

CLEANING

Use only mild soap and a damp cloth to clean the tool. Many household cleaners contain chemicals which could seriously damage the plastic. Also, do not use gasoline, turpentine, lacquer or paint thinner, dry cleaning fluids or similar products. Never let any liquid get inside the tool; never immerse any part of the tool into a liquid.

LUBRICATION

Self lubricating bearings are used in the tool and periodic relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a B&D Service Center for a thorough cleaning, inspection and lubrication of the gear case. Service Center addresses are shown on the card packed with your tool.

IMPORTANT

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment (including brush inspection and replacement) should be performed by Black & Decker Service Centers or other qualified service organizations, always using Black & Decker replacement parts. When servicing Double-Insulated Tools, it is important that ONLY IDENTICAL REPLACEMENT PARTS BE USED and that REASSEMBLY OF TOOL IS IDENTICAL TO THE ORIGINAL ASSEMBLY.

HOME USE WARRANTY (A Full One Year Warranty)

Black & Decker warrants this product for one year against any defects that are due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to the seller (if a participating retailer) for free replacement (proof of purchase may be required). The unit may also be returned to a Black & Decker Service Center or Authorized Service Station, listed under "Tools Electric" in the yellow pages for free replacement or repair at our option. This warranty does not apply to accessories. This warranty gives you specific legal rights and you may have other rights which vary from state to state. Should you have any questions, contact your nearest Black & Decker Service Center Manager.

COMMERCIAL USE WARRANTY

Black & Decker warrants this product for one year. We will repair, without charge, any defects due to faulty material or workmanship or at our option replace the product free. 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.



**THE BLACK AND DECKER MANUFACTURING COMPANY
TOWSON, MARYLAND 21204 U.S.A.**

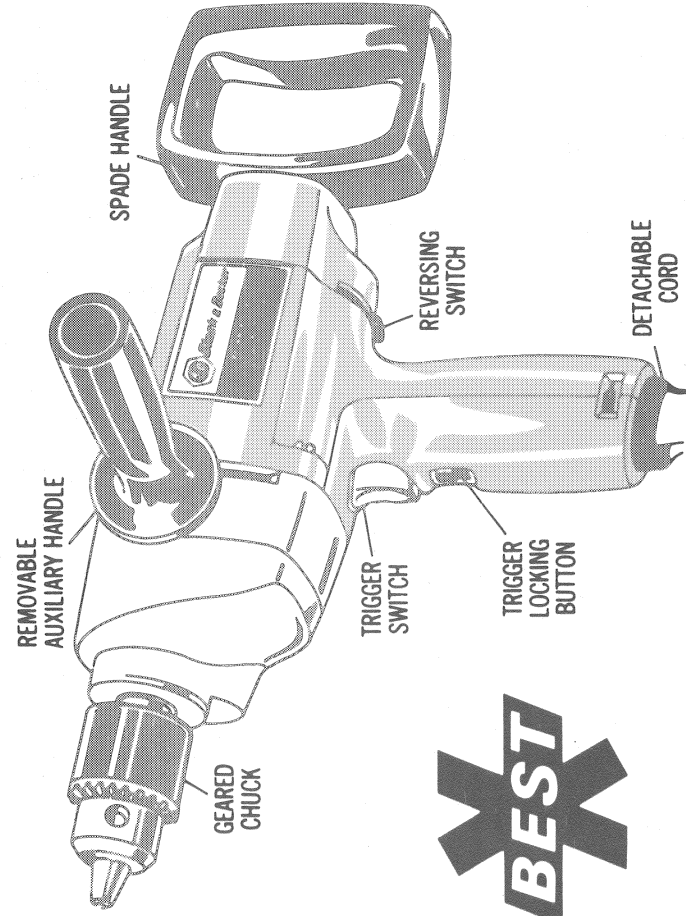
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B&D
Black & Decker

OWNER'S MANUAL



BEST

1/2" DOUBLE INSULATED REVERSING DRILL

You can drill up to 1/2" in steel, 1/2" in masonry, and 1" in wood with this new Drill. You can use Hole Saws up to 2 1/2" in diameter for cutting holes in wood or composition boards up to 3/4" thick. It has the power and performance needed for heavy duty work in the service industry, on the farm or in the home.

