



Commercial/Industrial Use Warranty

Black & Decker (U.S.) Inc. warrants this product for one year from date of purchase. We will repair without charge, any defects due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station, listed under "Tools Electric" in the yellow pages. This warranty does not apply to accessories or damage caused where repairs have been made or attempted by others.

Important!

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (excluding maintenance printed in this manual) should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always

Like most Black & Decker products your tool is listed by Underwriters Laboratories to insure that it meets stringent safety requirements.



This symbol on the nameplate means the product is listed by Underwriters Laboratories, Inc.

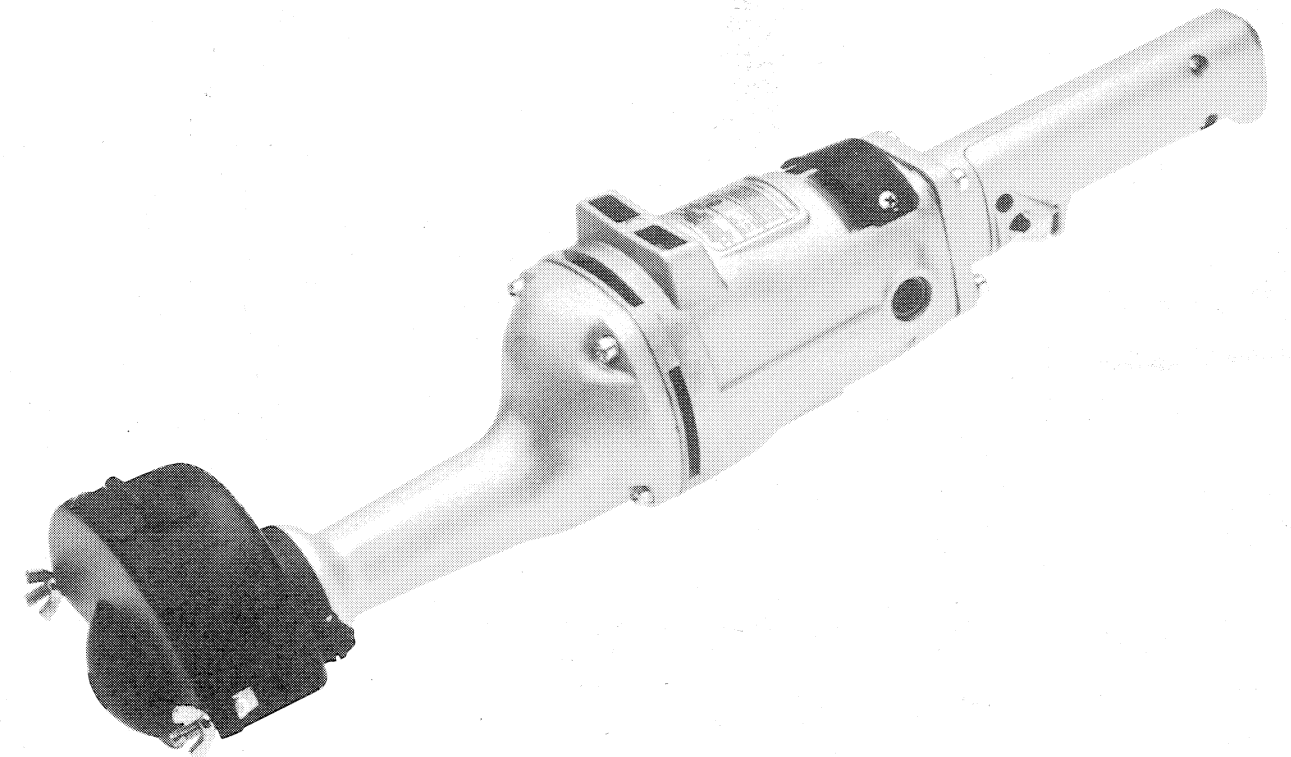


See 'Tools-Electric'
-- Yellow Pages --
for Service & Sales



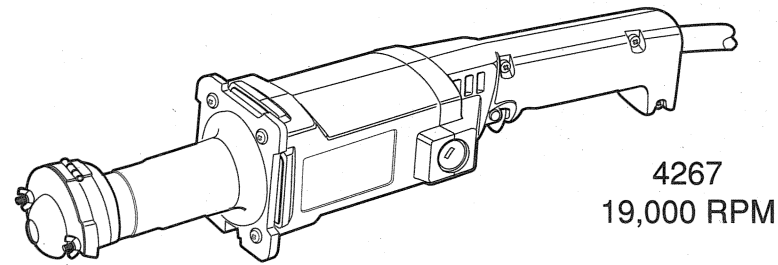
BLACK & DECKER (U.S.) INC., U.S. Power Tools Group, 10 North Park Drive, P.O. 798, Hunt Valley, MD 21030-0798 U.S.A.

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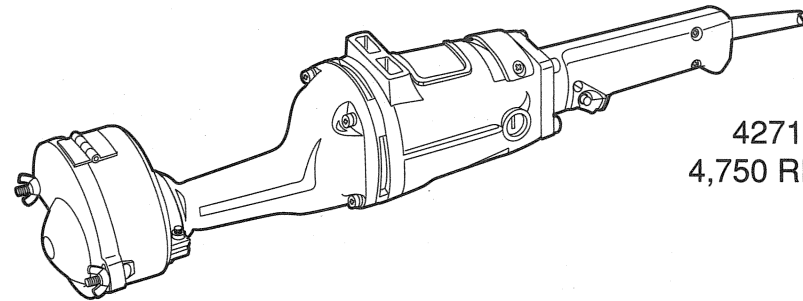


Instruction Manual

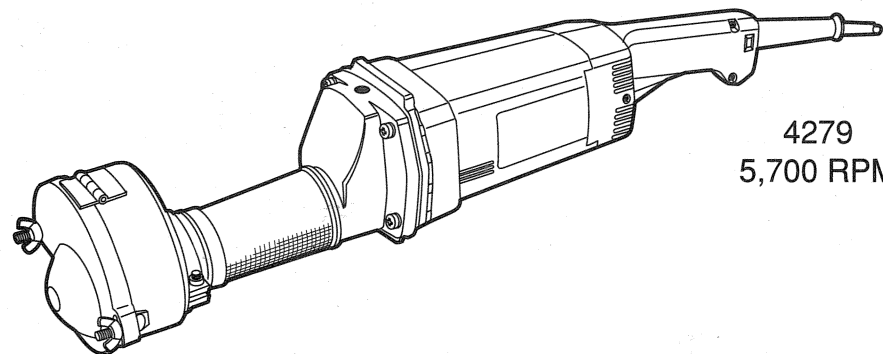
Straight Grinders



4267
19,000 RPM



4271
4,750 RPM



4279
5,700 RPM

Thanks for Buying a Black & Decker Straight Grinder

Your new Straight Grinder is designed and built to those same standards of quality that have made Black&Decker the world leader in power tools for over 75 years.

