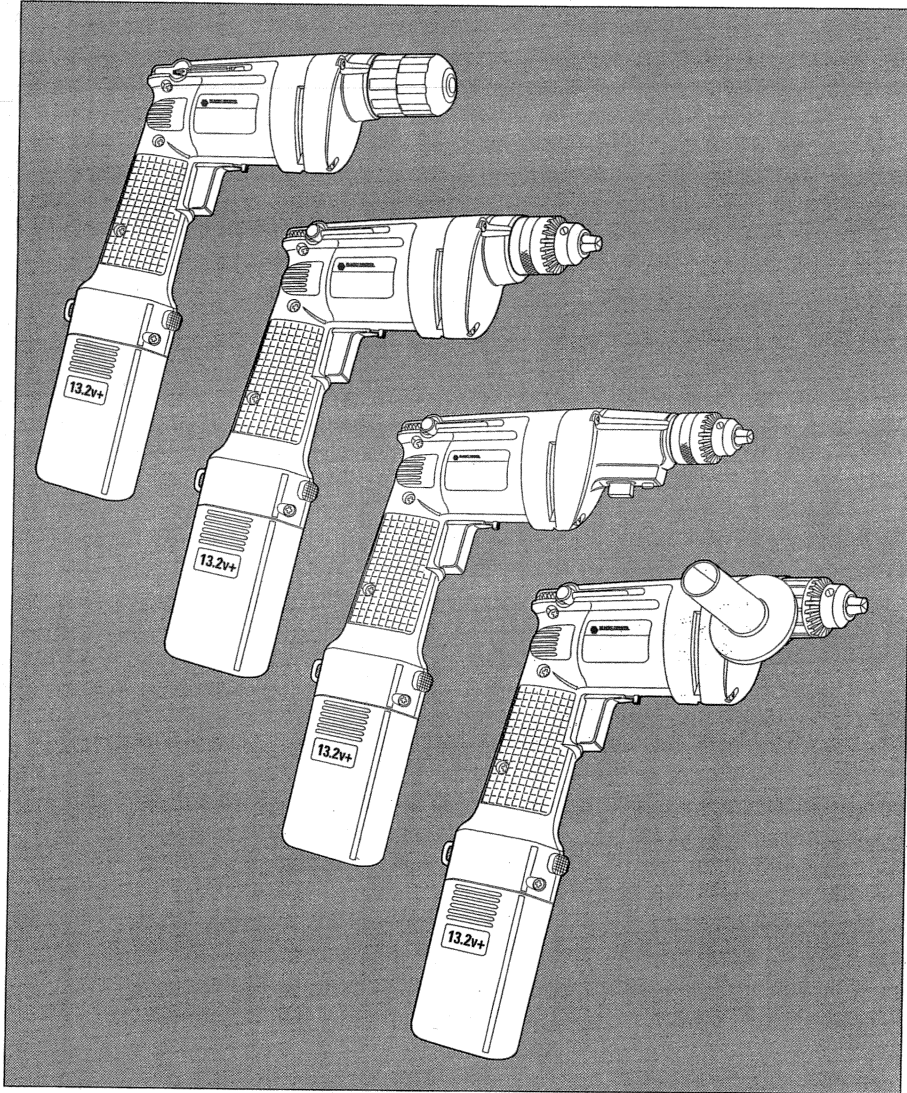




BLACK & DECKER®

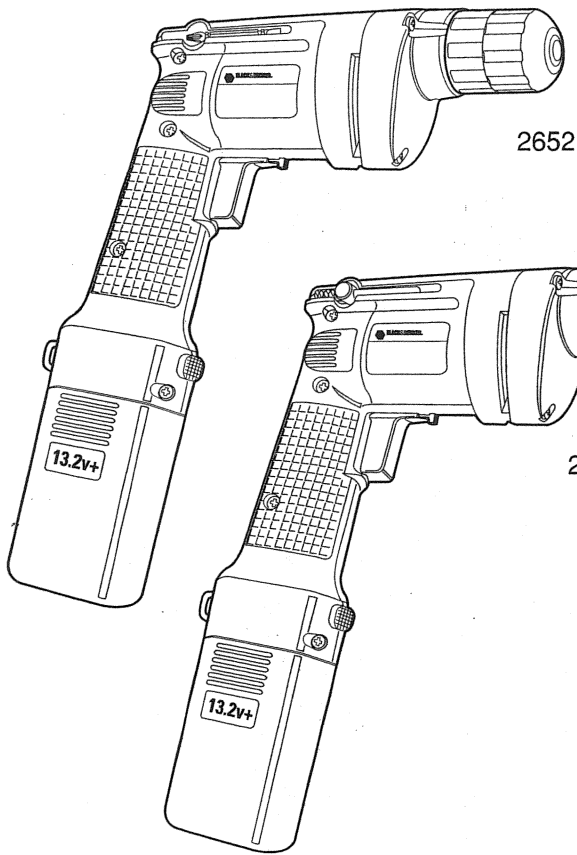
KODIAK

High Performance Cordless

