#### **Operating Instructions • Warning Information • Parts Breakdown**



E176989 CUL USTED 34JK

SPECIFICATIONS	5001A	5002A
Size of Grinding Wheel	. 6" x 3/4" x 1/2"	. 8" x 1" x 5/8"
Speed (at 60 HZ)	. 3400 RPM	. 3400 RPM
Power	. 1/2 HP	. 3/4 HP
Weight (G.W.)	. 28 LBS	. 33 LBS.

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Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

# **A**WARNING

ALWAYS READ THIS MANUAL BEFORE OPERATING THIS TOOL



ALWAYS WEAR EYE PROTECTION WHEN OPERATING THIS TOOL (USERS AND BYSTANDERS)



ALWAYS WEAR HEARING PROTECTION WHEN OPERATING THIS TOOL (USERS AND BYSTANDERS)



ALWAYS WEAR BREATHING APPARATUS WHEN OPERATING THIS TOOL (USERS AND BYSTANDERS)



AVOID PROLONGED EXPOSURE TO VIBRATION

RATED RPM OF ACCESSORY USED MUST EXCEED THE MAXIMUM TOOL RPM SHOWN

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## FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Sunex for replacements. If the operator is not fluent in English, the product and safety instructions shall be read and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

## **ELECTRICAL WARNINGS**

- 1. This unit must always be used in accordance with all electrical and safety codes and ordinances including National Electric Code (NEC) and Occupational Safety and Health Act (OSHA).
- 2. Read, study, understand and follow all instructions before using.
- Failure to follow all instructions listed below may result in electric shock, fire, explosion and/or serious personal injury.
- 4. Keep bystanders, children and visitors away while operating unit. Distractions can cause you to loose control and endanger others.
- Store unit or product out of reach of children and other untrained persons, which can become dangerous in the hands of untrained users.
- 6. Keep cord away from heat, oil, sharp edges or moving parts.
- 7. Do not remove any labels. Replace any damaged labels.
- Slipping, tripping and or falling while operating product can be a major cause of serious injury or death. Be aware of cord left on walking or work surface.
- Never remove, bypass or modify the grounding prong on any electrical plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.
- 10. Never use cord for carrying, pulling or unplugging the unit or product.
- 11. Never attempt to plug in or operate unit or product with defective or damaged wires, power cord or power cord plug. Have any defective or damaged parts replaced immediately by an authorized repair center.
- 12. Do not use in or around water, damp conditions, on wet surfaces, wet hands or while standing in water.
- 13. Do not use unit or product around any flammable material or fuel.
- 14. Keep unit or product away from hot objects.
- 15. Ground Fault Circuit Interrupter (GFCI) protection is to be provided on the circuit(s) or outlet(s) to be used for the wet location portable luminaries. Receptacles are available having built-in GFCI protection and are able to be used for this measure of safety.
- 16. If an extension cord is required:
  - Use only "UL Listed" extension cords.
  - If you are using the tool outdoors, use an extension cord rated and marked "For Outdoor Use". Use only an extension cord type SEW, SEOW, SEOOW, SOW, SOOW, STW, STOW, STOOW, SJEW, SJEOW, SJEOOW,SJW, SJOW, SJOOW, SJTW, SJTOW, or SJTOOW.
  - The cord must be of the proper size and type to supply the correct current to the light without overheating. Otherwise the extension cord could melt and catch fire, or cause electrical damage to the light. This light requires the use of an extension cord of 0 to 12 amps capability (up to 50 feet) with wire size rated at 16 AWG. Longer extension cords require larger size wire (smaller AWG number). AWG = American Wire Gauge.
- 17. Stay alert, watch what you are doing and use common sense when operating a product. Do not use product while tired or under the influence of drugs, alcohol or medication. A moment of in

attention while operating the product may result in serious personal injury.

- Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing and gloves away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.
- 19. Avoid accidental starting. Be sure switch is in the locked or "off" position before plugging product into the units power source. Carrying product with your finger on the switch or plugging into power source with the switch "on" invites accidents.
- 20. Disconnect product from power source or place switch in the locked or "off" position before making any adjustments, changing accessories, or storing the product. Such preventative safety measures reduce the risk of starting the product accidently.
- 21. Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enable better control in unexpected situations.
- 22. If damaged, have the unit or product serviced before using. Many accidents are caused by poorly maintained products.
- 23. Do not use (or modify) this product for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.
- 24. Use only accessories that are recommended by the manufacturer. Accessories that may be suitable for one product may create a risk of injury when used on another product.
- 25. This product may contain one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands thoroughly after handling*.
- 26. Handling the brass parts of this product will expose you to lead, a chemical known to the State of California to cause birth defects and other reproductive harm. *Wash hands after handling*.
- 27. Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.

