

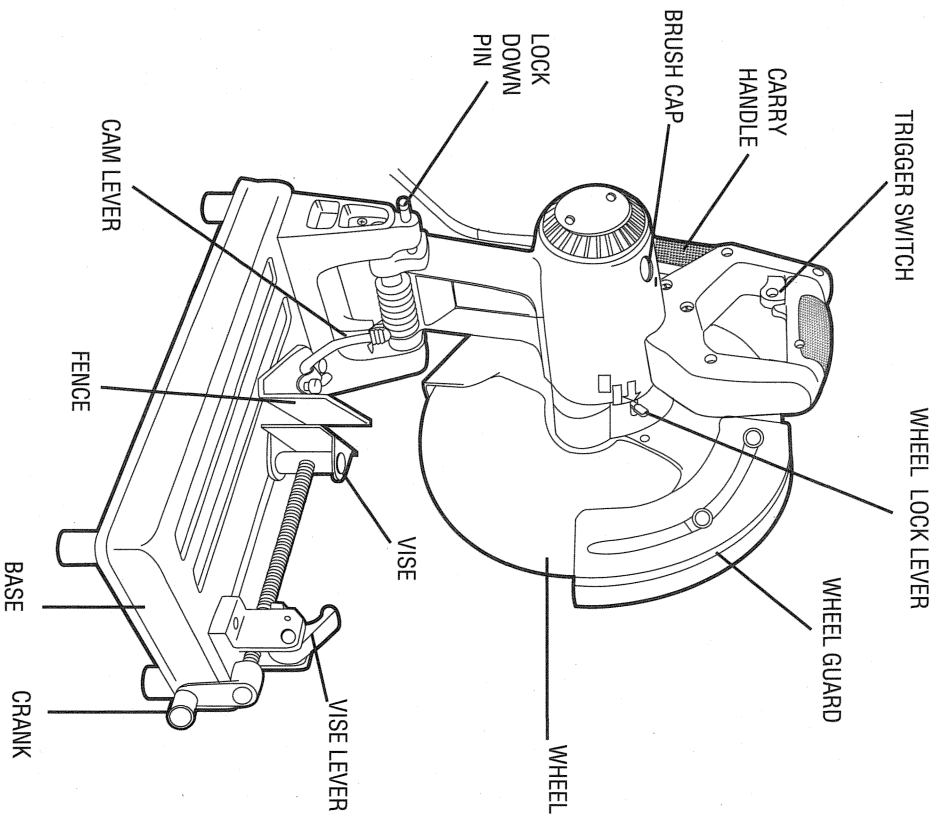
Instruction Manual

2731 Heavy Duty Chop Saw

Getting the most out of your tool.

Please take time to read this 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. If you have any questions about your tool please call:

1-800-9-BD TOOL
(1-800-923-8665)



FOR YOUR SAFETY - ALL TOOLS

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

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
4. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
5. **KEEP CHILDREN AWAY.** All visitors should be kept at a safe distance from work area.
6. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
7. **DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
9. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. **ALWAYS WEAR SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty. Everyday eyeglasses have only impact resistant lenses. They are NOT safety glasses.
11. **SECURE WORK.** Use clamps or vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERRREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. **DISCONNECT TOOLS** before servicing; when changing accessories such as blades, bits, cutters, etc.
15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in OFF position before plugging in.
16. **USE RECOMMENDED ACCESSORIES.** Consult the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. **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.
19. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
20. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
21. **DO NOT OPERATE ELECTRIC TOOLS NEAR FLAMMABLE LIQUIDS OR IN GASEOUS OR EXPLOSIVE ATMOSPHERES.** Motors in these tools may spark and ignite fumes.

SAFETY INSTRUCTIONS FOR CHOP SAWS

1. Always wear safety goggles or other eye protection when using this tool.
2. Before using, inspect each cutting wheel for cracks or flaws. If a crack or flaw is evident—discard the wheel! The wheel should also be inspected whenever you think the tool may have been dropped.
3. When starting the tool (with a new or replacement wheel installed) place 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.
4. In operation, avoid bouncing the wheel or giving it rough treatment. If this occurs, stop the tool and inspect the wheel.
5. Clean your chop saw periodically following the procedure on page 4.
6. Do not remove wheel guard.
7. Use the vise to clamp work.
8. Use only wheels rated at 4100 rpm or higher.
9. Allow cut off parts to cool before handling.
10. Do not attempt to cut wood or masonry with this tool.
11. **NEVER CUT MAGNESIUM WITH THIS TOOL.**
12. Use chop saw in a well-ventilated area.
13. Turn chop saw off before removing any pieces from the base.
14. **NEVER USE A CIRCULAR SAW BLADE IN THIS CHOP SAW. DO NOT USE TOOTHED BLADES.**

SAVE THESE INSTRUCTIONS FOR FUTURE USE

Grounding

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

This tool is intended for use on a circuit that has an outlet like the one illustrated in sketch A. The tool has a grounding plug that looks like the plug illustrated in sketch A.

