

INSTRUCTION MANUAL



ELECTRIC DRILL
RED4501001



READ AND FOLLOW ALL SAFETY PRECAUTIONS IN THE INSTRUCTION MANUAL.

Safety Notes

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, or severe injury. Save all warnings and instructions for future reference. The power tool in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Work area safety

- ▶ Keep the work area clean and well-lit. Cluttered or dark areas invite accidents.
- ▶ Do not operate power tools in explosive atmospheres, such as in flammable liquids, gases or dust. Power tools create sparks that may ignite the dust or fumes.
- ▶ Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

Electrical safety

- ▶ 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 the risk of electric shock.
- ▶ 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.
- ▶ Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
- ▶ Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep the cord away from heat, oil, sharp edges and moving parts. Damaged or entangled cords increase the risk of electric shock.
- ▶ When operating a power tool outdoors, use an extension cord suitable for outdoor use. Using a cord suitable for outdoor use reduces the risk of electric shock.
- ▶ If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. The use of an RCD reduces the risk of electric shock.

Personal safety

- ▶ 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.
- ▶ Use personal protective equipment. Always wear eye protection. Protective equipment such as dust masks, non-skid safety shoes, hard hats, and hearing protection for appropriate conditions will reduce personal injuries.
- ▶ Prevent unintentional starting. Ensure the switch is off position before connecting it to the power source or battery pack or picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools with the switch on invites accidents.
- ▶ 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.
- ▶ Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool 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 connecting dust extraction and collection facilities, ensure these are connected and properly used. The use of dust collection can reduce dust-related hazards.

Power tool use and care

- ▶ Don't 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.
- ▶ Do not use the power tool if the switch does not turn on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- ▶ Disconnect the plug from the power source 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
- ▶ 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.
- ▶ 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. Poorly maintained power tools cause many accidents
- ▶ Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp edges are less likely to bind and are easier to control.
- ▶ Use the power tool, accessories, tool sets, etc., in accordance with these instructions, taking into account the working conditions and the work to be performed. Using the power tool for operations different from those intended could result in a hazardous situation.

Service

- ▶ 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.

Safety Rules for Drills

- ▶ Hold the tool by the insulated gripping surfaces when operating where the cutting tools may contact hidden wiring or its cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator. Do not drill, fasten, or break into existing walls or other blind areas where electrical wiring may exist. If this situation is unavoidable, disconnect all fuses or circuit breakers feeding this worksite.
- ▶ Wear ear protectors when using the tool for extended periods. Prolonged exposure to high-intensity noise can cause hearing loss. Always use the auxiliary handle for maximum control over torque reaction or kickback. High torque 3/8" and larger chuck capacity drills are equipped with auxiliary handles.
- ▶ Always wear safety goggles or eye protection when using this tool. Use a dust mask or respirator for applications that generate dust.
- ▶ Use thick cushioned gloves and limit exposure time by taking frequent rest periods. Vibration caused by hammer-drill action may be harmful to your hands and arms.
- ▶ Secure the material being drilled. Never hold it in your hand or across your legs. Unstable support can cause the drill bit to bind, causing loss of control and injury.
- ▶ Never leave the trigger locked "ON". Before plugging the tool in, check that the trigger lock is "OFF". Accidental start-ups could cause injury.
- ▶ Position the cord clear of the rotating bit. Do not wrap the cord around your arm or wrist. If you lose control and have the cord wrapped around your arm or wrist, it may entrap you and cause injury.
- ▶ Position yourself to avoid being caught between the tool or side handle and walls or posts. Should the bit become bound or jammed in the work, the reaction torque of the tool could crush your hand or leg.
- ▶ If the bit becomes bound in the workpiece, release the trigger immediately, reverse the direction of rotation, and slowly squeeze the trigger to back out the bit. Be ready for a strong reaction torque. The drill body will tend to twist in the opposite direction when the drill bit is rotating.
- ▶ Do not grasp the tool or place your hands too close to the spinning chuck or drill bit. Your hand may be lacerated.
- ▶ Do not use the switch "Lock-ON" feature in situations where drill bit binding is likely. For example, just before the bit is ready to break through the material, anytime when using a "Hole Saw", auger bits, etc. When the bit binds, the drill's body will twist or kickback in the opposite direction, and releasing the trigger "Lock-ON" may be difficult.

