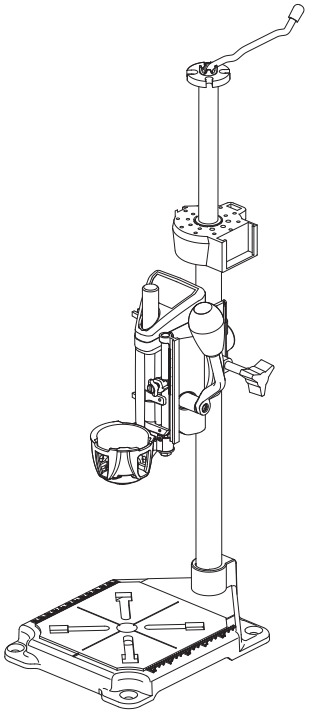
IMPORTANT:
Read Before Using

IMPORTANT :
Lire avant usage

IMPORTANTE:
Leer antes de usar

Operating/Safety Instructions
Consignes de fonctionnement/sécurité
Instrucciones de funcionamiento y seguridad

220



DREMEL®

Call Toll Free for Consumer Information & Service Locations

Pour obtenir des informations et les adresses de nos centres de service après-vente, appelez ce numéro gratuit

Llame gratis para obtener información para el consumidor y ubicaciones de servicio