A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in sketch B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter 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.

Power Supply

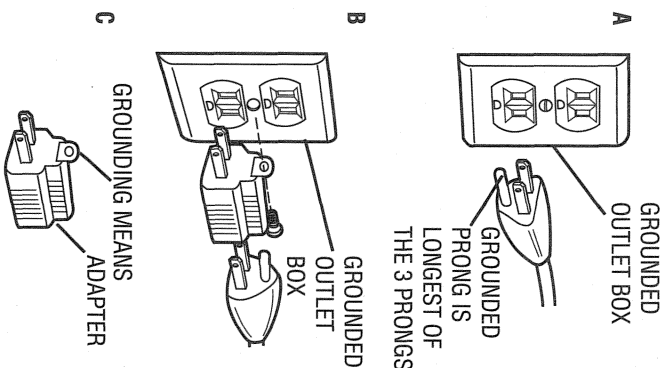
Be sure your power supply agrees with the nameplate marking. 120Volts, "60Hz" means alternating current (normal 120 volt, 60 Hz house current).

A voltage decrease of more than 10% will cause a loss of power and overheating.

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 (UL) (C.S.A. in Canada). If the extension will be used outside, the cord must be suitable for outdoor use. The letters "WA" on the cord jacket indicate that it is suitable for outdoor use. Any cord marked as outdoor can also be used for indoor work.

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 following chart:



TOOL OPERATION

CHART FOR MINIMUM WIRE SIZE (AWG) OF EXTENSION CORDS

NAMEPLATE RATING-AMPS	TOTAL EXTENSION CORD LENGTH-FEET									
	25	50	75	100	125	150	175	200		
0 - 10.0	18	18	16	16	14	14	12	12	12	12
10.1 - 13.0	16	16	14	14	14	12	12	12	12	12
13.1 - 15.0	14	14	12	12	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. B&D has extension cords available that are U.L. (C.S.A. in Canada) listed for outdoor use.

Features and Benefits

- AC/DC permits use with a DC power source such as a welder.
- Switch handle is human engineered for maximum convenience when the saw is used on a bench, or on the floor.
- Lightweight, sure-grip carrying handle, and fold-down design combine to make it easy to carry the machine from job to job.
- Rugged steel base with rubber padded feet provide durability and reduced vibration operation for stable cutting.
- Pivoting fence for convenience and accuracy in making miter cuts. Right position graduations for 0°, 15°, 30° and 45°. Left position graduation for 15°.
- Quick release vise system.
- Quick release/cam lock lever simplifies fence movement.
- Wheel lock simplifies and speeds wheel changing.
- Wheel wrench is conveniently stored in holder at rear of base.
- Tough steel wheel guard protects operator from the wheel. Spark chute in base minimizes escaping sparks and protects surroundings.
- Heavy duty brush system extends brush life.
- High efficiency cooling fan and improved housing design assure high airflow for cooler operation and long life.
- 8' power supply cord with separable cord protector is convenient and simplifies servicing.
- 100% ball bearing construction for longer tool life.

Standard Equipment

- 1 40278 Metal Cutting Abrasive Wheel. Use high strength organic bonded wheels only. (Aluminum Oxide)
- 1 Wheel Wrench

Switch

To start the tool, depress the trigger switch shown in Figure 1. To turn the tool off, release the trigger switch.

Removal and Installation of Wheels

1. Be sure tool is disconnected from power supply.
2. Push in wheel lock lever (Figure 1) and rotate wheel by hand until wheel lock lever engages slot in inside flange to lock wheel. Loosen the hex nut in the center of the abrasive wheel with the wrench provided at rear of base. Nut has right hand thread.
3. Remove the nut, washer, outside flange, adapter, and old wheel. (Figure 2)
4. Install the new abrasive wheel by reversing the above steps. Make sure adapter is on spindle shaft and centered in wheel.
5. Do not overtighten nut.

