

Extension Cords

Double insulated tools have 2-wire cords and can be used with 2-wire or 3-wire 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. Make sure which construction your tool is before choosing an extension cord. 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							
	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.

Caution

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always using BLACK & DECKER replacement parts.

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.

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

This symbol on the nameplate means the product is listed by Underwriter's Laboratories, Inc.



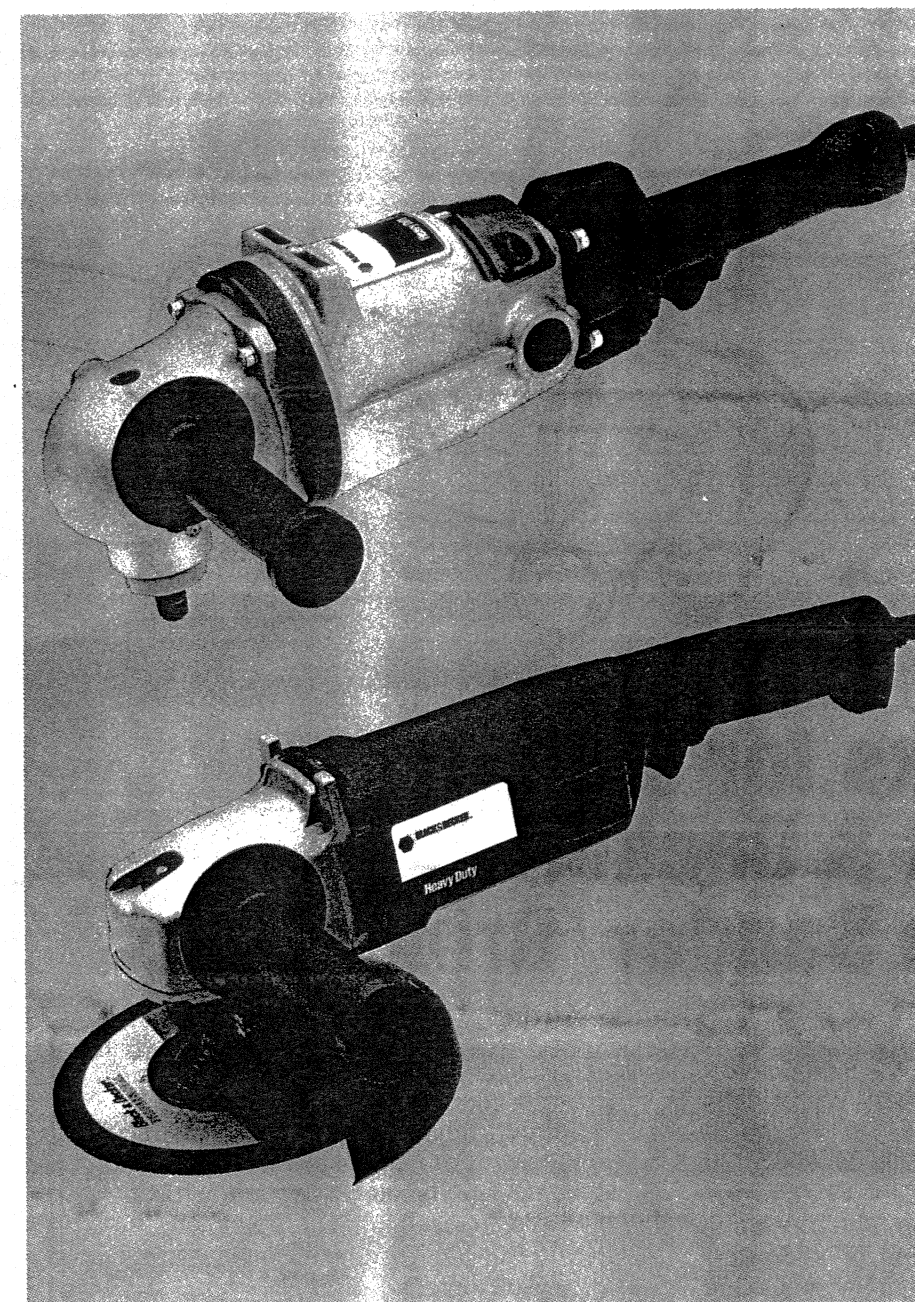
See 'Tools-Electric'
—Yellow Pages—
for Service & Sales



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.