1-800-4-DREMEL (1-800-437-3635) www.dremel.com

For English Version
See page 2

Version française
Voir page 13

Versión en español
Ver la página 20

FIG. 1

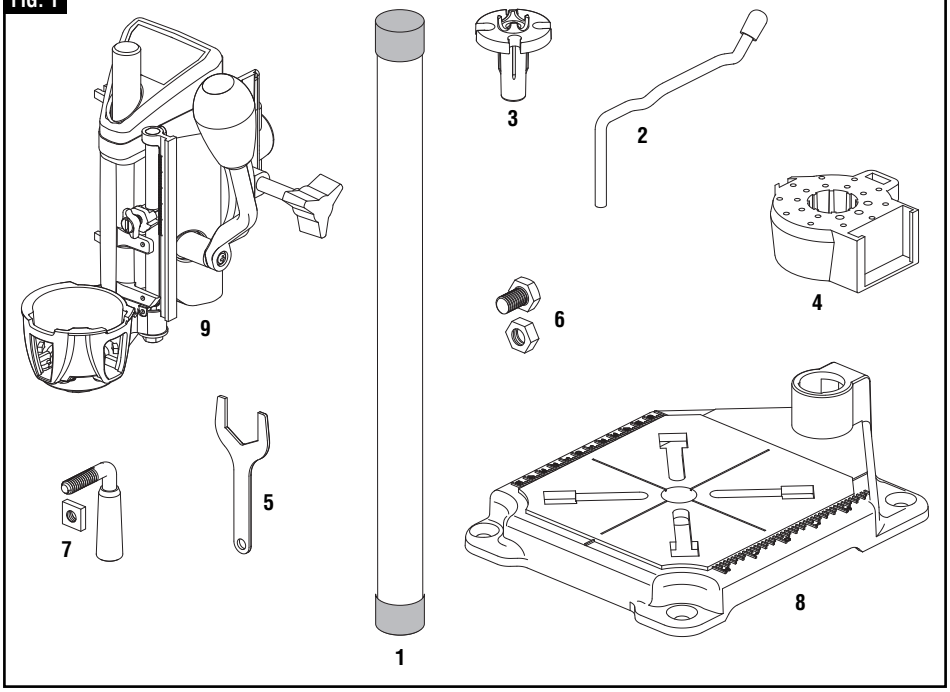


FIG. 2

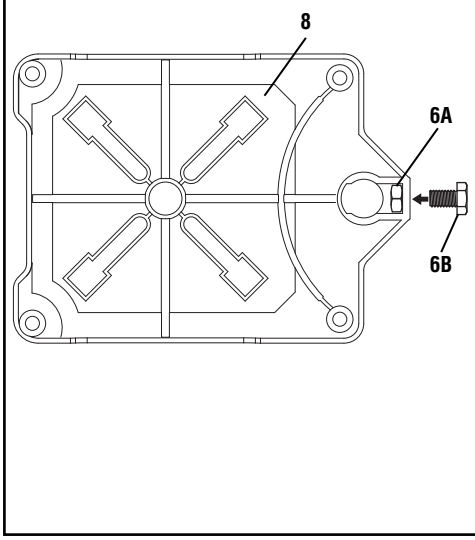


FIG. 3

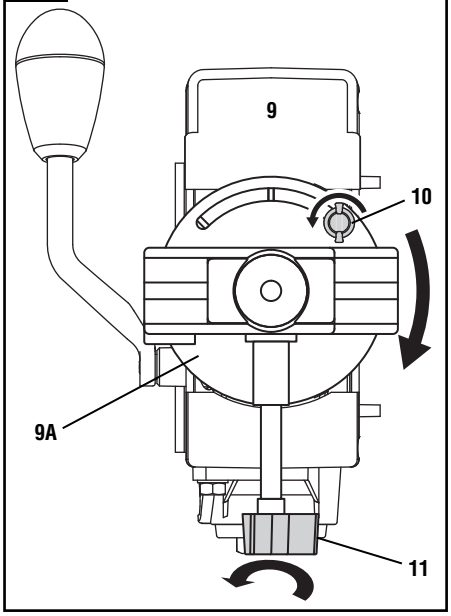


FIG. 4

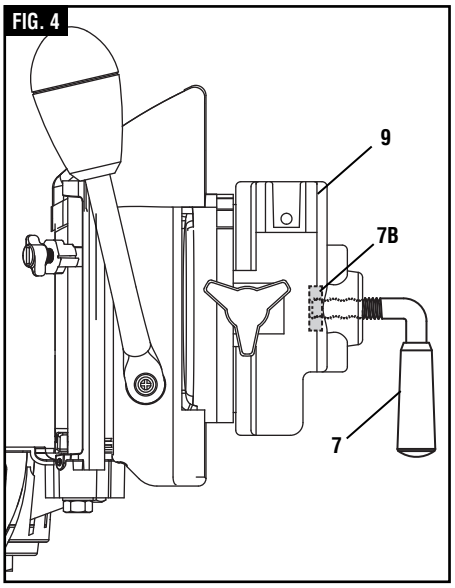


FIG. 5

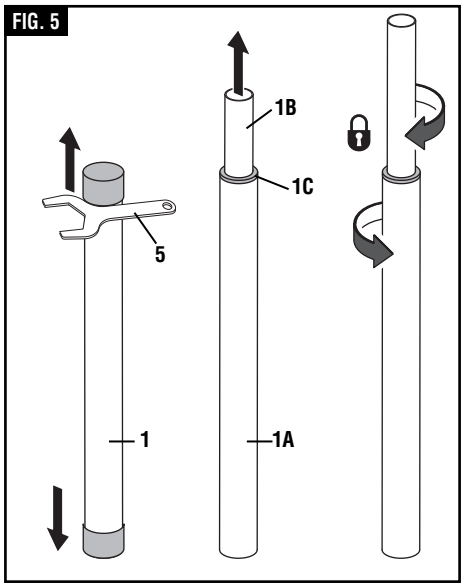


FIG. 6

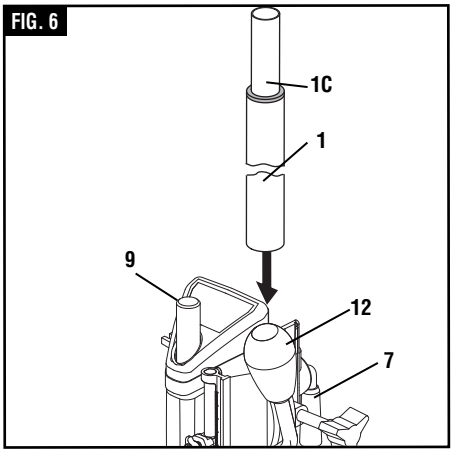


FIG. 7

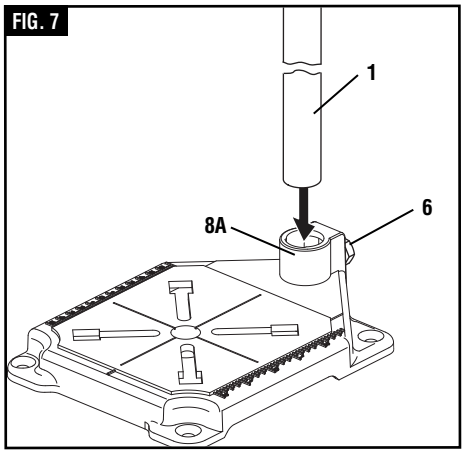


FIG. 8

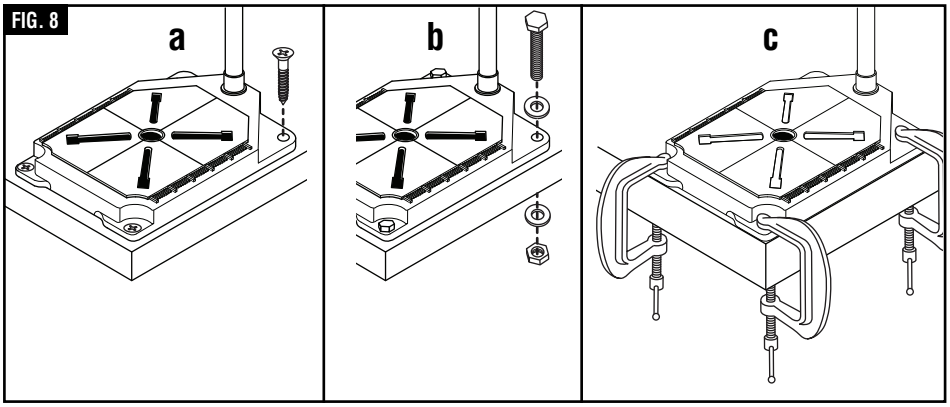


FIG. 9

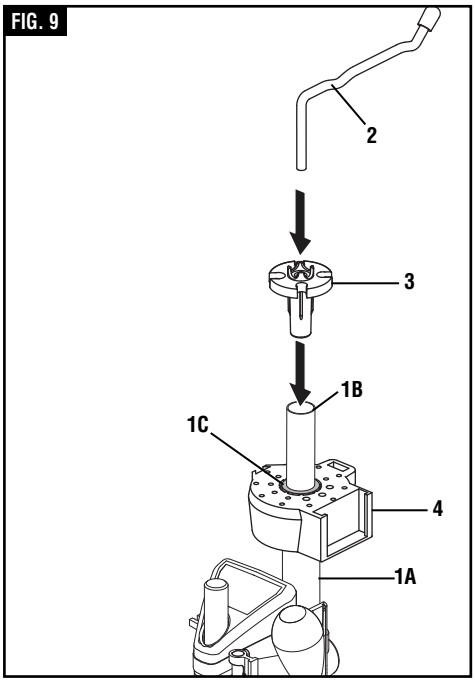


FIG. 11

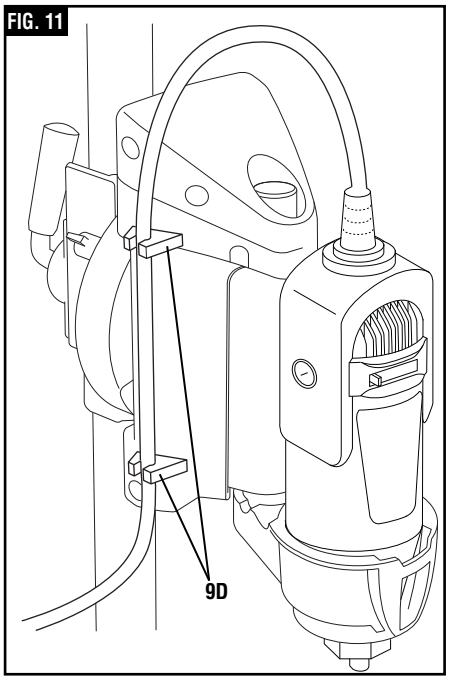


FIG. 10

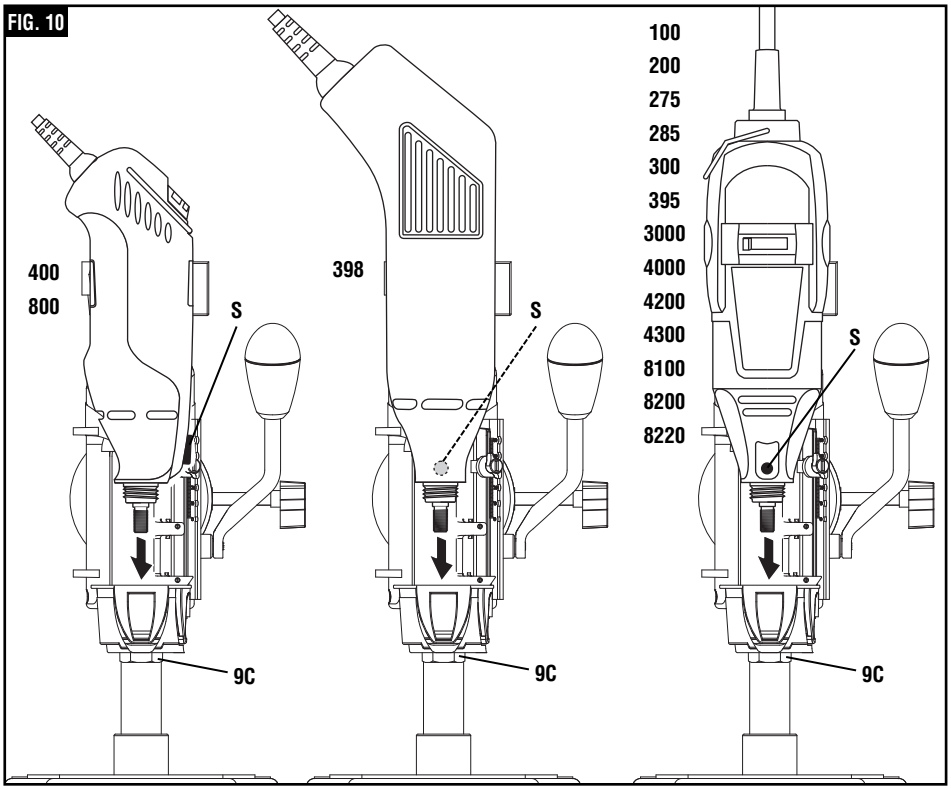


FIG. 12

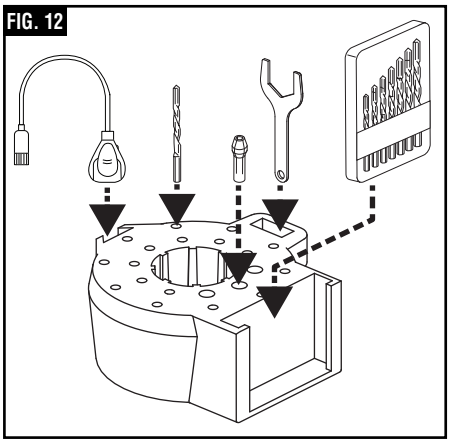


FIG. 13

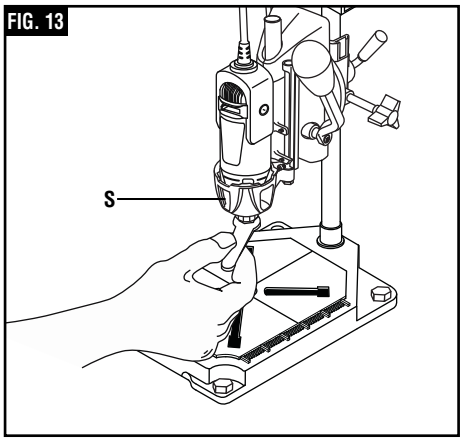


FIG. 14

