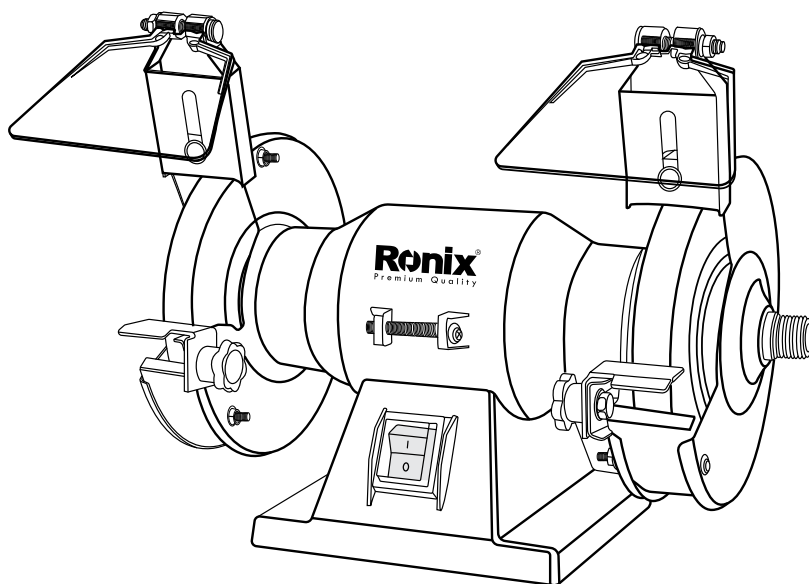


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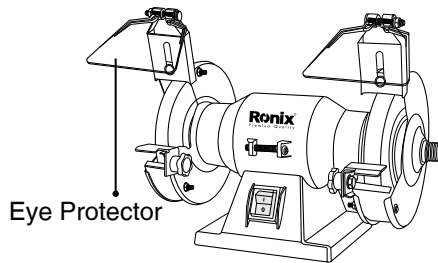
## BENCH GRINDER 3509N




## TECHNICAL SPECIFICATION

Model	3509N
Power	150W
Voltage	220V
Frequency	50Hz- 60Hz
No-load Speed	2950 RPM
Wheel size	125×16×12.7mm
Weight	4.5 Kg

## PARTS LIST



## ORIGINAL INSTRUCTION

 Before using this bench grinder, please carefully read though these instructions. Ensure that you know how the machine works, and how it should be operated. Maintain the machine in accordance with the instructions, and make certain that the machine works correctly, please store this instruction and other enclosed documents with the machine together.

## APPLICATION

This machine is applicable for sharpening cutting tools such as tool bits, drill bits, chisels, and gouges. Alternatively, it may be used to roughly

shape metal prior to welding or fitting.

## SAFETY SYMBOLES

In this operator's manual/or machine's labels following symbols are used:



Double insulation



Accordance with essential applicable safety of European directives



Wear ear and eye protection.



Denote risk of personal injury, loss of life or damage to the tool in case of nonobservance of the instruction in this manual.



Indicate electrical shock hazard.



Immediately unplug the plug from the main electricity in the case that the cord gets damage and during maintenance.



Faulty and /or discarded electrical or electronic apparatus have to be collected at the appropriate recycling location.

## 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 and/or serious injury.
- Save all warnings and instructions for future reference.
- The term "power tool" in the warnings refers to your mains-operated (corded) power tool.

### ■ WORK AREA SAFETY

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.

- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which 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 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 cord away from heat, oil, sharp edges or 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. Use of 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. 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 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.
- 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 jewelry. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

#### **■ POWER TOOL USE AND CARE**

- Do not 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 it 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 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. Many accidents are caused by poorly maintained power tools.
- Use the power tool accessories in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could

result in a hazardous situation.

