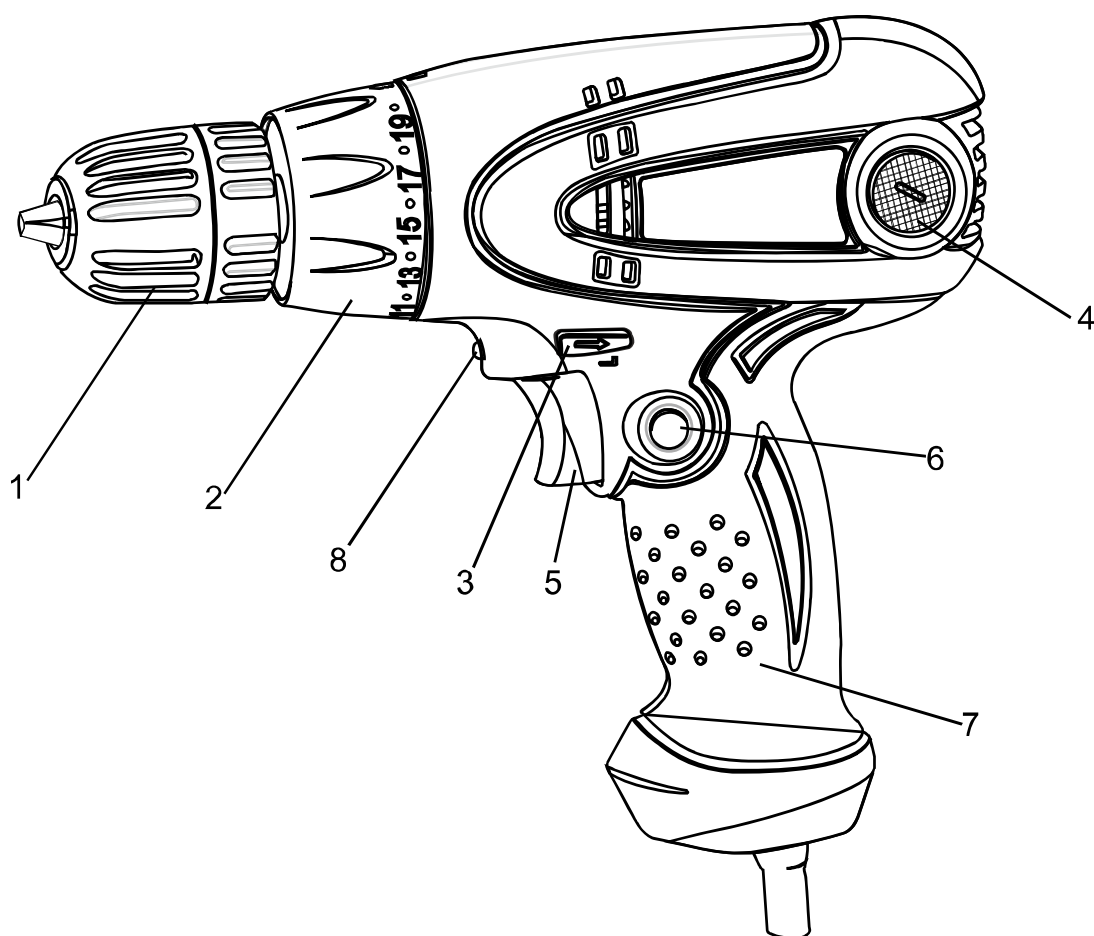
HD450

GB



EN

The description of drill



- 1.chuck
- 2.torque cup
- 3.F/R lever
- 4.brush cover
- 5.switch
- 6.switch button
- 7.soft hand
- 8.LED

GENERAL SAFETY INSTRUCTIONS FOR ELECTRIC TOOLS

This device is for D.I.Y. use!

▲ WARNING! Read all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury. **SAVE THESE INSTRUCTIONS**

1) Work area

- Keep work area clean and well lit. Cluttered and dark areas invite accidents.
- Do not operate machines in explosive environments, such as in the presence of flammable liquids, gases or dust. Machines create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a machine. Distractions can cause you to lose control.

2) Electrical safety

- Machine plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) machines. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces such as pipes, radiators and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose machines to rain or wet conditions. Water entering a machine will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the machine. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a machine outdoors, use an extension cord suitable for outdoor use. Use a cord , which suitable for outdoor use , reduces the risk of electric shock.