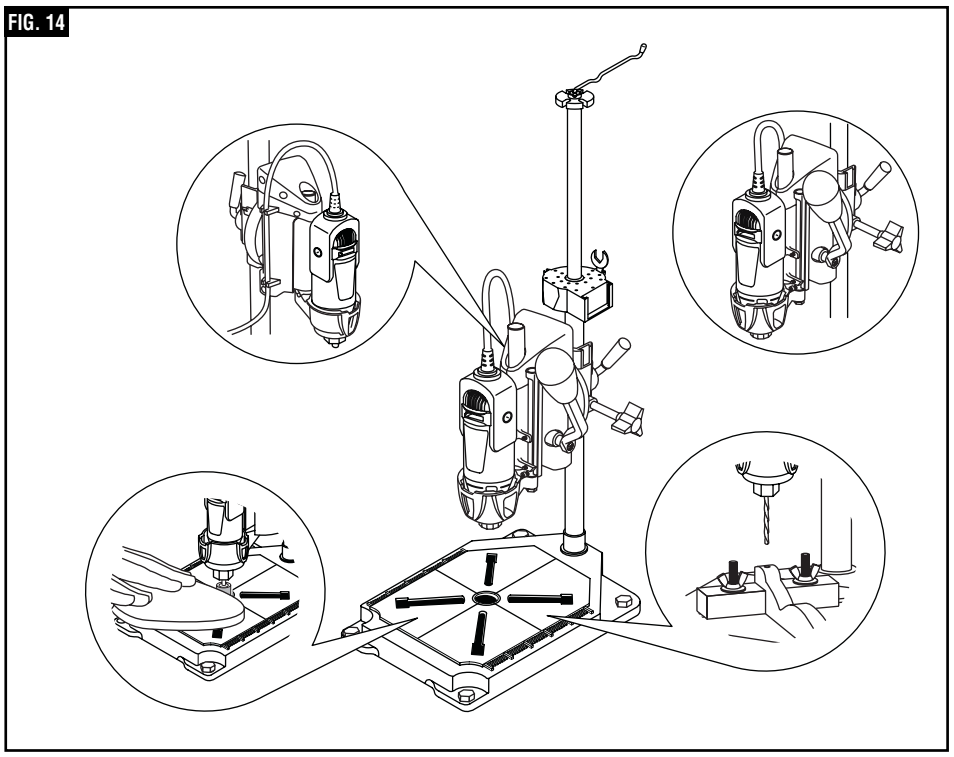


FIG. 15

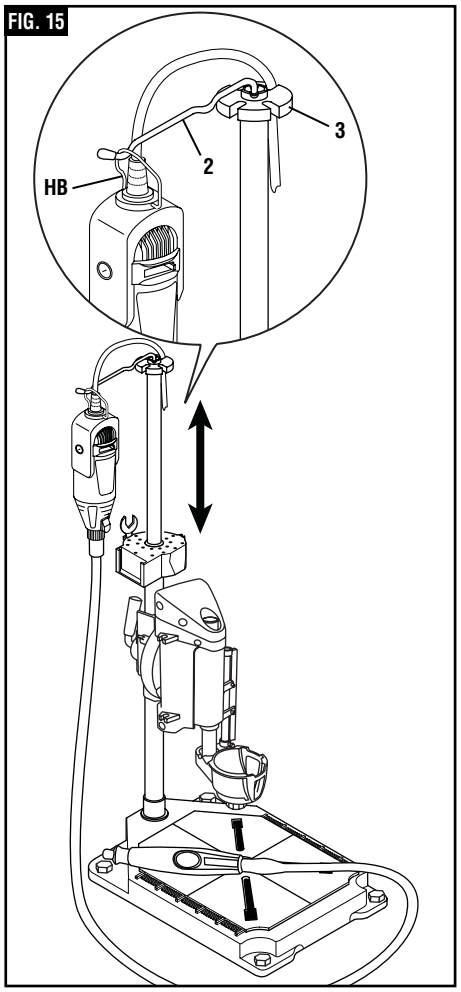


FIG. 17

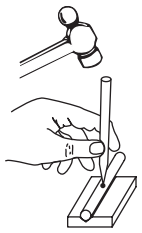


FIG. 18

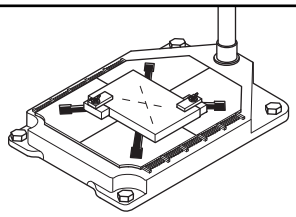


FIG. 19

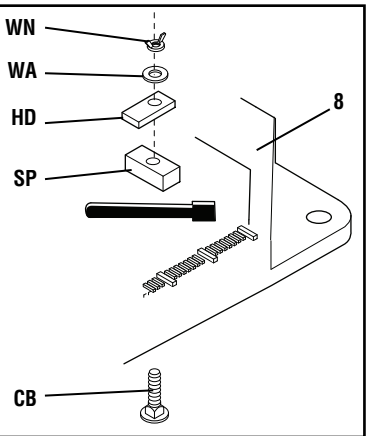
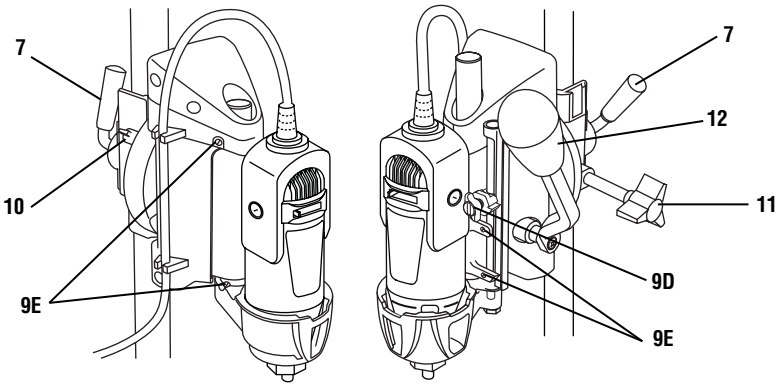


FIG. 16



Safety Symbols The definitions below describe the level of severity for each signal word. Please read the manual and pay attention to these symbols.	
	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠DANGER	DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠WARNING	WARNING indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠CAUTION	CAUTION, used with the safety alert symbol, indicates a hazardous situation which, if not avoided, will result in minor or moderate injury.

Safety Rules for Dremel Workstation