We want you to enjoy your Straight Grinder and the more you know about it the happier you'll be.

Please take the time to thoroughly read this instruction manual and pay particular attention to the safety rules we've provided for your protection.

Don't forget to send in your owner's registration card.

Thanks, again for selecting Black & Decker.



wheel will result in loss of power as well as creating a potential hazard and premature tool failure.

- Motor Brush Wear . . . (See page 7) Brushes should be replaced as described on page 6. You may elect not to service the tool yourself. If so, take or send it to your nearest Black & Decker Service Center or authorized repair facility for brush replacement.

III. INTERMITTENT OPERATION

Intermittent operation is usually caused by worn out motor brushes. Refer to number 4 above for brush replacement.

Maintenance of Tool Cleaning

Blowing dust and grit out of motor housing using compressed air is a necessary regular maintenance procedure. Dust and grit containing particles from metal filing often accumulate on interior surfaces and could create an electrical shock hazard if not frequently cleaned out.

FOR UNITS EQUIPPED WITH BRUSH COVER PLATES

The Brush Cover Inspection Plates (on some units) may be cleaned in the following manner: (1) Disconnect tool from power supply; (2) Remove Plates from tool and wash Plates in cleaning fluid; (3) Blow out loose particles from Plates with an air hose.

CAUTION: Never use solvents or other harsh chemicals for cleaning the non-metallic parts of the tool. Use clean, dry rag only.