- ▶ Be aware of the location and setting of the switch "Lock-ON" button. If the switch is locked "ON" during use, be ready for emergencies to switch it "OFF" by first pulling the trigger and then immediately releasing it without pressing the "Lock-ON" button.
- ▶ Insert the bit's shank well within the chuck's jaws when installing a drill bit. If the bit is not inserted deep enough, the grip of the jaws over the bit is reduced, and the risk of losing control increases.
- ▶ Do not use dull or damaged bits and accessories. Worn or damaged bits have a greater tendency to bind in the workpiece.
- ▶ When removing the bit from the tool, avoid contact with skin and use proper protective gloves when grasping the bit or accessory. Accessories may be hot after prolonged use.
- ▶ Check that keys and adjusting wrenches are removed from the drill before switching the tool "ON". Keys or wrenches can fly away at high velocity, striking you or a bystander.
- ▶ Do not run the drill while carrying it at your side. A spinning drill bit could become entangled with clothing, resulting in injury.
- ▶ This tool may be used with sanding and polishing disks, grinding wheels, air wheels, and wire cup brushes. These accessories must be rated for at least the speed recommended on the tool warning label. Wheels and other accessories running over the rated speed can fly apart and cause injury.

⚠WARNING

- ▶ Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, congenital disabilities, or other reproductive harm. Some examples of these chemicals are lead from lead-based paints, crystalline silica from bricks, cement, and other masonry products, and arsenic and chromium from chemically treated lumber. To reduce exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as dust masks specially designed to filter out microscopic particles.

Specification

Technical Data

Model No.	RED4501001
No Load Speed	0-3500r/min
Chuck capacity	10mm
Rated Power	450W
Frequency	50/60Hz
Voltage	220-240V~

Service, Accessories and Cleaning

Service

⚠ WARNING

- ▶ Preventive maintenance performed by unauthorized personnel may result in misplacing internal wires and components, which could cause serious hazards. It is strongly recommended that all tool service be performed by a factory-authorized service station.

Tool Lubrication

- ▶ The tool has been properly lubricated and is ready to use. It is recommended that tools with gears be regreased with a special gear lubricant at every brush change.

Carbon Brushes

- ▶ The brushes and commutator in your tool have been engineered for many hours of dependable service. To maintain the motor's peak efficiency, we recommend that the brushes be examined every 50 hours of operation. Only genuine replacement brushes, specially designed for your tool, should be used.

Bearings

- ▶ After about 50 hours of operation, or at every second brush change, the bearings should be replaced at a factory-authorized service station. Bearings that become noisy (due to heavy load or very abrasive material cutting) should be replaced immediately to avoid overheating or motor failure.