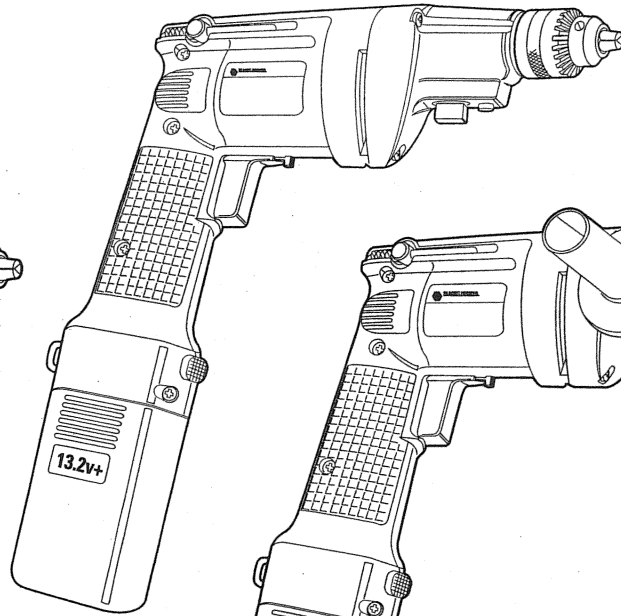


Instruction Manual

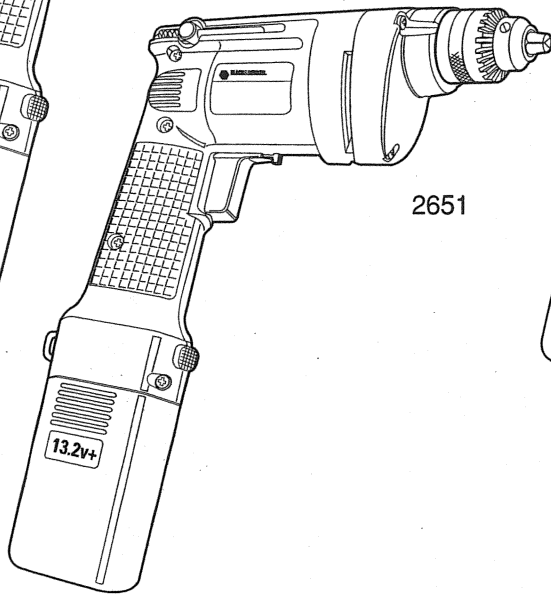
**3/8" & 1/2" 13.2 Volt
Cordless Holgun® Drills**



