

# Instruction Manual

## Worm Drive Saws 2700, 2701, 2710, 3077

Pressure generated by the gears in an overfilled saw will force lubricant through the seals causing eventual gear failure and, possibly, motor damage (See special lubricant on this page).

### Accessories

**CAUTION:** Recommended accessories for your saw are listed in this manual. The use of any other accessory or attachment might be hazardous.

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.  
Consumer Services Department  
626 Hanover Pike P.O. Box 618  
Hamstead MD 21074-0618

Every Black & Decker tool is of the highest quality. If you wish to contact us regarding this product, please call toll free between 8:00 a.m. and 8:00 p.m. seven days a week.

1-800-762-6672

### Kit Box For All B&D Worm Drive Saws Catalog No 62864

Protect your Worm Drive Saw with this convenient accessory. It is made from sheet steel with a piano hinge and is painted a brilliant orange so you won't lose it on the job. Has two strong latches and a hasp for padlock. Handle is comfortable, plastic-covered formed steel. There is also room for extra blades, lubricant, extension cords, rip fence, etc. Fits 6 1/2", 7 1/4" and 8 1/4" Saws.

### Lubricant For B&D Worm Drive Saws Catalog No. 60086 - 6 oz. tube

This special lubricant has been developed to add longer life to Worm Drive Saw gears. See lubrication instructions.

### Rip Fence For Worm Drive Saws Catalog No. 60551

This Rip Fence can be used on either side of the Saw for fast, smooth rip sawing.

### Clamp Washers for B&D Worm Drive Saws

- A. No. 63243† INNER CLAMP WASHER is used on all Worm Drive Saws when using metal or abrasive blades with round arbor holes.
- B. No. 143783-00\* DIAMOND INNER CLAMP WASHER is used on all Worm Drive Saws when using metal or abrasive blades with

- diamond shaped arbor holes.
- C. No. 70457-00\* OUTER CLAMP WASHER is used on all Worm Drive Saws on the outer side of all metal or abrasive blades.

\*These two clamp washers are standard equipment with all Worm Drive Saws.

†See your local B&D Service Center to obtain this part.

**WATER FEED ATTACHMENTS ARE NOT RECOMMENDED FOR BLACK & DECKER WORM DRIVE SAWS.**

### 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 14 gauge has more capacity than 16 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:

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 UL listed (C.S.A. in Canada) for outdoor use.

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	—

### Important

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

### 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.



2700/2701/2710/3077



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

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



Form No. 741304-03

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BLACK & DECKER (U.S.) INC., U.S. Power Tools Group, 701 E. Joppa Road, Towson, MD 21286 U.S.A.

# Thanks for buying a Black & Decker Worm Drive Saw.

Your new Worm Drive Saw 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.

Cross-cutting, ripping and pocket cutting are made fast and easy.

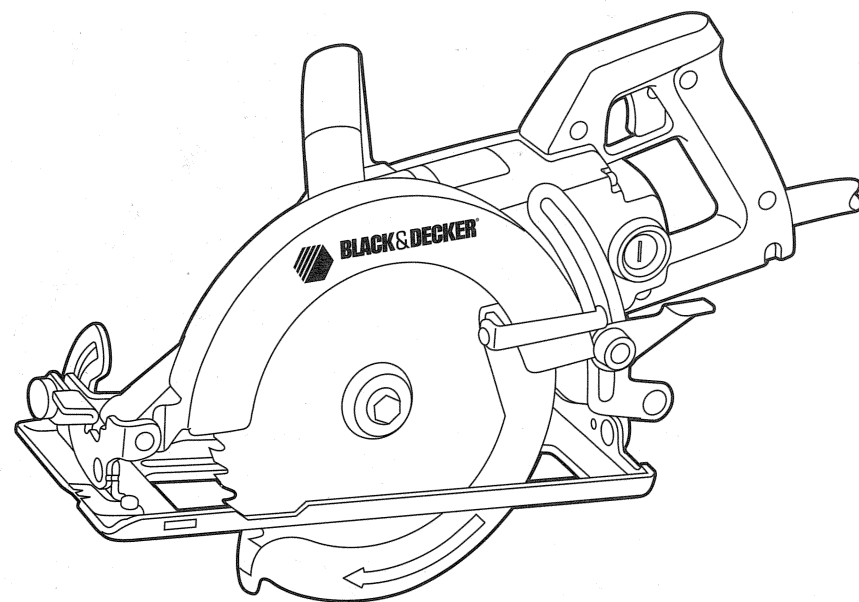
We know you will enjoy your saw and the more you know about it the

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.

