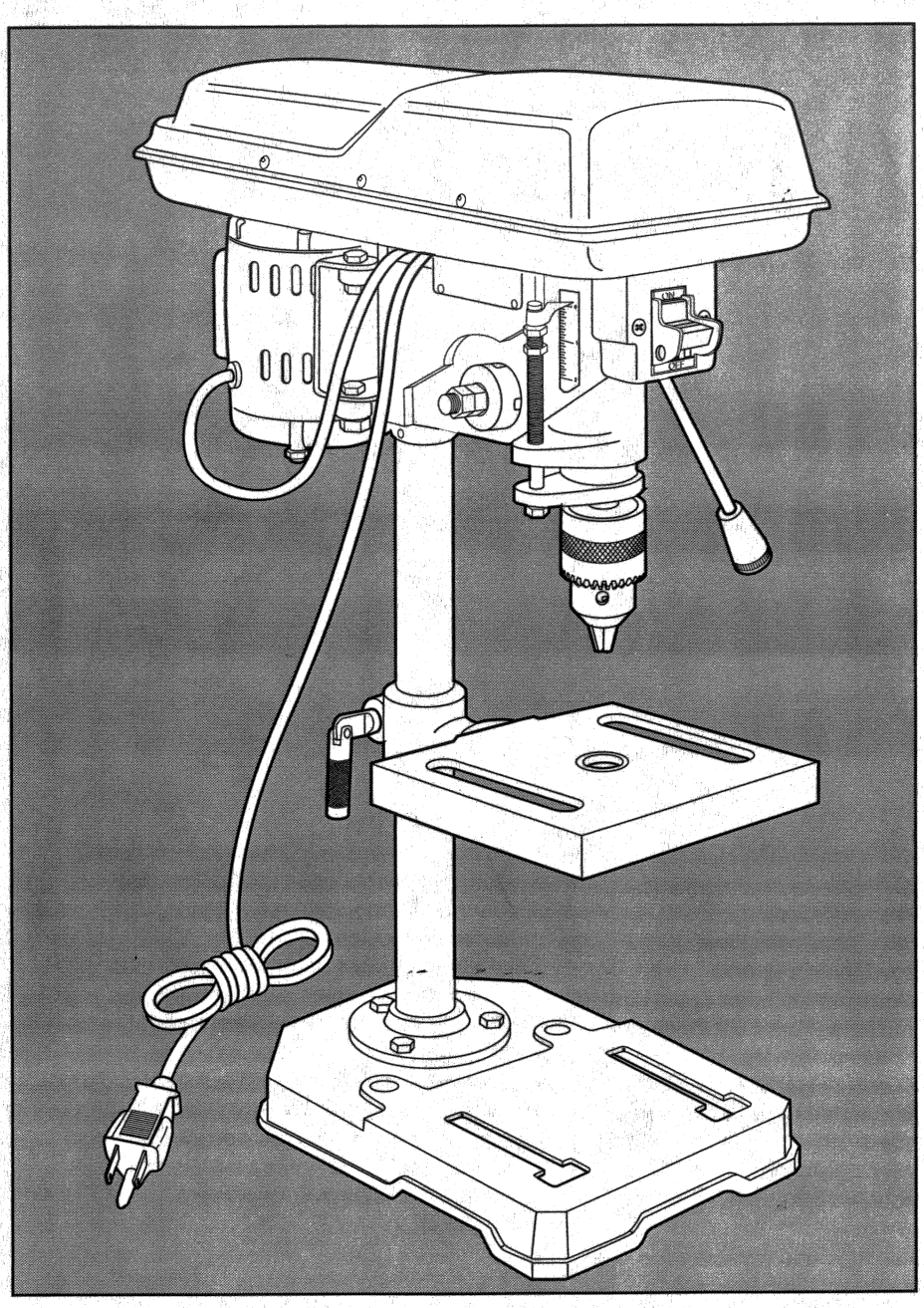
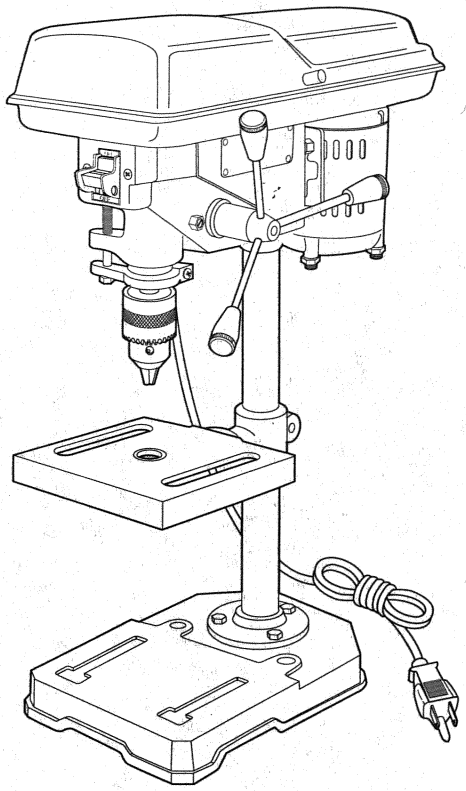
BLACK&DECKER®