WARNING: Check the work surface that the chop saw rests on when replacing with a new abrasive wheel. It is possible that the wheel may contact the work surface (through the base) when the arm is fully lowered.

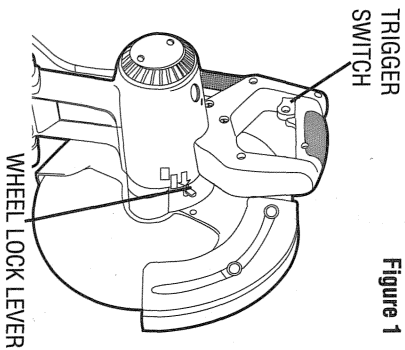
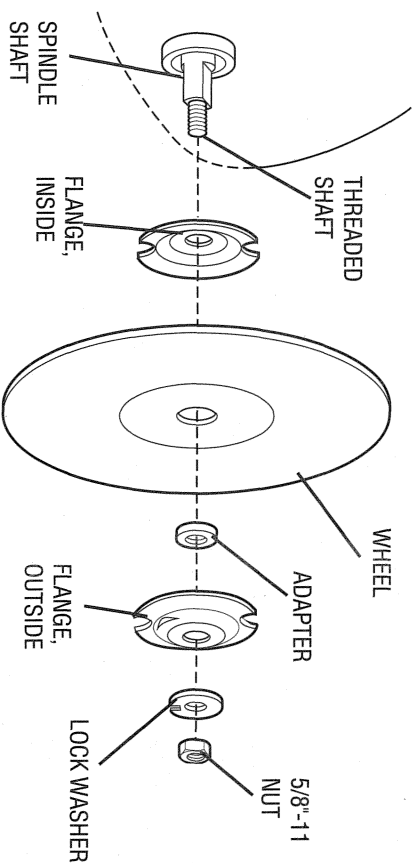


Figure 1

Figure 2



DO NOT MAKE ANY ADJUSTMENT WHILE THE WHEEL IS IN MOTION. DO NOT MAKE ANY ADJUSTMENT WHILE CHOP SAW IS PLUGGED INTO POWER SUPPLY.

Unlocking

To unlock tool and raise head, depress motor arm slightly and pull lock pin out. Motor arm will then pivot upward. (See Figure 3)

To Carry

Fold down unit to position where you can carry the saw. Push in lock pin (Figure 4) to engage cam surface on arm and lock arm down.

Cutting Capacity

The wide vise opening and high pivot point provide cutting capacity for many large pieces. Use this chart to determine total maximum size of cuts that can be made with a new wheel. Recommended applications are: metal studs, electrical conduit up to 4" diameter, bar stock and reinforcing bar up to 3/4" diameter.

Note that as cutting width increases, cutting height decreases.

CAUTION: CERTAIN LARGE, CIRCULAR OR IRREGULARLY SHAPED OBJECTS MAY REQUIRE ADDITIONAL HOLDING MEANS IF THEY CANNOT BE HELD SECURELY IN VISE.

CAUTION: DO NOT CUT MAGNESIUM WITH THIS TOOL.