3) Personal safety

- Stay alert! Watch what you are doing and keep your mind clean when operating a machine. Do not use a machine while you are tired or under the influence of drugs, alcohol or medication. A moment of distraction while operating machines may result in serious personal injury.
- Use safety equipment. Always wear eye protection. Safety equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Avoid accidental starting. Ensure the switch is in the off position before plugging in. Carrying machines with your finger on the switch or plugging in machines that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the machine on. A wrench or a key left attached to a rotating part of the machine may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the machine in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection

facilities, ensure these are connected and properly used. Use of these devices can reduce dust related hazards.

4) Machine use and attentions

- Do not force the machine. Use the correct machine for your application. The correct machine will do the job better and safer at the rate for which it was designed.
- Do not use the machine if the switch does not turn on and off. Any machine that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source before making any adjustments, changing accessories, or storing away. Such preventive safety measures reduce the risk of starting the machine accidentally.
- Store idle machines out of the reach of children and do not allow persons unfamiliar with the machine or these instructions to operate the machine. Machines are dangerous in the hands of untrained users.
- Maintain machines. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the machines operation. If damaged, have the machine repaired before use. Many accidents are caused by poorly maintained machines.
- Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- Use the machine, accessories and tool bits etc... in accordance with these instructions and in the manner intended for the particular type of machine, taking into account the working conditions and the work to be performed. The use of the machine for operations different from intended could result in a hazardous situation.

5) Service

- Have your machine serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the machine is maintained. Use **power action** appointed servicing agents.

PRECAUTION

Keep children and infirm persons away.

When not in use, tools should be stored out of reach of children and infirm persons.

SPECIFIC SAFETY RULES FOR DIRLL

- 1. Wear ear protectors.** Exposure to noise can cause hearing loss.
- 2. Hold power tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
- 3. Wear a hard hat (safety helmet), safety glasses and/or face shield.** Ordinary eye or sun glasses are **NOT safety glasses**. It is also highly recommended that you wear a dust mask and thickly padded gloves.
- 4. Be sure the bit is secured in place before operation.**
- 5. Under normal operation, the tool is designed to produce vibration.**

The screws can come loose easily, causing a breakdown or accident.
Check tightness of screws carefully before operation.

6. **Always be sure you have a firm footing.** Be sure no one is below when using the tool in high locations.
7. **Hold the tool firmly with both hands.**
8. **Keep hands away from moving parts.**
9. **Do not leave the tool running.** Operate the tool only when hand-held.
10. **Do not point the tool at any one in the area when operating.** The bit could fly out and injure someone seriously.
11. **Do not touch the bit or parts close to the bit immediately after operation.** they may be extremely hot and could burn your skin. Some material contains chemicals which may be toxic. Take caution to prevent dust inhalation and skin contact.

SPECIFICATIONS

Input voltage/frequency	220-240 V ~ 50Hz
Rated power	450W
No-load speed	0-750/min
Rated torque	15N.m
Spindle screw diameter	M9
Chuck clamping range	0.8-10mm
Max. drilling capacity	
-steel	10mm
-wood	20mm
Net weight	1.3kg
Class	II (Double insulation)

Assembly

CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.
- Ensure that the power switch is in the OFF position. If the plug is connected to a receptacle while the power switch is in the ON position, the power tool will start operating immediately, which could cause a serious accident.

HOW TO USE

Operation the tool

- please make sure the rated voltage is 220V~ 50Hz.

Caution: Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

Operation of switch

When the switch trigger is depressed, the tool rotates. When the switch trigger is released, the tool stops. If the switch trigger is locked, repress the switch trigger, and then release it. The tool will turn off.

Adjustment of Speed

The rotational speed of the drill can be controlled by varying the amount that the switch trigger is pulled. Speed is low when the switch trigger is pulled slightly and increases as the switch trigger is pulled more.

Reversing switch action

This tool has a reversing switch to change the direction of rotation. Move the lever to the left position for clockwise rotation or the right position for counterclockwise rotation.

Extension cord

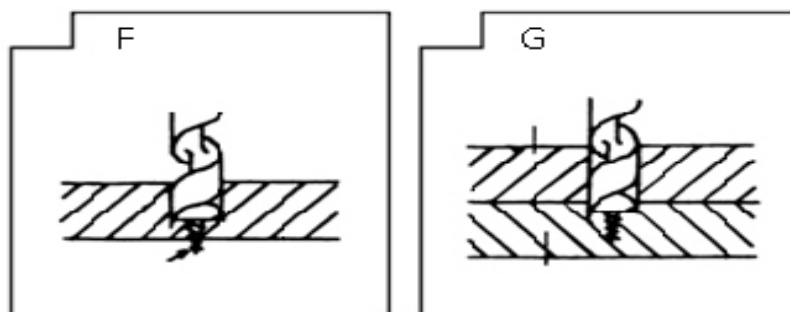
When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

Check the tightening of the drill chuck

The drill chuck has been tightened at the factory, but check again that it is in order before use. Turn the drill chuck clockwise to tighten.