Instruction Manual

8" 5-Speed Drill Press

9400



Thank You For Buying a Black & Decker Power Tool.

If you already own a Black & Decker Power Tool you know the pleasures a quality, high performance tool can deliver.

Your new Drill Press has been carefully designed to be a rugged, powerful and accurate tool that will remain the heart of your workshop for years to come. Your Drill Press can, with the proper accessories, drill holes in wood, compositions, metal, plastic, ceramics and almost any other material you can name. With other accessories it can sand, polish and even grind. After a few projects with this versatile tool you'll wonder how you ever got along without it.

Built of high grade steel and durable cast iron for extra toughness, your Drill Press packs the power to tackle the heaviest jobs yet its easy-to-use controls and built-in accuracy make it the perfect tool for experienced craftpersons and novices alike.

Take a few minutes to carefully read this informative instruction manual. Pay particular attention to the Safety Instructions we've provided for your protection.

We want you to enjoy your Black & Decker tool and the more you know about it, and its capabilities, the happier you'll be with it.

Thank you for selecting Black & Decker.

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

BLACK&DECKER®

SAFETY INSTRUCTIONS

WARNING: For Your Own Safety Read Instruction Manual Before Operating Drill Press
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 injuries.
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 a safe distance from work area.
6. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing start keys.
7. **DON'T FORCE TOOL.** It will do the job better and 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.** Don't wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that could 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 dustmask 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 OVERREACH.** 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, and when changing accessories such as blades, bits, cutters, or when clearing away sawdust.
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 part, 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. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
20. **DO NOT OPERATE ELECTRIC TOOLS NEAR FLAMMABLE LIQUIDS OR IN GASEOUS OR EXPLOSIVE ATMOSPHERES.** Motors in these tools may spark and ignite fumes.
21. **USE ONLY THE CHUCK KEY PROVIDED.** The chuck key is designed with a built-in spring to prevent it from being left in the chuck when the tool is turned on. Never use any other chuck key without such a system to prevent start up with the key engaged.
22. **ALWAYS CLAMP THE WORKPIECE** or brace it against the drill press column to prevent rotation.
23. **USE RECOMMENDED SPEEDS** for the drill accessory and the workpiece material.
24. **THESE DRILL PRESSES ARE HEAVY.** Use care in handling them.
25. **SECURE WORK PROPERLY TO PREVENT UNEXPECTED ROTATION WHEN DRILL POINT BREAKS THROUGH WORKPIECE.**

SAVE THESE INSTRUCTIONS FOR FUTURE USE.

Grounding Instructions

ALL GROUNDED, CORD-CONNECTED TOOLS: 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.