Lubrication

B & D tools are properly lubricated at the factory and are ready for use. Tools should be relubricated regularly every sixty days to six months, depending on usage. (Tools used constantly on production or heavy-duty jobs and tools exposed to heat may require more frequent lubrication.) This lubrication should only be attempted by trained power tool repairpersons such as those at B & D Service Centers or in other qualified service organizations.

Motor Brushes

(For tools with external brush caps)

Be sure tool is unplugged before inspecting brushes. Carbon Brushes should be regularly inspected for wear. To inspect brushes, unscrew the plastic brush inspection caps (located in the sides of the motor housing) and the spring and brush assemblies may be withdrawn from the tool.

Keep brushes clean and sliding freely in their guides. Carbon brushes have varying symbols stamped into them, and if the brush is worn down to the line closest to the spring, they must be replaced. New brush assemblies are available at Service Centers; see TOOLS, ELECTRIC in the Yellow Pages.

Accessories

WARNING—To reduce the risk of injury, always use proper guards when grinding and wear eye protection.

The accessories listed in this manual are available at extra cost from your local dealer or Black & Decker Service Center. A complete listing of service centers is included on the owner's registration card packed with your tool.

If you need assistance in locating any accessory, please contact: Black & Decker (U.S.) Inc., User Services Department, 626 Hanover Pike, P.O. Box 618, MD 21074-0618.

CAUTION: The use of any other accessory or attachment other than those recommended in this manual may be hazardous.

GRINDING WHEELS: (See caution below) *

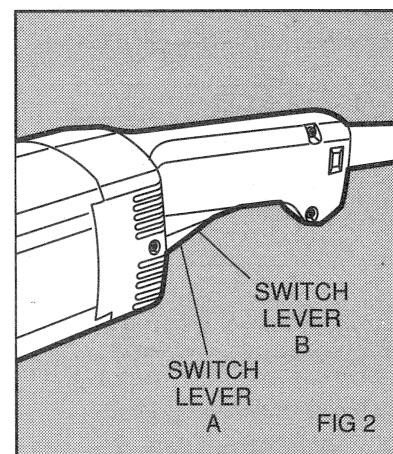
Cat. No. 4267	19,000 RPM	Use 36805 Grinding Wheel	2 1/2" diameter
Cat. No. 4271	4,750 RPM	Use 3042 Grinding Wheel	5" diameter
Cat. No. 4279	5,700 RPM	Use 6" Grinding Wheels rated at or above 6,000 RPM	6" diameter

CAUTION: ALWAYS MAKE SURE THAT THE MAX. SAFE R.P.M. STAMPED ON THE ACCESSORY TO BE USED IS EQUAL TO OR GREATER THAN THE R.P.M. MARKED ON THE TOOL'S NAMEPLATE. THE USE OF ANY ACCESSORY THAT IS NOT SO MARKED MAY CAUSE PERSONAL INJURY.

Trigger Switch (4279 only) (Fig. 2)

The "ON-OFF" switch is operated by depressing switch levers "A" and "B" simultaneously. To operate the grinder in a locked "ON" condition, depress only switch lever "B". To release the trigger lock, depress and release switch lever "A".

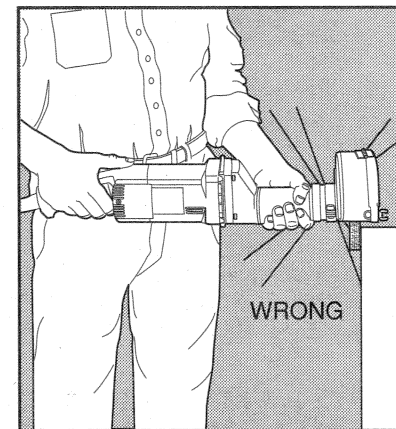
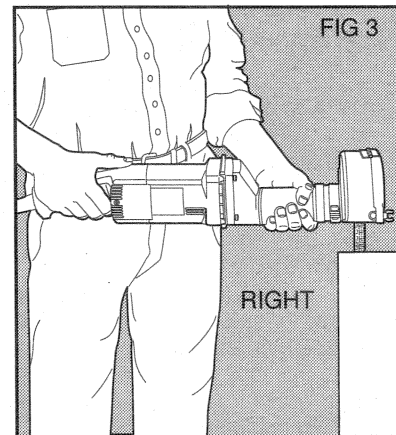
CAUTION: Grasp tool firmly with both hands before starting tool.