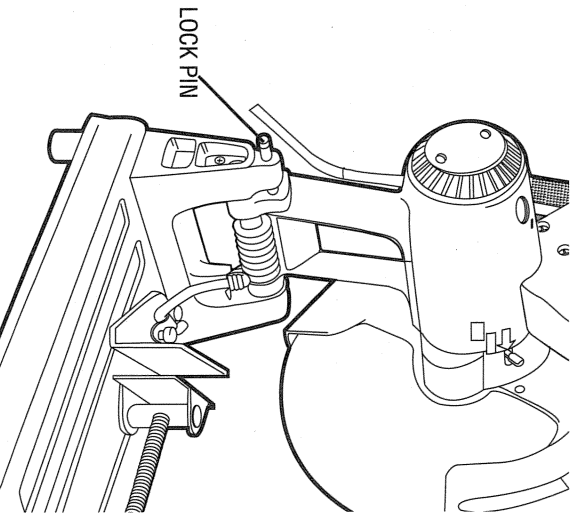


Figure 3

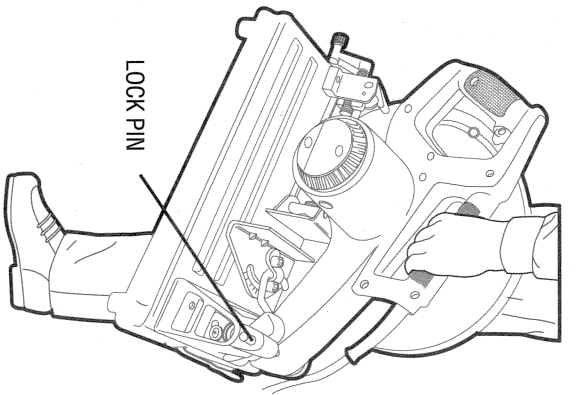
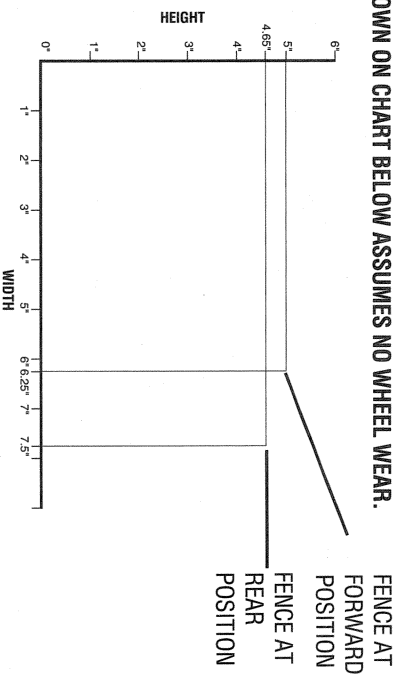


Figure 4

NOTE: CAPACITY SHOWN ON CHART BELOW ASSUMES NO WHEEL WEAR.



Vise Operation

Vise has quick travel feature. To release the vise when it is clamped tightly, turn the crank counterclockwise one or two times to remove clamping pressure. With one hand, hold vise lever up while pulling crank assembly out as far as desired. Vise lever automatically engages crank shaft threads when released. Crank shaft may be shoved into work without cranking. However, always finish tightening vise on work by using crank. (See Figure 5)

Fence Operation

Fence requires no wrenches to adjust. The quick release cam lever unlocks and locks the fence. When the lever is rotated fully forward, the fence is unlocked. The fence can then be freely moved forward, backward or rotated for an angular cut.

Moving the lever fully to the rear locks the fence in position selected. If the bottom leg of the lever is not horizontal (parallel to the base), the fence is not locked. Lever will only lock fence when there is strong resistance to moving it to rear. If resistance is light, adjust clamping force by tightening slightly the two bolts holding the fence to the base. Test by reclamping and attempt to move fence. (See Figure 6)

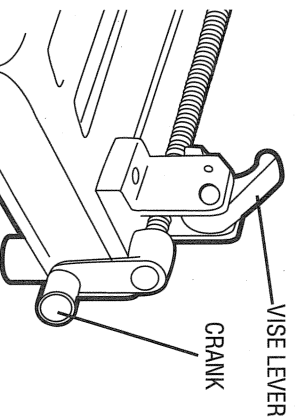


Figure 5

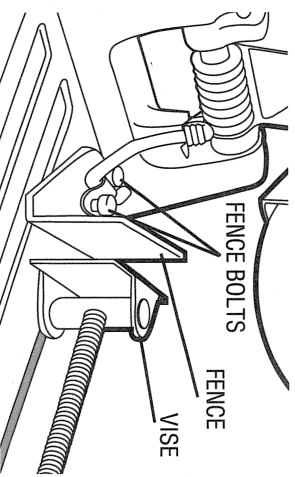


Figure 6

Fence Angle Adjustment

Angle adjustment indicator is part of fence clamping system. To verify angle of fence, read scale to left of indicator. There are also built-in detent stops for 0° (center or 90° cut), and 45° right for rapid positioning. (See Figure 7)

Lubrication

Closed-type, grease-sealed ball bearings are used throughout. These bearings have sufficient lubrication packed in them at the factory to last the life of the chop saw.

Gears should be relubricated every 60 to 90 days, depending upon use. This lubrication should only be attempted by experienced power tool repairpersons like the mechanics at B&D service centers. The gear case should be wiped clean and 3/4 oz. (20 grams) of B&D Lubricant Part No. 790206 (6 oz. tube) placed in the gear case.

Cleaning

Blowing dust and grit out of the main housing by means of an air hose is recommended and may be done as often as dirt is seen collecting in and around the air vents.