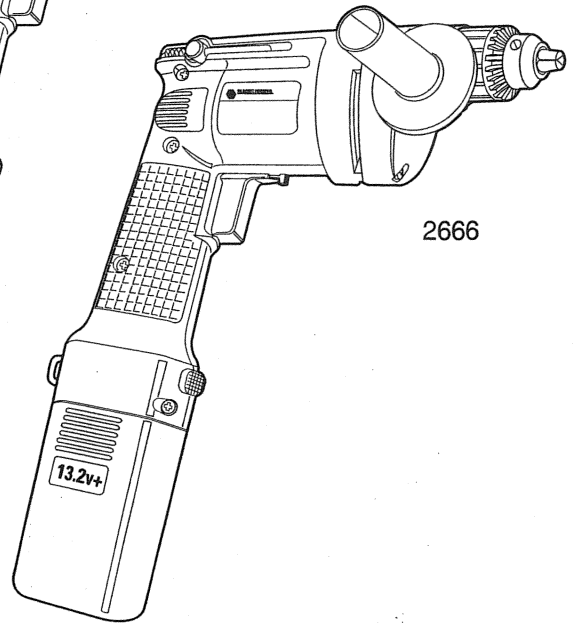
2652



2661



2651



2666

Thanks For Selecting a Black & Decker Kodiak Cordless Holgun® Drill.

Your new Kodiak cordless Holgun® drill has been engineered to the same tough standards of quality that have made Black & Decker the world's leader in cordless technology. Made to be tough and reliable, your new Holgun® drill packs plenty of power and long life for jobs far removed from any power source.

With it you can drill holes in practically any material you can name, you can buff, sand, polish, and even drive and remove screws with features like variable speed and reversing capability.

All of this versatility and Black & Decker's famous toughness make this drill every inch the professional that you are.

Please take the time to read this informative instruction manual and pay particular attention to the safety instructions we've included for your protection.

Don't forget to send in your owner's registration card.

Thanks, again for buying Black & Decker!



BLACK & DECKER®

Important Safety Instructions

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. **KEEP CHILDREN AWAY.** All visitors should be kept away from work area. Do not let visitors contact tool.
4. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place—out of reach of children.
5. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
6. **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.
7. **DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts. Non-skid footwear is recommended when working outdoors. Wear protective hair covering to contain long hair.
8. **USE SAFETY GLASSES.** Also use face or dustmask if operation is dusty.
9. **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.
10. **DON'T OVERREACH.** Keep proper footing and balance at all times.
11. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safe performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean, and free from oil and grease.
12. **LOCK OFF TOOL** when not in use, before servicing, and when changing accessories.
13. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
14. **AVOID UNINTENTIONAL STARTING.** Don't carry tool with finger on switch. Be sure selector is in the trigger lock off position when carrying or storing the tool.
15. **STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
16. **CHECK DAMAGED PARTS.** Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
17. **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.
18. **BE AWARE** that this tool is always in an operating condition because it does not have to be plugged into an electrical outlet. Keep the switch control lever in the lock "OFF" position, as shown in Figure 6, when you are not using the tool.

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 shock if you drill into a "live" wire.

SAVE THESE INSTRUCTIONS FOR FUTURE USE.

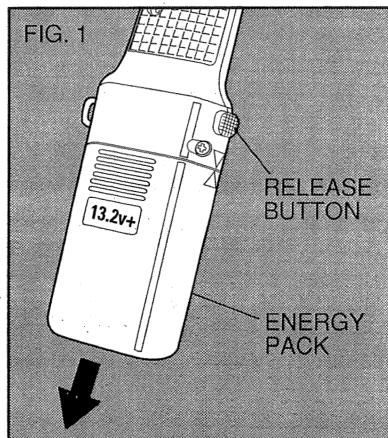
Your tool carton contains two separate instruction manuals; one for the cordless drills and one for the UNIVOLT™ one hour battery charger.

READ ALL OF THE INSTRUCTIONS IN THE UNIVOLT ONE HOUR BATTERY CHARGER INSTRUCTION MANUAL BEFORE ATTEMPTING TO CHARGE THE BATTERY FOR YOUR DRILL.

Removing & Installing the Energy Pack

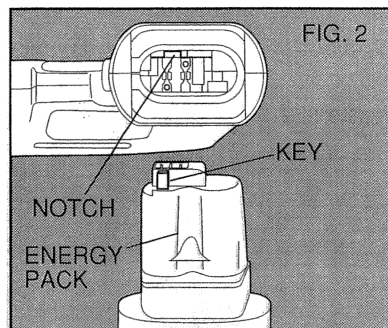
NOTE: THE BATTERIES IN YOUR ENERGY PACK ARE NOT FULLY CHARGED AT THE FACTORY.