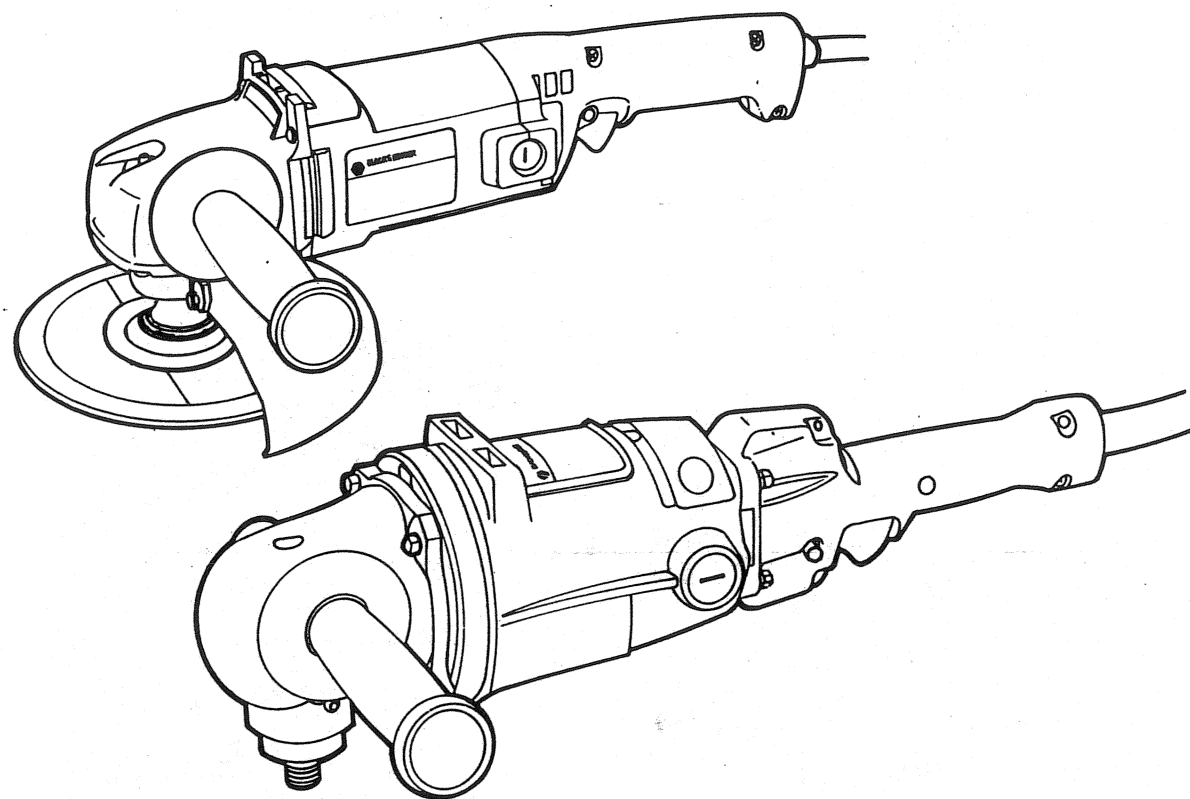
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Instruction Manual

7" & 9" Right Angle Sanders & Grinders



Thanks for Selecting a Black & Decker Angle Sander/Grinder.

Your new angle sander/grinder is designed for you, the industrial user. Built with Black & Decker's commitment to quality, your tool will deliver the kind of rugged dependability for which Black & Decker is famous the world over.

You can sand, wire brush and, with the proper guarding, grind on steel, concrete, aluminum and any other building material you can name.

Please take a few minutes and read this informative instruction manual. The more you know about your sander/grinder the better you'll be able to take advantage of its many uses. 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 BUYING
BLACK & DECKER!