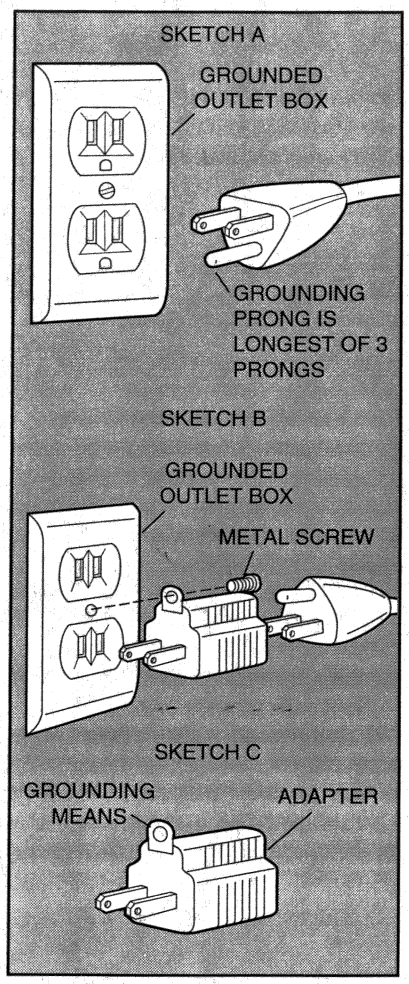
Improper connection of the equipment-grounding conductor can result in a risk of electric shock. The green (with or without yellow stripes) is the equipment-grounding conductor. If repair or replacement of the electric cord is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or serviceman if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.

Repair or replace damage or worn cords immediately.

GROUNDED, CORD-C0NNECTED TOOLS INTENDED FOR USE ON A SUPPLY CIRCUIT HAVING A NOMINAL RATING LESS THAN 150 VOLTS: This tool is intended for use on a circuit that has an outlet that looks 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 (Sketch A) is not available. The green-colored rigid ear, lug, etc. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. The temporary adapter should be used only until a properly grounded outlet (Sketch A) can be installed by a qualified electrician.



Adaptor shown in sketches B & C is not for use in Canada.

Motor

Be sure your power supply agrees with the nameplate marking. 120 volts 50/60 Hz means alternating current (normal 120 volt, 60 Hz house current). A voltage decrease of more than 10% will cause loss of power and overheating. All B&D tools are factory tested; if this tool does not operate, check the power supply.

Lubrication & Maintenance

Permanently lubricated ball bearings are used throughout your Drill Press and periodic lubrication is not required. In the unlikely event that your Drill Press should ever require service, take it to your local Black & Decker Service Center or other qualified service facility. Service Center addresses are listed on the owner's registration card packed with your tool. Do not attempt to repair the tool yourself. There are no user-serviceable parts inside.

A film of any light machine oil on the unpainted parts of your Drill Press will prevent surface rust from forming.

IMPORTANT:

YOUR DRILL PRESS IS DRIVEN BY A RUBBER BELT. IF THIS BELT IS EXCESSIVELY TIGHT ON ITS PULLEYS AND A PARTICULARLY LARGE DRILL BIT IS USED, THERE EXISTS THE POSSIBILITY OF A MOTOR OVERLOAD WHICH WILL SERIOUSLY DAMAGE YOUR MOTOR.

WHEN ADJUSTING THE RUBBER BELT, MAKE IT TIGHT ENOUGH TO REMOVE MOST OF THE SLACK BUT MAKE SURE THAT IT'S ABLE TO SLIP ENOUGH ON THE PULLEYS TO PREVENT A MOTOR OVERLOAD CONDITION.

Unpacking Your Drill Press

Your new drill press carton contains the four main elements of your drill press, plus the hardware needed to assemble it. Each of the four main elements is wrapped in a plastic bag and placed in its own pocket in the foam carton liner. The four main elements of your drill press are:

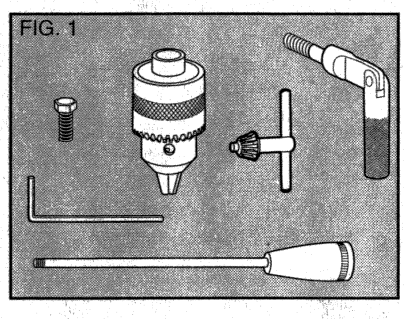
1. The Motor and Drive Unit

2. The Base Plate
3. The Column Assembly
4. The Work Table

Before beginning assembly, examine the contents of the cardboard box and the plastic bag packed with your Drill Press. The box contains the chuck and chuck key and the plastic bag contains all the rest of the hardware needed to assemble the tool.