To remove the energy pack from the drill, press the release button or buttons, as shown in Figure 1, and let the energy pack slide out of the tool handle. Insert it into the charger as described in the charger instruction manual.



To install the energy pack into the drill handle, align the key, shown in Figure 2, with the notch inside the tool's handle and slide the energy pack firmly into the handle until you hear the lock snap into place.

An alternate means of alignment is to match the arrows on the front of the tool and the energy pack. (Some tools and packs do not have arrows.)



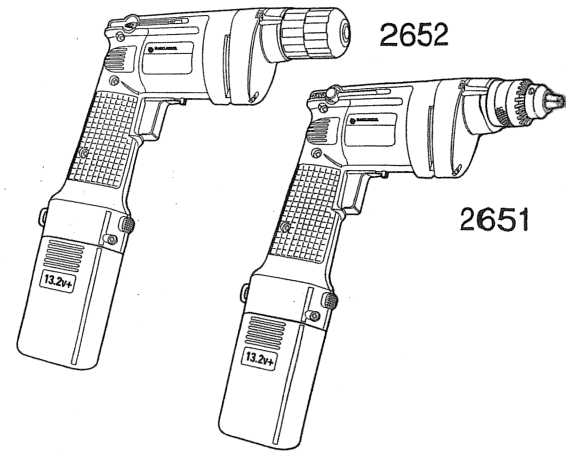
Energy Pack Important Charging Notes

1. Longest life and best performance can be obtained if the energy pack is charged when the air temperature is about +75°F. **DO NOT** charge the energy pack in an air temperature below +40°F or above +105°F. This is important and will prevent serious damage to the energy pack.
2. If the energy pack does not charge properly — (1) Check current at receptacle by plugging in a lamp or other appliance, (2) Check to see if receptacle is connected to a light switch which turns power off when you turn out the lights.
3. If the receptacle is o.k., and you do not get proper charging, take or send the tool, energy pack and charger to your local Service Center. See "TOOLS, ELECTRIC" in yellow pages.
4. The energy pack should be recharged when it fails to produce sufficient power on jobs which were easily done previously. **DO NOT CONTINUE** to use under these conditions. Overdischarging may harm the energy pack. Repeat the charging procedure.
5. Under certain conditions, with the charger plugged in to the power supply, the exposed charging contacts inside the charger can be shorted by foreign material and may cause a fire. Foreign materials of a conductive nature such as, but not limited to, steel wool, aluminum foil, or any buildup of metallic particles should be kept away from empty energy pack cavities. Always unplug the charger from the power supply when there is no energy pack in the cavity. Unplug charger before attempting to clean.

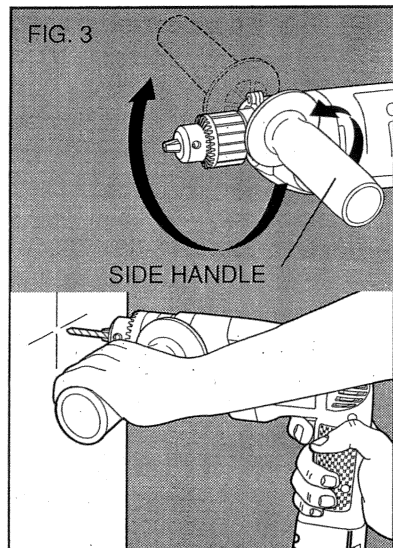
Side Handle (2666 only)

Caution: Always use side handle when provided and hold tool with both hands. (Side handle provided with 2666)

The side handle clamps to the front of the gear case as shown in Figure 3 and can be rotated 360° to