Accessories

See your local Black & Decker dealer for a wide array of accessories.

Accessory Type	Notes	Usages
*DEPRESSED CENTER WHEELS	USE GUARD SUPPLIED WITH TOOL OR GUARDS LISTED IN CHART BELOW.	Use for moderate metal & masonry removal on flat or contoured surfaces.
SANDING DISCS		Use for smoothing welds, and sharp edges, and automotive body work.
WIRE BRUSHES	MAX. 4" KNOTTED WHEEL MAX. 2 3/4" CUP WHEEL	Use for rust removal and surface preparation before painting.

*Depressed Center Grinding Wheels must fit within the confines of the guard and must be rated higher than the recommended speed as marked on the nameplate.

By installing the proper guards you can convert any sander in this manual to an angle grinder with which you can use depressed center grinding wheels and flaring cup wheels.

DO NOT ATTEMPT TO GRIND WITH ANY TOOL UNLESS IT IS FIRST EQUIPPED WITH THE PROPER GUARD. TO OBTAIN THE PROPER GUARD REFER TO THE CHART BELOW.

Tool Catalog No.	Guard Kit No.	Wheels Used With Guard
4049, 4052, 4075, 4076, 6112	40497	All Black & Decker 7 inch Depressed Center Wheels.
4049, 4075, 6112	40496	All Black & Decker 9 inch Depressed Center Wheels.
CAUTION: 9 inch Depressed Center Wheels cannot be used on the 4076 Angle Sander.		
4049, 4052, 4075, 4076, 6112	38517	All Black & Decker 4 inch Flaring Cup Wheels.
4049, 4052, 4075, 4076, 6112	38518	All Black & Decker 5 inch Flaring Cup Wheels.
4049, 4052, 4075, 6112	38519	All Black & Decker 6 inch Flaring Cup Wheels.

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
Hampstead, MD 21074-0618.

Grinding With Depressed Center Wheels (Fig. 5)

Depressed center wheels may be used for moderate metal removal on flat or contoured surfaces.

CAUTION: Never use Depressed Center Wheels without the proper guard.

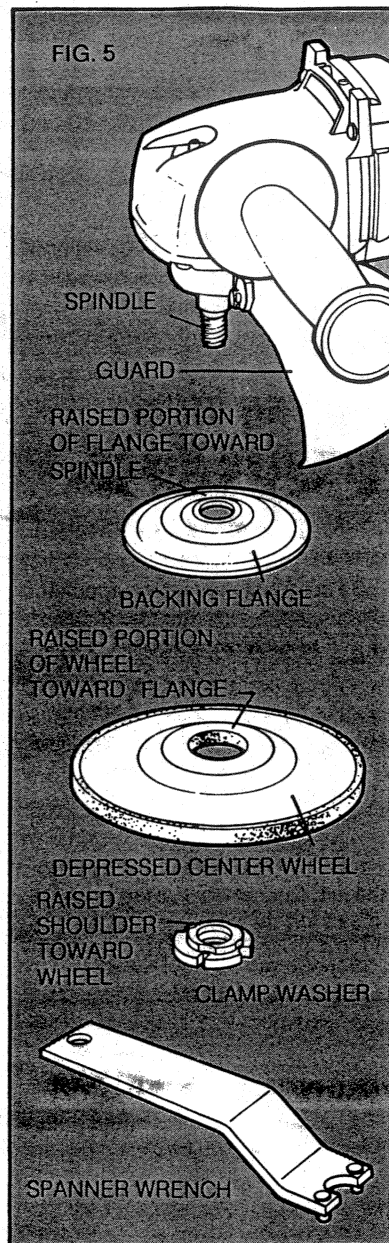
To install Depressed Center Wheels:

1. Be sure tool is disconnected from power supply and switch is in "OFF" position.
2. Be sure the guard assembly is securely attached to the spindle housing.
3. Put the backing flange onto the tool spindle as shown.
4. Check rated speed on depressed center wheel. Never use wheel with rated speed lower than the speed on the nameplate of the tool.
5. Place the Depressed Center Wheel on the tool spindle as shown.
6. Thread the Clamp Washer on tool spindle as shown. Hold the tool spindle by engaging the Spindle Lock Pin, and tighten Clamp Washer with Spanner Wrench.