Motor Brushes

Be sure tool is unplugged before inspecting brushes. Brushes should be regularly inspected for wear. To inspect brushes, unscrew the plastic brush caps (located in the sides of the motor housing) and the spring and brush assemblies may be removed from the tool. Keep brushes clean and sliding freely in their guides. If the brushes are worn down to 0.3" length, they must be replaced. New brush assemblies are available at B&D service centers. See TOOLS, ELECTRIC in the Yellow Pages. (See Figure 8)

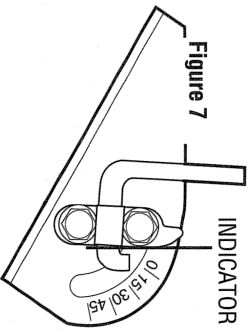


Figure 7

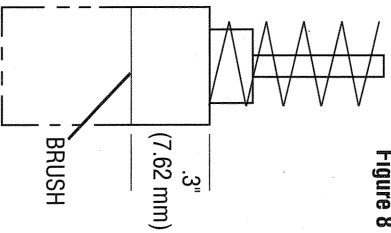


Figure 8

Procedure For Permanent Mounting

1. Drill four holes (5/16" diameter minimum) through the work surface. (Figure 9)
2. Remove screws from feet.
3. Insert 1/4-20 screws through underside of work surface, through feet, into holes in tool base. The proper screw length is equal to the thickness of the work surface plus 1 inch (25 mm).

Cradle Mounting

1. Cut two boards 20" long x 2" - 3" high x 4" wide.
2. Place chop saw at desired work location.
3. Place boards tightly along side, and nail to work surface. (Figure 10)

ALWAYS WEAR SAFETY GLASSES.

ALWAYS SECURE WORK IN VISE.

DISCONNECT TOOL FROM POWER SUPPLY BEFORE CHANGING WHEEL.

Figure 9

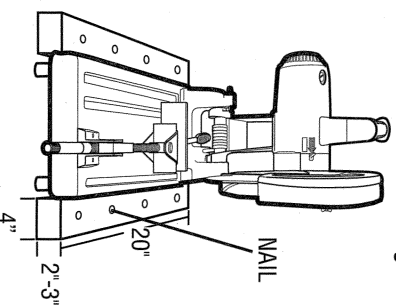
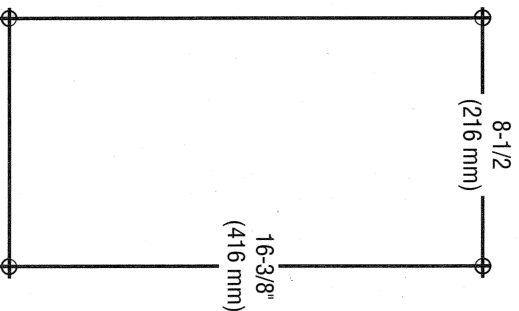


Figure 10

Accessories

Recommended accessories for use with your tool are available at extra cost from your distributor or local service center. A complete listing of service centers is included with your tool.

CAUTION: The use of any non-recommended accessory may be hazardous.

If you need any assistance in locating any accessory call 1-800-9-BD TOOL (1-800-923-8665) or contact Black & Decker (U.S.) Inc., Consumer Service Department, P.O. Box 618, 626 Hanover Pike, Hampstead, MD 21074.

IMPORTANT!

To assure product safety and reliability, particularly for Double Insulated tools, repairs, maintenance and adjustment (excluding maintenance described in this manual) should be performed by B&D service centers or authorized service centers, using identical B&D replacement parts.

Every B&D tool is of the highest quality.

If you wish to contact us regarding this product, please call toll free
between 8:00am and 8:00pm ET, seven days a week:

1-800-9-BD TOOL
(1-800-923-8665)

One Year Service/Safety Check

All B&D tools for Industry and Construction are covered under a service/safety check program where B&D will inspect your tool for safety and provide necessary maintenance or repairs, including normal wear and tear parts, for one year, FREE OF CHARGE.

Full Warranty

All B&D tools for Industry and Construction are warranted to be free of any defects in materials or workmanship. Upon thorough examination of tool, B&D will repair or replace, at our option, any product that is determined to be defective.

Conditions

The service/safety check and the warranty do not apply to: repairs made or attempted by anyone other than an authorized B&D service location; misuse, abuse, neglect, improper application of the tool; missing parts; or normal wear and tear (after first year of ownership). Please return the complete unit, transportation prepaid, to any B&D factory owned or B&D authorized service center location (list provided with tool or see Yellow Pages under "Tools Electric").

These symbols on the nameplate mean the product is listed by Underwriter's Laboratories, Inc. and certified by the Canadian Standards Association.



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