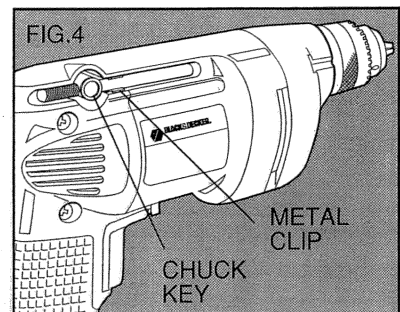


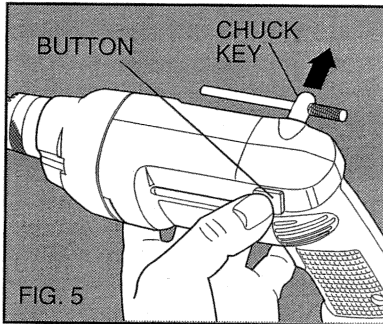
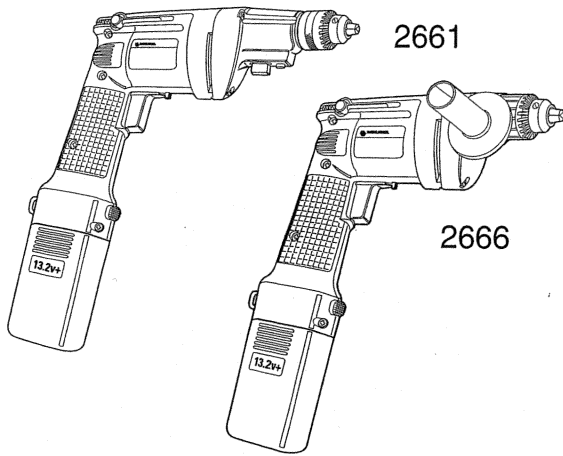
permit right or left hand use. Loosen the handle (counterclockwise) to loosen the clamp and rotate handle to desired position. Tighten handle.



Chuck Key Storage and Use (2651, 2661, 2666)

The chuck key for your drill is stored on the side of the housing, as shown in Figure 4. To remove the chuck key, press the button shown in Figure 5 and pull the key out. To return the key to the holder, insert the geared end into the hole in the drill housing and push it in place until the metal clip snaps over it to hold it in place.





To install a drill bit, loosen the chuck jaws and insert the bit all the way into the chuck. Pull the bit out about 1/8" and tighten the chuck with the key. Tighten in all three holes to prevent slippage.

To remove the bit, loosen the jaws in one hole only and remove bit. Always replace chuck key in the holder when finished.

Keyless Chuck (2652 only)

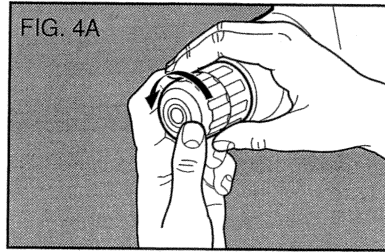
Your tool features a keyless chuck for greater convenience. To insert a drill bit or other accessory, follow the steps listed below.

1. Lock the trigger switch in the OFF position as described in Figure 6.
2. Grasp the rear half of the chuck with one hand and use your other hand to rotate the front half counterclockwise, as shown in Figure 4A. Rotate far enough so that the chuck opens sufficiently to accept the desired accessory.
3. Insert the bit or other accessory about 3/4" into the chuck and tighten securely by holding the rear half of the chuck and rotating the front portion in the clockwise direction.

To release the accessory, repeat step 2 listed above.

WARNING: Do not attempt to tighten drill bits (or any other accessory) by gripping the front part of the

chuck and turning the tool on. Damage to the chuck and personal injury may result. Always lock off trigger switch when changing accessories.



Motor Brushes

Your Drill uses the B&D "Check-point" brush system. The tool will stop when the brushes wear out. This prevents damage to the motor.

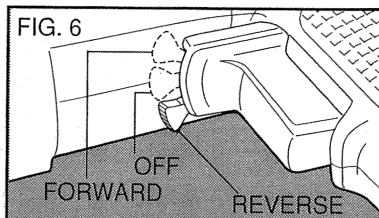
Switches

To turn the drill "ON", squeeze the trigger switch; to turn the drill "OFF", release the trigger switch. Your drill is equipped with a variable speed switch which enables you to select the best speed for a particular application. The farther you squeeze the trigger, the faster the drill will operate.

