

DRILL SIZE

Accessory	1/4"	3/8"	1/2"	5/8"	3/4"	1"	1-1/4"
Bits, Metal Drilling	1/4"	3/8"	1/2"	5/8"	13/16"	1-1/8"	1-1/4"
Bits, Wood Drilling	1/2"	3/4"	1-1/8"	1-1/8"	2"	2"	2"
Bits, Masonry Drilling	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"	3/4"
Hole Saws	1-1/8"	1-1/2"	4"	4"	4"	4"	4"
Wire Wheel Brushes	4"	4"	4"	4"	*	*	*
Wire Cup Brush	3"	3"	3"	3"	*	*	*
Buffing Wheels	4"	4"	4"	4"	*	*	*
Rubber Backing Pads	4-5/8"	4-5/8"	4-5/8"	4-5/8"	*	*	*

*Accessories not used with these large, low-speed drills.

Full One-Year Home Use Warranty

Black & Decker (U.S.) Inc. 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). This 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.

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. ET, seven days a week.

1-800-762-6672



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

BLACK&DECKER®

INSTRUCTION MANUAL

Important Safety Instructions

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

Grounding Instructions

This tool should be grounded while in use to protect the operator from electric shock. Have the tool connected to a branch circuit that has a 15 amp or 20 amp, 240V circuit breaker by a licensed electrician.

Safety Instructions For All Tools

- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- **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. Do not use tool in presence of flammable liquids or gases.
- **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, and refrigerator enclosures.
- **KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
- **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- **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.
- **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.
- **USE SAFETY GLASSES.** Also use face or dust mask if 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 OVERRREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer 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.

IMPORTANT

To assure product **SAFETY** and **RELIABILITY**, repairs, maintenance and adjustment (including brush inspection and replacement) should be performed by authorized service centers or other qualified service organizations, always using identical replacement parts.

ELECTRIC DRILLS

BLACK&DECKER®

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

- **DISCONNECT OR LOCK OFF TOOLS** when not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- **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 UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure switch is off when plugging in.
- **EXTENSION CORDS.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An oversized cord will cause a drop in line voltage resulting in loss of power and overheating. The following table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

Volts	Minimum Gage for Cord Sets		
	Total Length of Cord in Feet	American Wire Gage	More Than
120V	0-25	26-50	51-100
240V	0-50	51-100	101-200
			201-300
Ampere Rating	More Than	American Wire Gage	More Than
0	6	18	16
6	10	18	16
10	12	16	14
12	16	14	12
16	14	12	Not Recommended

- **OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- **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.
- **CAUTION:** When drilling or driving into walls, floors or wherever live electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE TOOL! Hold the tool only by insulated grasping surfaces to prevent electric shock if you drill or drive into a live wire.

SAVE THESE INSTRUCTIONS

Motor

Be sure your power supply agrees with nameplate marking.
220/240V AC/DC means the tool may be operated with alternating or direct current within a voltage range of 220 to 240 volts.
Voltage decrease of more than 10% will cause loss of power and overheating. All tools are factory tested; if this tool does not operate, check the power supply.

Brushes

Carbon brushes should be regularly inspected for wear.
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 service centers; see TOOLS, ELECTRIC in the yellow pages.
If your drill does not have exterior inspection caps, brush inspection should only be attempted by Black & Decker service centers. The inspection should be made every two to six months, depending upon usage.

Drilling Instructions

1. 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.
2. 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.
3. Always use pipe or side handles when provided. Be sure to brace yourself against the twisting action of the drill.
4. IF DRILL STALLS, it is usually because it is being overloaded or improperly used. TURN OFF POWER IMMEDIATELY, remove drill bit from work, and determine cause of stalling; DO NOT RAPIDLY TURN OFF POWER TO THE DRILL WHILE THE BIT IS STILL STUCK AS THIS WILL DAMAGE THE DRILL.
5. To minimize stalling on breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.

Lubrication

Black & Decker 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 or heavy-duty jobs and tools exposed to heat may require more frequent lubrication.) This lubrication should only be attempted by Black & Decker service centers technicians.

Some Black & Decker drills are equipped with an oil hole located at the rear of the tool. Periodically place a few drops of SAE #10W or 20W motor oil in this hole.

Bearings

Black & Decker tools use both "closed" and "open" type bearings



CLOSED TYPE BEARING



OPEN TYPE BEARING

CLOSED TYPE BEARINGS

The closed type bearing is permanently lubricated at the factory to last the life of the bearing. Lubricant is retained in the bearing by two shields (non-contacting metal plates), two seals (contacting felt or synthetic rubber), or a combination of one shield and one seal.

OPEN TYPE BEARINGS

The open type bearings are open on one or both sides. Grease is applied to these bearings at the factory, and further lubrication is received from the grease in the gear case (if bearings are located in this area). Roller, needle, and sleeve bearings all fall into the open type classification.

Accessories

Recommended accessories for use with your tool are available at extra cost from your local dealer or authorized service center. If you need assistance in locating any accessory for your tool, please contact:

Black & Decker (U.S.) Inc.
Consumer Service Department
P.O. Box 618, 626 Hanover Pike
Hampstead, MD, 21074-0618
Phone: 1-800-762-6672

CAUTION: The use of any other accessory not recommended for use with this tool could be hazardous. For safety in use, the following accessories should be used only in sizes up to the maximums shown in the following table.