⚠WARNING **Read all safety warnings and all instructions.** Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments or changing accessories. Accidental starting of the power tool is a cause of some accidents.

Properly assemble the workstation before mounting the power tool. Proper assembly is important to prevent risk of collapse.

Securely fasten the power tool to the workstation before use. Power tool shifting in the workstation can cause loss of control.

Place the workstation on a solid, flat and level surface. When the workstation can shift or rock, the power tool or workpiece cannot be steadily and safely controlled.

Securely fasten workstation to a stable platform or workbench. During operation unstable platforms or workbenches may shift or tip causing loss of control and injury.

Know how to shut off the power tool! Position the power tool so that switch is readily accessible to quickly shut off in an emergency.

Route the cord away from the bit or cutting area. Cutting into live electrical wires may result in a shock, burn or electrocution.

Wear eye protection and dust mask. Use only in well-ventilated area. Using personal safety devices and working in safe environment reduces risk of injury.

Do not wear gloves, necktie or loose clothing during operation of the power tool. Tie back long hair or use a hair net. Clothing or hair can become caught in the spinning bit and injury may occur.

Match the appropriate bit and its speed to your application. Do not use bits that have a cutting diameter that exceed the capacity of the power tool. The workstation is intended primarily for light duty use on wood. Overloading the power tool can lead to personal injury or power tool failure.