For maximum tool life, use lowest speed only for starting holes. Continuous operation at the lowest speed will damage the tool and is not recommended.

Use lower speeds for starting holes without a center punch, drilling in metals or plastics, driving screws or drilling ceramics. Higher speeds are better for drilling in wood, wood compositions and for using abrasive and polishing accessories.

A switch control lever determines the direction of the tool and also serves as a lock "OFF" lever. To select forward rotation (for drilling operations and driving screws) release the trigger switch and push the switch control lever to the right (when viewed from the chuck end) as shown in Figure 6.



To select reverse (for backing out screws or jammed drill bits) push the lever to the left (when viewed

from the chuck end). The center position of the lever locks the tool in the "OFF" position.

When changing the position of the switch control lever, be sure the tool is "OFF" and has stopped coasting.

Operation

DRILLING

1. Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use highspeed steel twist drill bits or hole saws. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.
2. 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.
3. 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.
4. Hold drill firmly to control the twisting action of the drill.
5. **IF DRILL STALLS**, it is usually because it is being overloaded. **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.**
6. To minimize stalling or breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
7. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.
8. With Variable Speed Drills there is no need to center punch the point to be drilled. Use a slow speed to start the hole and accelerate by squeezing the trigger harder when the hole is deep enough to drill without the bit skipping out.

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.

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.

Drilling In Masonry

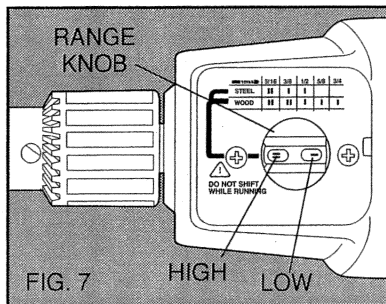
Use carbide tipped masonry bits at low speeds. Keep even force on the drill but not so much that you crack the brittle materials. A smooth, even flow of dust indicates the proper drilling rate.

Dual Range Operation Cat. No. 2661 Holgun® drill only

See Figure 7.

Your 2661 drill has a dual range feature that enables you to call up greater torque for heavier drilling jobs. To select low range (0-700 R.P.M.) for heavy duty drilling, turn off the drill and rotate the range knob to align the low range symbol with the indicator mark on the drill's housing.

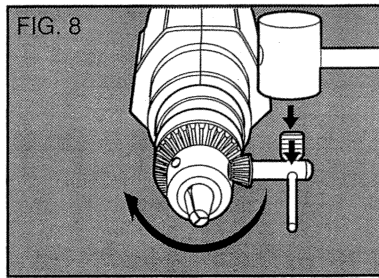
To select high range (0-1500 R.P.M.) for faster, standard duty drilling, turn off the drill and rotate the range knob to align the high range symbol with the indicator mark on the drill's housing.



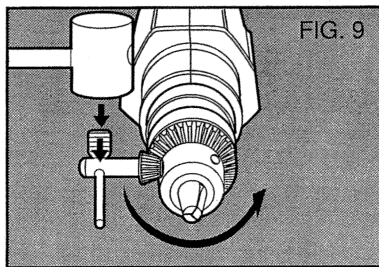
Chuck Removal (Keyless Chuck)

(Figures 8 & 9)

1. Place chuck key in chuck as shown in figure 8. Using a wooden mallet or similar object, strike key sharply in a **CLOCKWISE** direction. This will loosen screw inside chuck.



2. Open chuck jaws fully. Insert screwdriver into front of chuck between jaws to engage screw head. Remove screw by turning clockwise (left-hand-thread).
3. Place key in chuck as shown below. Using a wooden mallet or similar object, strike key sharply in a **COUNTER-CLOCKWISE** direction. This will loosen chuck so that it can be unscrewed by hand.



Chuck Removal (Keyless Chuck)

(Figures 10 & 11)

Tighten the chuck around the shorter end of a hex key (not supplied) of 1/4" or greater size. Using a soft hammer or piece of wood, strike the longer end in the clockwise direction, as shown in Figure 10. This will loosen the screw inside the chuck.