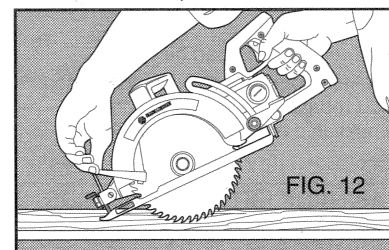
Thanks again for buying Black & Decker.



the base and under the clamp screw bracket. Set for desired width of cut by first measuring width on material to be cut then adjusting the RIP Fence to that width. Before proceeding with cut, be sure to tighten the CLAMP SCREW.

## Pocket Cutting

A pocket cut is one that is made in a floor, wall or other flat surface. Adjust the depth of cut so the blade just goes through the material. Make sure that there are no nails or other metal objects in the path of the cut. Push the guard lever forward so the lower edge of the blade is exposed (see Figure 12). Tilt the machine forward until the front edge of the base is resting on the surface and the blade is directly above the line of cut as shown in Figure 12. Start the motor and when it has reached full speed, lower the blade into the surface until the base is resting flat. Now advance the blade to the far corner. Cut each side of the opening in the same manner. Since your saw blade is circular, the cut will extend



slightly beyond the corner on the top of the work when completing the cutout. If this is undesirable, stop the cut when the blade reaches the corner on the top surface of the work and finish the corner cuts with a hand saw.

## Blades

A dull blade will cause slow, inefficient cutting and an overload on the saw motor. It is a good practice to keep extra blades on hand so that sharp blades are available while the dull ones are being sharpened (See "SAWS - SHARPENING" in Yellow Pages). In fact, many lower priced blades can be replaced with new ones at very little cost over the sharpening price.

Hardened gum on the blade will slow down the cutting. This gum can

best be removed with kerosene or turpentine.

The following types of blades can be used with your saw.

**CAUTION:** Use only 7 1/4" blades with the 7 1/4" Saw. Use only 8 1/4" blades with the 8 1/4" Saw.

**COMBINATION BLADE** - This is the latest type, fast-cutting blade for general service ripping and crosscutting. Each blade carries the correct number of teeth to cut chips rather than scrape sawdust.

**CHISEL-TOOTH COMBINATION** - Chisel tooth blade edge is specially designed for general-purpose ripping and crosscutting. Fast, smooth cuts. Use for maximum speed in most cutting applications.

**FRAMING/RIP COMBINATION** - A 40-tooth blade for fascia, roofing, siding, sub-flooring, framing, formcutting, Rips, crosscuts, miters, etc. Gives fast, smooth finishes when cutting with the grain of both soft and hard woods. Popular with users of worm-drive saws.

**CROSSCUT BLADE** - Designed specifically for fast, smooth crosscutting. Makes a smoother cut than the Combination Blade listed above.

**RIP BLADE** - Fast for rip cuts. Minimum binding and better chip clearance given by large teeth.

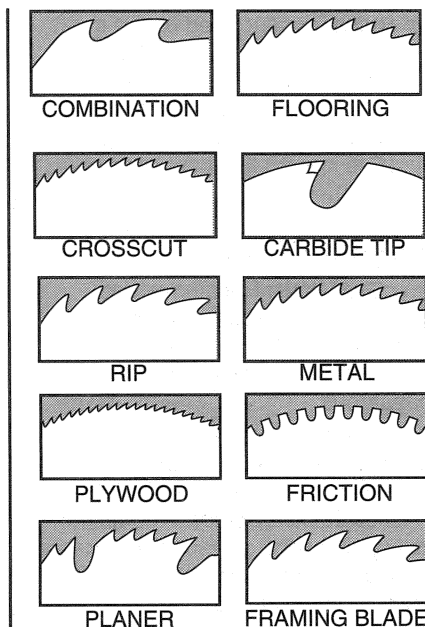
**PLYWOOD BLADE** - A hollow ground, hard chromed surface blade especially designed for exceptionally smooth cuts in plywood.

**PLANER BLADE** - This blade makes VERY SMOOTH cuts—both rip and crosscut. Ideal for interior woodwork. Hollow ground to produce the finest possible saw-cut finish.

**FLOORING BLADE** - This is the correct blade to use on jobs when occasional nails may be encountered especially useful in cutting through flooring, sawing reclaimed lumber and in opening boxes.