When using a Depressed Center Wheel, hold the tool so that an angle of approximately 30° exists between the wheel and the work.

Wire Cup and Knotted Wire Wheel Brushes

1. Disconnect tool from power source. Rest Grinder on its back with spindle facing up.
2. Ensure that the rated speed of the wire brush is equal to or higher than the rated speed of the grinder found on the nameplate.
3. Thread brush onto spindle and tighten.
4. Common applications for knotted wire cup brush include cleaning welds, angles, corners and paint removal.
5. Usage of the knotted wire wheel brush is the same as the wire cup brush. They can also be used to finish irregular surfaces and corners.



Maintenance of Tool

Cleaning

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

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 for 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

Your tool is equipped with the Black & Decker brush checkpoint system. When the brushes become worn out, the tool will automatically stop and prevent damage to the motor. Brush replacement should be performed by Black & Decker service centers or other qualified service organizations.

Important Safety Instructions (For All Tools)

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

READ ALL INSTRUCTIONS

1. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
2. **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.
3. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
4. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool or extension cord.
5. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place—out of reach of children.
6. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
7. **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.
8. **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.
9. **USE SAFETY GLASSES.** Also use face or dustmask if cutting operation is dusty.
10. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
11. **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.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **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.
14. **DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
15. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked. More detailed information can be found on page 8.
18. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
19. **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.
20. **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 FOR FUTURE USE.

Safety Rules For Sanders and 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 accessory! The accessory 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. Always use guards with depressed-center or flaring cup grinding wheels.
8. Clean your tool out periodically following the procedure in the maintenance section.

SAVE THESE INSTRUCTIONS

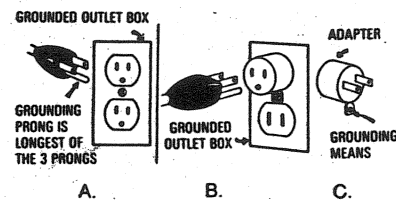
Grounding

Cat. No. 4049/4052/
4075/4076

FOR TOOLS EQUIPPED WITH 3-WIRE CORD & REQUIRE GROUNDING. PLEASE READ THE FOLLOWING:

This tool should be grounded while in use to protect the operator from 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. Your unit is for use on less than 150 volts and 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 a properly grounded outlet box. **ADAPTER SHOWN IN FIGURES B & C IS NOT FOR USE IN CANADA.**



