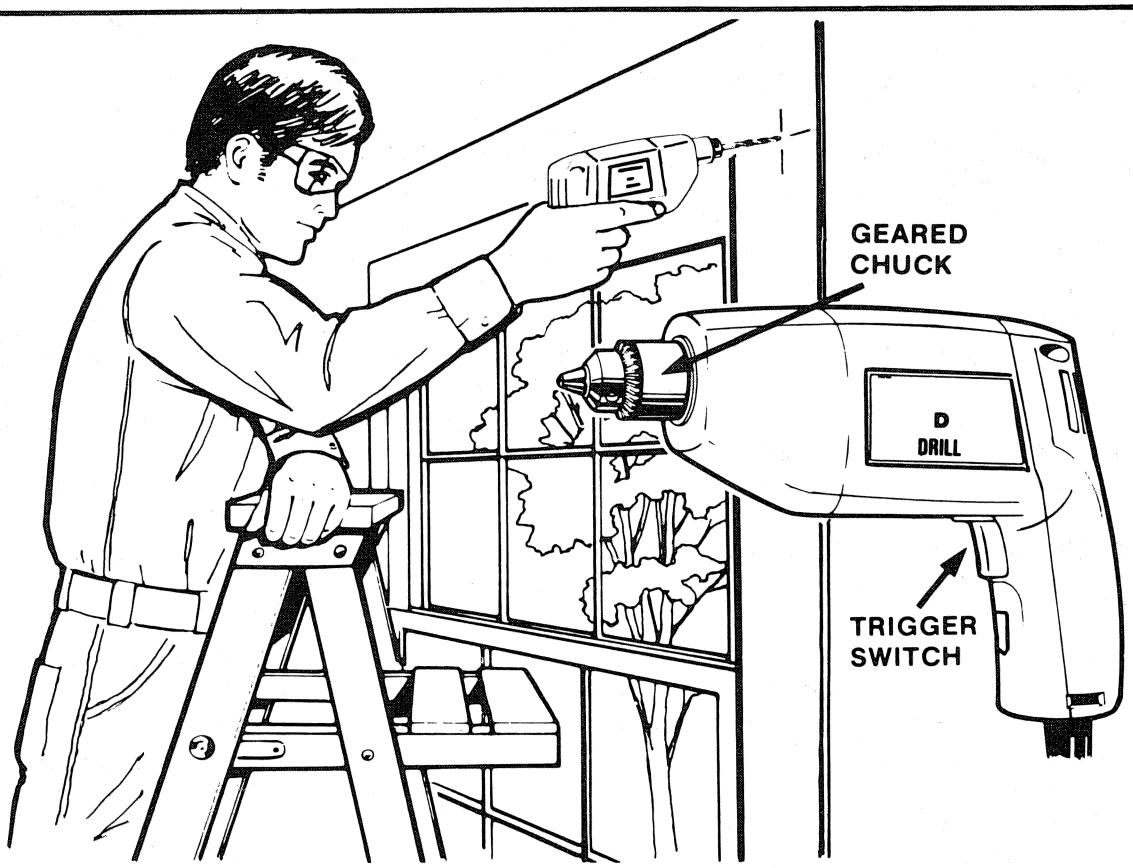
BLACK & DECKER® INSTRUCTION MANUAL



Your new Black & Decker Drill combines top quality construction and top performance with versatility. It's DOUBLE INSULATED for added safety and is a very good choice for general purpose work, and building or remodeling projects.

Not only will it DRILL practically any material, but with optional accessories, it can SAND, POLISH, BUFF, DRIVE screws, GRIND, DRIVE hole saws, MIX paint and REMOVE rust and old paint.

For personal safety and for proper operation of the Drill, please take the time to carefully read all of the safety rules and instructions in this booklet. Don't forget to send in the registration card.

THANK YOU for buying BLACK & DECKER!

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, USE ONLY IDENTICAL REPLACEMENT PARTS.

7190-99
DOUBLE INSULATED DRILL

1. *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 nonskid 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 lubrication 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 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 centers. 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

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

2. *IMPORTANT INFORMATION*

DOUBLE INSULATION

Your Drill 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 Drill is equipped with a two-pronged 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. Replace or repair damaged cords.

EXTENSION CORDS

Double insulated tools have 2 wire cords, and can be used with 2 wire or 3 wire extension cords. Only round jacketed extension cords should be used, and we recommend that they be listed by Underwriters Laboratories (U.L.). 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:

CHART FOR MINIMUM WIRE SIZE (AWG) OF EXTENSION CORDS

NAMEPLATE	TOTAL EXTENSION CORD LENGTH - FEET							
RATING - AMPS	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. listed for outdoor use.

3. OPERATION

SWITCHES

Your Drill is equipped with a variable speed switch that lets you run the tool at the proper speed for each job. To turn the tool ON, depress the trigger switch (A) shown in **Figure 1**. The farther you depress the trigger, the faster the drill will run. To turn the tool OFF, release the trigger.

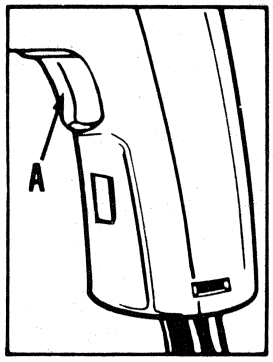


FIG. 1

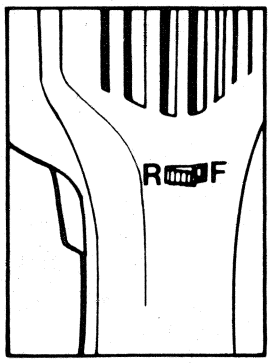


FIG. 2

NOTE: Use lower speeds for STARTING HOLES WITHOUT A CENTER PUNCH, DRILLING IN METAL OR PLASTICS, DRIVING OR REMOVING SCREWS, DRILLING CERAMICS, OR MIXING PAINT. Higher speeds are better for DRILLING WOODS AND COMPOSITION BOARDS, AND FOR USING ABRASIVE AND POLISHING ACCESSORIES.