**METAL-CUTTING BLADE** - Has teeth shaped and set for cutting aluminum, copper, lead and other soft metals.

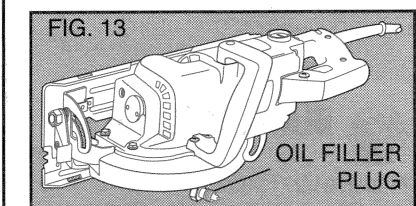
**FRICITION BLADE** - Ideal for cutting corrugated, galvanized sheets, sheet metal up to 16-gauge. Cuts faster, with less dirt, than abrasive



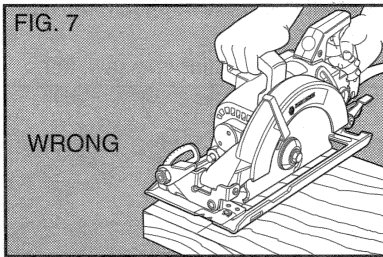
disc. Blade is taper-ground for clearance.

## Lubrication

1. Always check oil level before using the saw. To check the oil level, lay the saw down on the blade side, as shown in Figure 13 and remove the Oil Filler Plug. Lay the Oil Filler Plug on its side under the top edge of the blade guard as shown in the figure. This procedure ensures that the saw is level so that the oil can be checked accurately. If the saw is adequately lubricated, oil will be visible at lower edge of the Oil Filler Hole within 25 seconds. If oil does not appear in this time, the saw requires lubrication.
2. To lubricate the saw, stand it on its handle end. Add lubricant to the Oil Filler Hole, checking frequently as described above to determine when the proper level is reached. If you accidentally overfill the saw, lay it on its side and permit the excess to leak out until the proper level is obtained. **DO NOT OVERFILL SAW!**







of the work piece which is solidly supported, not on the section that will fall off when the cut is made. As examples, Figure 6 illustrates the **RIGHT** way to cut off the end of a board, and Figure 7 the **WRONG** way. If the work is short or small, clamp it down. Don't try to hold short pieces by hand!

Draw the required guide lines. Then rest the front of the saw shoe on the work with the guide edge lined up with the drawn guide line. Before starting the motor, push the blade lightly against the edge of the work and then back it off about 1/4". Now start the motor, and when the blade gains full speed, push the saw forward to start the cut. As you begin cutting the lower blade guard will automatically begin to telescope into the upper blade guard. This telescoping action will continue as you advance the saw until it reaches the position shown in Figure 6.

Push the saw forward at a speed which allows the blade to cut without laboring. Hardness and toughness can vary even in the same piece of material, and a knotty or damp section can put a heavy load on the saw. When this happens push the saw more slowly, but hard enough to keep it working without much decrease in speed. Forcing it beyond this makes for rough cuts, inaccuracy and overheating of the motor.

Should your cut begin to go off the line, don't try to force it back on. Release the switch and allow blade to come to a complete stop. Then you can withdraw the saw, sight anew, and start a new cut a trifle inside the wrong one. In any event, withdraw the saw if you must shift the cut. Forcing a correction inside the cut can stall the saw and perhaps spoil the work. **IF SAW STALLS, RELEASE THE TRIGGER AND BACK THE SAW UNTIL IT IS LOOSE. BE SURE BLADE IS**

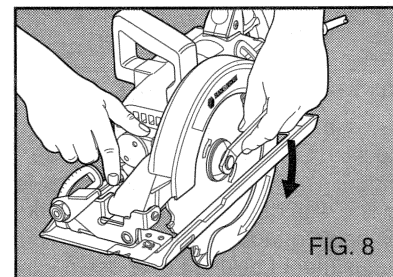
### STRAIGHT IN THE CUT BEFORE RESTARTING.

As you finish a cut, release the trigger and allow the blade to stop before lifting the saw from the work. As you lift the saw, the spring-tensioned telescoping guard will automatically close under the saw. Remember the blade is exposed until this occurs, **never reach under the work for any reason whatsoever.** When you have to retract the telescoping guard manually (as is necessary for starting pocket cuts) always use the retracting lever.

### Changing Blades

**CAUTION:** Always disconnect saw from power supply before changing blades.

1. Depress LOCK PIN, which runs through the center of the Oil Filter Plug, and turn blade until the LOCK PIN locks firmly into the saw shaft.
2. With Blade Wrench, loosen and remove the blade bolt by turning it in a clockwise direction when facing blade (left hand thread). Retract lower blade guard and remove blade.
3. When mounting new blade, the teeth must point in the direction of blade rotation. Replace and tighten the blade bolt as much as possible with the finger, then tighten firmly with the blade wrench. Your NEW Black & Decker Saw is equipped to accept blades with either round or diamond arbor holes.