Operation (All Grinders) (Fig. 3)

To install Grinding Wheels:

- UNPLUG ELECTRIC CORD AND BE SURE THAT SWITCH REMAINS IN THE "OFF" POSITION.**
- Remove or unlatch and pivot away Wheel Guard.
- Remove Mounting Nut by turning it counter-clockwise (when facing outer side of wheel). The spindle can be held stationary by -
 - Inserting and holding a suitable pin in one of the holes provided in the spindle collar, next to the inward side of the wheel (5" and 6" Straight Grinders).
 - Holding a wrench on the "flats" provided on the exposed portion of the spindle (2-1/2" Straight Grinder).



- When installing the new grinding wheel, always use blotters between the wheel and each surface it contacts (all Grinders). For 5" and 6" Straight Grinders, use the clamp washers, supplied with the tool, on either side of the grinding wheel.
NOTE: The number 4279 Grinder has 2 rubber shock absorbing washers that must be placed on each side of the grinding wheel between the wheel and the clamp washer.
DO NOT OPERATE THE 4279 WITHOUT THESE SHOCK ABSORBERS IN PLACE.
- Only tighten arbor nut sufficiently to drive the wheel without slippage.
- Be sure to replace or close guard.

- When starting the tool (with a new or replacement wheel installed) hold the tool in a well protected area. If the wheel has an undetected crack or flaw, it should burst in less than one minute. Never start the tool with a person in line with the wheel. This includes the operator.

Put the work in a vise or clamp it securely. Use a face mask over the nose and mouth if the operation raises dust. Treat the wheel with respect . . . do not jam the wheel into the work or use unnecessary pressure. Grind only on the face of the wheel, (see Figure 3), unless you have a special wheel specifically made to permit grinding on the side of the wheel.

Trouble Shooting Guide

I. EXCESSIVE VIBRATION

Excessive vibration is usually caused by out of balance or cracked grinding wheels or use of an improper grinding wheel. Replace the grinding wheel with a new one recommended by Black & Decker. Consult the list in this manual.

If wheel replacement does not eliminate the vibration, take or send your grinder to your nearest Black & Decker Service Center or authorized repair facility.

II. LOW POWER OUTPUT

Common causes of low power output are:

- Undersized Extension Cords . . . (See page 5). If the extension cord plug or receptacle becomes hot (warm is normal) with regular use, the extension cord is undersized or defective. Replace or repair the extension cord immediately.
- Low Voltage . . . If your generator or job site voltage supply is below 120 volts, low power will result. (A 120 volt tool operating on 108 volts will lose 20% of its power.)
- Oversized Grinding Wheels . . . All Black & Decker tools are designed to run with their recommended accessories. The use of an oversized grinding

Important Safety Instructions

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

- KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- CONSIDER WORK AREA ENVIRONMENT.** Don't expose power tools to rain. Don't use power tools in damp or wet locations. Keep work area well lit.
- GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
- KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool or extension cord.
- STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place—out of reach of children.
- DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended, for example, don't use circular saw for cutting tree limbs or logs.
- DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
- USE SAFETY GLASSES.** Also use face or dustmask if cutting operation is dusty.
- DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
- SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- DON'T OVERREACH.** Keep proper footing and balance at all times.
- MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean and free from oil and grease.
- DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
- OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- DO NOT OPERATE** portable electric tools near flammable liquids or in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