Because of its high torque, or twisting power, it is strongly recommended that you hold the Drill with both hands whenever possible. Please read all of the safety rules and instructions carefully, and don't forget to send in the owner registration card.

THANK YOU for buying BLACK & DECKER!

Black & Decker

SAFETY RULES FOR POWER TOOLS

- KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- AVOID DANGEROUS ENVIRONMENT.** Don't expose power tools to rain. Don't use power tool in damp or wet locations. And keep work area well lit.
- KEEP CHILDREN AWAY**—All visitors should be kept a safe distance from work area.
- STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place—out of reach of children.
- DON'T FORCE TOOL**—It will do the job better and safer at rate for which it was designed.
- USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
- WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
- USE SAFETY GLASSES** with most tools. Also face or dust mask 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, at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- DISCONNECT TOOLS**—Disconnect the tool from the power supply when not in use, before servicing, when changing accessories such as blades, etc.
- 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 ACCIDENTAL 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 suitable for use outdoors and so marked.
- DO NOT OPERATE** portable electric tools in gaseous or explosive atmospheres. Motors in these tools normally spark, and the sparks might ignite fumes.

CAUTION: When drilling into walls, floors or wherever "live" electrical wires may be encountered, DO NOT TOUCH THE CHUCK OR ANY METAL PARTS OF THE TOOL! Hold the Drill only by its plastic handles to prevent electric shock if you drill into a "live" wire.

MOTOR

Your Black and Decker tool is powered by a B&D-built motor. Be sure your power supply agrees with nameplate marking. 120 Volts 50/60 Hz means Alternating Current (normal 120 volt, 60 cycle house current). Voltage variation of more than 10% will cause loss of power and over-heating. All B&D tools are factory-tested; if this tool does not operate, check the supply line for blown fuses; plug and receptacle for contact.

1/2" DRILL

DOUBLE-INSULATION

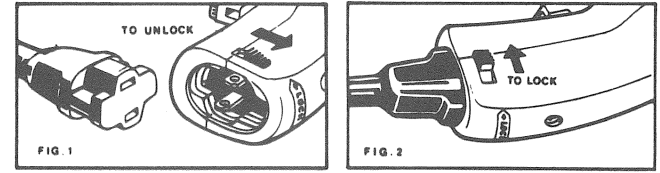
Your tool is DOUBLE-INSULATED to give you added safety. This means that it is constructed throughout with TWO separate "layers" of electrical insulation or one DOUBLE thickness of insulation between you and the tool's electrical system.

Tools built with this improved 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 any conventional 120 volt electrical outlet without concern for maintaining a ground connection.

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

CAUTION: When Servicing Double-Insulated Tools, use ONLY IDENTICAL REPLACEMENT PARTS. Repair or replace damaged cords.

DETACHABLE CORD



Your Drill is provided with an electric cord which attaches and detaches easily from the tool. This feature permits storing the tool on a shelf, or on pegboard, without wrapping the cord around the tool. It permits cord repair or replacement without tool disassembly.

The cord fits into the bottom of the tool handle as shown in Figure 1. Make sure that switch is "OFF" before inserting cord. Buttons must be in the unlocked position shown in Figure 1 to allow cord to be inserted. Pushing both buttons at the same time in the direction shown in Figure 2 locks the cord to the handle.