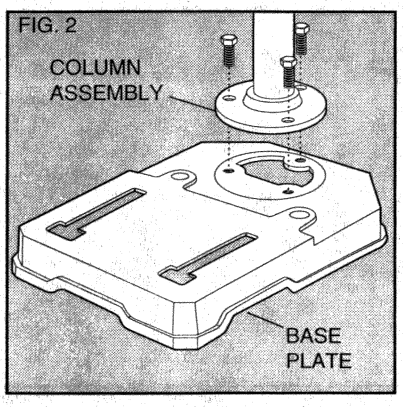
The contents of the plastic bag are displayed in Figure 1. Take a few minutes and become familiar with the nomenclature used to describe the various components.

a. Column Bolts (3)
b. Table Clamping Screw (1)
c. Handles (3)
d. Chuck (1)
e. Hex Wrench (1)
f. Chuck Key (1)

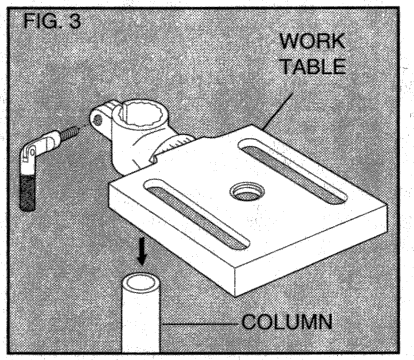


Assembly

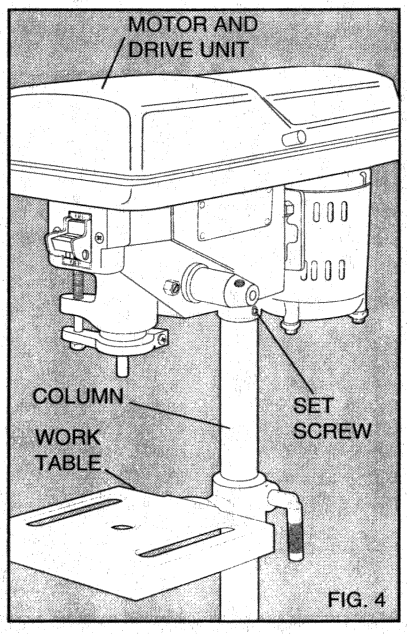
Using the 3 Column Bolts, install the Column Assembly to the Base Plate, as shown in Figure 2. Place the Base Plate/Column Assembly on a smooth, flat surface.



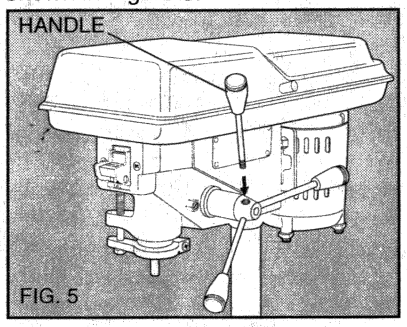
Install the Work Table down over the column, machined surface up, as shown in Figure 3. Insert the Table Clamping Handle into the collar at the back of the work Table, as shown in the figure. Make sure that you insert the threaded end of the handle THROUGH the unthreaded side of the collar BEFORE engaging the threads. Position the Work Table about midway on the column and directly over the Base Plate.



Install the Motor and Drive Unit on top of the column and make sure that it fits firmly against the shoulder in the column. Position the drive spindle directly over the Work Table and tighten the set screw in the side of the Motor and Drive Unit, as shown in Figure 4.



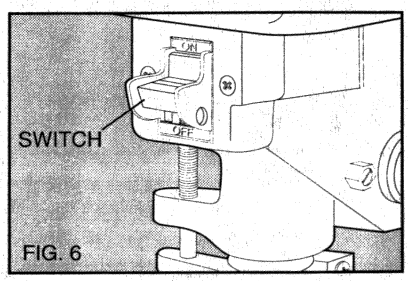
Install the three handles, as shown in Figure 5.



The small cardboard box stored with the plastic hardware bag contains the Chuck and Chuck Key. Before installing the chuck thoroughly clean the tapered spindle and the mating cavity in the chuck with a non-flammable solvent, on a rag, to remove the oily residue on each surface. To install the Chuck, press it firmly up onto the tapered drive spindle. You may tap it a few times with a plastic hammer to assure a firm fit. **DO NOT USE A STEEL HAMMER**. No threads are involved. **NOTE:** The Chuck Key has a built-in spring to keep it from being accidentally left in the chuck. Do not disable or circumvent this safety feature in any way. To do so will create a potentially hazardous condition.