Never use dull or damaged bits. Sharp bits must be handled with care. Damaged bits can snap during use. Dull bits require more force to push the workpiece, possibly causing the bit to break.

Always make sure the workpiece is free from nails and other foreign objects. Cutting into a nail will damage the bit and can cause the workpiece to jump causing loss of control.

This workstation was designed for drilling,

sanding, brushing, polishing or grinding applications, other applications may present hazards that cannot be adequately guarded.

Never start the power tool when the bit is engaged in the material. The bit cutting edge may grab the material causing loss of control of the workpiece.

Do not reach in the area of the spinning bit. The proximity of the spinning bit to your hand may not always be obvious. Workpiece could shift or your hand could slip during operation.

After changing the bits or making any adjustments, make sure the collet nut and any other adjustment devices are securely tightened. Loose adjustment device can unexpectedly shift, causing loss of control, loose rotating components will be violently thrown.

Never touch the bit during or immediately after the use. Contact with a spinning bit will cause injury and after use the bit is too hot to be touched by bare hands.

Do not leave a running power tool unattended, turn power off. Only when power tool comes to a complete stop it is safe to remove workpiece and clean the stand.

Before operation, clamp workpiece or brace against base column. Never hold a small workpiece in one hand and bring the drill down. Clamping the workpiece allows you to use both hands to control the workstation. Securing workpiece will prevent it from spinning or climbing during drilling operation.

Use a "V" block for supporting round stock such as tubes or rods when drilling. Round material such as dowel rods, pipes or tubing have a tendency to roll while being cut, and may cause the bit to "bite" or the workpiece to jump toward you.

You must set and lock drill press assembly in the desired position and depth of cut when performing operations other than drilling. Bring the workpiece to the power tool and allow for sufficient space between your hand and the spinning bit. Contact with the spinning bit will cause injury.

If the side of **any** rotating accessory is used to perform the work, for example a sanding drum, the workpiece must be positioned on the side of the accessory that rotates against the feed direction of the workpiece. Placing the workpiece on the side of the accessory where the feed direction and accessory rotation are same may cause the workpiece to be pulled by the rotating accessory and lead to loss of control during operation.

Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool. Power tools are dangerous in the hands of untrained users.

Maintain workstation. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the workstation's operation. If damaged, have the workstation repaired before use. Many accidents are caused by poorly maintained workstation.

Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.

Use only grinding wheels, sanding disks/drums and drill bits when using the power tool in the workstation. Any other accessory will cause injury to the user.

THINK SAFETY! Safety is a combination of operator COMMON SENSE and ALERTNESS at all times when the tool is being used.

Service

Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.

⚠WARNING Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects and other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints,
- Crystalline silica from bricks and cement and other masonry products, and
- Arsenic and chromium from chemically-treated lumber.

Assembly

⚠WARNING Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

For illustrations refer to pages 2 - 6

Identify the loose parts in the package based on Fig. 1 and the list below

1 - Tube assembly

2 - Hanger wire

3 - Cord holder

4 - Crow's nest

5 - Clamp wrench

6 - Base hex bolt and nut

7 - Height adjustment lever with square nut

8 - Base

9 - Drill press assembly

- Flip the base **8** upside down. Attach the hex bolt **6B** and nut **6A** to the base as shown (Fig. 2). Do not tighten just yet.
- Grab the drill press assembly **9**. Loosen the large angle lock knob **11** and small lock knob **10**. Rotate the angle adjustment assembly **9A** ninety degrees clockwise (Fig. 3).
- Using index finger, insert the square nut **7B** inside the drill press assembly **9** and screw in the height adjustment lever **7** as shown (Fig. 4). Do not tighten just yet.
- Pull plastic caps off of the tube assembly **1**. The easiest way to it is by "scraping" the caps off using wrench **5** (Fig. 5). Once the caps are off, avoid shaking the tube assembly as the extension tube might slide out.
- Pull the extension tube **1B** about 2 - 3 inches through the top end (with plastic ring **1C**). Lock the extension tube in place by rotating the tubes in opposite directions as shown (Fig. 5). This will prevent the extension tube from sliding out.
- Slide the tube assembly into the drill press **9** as shown (Fig. 6). Make sure the plastic ring **1C** of the tube assembly and the drill press lever **12** are both pointing UP.
- Secure the drill press assembly **9** on the outer tube **1** by tightening (clockwise) the height adjustment lever **7** (Fig. 6).
- Insert the bottom end of the tube assembly **1** (without plastic ring **1C**) into the base column **8A** and secure it in place by tightening the base bolt **6** with 17mm wrench or an adjustable wrench (not included). See Fig. 7.
- With small holes pointing up, install the crow's nest **4** on the top end (with plastic ring **1C**) of the outer tube **1A** (Fig. 9).
- Insert the cord holder **3** into the extension tube **1B** (Fig. 9).
- Insert the hanger wire **2** into the cord holder **3**. Make sure the rubber cap is on the longer end tip of the hanger wire (Fig. 9).