## **ADDITIONAL SAFETY RULES FOR BENCH GRINDER**

- 1- Always wear eye protection that complies with a recognized standard (CSA or ANSI).
- 2- Wear a mask or respirator when dust is generated.
- 3- Keep bystanders out of the work area while operating the tool.
- 4- Always ensure that the work area is clear of any flammable materials, liquids or gasses, because the use of this tool may create sparks.
- 5- Tighten grinding wheel lock nuts, securing bolts and all clamps and guards.
- 6- During each start-up, stand to one side of the grinder and switch it on. Let the grinder operate at full speed for approximately one minute so that any undetected flaws or ceacks will become apparent.
- 7- Keep guards in place and working property.
- 8- Keep hands clear of grinding wheels.
- 9- Never reach behind or beneath the grinding wheels.
- 10- Unplug from power supply before adjusting wheels. After the tool is switched off. Always allow wheels to stop before adjusting or servicing.
- 11- To avoid electric shock, do not use in damp conditions or expose to rain.
- 12- When fitting a new grinding wheel, always check the new wheel for damage, such as flaws or cracks. If the wheel appears satisfactory, fit it the grinder.
- 13- Use only accessories that are recommended by the manufacturer for your model.
- 14- Do not attempt to cut anything with the grinding wheel.
- 15- Any damage and abnormal happen, please stop to use immediately and disconnect it, ask authorized centers to check and repair.
- 16- Right use accessories and parts: Don't use other parts and accessories which not mentioned in the manual otherwise may cause injuries!
- 17- Special attention to voltage: Before connecting the power tool, please make sure the rated voltage on the tool can match the power supply, otherwise the power tool may be damaged and cause injuries.

18- Don't wipe plastic part with solvent: Solvent such as gasoline, thinner, alcohol etc. these kind of chemical material, are not allowed to use, water or soap are recommended!

19- In case of damage, the replacement of the plug or the supply cord shall always be carried out by authorized centers.

### **RESIDUAL RISKS**

Even when the power tool is used as prescribed it is not possible to eliminate all residual risk factors. The following hazards may arise in connection with the power tool's construction and design:

- 1- Damage to lungs if an effective dust mask is not worn.
- 2- Damage to hearing if effective hearing protection is not worn.
- 3- Damages to health resulting from vibration emission if the power tool is being used over longer period of time or not adequately managed and properly maintained.

## **OPERATION INSTRUCTION / PRIOR TO OPERATION**



Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up use of this products.

### 1- Power source

Ensure that the power source to be utilized conforms to the power requirements which specified on the name plate of the grinder.

### 2- Power switch

Ensure that the power switch is in the position of OFF. If the plug is connected to power receptacle while the power switch is in ON position, the bench grinder will start operation immediately, which can cause serious accident!

### 3- 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.

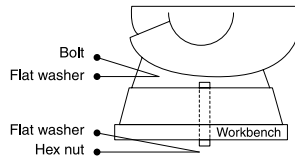
## ASSEMBLY

Mount the grinder securely to a sturdy workbench or grinding stand.

1- position the grinder on the workbench.

2- Mark the Workbench through the two mounting holes located in the grinder base.

3- Drill holes in the workbench at the marks and with nuts, as shown (not supplied) secure the grinder to the workbench.

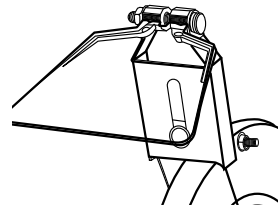


## EYE SHIELD INSTALLATION

Eye shields must be installed before operating the bench grinder.

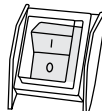
1-Mount the left and right shield brackets to the inside of the wheel guards.

2-Tighten the carriage bolt, leaving it loose enough to allow the safety shield to be raised and lowered easily.



## SWITCH OPERATION

Observe correct mains voltage! The voltage of the power source must agree with the voltage specified on the type plate of the power tool.



Switch ON: To start the power tool, Press switch towards “I” direction.

Switch OFF: To start the power tool, Press switch towards “O” direction.



## INSTALLING OR CHANGING THE WHEEL

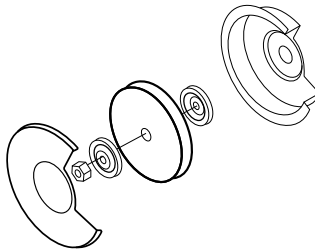
1- Use a screwdriver to loosen the wheel cover screws and push anti-clockwise to remove the wheel cover.

2- Fit an appropriately sized wrench on the spindle hex nut. Loosen the

wheel nut in a clockwise direction for the left side and a counter-clockwise direction for the right side.

Remove the outer flange, guard belt and grinding wheel. TO remove the hex nut, turn the wrench and nut until the wrench is resting on the workbench behind the tool.

3-To install a new grinding wheel, reverse the above procedure.



## TOOL REST ADJUSTMENTS AND INSTALLATION

Mount the tool rests to the work rest bracket using the knob and washers. Before tightening the knob, adjust the gap between the grinding wheel and the work rest to a maximum of 1/8(3.2mm). Tighten securely.