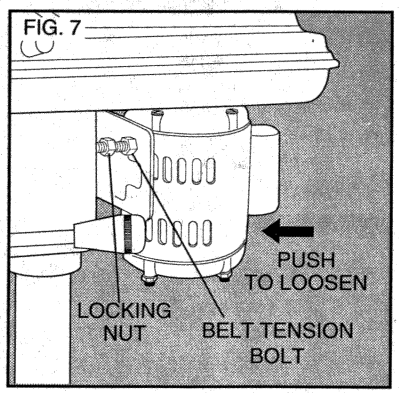
Controls

SWITCH: The switch is located on front of the drill press, as shown in Figure 6. To turn the tool "ON", flip the toggle upward and to turn the tool "OFF", flip the toggle down. The switch will stay in either position without being held. For safety the red switch button may be removed when the switch is in the off position. This will prevent unintentional starting by others.



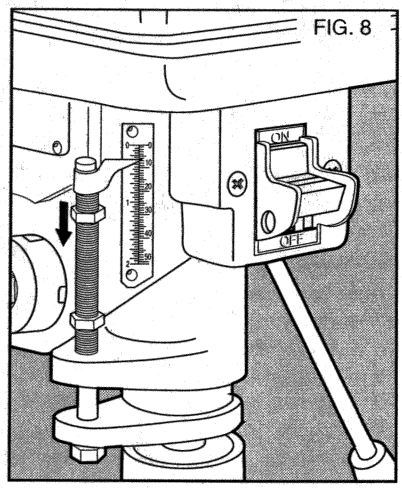
SPEED — DRIVE BELT ARRANGEMENT: TURN OFF AND UNPLUG DRILL PRESS BEFORE MAKING ANY ADJUSTMENTS. ALWAYS WEAR EYE PROTECTION. Your drill press is capable of running at five different speeds, each one determined by the arrangement of the drive belt and pulley system inside the top of the Motor and Drive Unit. A handy chart that describes how to select a particular speed is attached to the inside of the drive belt cover.

To select a speed, loosen the locking nut and screw the belt tension bolt into the drive unit (Figure 7) .Push the motor forward to loosen the drive belt. Adjust the belt as desired, referring to the chart. Retighten the belt by pushing back on the motor. Back the belt tension bolt out of the drive unit until the belt is snug on the pulleys. Tighten locking nut to motor housing to lock the belt tension bolt. **NOTE**: It is not necessary to put great pressure on the drive belt. Just remove most of the slack. The belt should be able to slip in case the drill bit jams in the hole.



DRILLING DEPTH CONTROL: On the left side of the Motor and Drive Unit is the Drilling Depth Control Assembly. To set the drilling depth (from 0 to 2"), first raise the chuck to its full up position. (It should do this automatically with spring pressure.)

Adjust by hand, the depth pointer shown in Figure 8 so that it points to zero and rotate both hex nuts counterclockwise until they are both up next to the pointer. Lower the chuck using one of the three handles to the desired depth. Hold the chuck in place while you screw down the lower hex nut on the Drilling Depth Control Assembly, as shown in Figure 8. Screw the nut down until it contacts the boss protruding from the side of the Drive Unit shown in Figure 8.