### **ADDITIONAL GRINDER WARNINGS**

- 1. Always use guards and eye shields (users and bystanders). Always wear safety glasses or other eye protection and hearing protection when operating this tool and keep the eye shields mounted in their proper position on the wheel guard.
- 2. Always wear breathing apparatus when using this tool.
- 3. Replace a cracked wheel immediately. Handle wheels carefully to avoid bumping or dropping. DO NOT use a grinding wheel that has been dropped. Before using, inspect each wheel for cracks or flaws and if these are evident, discard the wheel.
- Before mounting a new wheel, be sure that it is marked with an RPM that is the same as, or higher than, the no load speed of the grinder as marked on the nameplate.
- Never start a grinder with anyone, including the operator, standing in line with the wheel. After installing a replacement wheel, stand to one side and allow it to revolve freely for about one minute.
- 6. Do not grind on the sides of grinding wheels unless they are the special wheels designed specifically for this purpose.
- 7. Do not over tighten wheel nut.

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- 8. Use only flanges furnished with this grinder.
- 9. Any damaged parts should be replaced with original parts and/or by a qualified service technician.
- 10. Bolt Bench Grinder to a bench or pedestal to prevent movements.
- 11. Use accessories only in the proper and intended manner.
- 12. Spark Breakers should be installed perpendicular to the grinding wheel. If these are not installed properly, it is an OSHA violation. See picture on page 5.





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## FAILURE TO OBSERVE THESE WARNINGS COULD RESULT IN INJURY.

## **GENERAL SAFETY RULES**

- GROUND ALL TOOLS. If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a known ground. Never remove the third prong.
- 2. KEEP GUARDS IN PLACE and in working order.
- 3. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 4. KEEP WORK AREA CLEAN. Cluttered areas and benches invite accidents.
- AVOID DANGEROUS ENVIRONMENT. Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep your work area well illuminated.
- 6. KEEP CHILDREN AWAY. All visitors should be kept a safe distance from work area.
- 7. MAKE WORKSHOP CHILD PROOF with padlocks, master switches, or by removing starter keys.
- 8. DON'T FORCE TOOL. Don't force tool or attachment to do a job for which it was not designed.
- 9. USE RIGHT TOOL. It will do the job better and safer at the rate for which it was designed.
- 10. WEAR PROPER APPAREL. No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip

## ASSEMBLY

#### **Tool Rests**

Attach the left and right tool rests with the four 5/8" bolts and large washers. Adjust the rests for a distance of 1/16-inch from the surface of the grinding wheel.

#### **Spark Breakers**

Attach the spark breakers with the two 5/16" bolts and medium washers. Adjust the spark breaker for a distance of 1/16" from the surface of the grinding wheel. Spark Breakers should be installed perpendicular to the grinding wheel. If these are not installed properly, it is an OSHA violation. See picture on page 5.

#### Eyeshields

Select one of the eyeshields. Put its clamp into one of the spark breaker brackets. Adjust eyeshield to be located in the middle of wheel to protect operator from sparks.

#### **Final Assembly**

Fasten the grinder to the workbench, stand or cabinet. Two holes are provided in the base of the bench grinder so that suitable length bolts can be inserted to attach the grinder securely and prevent it from moving during operation

#### **BENCH MOUNTING**

Mounting the grinder on a bench is required in order to prevent movement of the grinder when pressure is applied against a wheel. First, slide rubber feet on both sides and in the middle of the grinder base. Then drill 2 holes for 1/4" wood screws or bolts in the bench. Use 1/4" wood screws or bolts, and tighten down only enough to partially compress rubber feet (about 1/16"). The rubber feet will not be effective in absorbing vibration if fully compressed. When using 1/4" bolts, a second nut is required to lock against the first nut and keep grinder from loosening during operation. Never operate the grinder without the rubber feet attached to its base.

5001A and 5002A: Parts Breakdown and Operating Manual



footwear is recommended. Wear protective hair covering to contain long hair.

- 11. USE SAFETY GLASSES (USERS AND BYSTANDERS). Also always use hearing protection and face or dust mask.
- 12. NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if cutting tool is accidently contacted.
- 13. DON'T OVERREACH. Keep proper footing and balance at all times.
- 14. MAINTAIN TOOLS IN TOP CONDITION. Follow instructions for lubricating and changing accessories.
- 15. DISCONNECT TOOLS before servicing; when changing accessories.
- 16. USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. Use of improper accessories may be hazardous.
- 17. AVOID ACCIDENTAL STARTING. Make sure switch is off before plugging in cord.



18. Vibration, repetitive motions or uncomfortable positions over extended periods of time may be harmful to hands and arms. Discontinue use of tool if discomfort, tingling feeling or pain occurs. Seek medical advice before resuming use.

NOTE: The warnings and cautions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

### **OPERATION**

A bench grinder is designed for hand grinding operations such as sharpening chisels or screwdrivers, grinding drills, removing excess metal from work, and smoothing metal surfaces. A medium grain abrasive grinding wheel is suitable for rough grinding where a considerable amount of metal has to be removed or where a smooth finish is not important. For sharpening tools or grinding to close limits of size, a fine grain wheel should be used as it removes metal slower and gives the work a smooth finish.

## NOTE: Always use guards and eye shields. Always wear safety glasses when operating this grinder (user and bystanders).