Drill Accessories

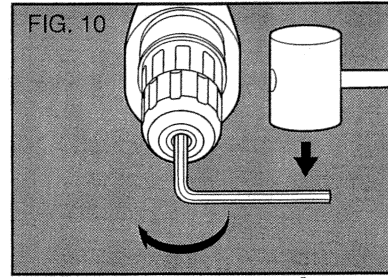
The accessories listed in this manual are available at extra cost from your local dealer or Black & Decker Service Center. A complete listing of service centers is included on the owner's registration card packed with your tool.

If you need assistance in locating any accessory, please contact: Black & Decker (U.S.) Inc., Consumer Service Department, 626 Hanover Pike, P.O. Box 618, Hampstead, MD 21074-0618.

Recommended accessories for your Drill are shown in this manual (**CAUTION:** The use of any other accessory or attachment might be hazardous.) For safety in use, the following accessories should be used only in sizes up to maximums shown in the table below.

Maximum Recommended Capacities

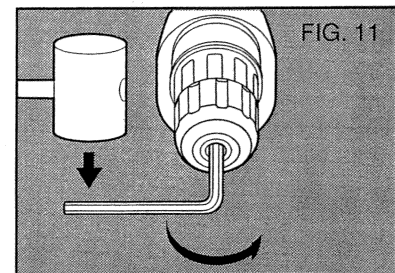
CAT. NO.	2651 & 2652	LOW RANGE 2661	HIGH RANGE 2661	2666
R.P.M.	0-1200	0-700	0-1500	0-450
BITS, METAL DRILLING	3/8"	3/8"	1/4"	1/2"
WOOD, FLAT BORING	3/4"	1"	5/8"	1-1/4"
BITS, MASONRY DRILLING	1/2"	1/2"	3/8"	5/8"
HOLE SAWS	7/8"	1"	3/4"	1-1/4"



Open chuck jaws fully, insert screwdriver (or Torx tool if required) into front of chuck between jaws to engage screw head. Remove screw by turning clockwise (left-hand-thread). Place hex key in chuck as shown in Figure 11. Using a wooden mallet or similar object, strike key sharply in the counterclockwise direction. This will loosen the chuck so that it can be unscrewed by hand.

Chuck Installation

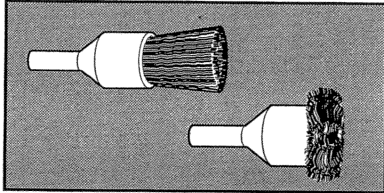
Screw the chuck on by hand as far as it will go and insert screw (LH thread). Tighten screw securely. Tighten the chuck around the shorter end of a 1/4" or larger hex key (not supplied) strike the longer end in the clockwise direction with a soft hammer, as shown in Figure 10. Recheck screw tightness and tighten if necessary.



Carbon Removing Brushes

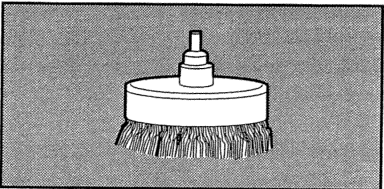
Made of tempered-steel wire; used to remove rust and scale from metals. Leaves a burnished surface.

- A. Heavy-duty solid wire-filled brush.
- B. Side-flare brush for close corner work.
- C. Hollow-core, flare-bottom brush. Small cleaning brush. (Not Shown.)



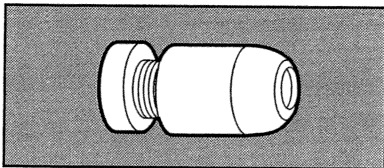
3" Wire Cup Brush

Use in cleaning and removing rust, scale, old paint (Straight chuck shank). Maximum safe RPM—5,000.



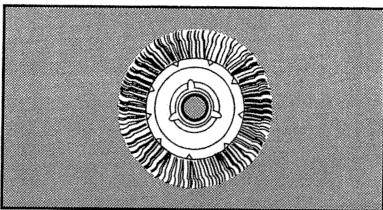
Drill Stop

Capacity 1/4" to 1/2" Governs drilling depth.