To use for drilling lumber

Apply the point of the drill bit to the desired drilling position, hold the drill perpendicular to the workpiece surface and turn on the switch. When drilling a through hole in lumber, remove the drill from the material as soon as the tip of the drill bit protrudes from the opposite surface. Then, turn the workpiece over and complete the drilling from the opposite side to obtain a clean hole. (Fig. F) If extra lumber is applied under the lumber you want to drill and it is drilled together, a fine hole will also be made. (Fig.G) A wood-working drill need not be pressed strongly since it penetrates using the screw at the point. Even if excessive force is used, a hole will not be made quickly.



To use for drilling metal

In case you drill metal with an iron-working drill, apply in advance a center punch in the drilling position. You can drill metal stably since the point of the drill does not slip.

If you apply sewing machine oil or soapy water to the drill with a brush or an old tooth brush, the drill will last long. Even if more-than-necessary force is used, a hole will not be made quickly. On the contrary, the edge of the drill will be damaged. This will decrease operational efficiency and shorten the life of this too.

CAUTION:

Do not expose the motor to water as it may cause motor malfunction and electric shock.

To use the driving wood screws

Driver bit

For driving a minus wood screw, the driver bit detaches easily. So use wood screws with a plus groove as often as possible. Select a driver bit matching the plus groove and the minus groove of the wood screw.

Pilot hole

If a pilot hole is made with a drill a little thinner than the diameter of the wood screw, the lumber will not be split and the wood screw will be driven with ease.

Driving operation

Put the wood screw lightly in the pilot hole, apply the bit to the groove, turn on the switch and drive the screw.

Torque limiter

The torque limiter will actuate when a certain torque level is reached. The motor will disengage from the output shaft. When this happens, the bit will stop turning.

Caution:

► As soon as the torque limiter actuates, switch off the tool immediately. This will help prevent premature wear of the tool.

Installing the screwdriver bits (Refer to the figure C)

► Always be sure that the tool is switched off and unplugged before installing or removing the screwdriver bit.

Insert the bit into the socket in the end of chuck adaptor;

Mount chuck adaptor on the main unit;

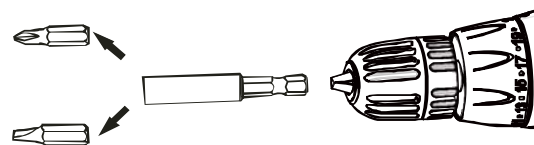


图 C

Put the tip of the bit in the slots in the head of the screw, grasp the main unit and tighten the screw.

Caution to be taken immediately after operation

When placing the drill in dusty places before the rotating parts has stopped completely, make sure the machine does not suck in dust and swarf.

MAINTENANCE AND INSPECTION

Repairing and cleaning

▶ Always be sure that the tool is switched off and unplugged before repairing, installing or removing the screwdriver bit.

▶ Inspecting the drill bit and driver bit

Since use of an abraded drill bit will cause motor malfunctioning and degraded efficiency, replace the drill bit with a new one or resharpening without delay when abrasion is noted. If you use a driver bit of which point is worn or broken, it will be dangerous since it slips. So replace it with a new one.

▶ Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loosened, retighten them immediately, Failure to do so could result in serious hazard.

▶ Replacing supply cord

If the replacement of the supply cord is necessary, this has to be done by **Power Action** Authorized Service Center in order to avoid a safety hazard.

▶ Check all external parts of the power tool for damage. Do not operate the power tool if parts damaged.

▶ To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by **Power action** Authorized or Factory Service Centers.

CAUTION

This Parts List will be helpful if presented with the power tool to the Authorized Service Center when requesting repair or other maintenance.

In the operation and maintenance of power tools, the safety regulations and standards prescribed in each country must be observed.