Cleaning

⚠ WARNING

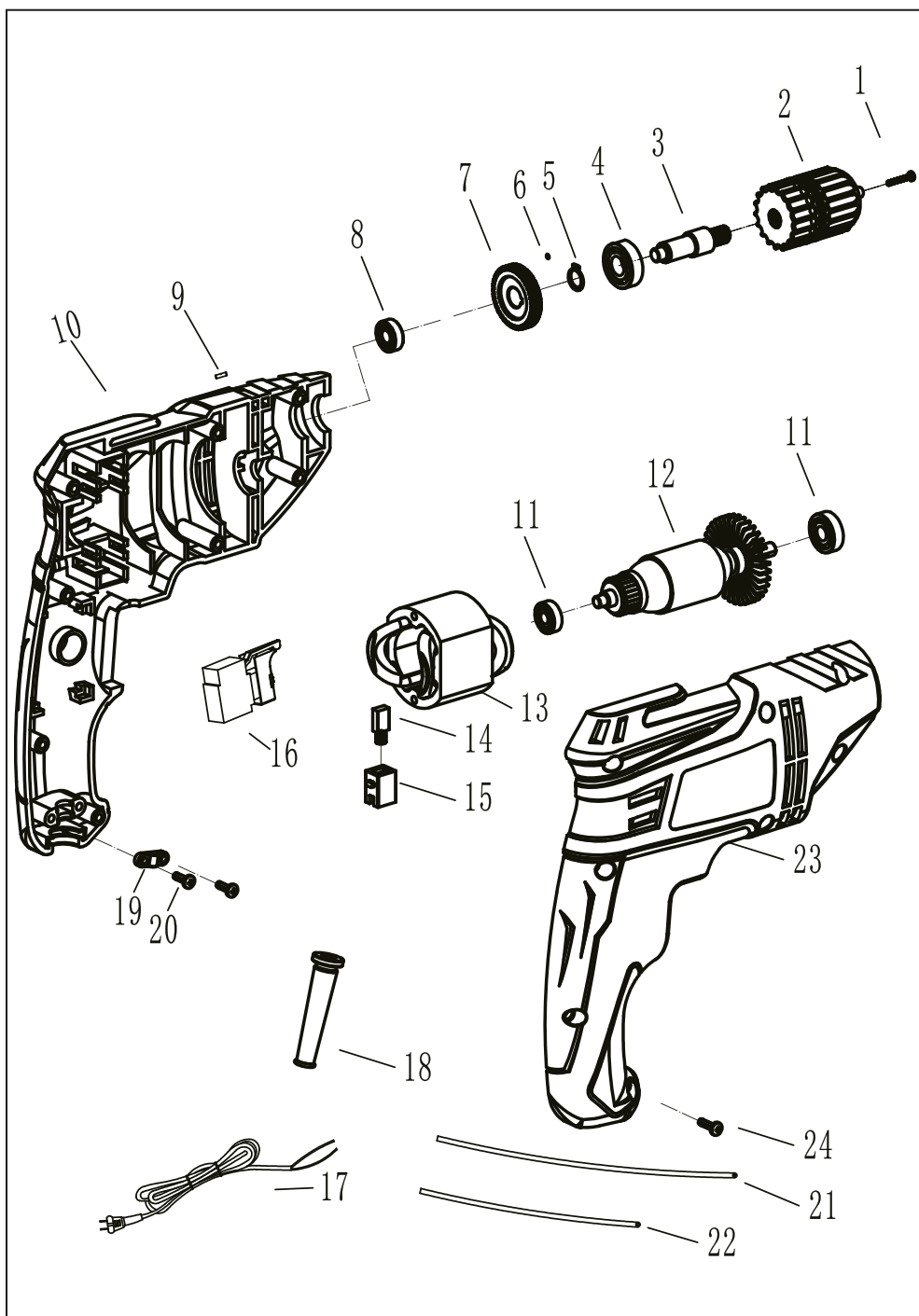
- ▶ To avoid accidents, always disconnect the tool from the power supply before cleaning or performing any maintenance. The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air. Ventilation openings and switch levers must be kept clean and foreign matter-free. Do not attempt to clean by inserting pointed objects through openings.

⚠ CAUTION

- ▶ Specific cleaning agents and solvents damage plastic parts. Some of these are gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia, and household detergents that contain ammonia.

ELECTRIC DRILL SPARE PARTS LIST

Exploded view No.	Part Name	Qty	Exploded view No.	Part Name	Qty
1	screw M5*20-LH	1	13	stator	1
2	drill chuck	1	14	carbon brush	2
3	output shaft	1	15	carbon brush holder	2
4	bearing 6200	1	16	switch	1
5	φ10 jump ring	1	17	cable	1
6	φ3 Stell ball	1	18	sheath	1
7	big gear	1	19	cable ramp	1
8	bearing 607Z	1	20	screw ST4*14A	2
9	levelling pipe	1	21	outgoing line	1
10	left house	1	22	outgoing line	1
11	bearing 607RS	2	23	right house	1
12	rotor	1	24	screw ST4*14BT	8





Product Features

Installation and Replacement of Chuck

- ▶ **Rotate the chuck sleeve counterclockwise to loosen the three-jaw drill chuck. Insert the drilling tool into the chuck hole and then rotate the chuck clockwise until it locks (for chucks with a key, use the key to lock it in place).**
- ▶ **Ensure the drilling tool is securely locked before use to prevent it from falling off and causing injury during drilling.**
- ▶ **For chucks with a key, remove the key before using the machine.**

Power On/Off

- ▶ **Connect the power cord to the power source, then press the start switch to activate the motor and initiate rotation.**
- ▶ **Before connecting the power, make sure the power start switch is in the off position to avoid injury from uncontrolled operation when power is connected.**

Forward/Reverse Rotation

- ▶ **In the stopped state of the motor, move the forward/reverse lever to the desired direction. This operation must be performed when the motor is not running to prevent damage to the machine.**

Speed Adjustment

- ▶ **When the motor is stopped, rotate the speed control knob in the "+" direction to increase the rotation speed, or in the "-" direction to decrease it. This operation must be performed when the motor is not running to prevent damage to the machine.**

Gear Position Switch

- ▶ **For impact drills, switch between drilling and hammering modes by moving the gear position switch when the motor is stopped. This operation must be performed when the motor is not running to prevent damage to the machine.**
- ▶ **Please ensure to follow these instructions carefully for safe operation.**

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