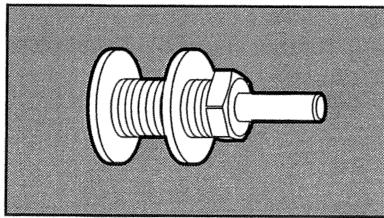
Wire Wheel Brushes

Use in cleaning and removing rust, scale, old paint. 4" Fine Brush, crimped; Maximum safe RPM—4,500 4" Coarse Brush, crimped; Maximum safe RPM—4,500



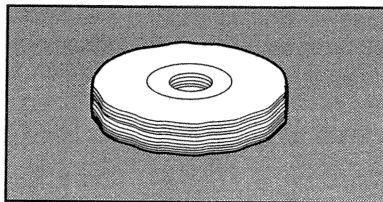
Wheel Arbors

Fit 1/4" to 1/2" Drills. Carry wire wheel brushes and buffing wheels. 1/4" Arbor (1/2" dia., 1/4" shank). 1/2" Arbor (1/2" dia., 1/2" shank).



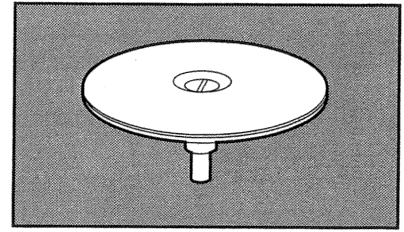
Buffing Wheels

Use with 1/4" to 1/2" Drills and Wheel Arbors. 3" x 3/8" x 1/2" Cotton Buff.



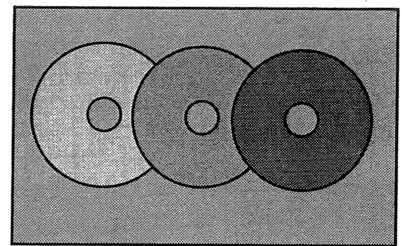
Rubber Backing Pad

Fit 1/4" to 1/2" Drills. 4 5/8" Rubber Backing Pad with plain shank. Used for sanding operations.



Sanding Discs

Use with Rubber Backing Pad.

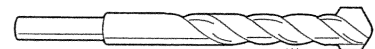


High-Speed Hole Saws Use With Mandrels

SAW OUTSIDE DIAMETER	FOR CONDUIT SIZES
5/8"	5/8" Hole Saw has built-in Mandrel; no separate Mandrel supplied
3/4"	3/8"
7/8"	1/2"

Round-Shank Masonry Bits

These bits are carbide-tipped for top performance and extra-long life in most masonry-drilling applications.



BIT DIAMETER (IN.)	USABLE DRILLING DEPTH (IN.)	SHANK DIAMETER (IN.)
3/16"	1 1/2"	3/16"
1/4"	2"	1/4"
5/16"	2 1/4"	1/4"
3/8"	2 1/2"	1/4"
1/2"	2 1/2"	1/4"

Lubrication

All ball and sleeve bearings used are factory lubricated to last the life of the bearings. All needle bearings used received their lubrication from the grease in the gear case. Clean and re-lubricate gear case yearly or whenever servicing requires the gear case to be removed. Use type and quantity of grease shown on Parts Bulletin packed with your tool.

Gear case is removed by removing the three screws from the front of the tool. If the chuck is too large to permit removal of the two top screws, see instructions for chuck removal.

Batteries

After several years of normal use, the batteries in your battery pack will no longer accept a charge. This is a normal occurrence, and signifies that the batteries have reached the end of their useful life. Replacement battery packs are available at extra cost at your local Black & Decker Service Center.

Your battery pack contains nickel cadmium batteries. The Environmental Protection Agency considers Cadmium to be a toxic material that can do severe damage to the environment. Check with your state Environmental Protection Agency to find out how to properly recycle or dispose of cadmium, or you can turn in expired battery packs to your local Black & Decker Service Center for proper recycling or disposal.

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 damaged caused where repairs have been made or attempted by others.

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

Like most Black & Decker products your tool is listed by Underwriters Laboratories to ensure that it meets stringent safety requirements.



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

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



BLACK & DECKER®

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