Mounting on workbench

Base **8** has to be securely mounted to workbench.

Permanent attachment to workbench using wood screws

All four mounting holes on the base should be secured to workbench using 5/16" countersunk wood screws (not included). See Fig. 8 **a**.

- Locate and mark where the base is to be mounted.
- Drill four pilot holes in workbench.
- Place the base on the workbench, aligning holes in base with pilot holes drilled in workbench.
- Drive four screws to secure the base.

Permanent attachment to workbench using bolts

All four mounting holes should be bolted securely using 5/16" bolts, lock washers and hex nuts (not included). See Fig. 8 **b**.

- Locate and mark where the base is to be mounted.
- Drill four 5/16" diameter holes through workbench.
- Place the base on the workbench, aligning holes in base with holes drilled in workbench. Install bolts, lock washers and hex nuts.

Temporary Mounting Using Clamps

"C" clamps (not included) can be used to temporary mount the base to a workbench or

table top. Using the corner of the workbench is the most secure since at least 3 clamps can be used. See Fig. 8 **c**.

Rotary tool installation

To install rotary tool

- Remove nose cap from rotary tool.
- Insert the rotary tool into drill press unit **9** and secure it in place by tightening the clamp nut **9C** with clamp wrench **5** (Fig. 10).

  NOTE: Model 398 mounts with shaft lock **S** to the back and cord to the right. Models 400 and 800 mount with shaft lock **S** to the right.

  NOTE: When clamping rotary tool in holder, make sure tool is seated properly and vent openings are not covered.
- Insert power cord into the cord clips **9D** (Fig. 11). This will keep power cord away from the work area.

  NOTE: Make sure there is sufficient slack to keep the cord from being pulled tight when the full stroke of the drill press is conducted.

Operation

⚠WARNING Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

For illustrations refer to pages 2 - 6

WORKSTATION IS DESIGNED FOR USE ONLY WITH DREMEL ROTARY TOOL MODELS 100, 200, 275, 285, 300, 395, 398, 400, 800, 3000, 4000, 8100, 8200, 8220, 4200 and 4300**.**

Your Dremel Workstation 220 will convert rotary tools to a drill press for drilling, to a tool holder for sanding or polishing, or to a flex shaft tool stand.

⚠WARNING Workstation is for use with only one tool at time. Do not hang a tool on hanger assembly when another tool is mounted in the press.

The Crow's Nest tool storage (Fig. 12) will hold the following tools:

- Drill bit set (Model 628 or 631)
- Rotary tool wrench
- Mounting wrench
- Bits with shank size less than or equal to 1/8"
- Rotary tool collets (Models 480, 481, 482, 483)

Drill Press Instructions

NOTE: The drill bits are held in the tool by a collet system or Dremel 3-jaw chuck. The bit may be installed before or after the rotary tool is installed in the drill press.

1. Insert and secure the drill bit into Dremel rotary tool. See your rotary tool manual for detailed instructions (Fig. 13).
2. The Depth Stop is used when you wish to drill holes to a measured depth. A scale on the press housing is provided for your convenience.

   Set the depth stop adjustment to the desired depth and tighten depth stop lock knob **9D** (Fig. 16). Four set screws **9E** are also provided on the depth gauge and left side of the housing assembly (See Fig. 16). These screws allow for micro adjustments to the action of the drill press. Use small flathead screwdriver to tighten or loosen the movement of the press. Be carefull not to overtighten set screws.
3. The small Angle Lock knob **10** and large Angle Lock knob **11** are used to secure the tool either vertically or at a 90° angle. Tool may be used at a 15°, 30°, 45°, 60°, 75° or 90° angle for off axis drilling applications (Fig. 16).

   Loosen the large and small knobs and rotate the tool, then securely tighten both angle lock knobs.
4. The Height Adjustment Lever **7** is used to secure the press on the tube at the proper height (Fig. 16).

   Loosen the lever and move the press/tool assembly to the desired position, then tighten the height adjustment lever.
5. Mark the hole locations on the workpiece

and center punch at these locations. Center punching will prevent walking of the drill point and ensure proper hole location. The benefits of center punching are less drill breakage and better hole size tolerance (Fig. 18).

6. Secure the workpiece to the base before drilling. This will keep the workpiece from climbing the drill bit or spinning. This will result in s safer experience and better quality work. Hold down clamps (not included) are very good for holding workpieces, or use a small utility vise for holding the workpiece when drilling (Fig. 18).
7. Loosen the Height Adjustment Lock lever **7** 1/2 turn and move the press on the tube until drill bit tip is near the workpiece. (A maximum of 1/4" between drill bit tip and workpiece is recommended.) Retighten lock lever.
8. Grasp the Press Handle **12** and pull down to drill hole.