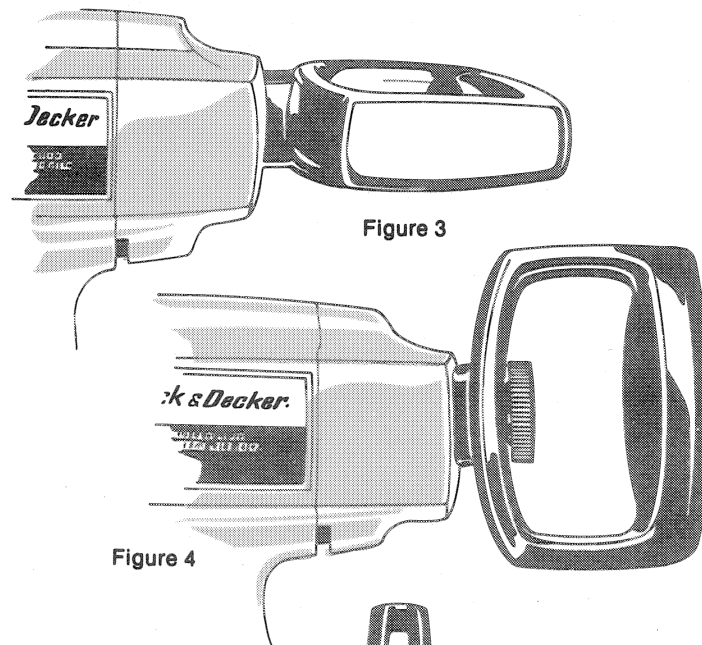
B&D Extension Cords (16 Gauge, U.L. listed for indoor and outdoor use) are available with female plug molded to fit directly into B&D tools with detachable cord feature. They also can be used with other tools. There are 2-wire cords for double-insulated tools and 3-wire cords for use with both double-insulated tools and tools that require grounding.

EXTENSION CORD

When using this drill at a considerable distance from power source, 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 50 feet long must be 18-gauge (American Wire Gauge). From 50 to 100 feet, 16-gauge wire is required throughout the extension. (NOTE: 16-gauge wire is heavier than 18-gauge wire and will carry current for longer distances without a significant voltage drop.)

SPADE HANDLE

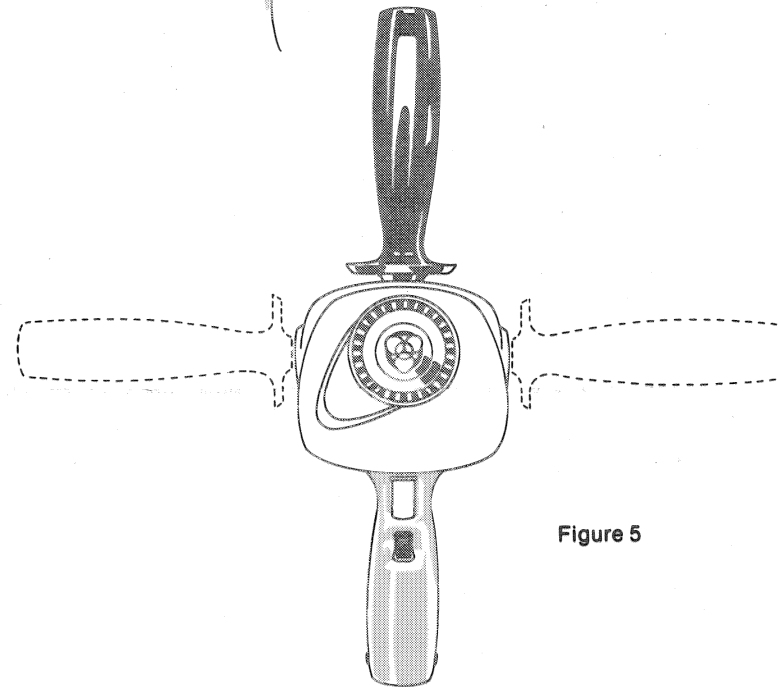
For comfortable handling, or for needed working clearance, you can attach the Spade Handle either horizontally (Figure 3) or vertically (Figure 4). To change the handle position, loosen the holding Knob to the point where you can pull back on handle and rotate it 90°. Then push handle forward and retighten knob.



AUXILIARY HANDLE

This handle can also be located for convenience or clearance. It screws into the top or either side of the Drill (Figure 5). **CAUTION:** Always use and hold firmly the Auxiliary Handle if there is any chance of the bit binding or locking up in the hole. This is a high-torque Drill — always hold it with both hands when operating.