SAVE THESE INSTRUCTIONS

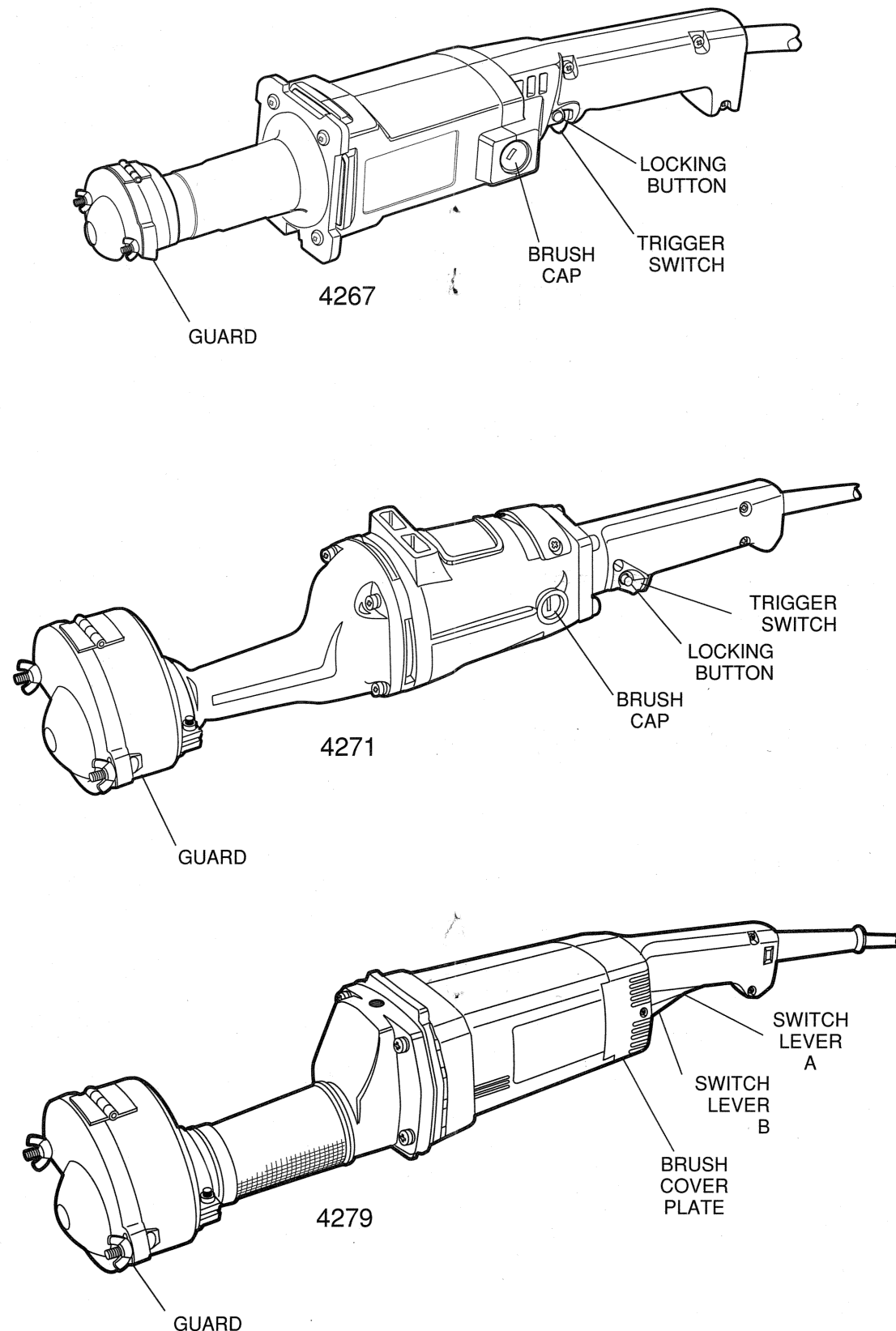
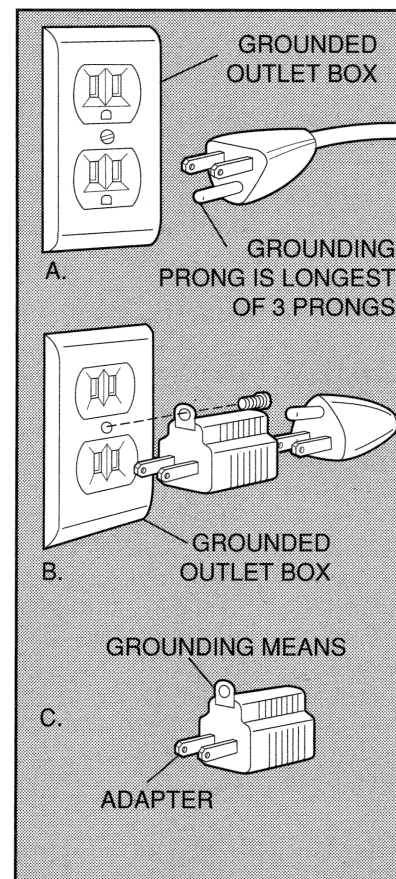
Safety Rules For Grinders