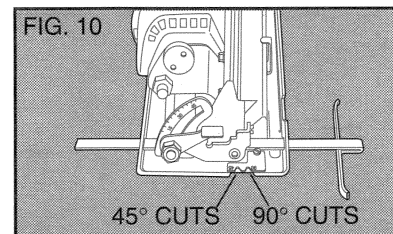
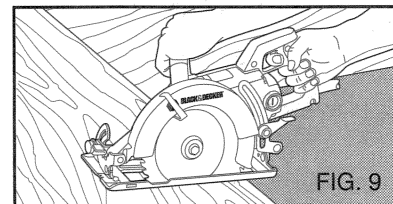


### Cross Cutting

To adapt the saw for use with blades having round arbor holes, simply remove the diamond inner clamp washer and replace with round arbor clamp washer #63243 available at extra cost from your dealer.

Saws are used mostly to cut board to desired lengths. . .cross-grain cutting (Figure 9). Rigidly

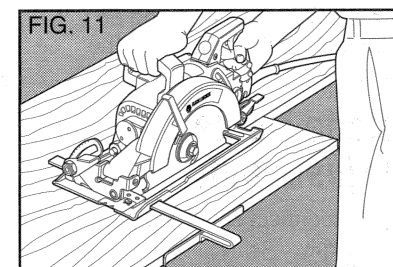
support the board or other material on saw horses or a bench with the part to be cut off overhanging to your left. Before starting the motor, move the saw forward until the blade touches the work. Check the actual point of cut for accuracy. Back the saw just a bit and start the motor by depressing the switch trigger with the forefinger of your right hand. Let the motor get up to full speed. Now, advance the saw blade slowly and steadily into the work. Guide the machine by gripping the top handle with the left hand and sighting along the line thru the blade guide as



shown in (Figure 10). Move the saw just fast enough to keep the blade cutting. Do not force it and do not twist it sideways. When the blade has completed the cut, release the switch trigger.

### Ripping

Ripping is the process of cutting wide boards into narrower strips—cutting the grain lengthwise. Hand guiding is a little more difficult for this type of sawing and some type of guide should be used. A RIP FENCE (Figure 11), may be purchased separately for this purpose. Insert the RIP FENCE in the slot at the front (either side) of



## Important Safety Instructions (FOR ALL TOOLS)

**WARNING:** When using Electric Tools, basic safety precautions should always be followed to reduce 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.
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 defective 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.**

## Circular Saw Safety Instructions

1. Disconnect plug from power supply before changing blades, making cutting depth or cutting angle adjustments, inspecting, cleaning or when saw is not used.
2. Keep guards in place and in working order. Never wedge or tie lower guard open. Check operation of lower guard before each use. Do not use if lower guard does not close briskly over saw blade. **CAUTION:** If saw is dropped, lower guard may be bent restricting full return.
3. **KEEP BLADES CLEAN AND SHARP.** Sharp blades minimize stalling and kick back.
4. **DANGER: KEEP HANDS AWAY FROM CUTTING AREA.** Keep hands away from blades. Do not reach underneath work while blade is rotating. Do not attempt to remove cut material when blade is moving. **CAUTION:** Blades coast after turn off.
5. **SUPPORT LARGE PANELS.** Large panels must be supported as shown in **FIGURE 4** to minimize the risk of blade pinching and kick back. When cutting operation requires the resting of the saw on the workpiece, the saw shall be rested on the larger portion and the smaller piece cut off.
6. **USE RIP FENCE.** Always use a fence or straight edge guide when ripping.
7. **GUARD AGAINST KICK BACK.** Kick back occurs when the saw stalls rapidly and is driven back towards the operator. Release switch immediately if blade binds or saw stalls. Keep blades sharp. Support large panels as shown in **FIGURE 4**. Use fence or straight edge guide when ripping. Don't force tool. Stay alert, exercise control. Don't move saw from work during a cut while the blade is moving.
8. **LOWER GUARD.** Raise lower guard with the retracting handle.
9. **ADJUSTMENTS.** Before cutting be sure depth and bevel adjustments are tight.

10. **USE ONLY CORRECT BLADES IN MOUNTING.** Do not use blades with incorrect size holes. Never use defective or incorrect blade washers or bolts.
11. **AVOID CUTTING NAILS.** Inspect for and remove all nails from lumber before cutting.