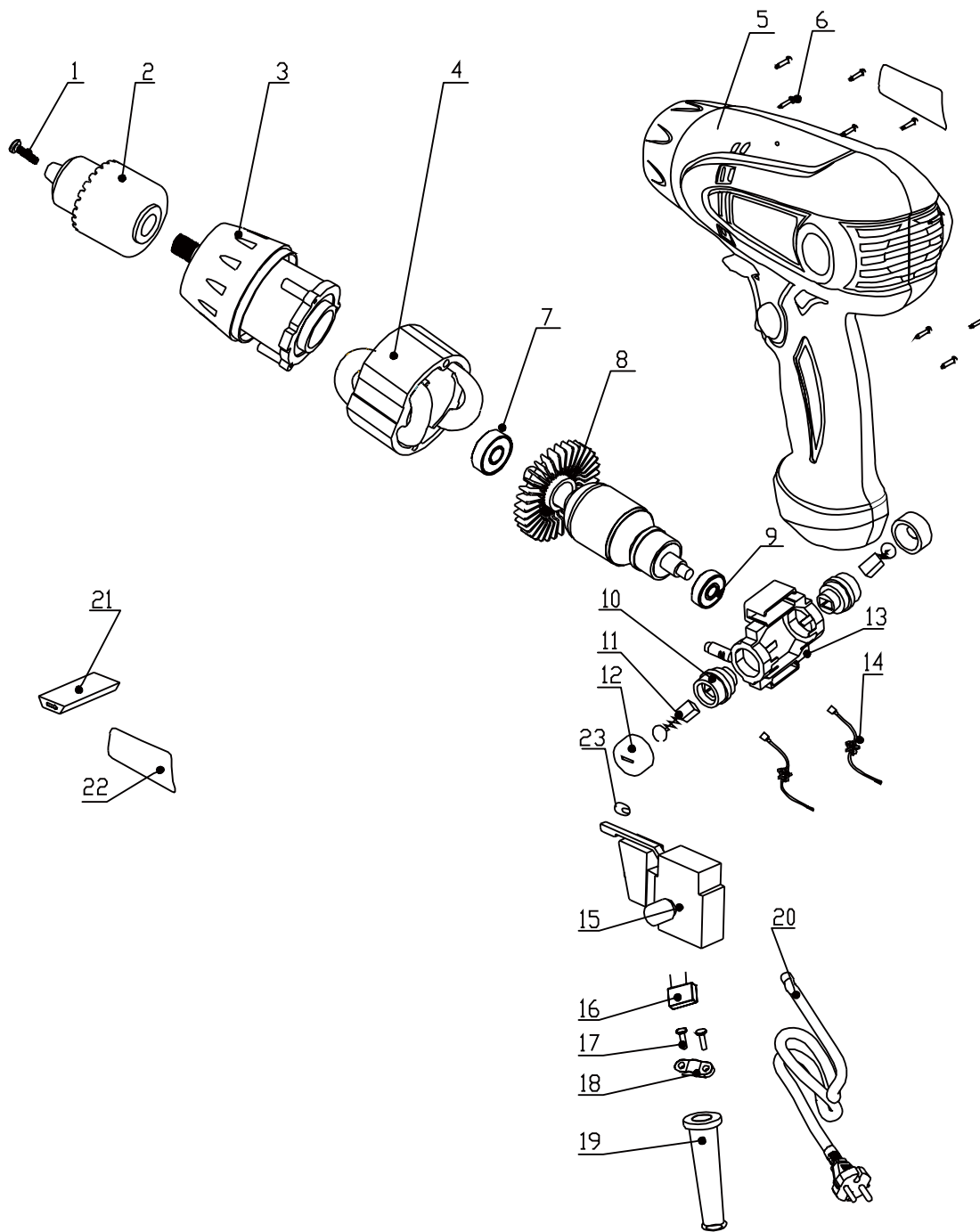
MODIFICATIONS

PowerAction Power Tools are constantly being improved and modified to incorporate the latest technological advancements.

Accordingly, some parts (i.e. code numbers and/or design) may be changed without prior notice.

NOTE:

Due to PowerAction's continuing program of research and development, the specifications herein are subject of change without prior notice.



HD450

NO.	DESCRIPTION
1	SCREW
2	CHCUK
3	GEAR BOX
4	STATOR
5	HOUSING ASSEMBLY
6	SCREW
7	BALL BEARING(608)
8	ROTOR
9	BALL BERRING (626)
10	BRUSH HOLDER
11	CARBON BRUSH
12	BRUSH HOLD CAP
13	BRUSH HOLD BRACKET
14	INDUCTANCE
15	SWITCH
16	CAPACITANCE
17	SCREW
18	CORD CLIP
19	CORD GUARD
20	CORD
21	REVERSE
22	NAME PLATE
23	LED LAMP