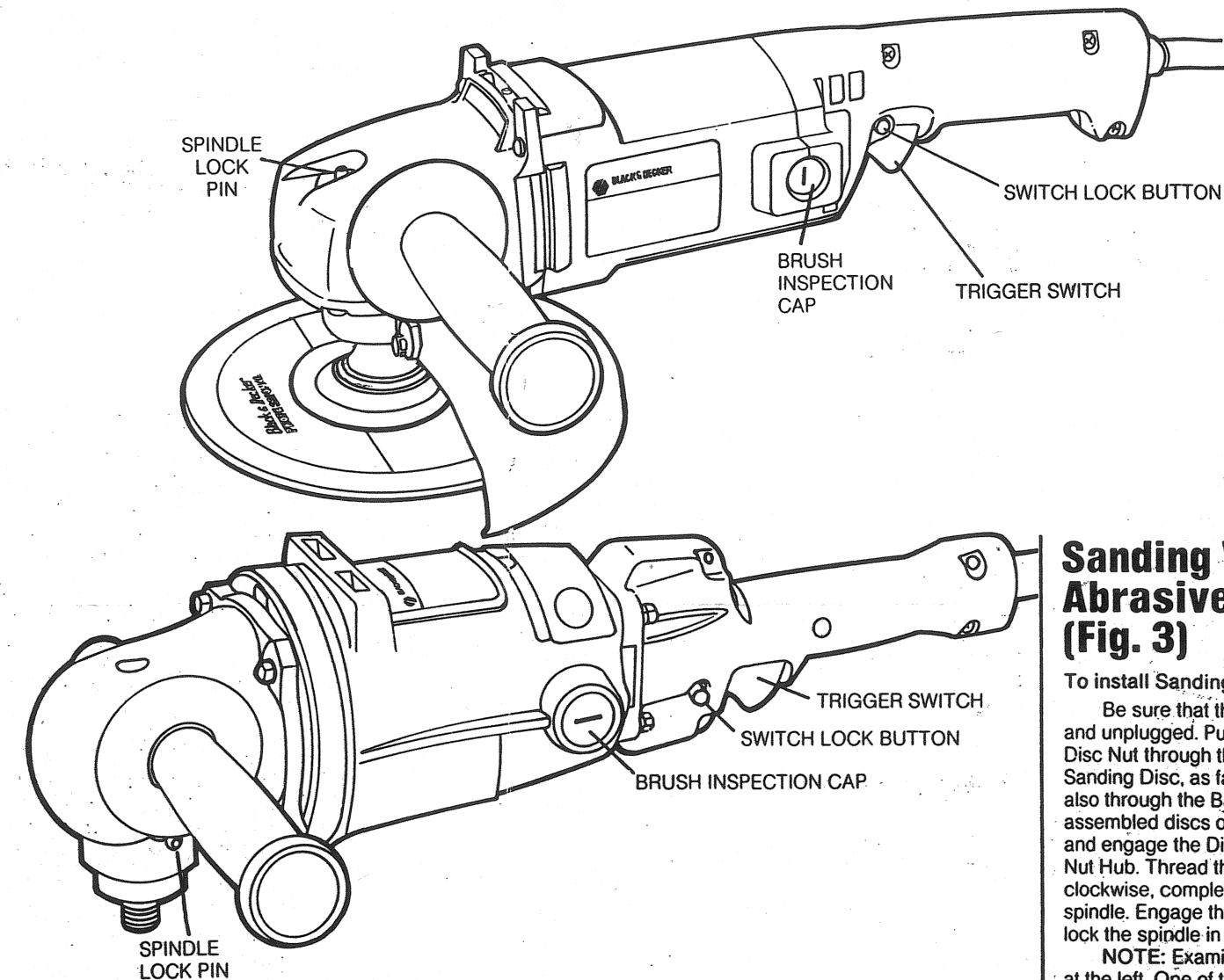
Double Insulation (Cat. No. 6112 & 4255)

DOUBLE-INSULATED tools are constructed throughout with TWO separate "layers" of electrical insulation or one DOUBLE thickness of insulation between you and the tool's electrical system.

Tools built with this insulation system are not intended to be grounded. As a result, your tool is equipped with a two-prong plug which permits you to use extension cords without concern for maintaining a ground connection. See page 8 for additional extension cord information.

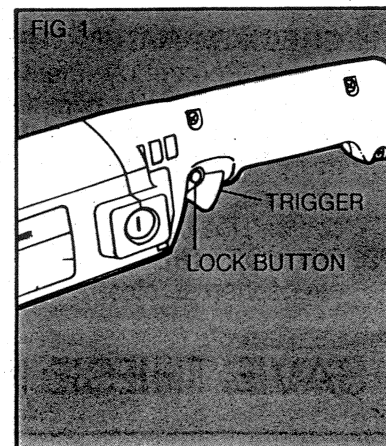
NOTE: DOUBLE INSULATION does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

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



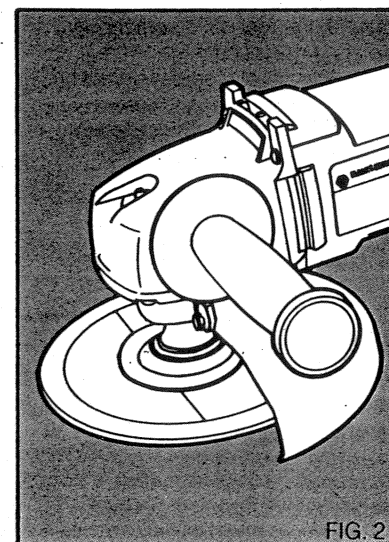
Switch Operation (Fig. 1)

To start the tool, depress the trigger by squeezing. To turn the tool off, release the trigger. The switch can be locked on by engaging the lock button located near the trigger while holding the trigger depressed. Always be sure that the tool is not locked on before plugging it in. To turn the tool off when it is locked on, squeeze and release the trigger once.