Helpful hints

When drilling round pieces, use a "V" block or vise. To drill a hole in the center of a round piece, a center punch mark is necessary (Fig. 17). Use center punch to make center punch mark (not included).

Avoid force feeding to such an extent that the motor speed is noticeably reduced. Also, feed carefully when approaching point of breakthrough. This will avoid making ragged breakthrough edges.

For accurate drilling, lower the tool to a location where the end of the drill bit is within 1/4" of the workpiece before advancing the handle for feeding the drill. Using minimum stroke and center punching at the location to be drilled will ensure accurate drilling.

Tool Holder Instructions

NOTE: The drill bits are held in the tool by a collet system or Dremel 3-jaw chuck. The bit may be installed before or after the rotary tool is installed in the drill press.

1. Insert and secure the drill bit into Dremel rotary tool. See your rotary tool manual for detailed instructions
2. The small Angle Lock knob **10** and large Angle Lock knob **11** are used to secure the tool either vertically or at a 90° angle. Tool may be used at a 15°, 30°, 45°, 60°, 75° or 90° angle for sanding, polishing or wire wheel application (Fig. 16).

   Loosen the large and small knobs and rotate the tool, then securely tighten both angle lock knobs.
3. The Height Adjustment Lever **7** is used to secure the press on the tube at the proper height (Fig. 16).

   Loosen the lever and move the press/tool assembly to the desired position, then tighten the height adjustment lever.

Flex Shaft tool stand Instructions

⚠WARNING **Workstation is for use with only one tool at time.** Do not hang a tool on hanger assembly when another tool is mounted in the press.

1. Swing the hanger bail **HB** away from the rotary tool body (Fig. 15).
2. Hang the tool hanger bail on the hanger wire **2** (Fig. 15).
3. Tuck the power cord into the cord holder **3** (Fig. 15).

Making optional hold down clamps for your Work Station 220

Hold down clamps can be fabricated out of wood, steel or aluminum, depending on your application (Fig. 19).

1. Cut or saw material to desired length, width and height.
2. Drill a hole using a 5/16" or 21/64" drill bit in the desired location, through the hold down clamp **HD**.
3. Mount the hold down clamps **HD** using a 5/16"-18 x 1-1/2" or 2" length carriage bolts **CB** with matching washers **WA** and wing nuts **WB**.
4. Mount to base by sliding the head of the carriage bolt **CB** up through the bottom of the base **8** with the washers and wing nuts on top.

When using hold down clamps **HD** on workpieces larger than 1/4" in thickness, always use a spacer block **SP** to support the back side of the clamp. For the best support, the spacer block should be cut about 1/8" shorter in height than the workpiece.

Dremel® Limited Warranty

Your Dremel product is warranted against defective material or workmanship for a period of one year from date of purchase. In the event of a failure of a product to conform to this written warranty, please take the following action:

1. DO NOT return your product to the place of purchase.
2. Carefully package the product by itself, with no other items, and return it, freight prepaid, along with:
   A. A copy of your dated proof of purchase (please keep a copy for yourself).
   B. A written statement about the nature of the problem.
   C. Your name, address and phone number to:

We recommend that the package be insured against loss or in transit damage for which we cannot be responsible.

This warranty applies only to the original registered purchaser. DAMAGE TO THE PRODUCT RESULTING FROM TAMPERING, ACCIDENT, ABUSE, NEGLIGENCE, UNAUTHORIZED REPAIRS OR ALTERATIONS, UNAPPROVED ATTACHMENTS OR OTHER CAUSES UNRELATED TO PROBLEMS WITH MATERIAL OR WORKMANSHIP ARE NOT COVERED BY THIS WARRANTY.

No employee, agent, dealer or other person is authorized to give any warranties on behalf of Dremel. If Dremel inspection shows that the problem was caused by problems with material or workmanship within the limitations of the warranty, Dremel will repair or replace the product free of charge and return product prepaid. Repairs made necessary by normal wear or abuse, or repair for product outside the warranty period, if they can be made, will be charged at regular factory prices.

DREMEL MAKES NO OTHER WARRANTY OF ANY KIND WHATEVER, EXPRESSED OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE ABOVE MENTIONED OBLIGATION ARE HEREBY DISCLAIMED BY DREMEL AND EXCLUDED FROM THIS LIMITED WARRANTY.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. The obligation of the warrantor is solely to repair or replace the product. The warrantor is not liable for any incidental or consequential damages due to any such alleged defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

For prices and warranty fulfillment in the continental United States, contact your local Dremel distributor.