- 1. Adjust the eyeshield
- 2. Check for a 1/16" clearance between the tool rests and the grinding wheels, and between the spark breakers and the grinding wheels. Adjust as needed. Always keep the tool rest adjusted so that it just clears the wheel and is at the same level or just below the center line of the wheel to prevent accidental jamming of work between the tool rest and the wheel.
- 3. Turn the grinder on and let it come up to speed.

CAUTION: When starting the grinder, turn it on and stand to one side until the grinder has come up to speed. There is always the possibility that a piece from a damaged grinding wheel may be thrown off when coming to full speed.

- 4. When grinding, always keep the work moving across the face of the wheel. Grinding against the same spot on the wheel will cause grooves to be worn into the face of the wheel.
- 5. When it is necessary to reshape the grinding wheels, use the proper tools. After reshaping, adjust the tool rests and spark breakers as needed to maintain the 1/16" clearance from the wheel.

### **EXTENSION CORD**

When using this tool at a considerable distance from power source, a conductor, grounding-type extension cord of adequate size must be used for safety, and to prevent loss of power and over-heating. For a 120 volt tool, the minimum size of the wires in any extension cord up to 75 feet long must be 18 gauge (American Wire Gauge) if the total extension cord length is from 75 to 100 feet, 16 gauge wire is required throughout the extension.

NOTE: 16 gauge wire is heavier than 18 gauge and will carry current for longer distances without a voltage drop.

Use only three wire extension cords which have three prong grounding type plugs and three hole receptacles which accept the tools plug. Replace or repair damaged or worn cord immediately.

#### **CHANGING THE GRINDING WHEEL**

- 1. Unplug the bench grinder.
- 2. Remove the outer wheel guard cover screws and the wheel guard cover.
- 3. Hold the opposite wheel firmly. Remove the nut and flange.

## Note: Turn the spindle nut on the right-hand side counter-clockwise to loosen. Turn the spindle nut on the left-hand side clockwise to loosen.

- 4. Remove the old wheel and replace it with the new one.
- 5. Assemble the flange and nut onto the spindle. Tighten the spindle nut just enough to hold the wheel firmly. If the nut is tightened too much, the wheel may be damaged.
- 6. Attach the wheel guard cover.
- 7. Turn the grinder on and let it come up to speed and idle for one minute.

#### **TECHNICAL DATA**

- 1. All ball bearing construction for long-lasting reliability.
- 2. Adjustable, shatterproof eyeshields, spark breakers and tool rest.
- 3. Accessories of eyeshields, spark breakers, and tool rests are included.

### GROUNDING

This tool should be grounded while in use to protect the operator from possible electric shock.

- Cord Connected Tools. This tool should be grounded while in use to protect the operator from possible electric shock. The tool is equipped with an approved three conductor cord and three prong grounding type plug to fit the proper grounding type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.
- 2. Permanently Connected Tools. The tool should be connected to a grounded metal enclosed wiring system or an equipment grounding conductor should be run with the circuit conductors and connected to the equipment grounding terminal or lead on the tool.



NEVER disassemble the tool or try to do any rewiring in the electric system. Any such repair should be performed only by a qualified service organization. Should you be determined to make a repair yourself, remember that the green colored wire is the "ground" wire. Never connect this green wire to a "live" terminal. If you replace the plug on the power cord, be sure to connect the green wire only to the ground (longest) prong on a 3 prong plug.

## 5001A AND 5002A PARTS BREAKDOWN AND PARTS LIST



## **5001A** 6" BENCH GRINDER WITH LAMP

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5	RS500105C	6" Grinding Wheel - Coarse	
	RS500105F	6" Grinding Wheel - Fine	1
7	RS500107B	Inside and Outside Wheel Guard Assembly	2
19	RS500119B	Eyeshield Assembly for Left and Right Side	1
33	RS500133	Base	1
34	RS500134C	Switch	1
22 & 35	RS500135B	Tool Rest Assembly for Left and Right Side	1
38	RS500138A	Lamp Assembly	1
Not Shown	RS500140	Wheel kit (includes 4 flanges and right and left spindle nuts)	1
Not Shown	RS500141	Starting Capacitor	1
Not Shown	RS5001ASB	Spark Breaker 1 (Left and right w/ hardware)	
Not Shown	RS5001APLK	Product Label Kit	1

## **5002A** 8" BENCH GRINDER WITH LAMP

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5	RS500205C	8" Grinding Wheel - Coarse	1
	RS500205F	8" Grinding Wheel - Fine	1
7	RS500207B	Inside and Outside Wheel Guard Assembly	2
19	RS500219B	Eyeshield Assembly for Left and Right Side	1
33	RS500133	Base	1
34	RS500134C	Switch	1
22 & 35	RS500135B	Tool Rest Assembly for Left and Right Side	1
38	RS500138A	Lamp Assembly	1
Not Shown	RS500240	Wheel kit (includes 4 flanges and right and left spindle nuts)	1
Not Shown	RS500241	Starting Capacitor	1
Not Shown	RS5002ASB	Spark Breaker (Left and right w/ hardware)	1
Not Shown	RS5002APLK	Product Label Kit	1

5001A and 5002A: Parts Breakdown and Operating Manual

5 Learn more about power grinders and rotary tools we have.