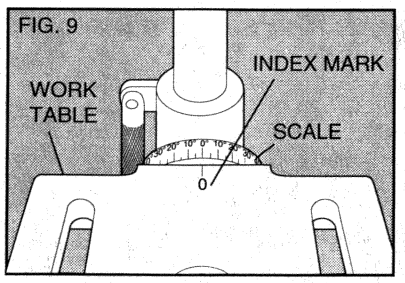


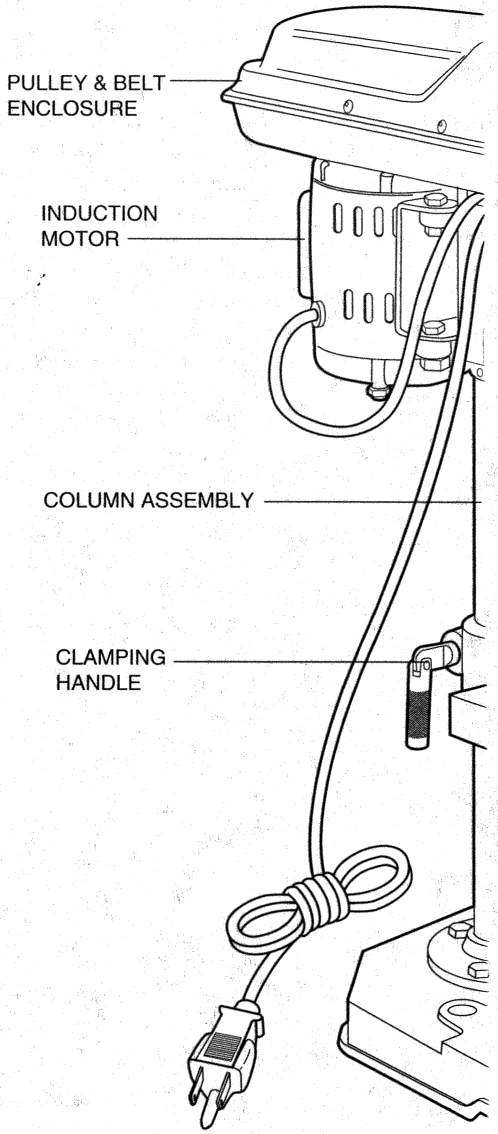
Lock the nut in place by screwing the top hex nut down against the lower one. Release the handle letting the chuck rise to its full height.

When you drill a hole and the lower hex nut "bottoms out" on the boss, the drill bit will continue to rotate but will go no deeper.

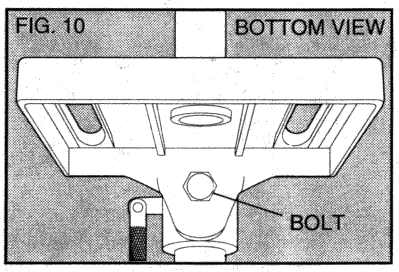
Additional Features

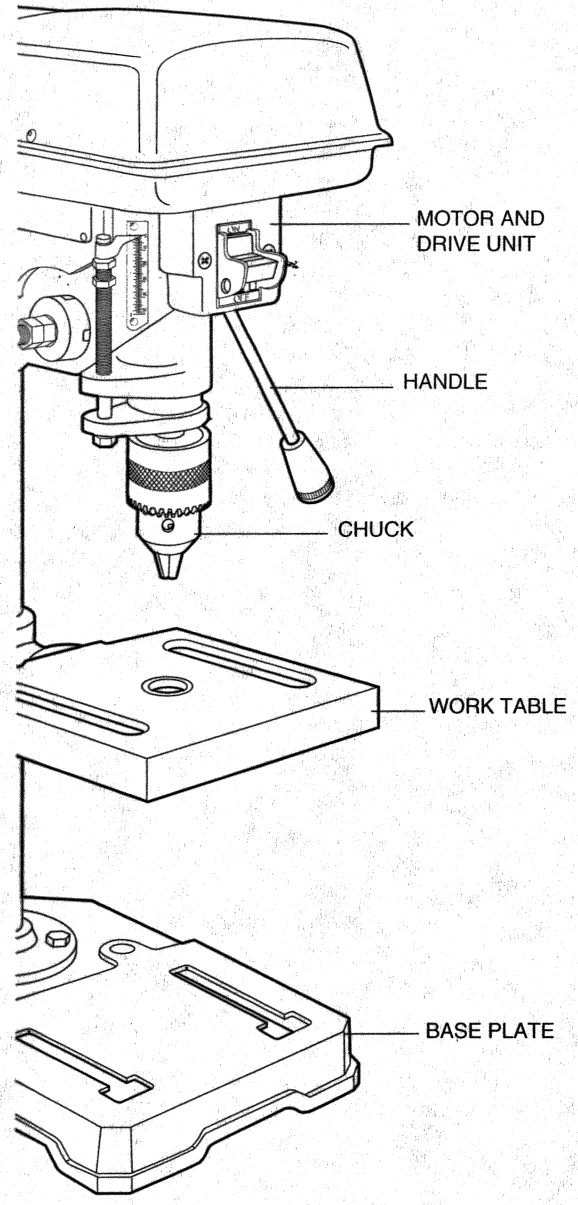
TILTING THE WORK TABLE: The Tilting Work Table is designed to tilt up to 45° left and right and includes a precision scale marked in degrees from 0 to 45°, as shown in Figure 9.