NOTE: Either the Spade Handle or the Auxiliary Handle can be completely removed from the tool if working clearance is needed. **CAUTION:** Both handles should not be removed at the same time as two hands should always be used when operating this Drill.

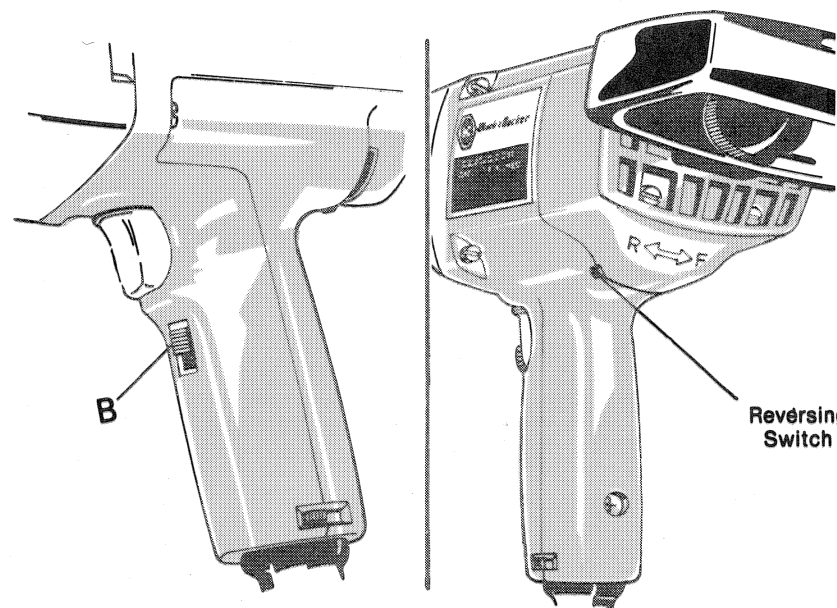


SWITCHES

To lock trigger in "ON" position when using accessories, depress trigger in "ON" position when using accessories, depress trigger and push up locking button "B," Figure 6, then gently release trigger. To release locking mechanism, depress trigger fully, then release it.

Do not lock the switch "ON" when drilling by hand so that you can instantly release the trigger switch if the bit binds in the hole.

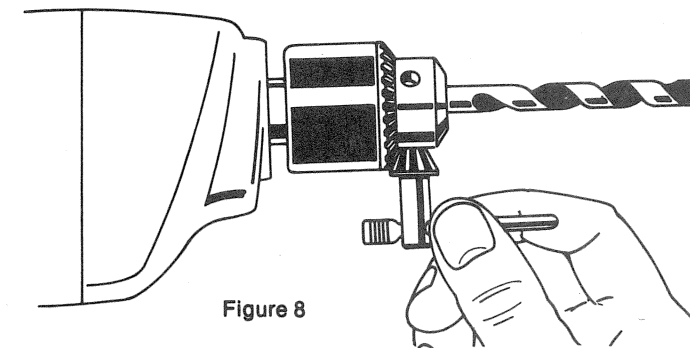
Be sure to release the switch locking button before disconnecting the plug from the power supply. Failure to do so will cause the tool to start immediately the next time it is plugged in. Damage or injury could result.



REVERSING SWITCH

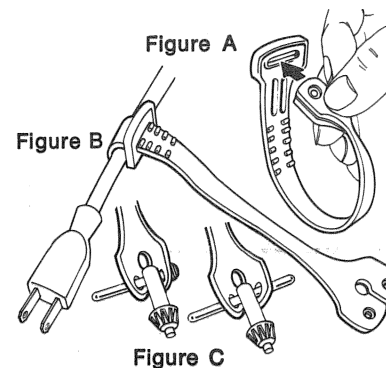
For removing screws or easing drill bits out of tight holes, slide the Reversing Switch, Figure 7, toward "R" to reverse the drill motor. The trigger switch should be released to the "OFF" position before moving the reversing switch. After any reversing operations, return switch to the forward "F" position.