12. Some wood contains preservatives such as copper chromium arsenate (CCA) which can be toxic. When cutting these materials extra care should be taken to avoid inhalation and to minimize skin contact. **CAUTION:** When sawing into walls, floors or wherever "live" electrical wires may be encountered, **DO NOT TOUCH ANY METAL PARTS OF THE TOOL!** Hold the Saw only by its plastic handle to prevent electric shock if you saw into a "live" wire.

### SAVE THESE INSTRUCTIONS

## Motor

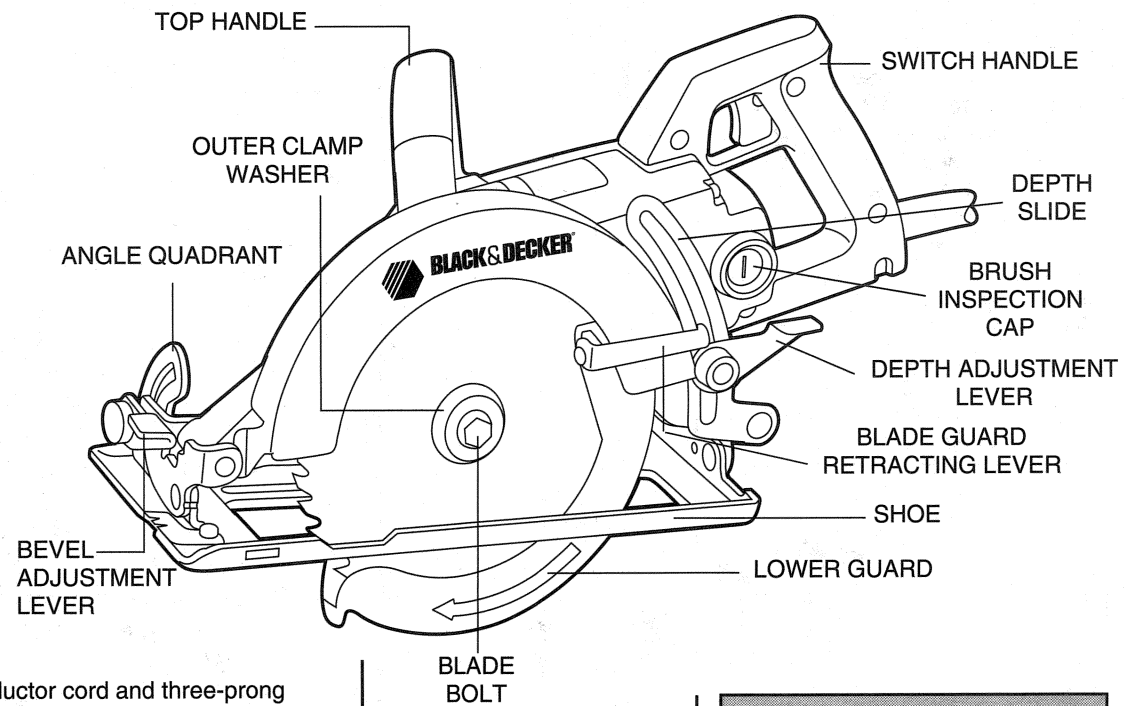
Your Black and Decker tool is powered by a Black & Decker-built motor. Be sure your power supply agrees with nameplate marking. **Volts 50/60 Hz means Alternating Current ONLY. Volts DC-60 Hz** mean it will also operate on **Direct Current.** Voltage decrease of more than 10% will cause loss of power and over-heating. All Black & Decker tools are factory-tested; if this tool does not operate, check the power supply.

## Brushes

Inspect carbon brushes regularly by unplugging tool, removing the Brush Inspection Caps and withdrawing the brush assemblies. 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 Black & Decker Service Centers.

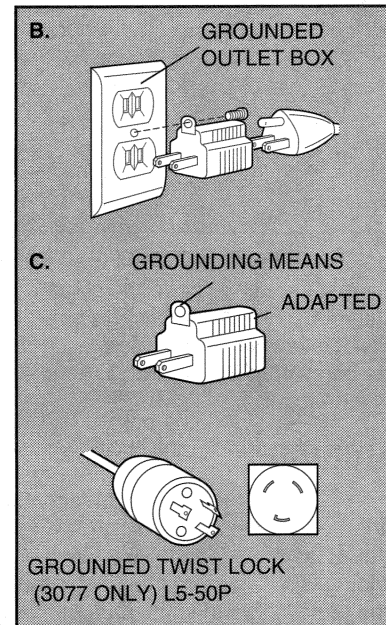
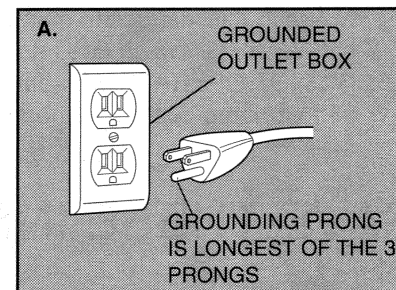
## Grounding

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, it 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.