To adjust the table to some angle other than 0° (horizontal), loosen the large bolt located under the Work Table, as shown in Figure 10.





Tilt the table as desired and align the "0" mark on the table with the appropriate mark on the scale. Tighten the bolt to hold the table at the desired angle.

ROTATING WORK TABLE: For drilling applications where you need a little extra height, the Work Table can be rotated out of the way by loosening the table clamping handle and pushing the table to one side. This allows you to clamp the workpiece to the Base Plate and, thus, get a little more height for taller workpieces.

NOTE: WE STRONGLY RECOMMEND THAT YOU FIRMLY MOUNT YOUR DRILL PRESS TO A SOLID WORKBENCH OR OTHER RIGID FRAME.

ROTATING MOTOR AND DRIVE UNIT: The Motor and Drive Unit rotates about the column in order that you may drill objects that are off the table such as that shown in Figure 11. To rotate the Motor and Drive Unit, use the hex wrench provided and loosen the hex screw that clamps to Motor & Drive Unit to the column. Rotate as desired and re-tighten the screw.

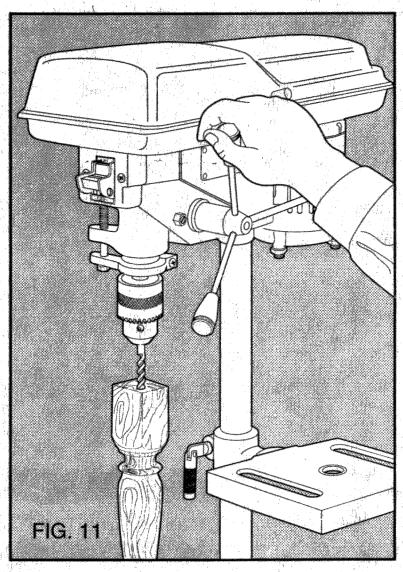


FIG. 11

NOTE: WE STRONGLY RECOMMEND THAT YOU FIRMLY MOUNT YOUR DRILL PRESS TO A SOLID WORKBENCH OR OTHER RIGID FRAME.

Bench Mounting

NOTE: WE STRONGLY RECOMMEND THAT YOU FIRMLY MOUNT YOUR DRILL PRESS TO A SOLID WORKBENCH OR OTHER RIGID FRAME. Two holes are provided in the base for this purpose. Use large wood screws if mounting to wood or appropriate machine screws and nuts if mounting to metal.

To enhance the tool's portability, it can be mounted to a piece of 5/8" or thicker plywood which can, in turn, be "C" clamped to your work surface as shown in figure 12 below.

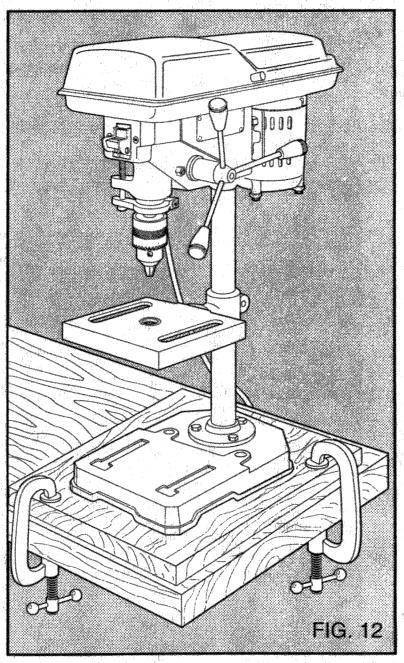


FIG. 12

ALWAYS CLAMP THE WORKPIECE.

ALWAYS WEAR EYE PROTECTION.

Speed Selection

The five speeds of which your drill press is capable will handle almost any drilling project you may encounter. Generally speaking, you should use lower speeds for drilling in metals and higher speeds for drilling in wood and wood compositions. Use the Speed Selection Chart as a guide in determining the best drilling speed for your application. Always experiment in scrap material if possible.

As a general rule you should drill pilot holes for metal drilling (except when using hole saws). Also use cutting oil with most metals except case iron and brass which should be drilled dry.

When using a twist bit for drilling wood or wood compositions, it will be necessary to pull the bit from the hole frequently to clean chips from the flutes.

Care should be exercised when drilling plastics to avoid melting them.

ALWAYS CLAMP THE WORKPIECE.