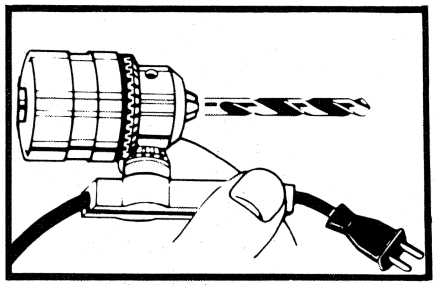
REVERSING SWITCH

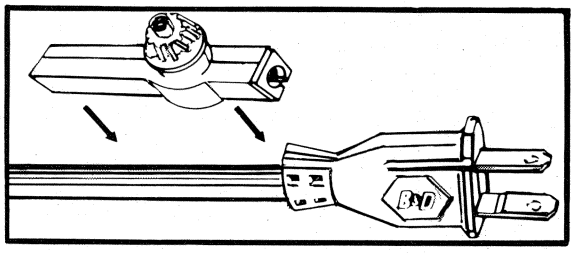
For removing screws or easing drill bits out of tight holes, slide the Reversing Switch, **Figure 2**, toward "R" to reverse the drill motor. The trigger switch must be released to the "OFF" position before moving the reversing switch. After any reversing operations, return switch to the forward "F" position.

CHUCK

TURN OFF AND UNPLUG DRILL

Open chuck jaws by turning collar with fingers and insert shank of bit about 3/4″ into chuck. Tighten the chuck collar by hand. Place the chuck key into one of the three holes and tighten securely as shown in the figure. Repeat the process for the two remaining holes. It's important to tighten the chuck in all three holes. To release the bit after drilling, loosen the chuck in one hole only and then continue loosening by hand.





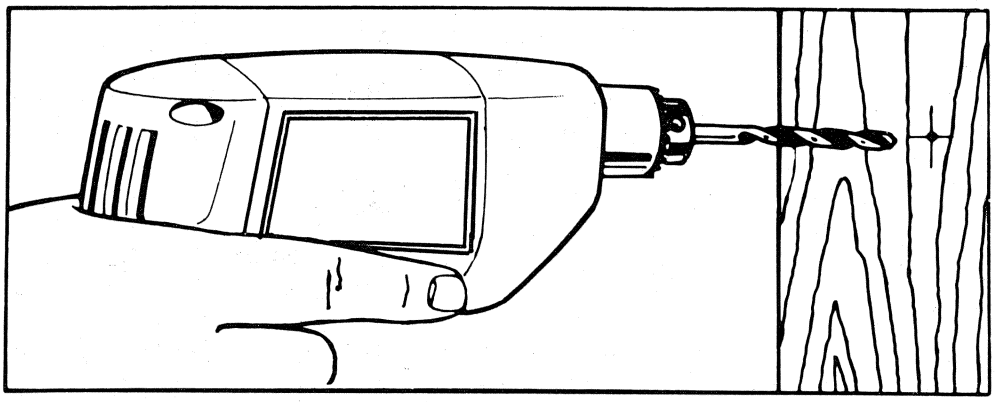
CHUCK KEY

To prevent loss, the chuck key for your drill has been especially designed to clip onto the power cord. The key need not be removed from the cord in order to use it. In fact, it's a good idea to clip it to the cord near the plug and leave it there. That way you will be sure to unplug the drill when using the chuck key.

In those instances where it may be desirable to remove the key from the power cord, simply grasp the key firmly and pull it off. When you've finished with it clip it back to the cord as shown.

Do not lubricate the inside of the chuck or the three jaws. A light film of oil can be applied to the outside of the chuck to prevent rust from forming.

4. OPERATION



DRILLING

1. Always unplug the Drill when attaching or changing 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. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.
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. Center-punch an indentation at the point to be drilled. This will overcome the tendency of the bit to slip around on a smooth surface. Place the tip of the bit in the indentation and turn the motor "ON".
   NOTE: With Variable Speed Drills, holes can be started at low speed without the need for center punching.
5. Always apply pressure in a straight line with the bit. Use enough pressure to keep the drill biting, but do not push hard enough to stall the motor or deflect the bit.
6. Hold the drill firmly to help control the twisting action of the drill.
7. IF THE DRILL STALLS, it is usually because it is being overloaded or improperly used. RELEASE THE TRIGGER IMMEDIATELY, remove the drill bit from the work, and determine the 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.
10. 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.
11. 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.

ACCESSORIES

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, Maryland 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 5:00 p.m. EST, Monday through Friday.
1-800-762-6672

Recommended accessories for use with your Drill are listed below (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 3/8".

BITS, MASONRY DRILLING — Up to 1/2".

BITS, WOOD DRILLING — Up to 3/4".

HOLE SAWS — Up to 1-1/2"

WIRE BRUSHES — Up to 3" diam.

GRINDING WHEELS — Type I only; up to 2" diameter; up to 1/2" thick.

BUFFING WHEELS — Up to 4" diameter.

BACKING PADS — 4-5/8" diameter.

SANDING DISCS & POLISHING BONNETS — Up to 5" diameter.

Use any Black & Decker consumer drill accessories whose recommended speed is 3200 RPM or higher.

We strongly recommend that your first purchase be Safety Glasses which should be worn when using all drill accessories.

CLEANING & LUBRICATION

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.

Self-lubricating bearings are used in the tool and periodic relubrication is not required.

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.

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

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

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