We recommend that you **NEVER** disassemble the tool or try to do any rewiring in the electrical system. Any repairs should be performed only by Black & Decker Service Centers or other qualified service organizations. Should you be determined to make a repair yourself, remember that the green-



colored wire is the "grounding" 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 grounding (longest) prong on a 3-prong plug. Never remove the grounding prong.

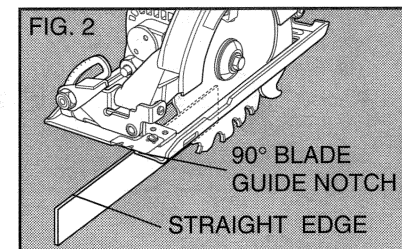
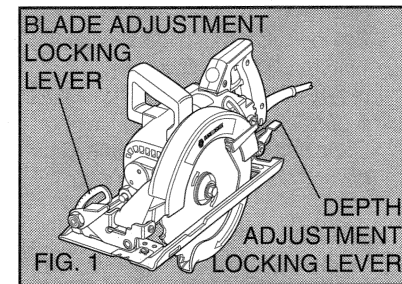
## Blade Guide Adjustments

1. Disconnect saw from power supply.

2. With the saw bevel adjustment set on 90° retract the blade guard and place a straight edge against the inside of the saw blade. Hold the saw handles in your normal operating position and align the 90° blade guide notch with the straight edge, then tighten screw. Figure 2.
3. Take a scrap piece of wood and make a cut to see if the saw cuts where you want before doing any finish work.

### TO ADJUST FOR DEPTH:

Lift up Depth Adjustment Locking lever at rear of saw shoe (See Figure 1). Raise or lower shoe until blade extends desired distance below shoe. Press Depth Adjustment Locking Lever down firmly, locking shoe in selected position.



### TO ADJUST FOR BEVELS:

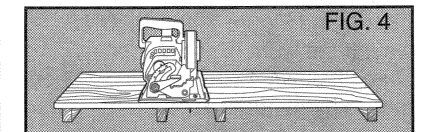
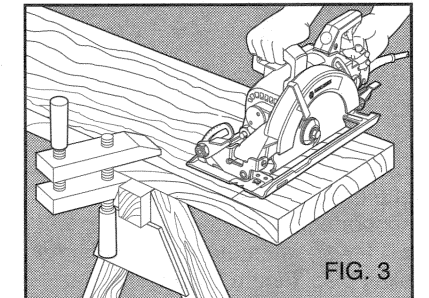
Lift up bevel Adjustment Locking Lever at front of shoe (See Figure 1). Swing shoe until pointer is in line with desired graduation mark on angle quadrant. Press Bevel Adjustment Locking Lever down firmly to lock base in selected position.

## Operation

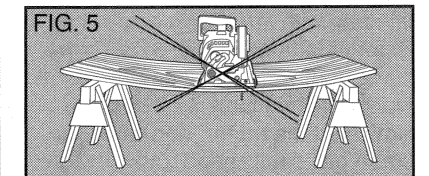
Figure 3 shows proper sawing position. Note that hands are kept away from cutting area, safety glasses are worn, power cord is kept clear of cutting area and positioned so that it will not be caught on the work piece while cutting and that clothing is not loose to the point

where it might get caught in moving parts.

When operating the saw, keep



TO AVOID KICKBACK, DO SUPPORT BOARD OR PANEL NEAR THE CUT.



**DON'T** SUPPORT BOARD OR PANEL AWAY FROM THE CUT.

and prevent it from becoming hung up on the work piece.

**WARNING: It is important to support the work properly and to hold the saw firmly to prevent loss of control which could cause personal injury. Figure 3 illustrates typical hand support of the saw.**

## Operation

**ALWAYS DISCONNECT SAW BEFORE MAKING ANY ADJUSTMENTS!** Place the work with its "good" side—the one on which appearance is most important—down. The saw cuts upward, so any splintering will be on the work face that is up where you saw it.

Support the work so that the cut will be on your left. Place the wider portion of the saw shoe on that part