Auxiliary Handle (Fig. 2)

An auxiliary handle is furnished with your tool and can be screwed into either side of the front housing. This handle **SHOULD BE USED AT ALL TIMES** to maintain complete control of the tool.

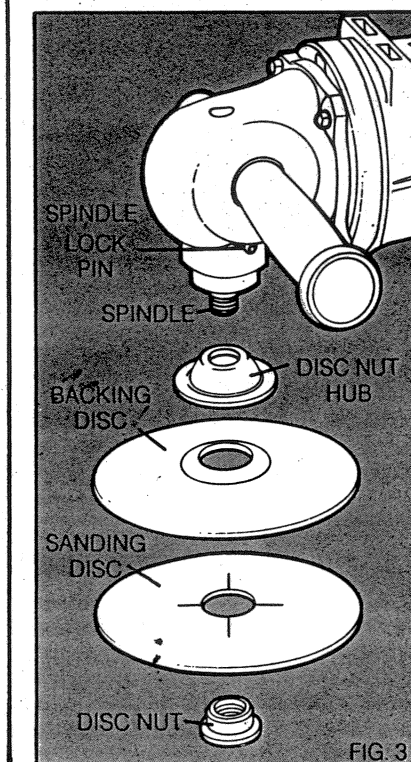


Sanding With Abrasive Discs (Fig. 3)

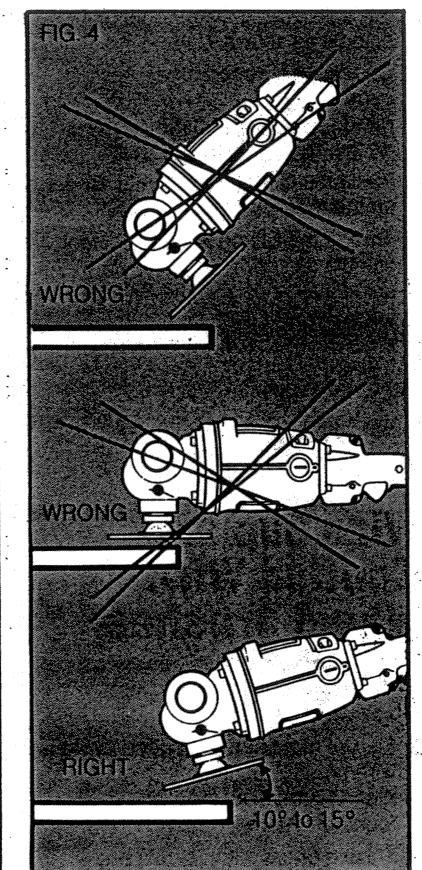
To install Sanding Discs:

Be sure that the tool is turned off and unplugged. Push the hub of the Sanding Disc, as far as it will go, and also through the Backing Disc. Put the assembled discs on the tool spindle and engage the Disc Nut into the Disc Nut Hub. Thread the assembly clockwise, completely down on the spindle. Engage the spindle lock pin to lock the spindle in place.

NOTE: Examine the two figures at the left. One of them will represent your sander/grinder. Examine the one that most closely resembles your tool and find the SPINDLE LOCK PIN.



When using an abrasive disc, hold the tool so that an angle of 10° to 15° exists between the disc and the work, as shown in Figure 4. If only the outer edge of the sanding disc is used, a rough cut surface will result. If the sanding disc is pressed flat against the work the sanding action will be irregular and bumpy, and the tool will be difficult to control.



Removing Disc

Turn Off and Unplug Tool.

Using a cloth or glove to protect your hand, turn the disc assembly counter-clockwise to remove it from the tool spindle. Hold the spindle in place by engaging the Spindle Lock Pin.