ALWAYS WEAR EYE PROTECTION.

Material Being Drilled	Type of Drill Bit	Speed Setting #9400	Comments
Metal: Ferrous & Non-Ferrous	High Speed Steel Twist Bit	620 or 1100 RPM	Generally the low speeds are best for drilling metal.
Metal: Ferrous & Non-Ferrous	Hole Saw	620 or 1100 RPM	Generally lower speeds are best. Hole saws are noisy.
Ceramics, Masonry, Glass	Carbide Bit	620 RPM	Use very low speeds and light pressure.
Plastics & Laminates	High Speed Steel Twist Bit	620 or 1100 RPM	Use care to avoid melting.
Plastics & Laminates	Hole Saw	620 or 1100 RPM	Use care to avoid melting.
Wood & Wood Compositions	High Speed Steel Twist Bit	1720, 2340 or 3100 RPM	Remove bits from hole often to remove chips.
Wood & Wood Compositions	All Other Bits (Spade, Auger, Hole Saw)	1720, 2340 or 3100 RPM	

SPINDLE RPM	CHUCK	MOTOR
3100		
2340		
1720		
1100		
620		

Operation

ALWAYS WEAR EYE PROTECTION. TURN OFF AND UNPLUG DRILL PRESS WHEN MAKING ANY ADJUSTMENTS.

These four steps constitute the actual drilling of a hole. Before you start step 1, select the proper speed, set the drilling depth control, position the work table so that the desired drilling depth can be attained (not too low), and centerpunch the position of the hole to be drilled.

Drill in the center of the Work Table so that the drill bit will pass harmlessly through the clearance hole.

1. Clamp Work — Always clamp the workpiece to the Work Table or other supporting surface. Use "C" clamps, bar clamps, cinch clamps or any other device you can find to solidly anchor the workpiece.
2. Insert the desired drill bit into the chuck as far as it will go and then pull it back out about 1/16". Tighten the chuck with the key in all three holes. (It is important to tighten in all three holes.)
3. Make sure that the switch is OFF and plug the tool in. Turn the drill ON.
4. Using one of the three handles, lower the drill bit into the workpiece, as shown in Figure 13.

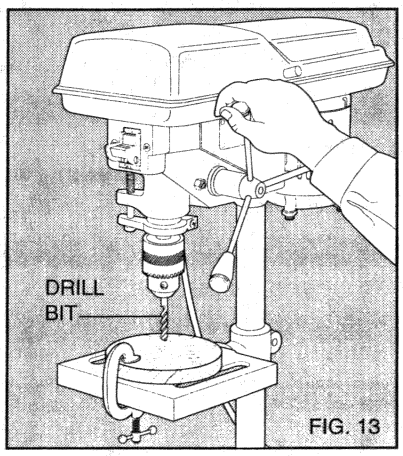


FIG. 13

Accessories

The accessories in this manual are recommended for use with your Drill Press. The use of any other accessories or attachments may be hazardous.

Use the accessories listed only in the sizes specified.

When using any of these accessories with your tool, be sure to wear safety glasses. See safety instructions 9 & 10 on page 3 of this manual.

Twist Bits
Up to 1/2" diameter

Hole Saws
Up to 2-1/2" diameter

Spade Bits
Up to 1-1/2" diameter;
1-1/2" thick

Wire Brushes
Up to 4" diameter

Sanding Discs
Up to 5" diameter

Sanding Drums
Up to 2-1/4" diameter

Buffing Wheels
Up to 4" diameter

Replacement Chucks and Chuck Keys are available at Black & Decker Service Centers only.

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 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

Important

To assure product safety and reliability, repairs, maintenance and adjustment should be performed by Black & Decker Service Centers or other qualified organizations, always using Black & Decker replacement parts.

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 (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 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.

Notes

Notes

Black & Decker's Full Two Year Home Use Warranty states that, in case of a defect, you may return the tool to the place of purchase for a free replacement (if it is a participating retailer) or you may take it to a Black & Decker Service Center.

Home Use Warranty
(A Full Two Year Warranty)

Black & Decker (U.S.) Inc. warrants this product for two years 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.

Like most Black & Decker tools, your Drill Press is listed by Underwriter's Laboratories to ensure that it meets stringent safety requirements.

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

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

See 'Tools-Electric'
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