## WARRANTY

For the condition of warranty, please refer to the separately provided warranty card.



## ENVIRONMENT

Faulty and /or discarded electrical or electronic apparatus have to be

collected at the appropriate recycling location.

## TROUBLESHOOTING

Service on these tools should only be performed by an authorized technician.

SYMPTOM	PROBABLE CAUSE	CORRECTIVE ACTION
Motor will not start.	<ol style="list-style-type: none"> <li>1.Low Voltage.</li> <li>2.Open circuit in motor or loose connections.</li> <li>3.Blown fuse or breaker.</li> </ol>	<ol style="list-style-type: none"> <li>1.check power source for proper voltage.</li> <li>2. inspect all lead connection on motor for loose or open connections. (send for servicing).</li> <li>3.short circuit.(send for Servicing).</li> <li>4. improper match between tool and circuit, fuse or breaker.</li> </ol>
Motor will not start- fuses or circuit breakers tripping or blowing.	<ol style="list-style-type: none"> <li>1.Short circuit in line, cord or plug.</li> <li>2.short circuit in motor or loose connections.</li> <li>3.incorrect fuses or circuit breakers in power line.</li> </ol>	<ol style="list-style-type: none"> <li>1.inspect cord or plug for damaged insulation and shorted wires.</li> <li>2.inspect all connections on motor for loose or shorted terminals and/or worn insulation.</li> <li>3. install correct fuses or circuit breakers or switch tool to an appropriately sized circuit.</li> </ol>
Motor overheats.	<ol style="list-style-type: none"> <li>1.Motor overloaded.</li> <li>2.Extension cord too long and of insufficient gauge(weight).</li> </ol>	<ol style="list-style-type: none"> <li>1.Reduce load on motor .</li> <li>2.Utilize an extension cord of appropriate gauge and length or plug tool directly into outlet.</li> </ol>
Motor stalls (resulting in blown fuses or tripped circuit).	<ol style="list-style-type: none"> <li>1.short circuit in motor or loose connections.</li> <li>2.low voltage</li> <li>3.incorrect fuses or circuit breakers in power line.</li> <li>4.Motor overload.</li> </ol>	<ol style="list-style-type: none"> <li>1.inspect connections on motor for loose or shorted terminals or worn insulation.(Send for Servicing).</li> <li>2.Correct low voltage conditions(for example: improper extensions cord length and/or gauge).</li> <li>3.install correct fuses or circuit breakers or plug tool into an appropriate fuse or breaker.</li> <li>4.Reduce the load on the motor.</li> </ol>

Machine slows when operating.	1.Feed rate too great.	1.Reduct the rate at which the workpiece is fed into the working area of the tool( grinding wheel).
Wary condition on surface of workpiece.	1.Machine vibrating. 2. Workpiece not being held sirmly. 3. Wheel face uneven. 4.Wheel is too hard.	1.Ensure machine is securely moun on a solid surface. 2.Use a holding device to firmly retain the workpiece. 3.Dress the grinding wheel. 4. Use softer wheel, or reduce the feed rate.
Lines on surface of workpiece.	1.impurity on surface of wheel. 2.Workpiece not being held tightly.	1.Dress the grinding wheel. 2. use a holding device to more firmly retain the workpiece.
Lines on surface of workpiece.	1.impurity on surface of wheel. 2.Workpiece not being held tightly.	1.Try wheels with softer bond or coarser rit. 2.Slow down the rate at which the workpiece is fed into the wheel. 3.introduce coolant.
Wheel dulls quickly, girl falls off.	1.Feed rate is too aggressive. 2.Wheel is soft 3.Wheel diameter too small. 4.Bad wheel dressing. 5.Defective wheel bonding.	1.Decrease feed rate of workpiece into grinding wheel. 2. Select a grinding wheel with a harder bond of material. 3.Replace wheel. 4.Dress the wheel. 5.DO NOT USE-return wheel to point of purchase.
Wheel clog and work picee shows burn marks.	1.Wheel is too hard. 2. Feed rate is too slow. 3.Bad wheel dressing. 4.Coolant required.	Select a grinding wheel with a softer bond of material. 2.workpiece into the feed rate of the workpiece into the grinding wheel. 3. Dress the wheel. 4. introduce coolant.

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



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