CHUCK and KEY



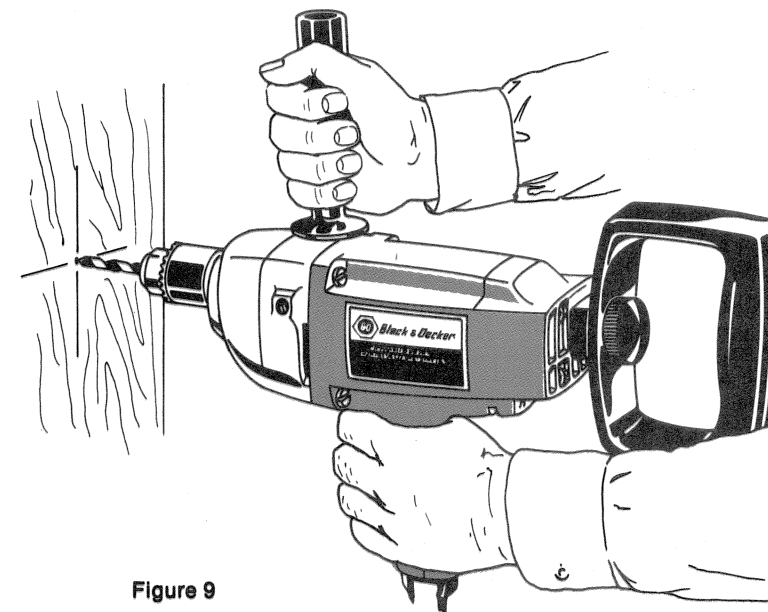
UNPLUG DRILL. Open chuck and insert shank of bit about 1" into chuck. Tighten chuck collar by hand. Place chuck key in each of the three holes, and tighten in clockwise direction. It's important to tighten chuck with all three holes. To release bit, turn chuck key counterclockwise in just one hole, then loosen chuck by hand.

To remove the chuck from the Drill, for chuck replacement, first unplug the tool. Open the chuck and remove screw in bottom of chuck (left hand thread). Insert the key in the chuck and tap key sharply with a piece of wood in the direction the tool normally rotates. This will loosen the chuck shank threads and the chuck may be unscrewed by hand.



CHUCK KEY HOLDER

1. Push double-hole end of Holder through slot in other end of Holder (Figure A).
2. Slip loop over electric plug and draw loop tight around cord (Figure B).
3. Push ends of Chuck Key Handle through two holes in end of Holder (Figure C).



DRILLING

1. Always unplug the Drill when attaching or changing bits or accessories.
2. Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use high-speed steel twist drill bits or hole saws. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.

DRILLING (Continued)

3. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a wood "back-up" block to prevent damage to the material.
4. With Variable Speed Drills you can use a slow speed to start the hole or you can center-punch an indentation at the point to be drilled. This will overcome any tendency of the bit to slip around on a smooth surface. Place the tip of the bit in the indentation and turn motor "ON".
5. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall the motor or deflect the bit.
6. Hold drill firmly with both hands to control the twisting action of the drill.
7. IF DRILL STALLS, it is usually because it is being overloaded or improperly used. RELEASE TRIGGER IMMEDIATELY, remove drill bit from work, and determine cause of stalling. DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL — THIS CAN DAMAGE THE DRILL.
8. To minimize stalling on breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
9. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.

DRILLING IN METAL

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulphurized cutting oil or lard oil; bacon grease will also serve the purpose. Aluminum is best drilled with kerosene.

DRILLING IN WOOD

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use Power Drill Wood Bits. Work that is apt to splinter should be backed up with a block of wood.

ACCESSORIES

Recommended accessories for use with your Drill are listed below and in Black & Decker catalogs (**CAUTION:** The use of any other accessory or attachment might be hazardous). For safety in use, the following accessories should be used only in the sizes specified below:

- BITS, METAL DRILLING—Up to ½" diameter.
- BITS, MASONRY DRILLING—Up to ½".
- BITS, WOOD DRILLING—Up to 1" diameter.
- HOLE SAWS—Up to 2½" diameter in wood.