1. Always wear safety goggles or other eye protection when using this tool.
2. When grinding, always keep guard in place.
3. Use only grinding wheels having a maximum operating speed at least as high as "NO LOAD RPM" marked on the tool's nameplate. This precaution also applies to any accessory on any tool.
4. Before using, inspect recommended accessory for cracks or flaws. If such a crack or flaw is evident—discard the wheel! The wheel should also be inspected whenever you think the tool may have been dropped.
5. When starting the tool (with a new or replacement wheel installed) hold the tool in a well protected area and let it run for one minute. If the wheel has an undetected crack or flaw, it should burst in less than one minute. Never start the tool with a person in line with the wheel. This includes the operator.
6. In operation, avoid bouncing the wheel or giving it rough treatment. If this occurs, stop the tool and inspect the wheel.
7. Clean your tool out periodically following the procedure in the maintenance section on page 6.
8. When using a 3 wire grinder on job sites where arc or resistance welding is being performed, the cord set on this tool could be damaged by heavy welding currents using the cord as a parallel return path. To maintain the protection the ground wire provides, the cord should be inspected frequently and replaced as necessary. Avoid unnecessary contact between the metallic exterior of the tool and grounded conductive surfaces.

Grounding

This tool should be grounded while in use to protect the operator from electric shock. This 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. Your unit has a plug like that shown in Figure A. An adapter, Figures B and C, is available for connecting Figure A plugs to two-prong receptacles. The green-colored rigid ear, lug, etc., must be connected to a permanent ground such as properly grounded outlet box. **ADAPTER SHOWN IN FIGURES B & C IS NOT FOR USE IN CANADA.**

CAUTION: When servicing all tools, **USE ONLY IDENTICAL REPLACEMENT PARTS.** Repair or replace damaged cords.



Extension Cords

Tools that have 3-wire cords requiring grounding must only be used with extension cords that have 3-prong grounding type plugs and 3-pole receptacles. Only round jacketed extension cords should be used, and we recommend that they be listed by Underwriters Laboratories (U.L.) (C.S.A. in Canada). If the extension will be used outside, the cord must be suitable for outdoor use. Any cord marked as outdoor can also be used for indoor work. The letters "WA" on the cord jacket indicate that the cord is suitable for outdoor use.

An extension cord must have adequate wire size (AWG or American Wire Gauge) for safety, and to prevent loss of power and overheating. The smaller the gauge number of the wire, the greater the capacity of the cable, that is 16 gauge has more capacity than 18 gauge. When using more than one extension to make up the total length, be sure each individual extension contains at least the minimum wire size.

To determine the minimum wire size required, refer to the chart below.

NAMEPLATE RATING - AMPS	CHART FOR MINIMUM WIRE SIZE (AWG) OF EXTENSION CORDS							
	TOTAL EXTENSION CORD LENGTH - FEET							
	25	50	75	100	125	150	175	200
0 - 10.0	18	18	16	16	14	14	12	12
10.1 - 13.0	16	16	14	14	14	12	12	12
13.1 - 15.0	14	14	12	12	12	12	12	—

Before using an extension cord, inspect it for loose or exposed wires, damaged insulation, and defective fittings. Make any needed repairs or replace the cord if necessary. Black & Decker has extension cords available that are U.L. (C.S.A. in Canada) listed for outdoor use.

SAVE THESE INSTRUCTIONS

Trigger Switch (4267, 4271) (Fig. 1)

The "ON-OFF" switch is operated by depressing and releasing the trigger switch. Depressing trigger turns the tool "ON" - Releasing it turns the tool "OFF". To lock the switch "ON", depress the trigger fully, press and hold in the locking button, and release trigger switch. Release locking button and tool will stay "ON". To then turn tool "OFF", depress and release trigger switch.

CAUTION: Grasp tool firmly with both hands before starting tool.

