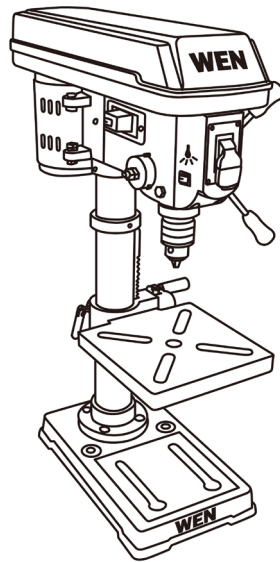




# 10" DRILL PRESS WITH LASER CROSSHAIR




[bit.ly/wenvideo](http://bit.ly/wenvideo)

## IMPORTANT:

Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

## NEED HELP? CONTACT US!

Have product questions? Need technical support?  
Please feel free to contact us at:

 **800-232-1195** (M-F 8AM-5PM CST)

 **techsupport@wenproducts.com**

 **WENPRODUCTS.COM**

**NOTICE: Please refer to [wenproducts.com](http://wenproducts.com) for the most up-to-date instruction manual.**

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## TECHNICAL DATA

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Model Number:	4211
Motor:	120V, 60Hz, 3.2A
Chuck Capacity:	1/2 inch
Spindle Stroke:	2-1/2 inches
Spindle Taper:	JT33
Speeds:	600, 1100, 1700, 2400, 3100 RPM
Swing:	10 inches
Table Size:	7-5/8 x 7-5/8 inches
Base Size:	13-1/8 x 8-1/8 inches
Column Diameter:	2-1/4 inches
Total Height:	26-1/2 inches
Laser:	CLASS II, 650nm, 1mW
Weight:	51 lbs.

## GENERAL SAFETY RULES

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Safety is a combination of common sense, staying alert and knowing how your item works. **SAVE THESE SAFETY INSTRUCTIONS.**



**WARNING:** To avoid mistakes and serious injury, do not plug in your tool until the following steps have been read and understood.

1. **READ** and become familiar with this entire instruction manual. **LEARN** the tool's applications, limitations, and possible hazards.
2. **AVOID DANGEROUS CONDITIONS.** Do not use power tools in wet/damp areas or expose them to rain. Keep work areas well lit.
3. **DO NOT** use power tools in the presence of flammable liquids or gases.
4. **ALWAYS** keep your work area clean, uncluttered, and well lit. **DO NOT** work on floor surfaces that are slippery with sawdust or wax.
5. **KEEP BYSTANDERS AT A SAFE DISTANCE** from the work area, especially when the tool is operating. **NEVER** allow children or pets near the tool.
6. **DO NOT FORCE THE TOOL** to do a job for which it was not designed.
7. **DRESS FOR SAFETY.** Do not wear loose clothing, gloves, neckties, or jewelry (rings, watches, etc.) when operating the tool. Inappropriate clothing and items can get caught in moving parts and draw you in. **ALWAYS** wear non-slip footwear and tie back long hair.
8. **WEAR A FACE MASK OR DUST MASK** to fight the dust produced by sawing operations.



**WARNING:** Dust generated from certain materials can be hazardous to your health. Always operate the tool in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

9. **ALWAYS** remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning, or working on the tool.
10. **KEEP GUARDS IN PLACE AND IN WORKING ORDER.**
11. **AVOID ACCIDENTAL START-UPS.** Make sure the power switch is in the **OFF** position before plugging in the power cord.
12. **REMOVE ADJUSTMENT TOOLS.** Always make sure all adjustment tools are removed from the drill press before turning it on.
13. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to **OFF**. Do not leave the tool until it has come to a complete stop.

## GENERAL SAFETY RULES

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14. **NEVER STAND ON A TOOL.** Serious injury could result if the tool tips or is accidentally hit. **DO NOT** store anything above or near the tool.
15. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap, and other debris.
16. **MAINTAIN TOOLS PROPERLY.** **ALWAYS** keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.
17. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, jamming, breakage, improper mounting, or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.
18. **MAKE THE WORKSHOP CHILDPROOF.** Use padlocks and master switches and **ALWAYS** remove starter keys.
19. **DO NOT** operate the tool if you are under the influence of drugs, alcohol, or medication that may affect your ability to properly use the tool.
20. **USE SAFETY GOGGLES AT ALL TIMES** that comply with ANSI Z87.1. Normal safety glasses only have impact resistant lenses and are not designed for safety. Wear a face or dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

## SPECIFIC RULES FOR THE DRILL PRESS

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**WARNING:** Do not operate this tool until it is completely assembled and installed according to the instructions.

1. Never turn the drill press on until the table is clear of all foreign objects (tools, scraps, etc.).
2. Always keep hands and fingers away from the drill bit.
3. Do not drill materials without a flat surface unless a suitable support is used (clamp or vise).
4. Never start the drill press with the drill bit pressed against the workpiece.
5. Make sure the table lock is tightened before starting the drill press.
6. Never layout, assemble, or set-up any work on the table while the drill is on.
7. Make sure the drill bit is securely locked in the chuck.
8. Make sure the chuck key is removed from the chuck before turning power on.
9. Adjust the table or depth stop to avoid drilling into the table.

## SPECIFIC RULES FOR THE DRILL PRESS

10. Always stop the drill before removing scrap pieces from the table.
11. Use clamps or a vise to secure a workpiece to the table. This will prevent the workpiece from rotating with the drill bit.
12. Do not wear gloves when operating a drill press.
13. Set the drill press to the speed that is appropriate for the material being drilled.
14. If any part of the drill press is missing/damaged or if the electrical components fail to perform properly, shut the power OFF and unplug the drill press. Replace missing, damaged or failed parts before resuming operation.
15. Before leaving the machine, shut the power off, remove the drill bit and clean the table.

## ELECTRICAL INFORMATION

### **GROUNDING INSTRUCTIONS**

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for an electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has 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 licensed electrician.

**IMPROPER CONNECTION** of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment grounding conductor to a live terminal.

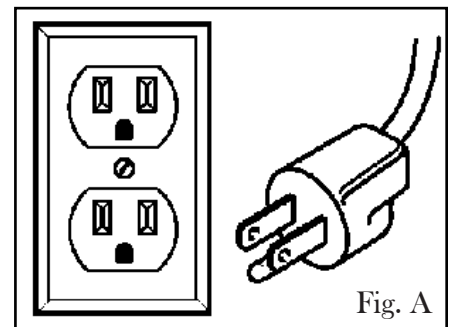
**CHECK** with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.

**USE ONLY THREE-WIRE EXTENSION CORDS** that have three-pronged plugs and outlets that accept the tool's plug as shown in Fig. A. Repair or replace a damaged or worn cord immediately.

**CAUTION:** In all cases, make certain the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.



**WARNING:** This tool is for indoor use only. Do not expose to rain or use in damp locations.



# ELECTRICAL INFORMATION

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## GUIDELINES FOR USING 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 undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table below shows the correct size to be used according to cord length and nameplate ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 ft.	100 ft.	150 ft.
3.2A	18 gauge	16 gauge	16 gauge	14 gauge

Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.

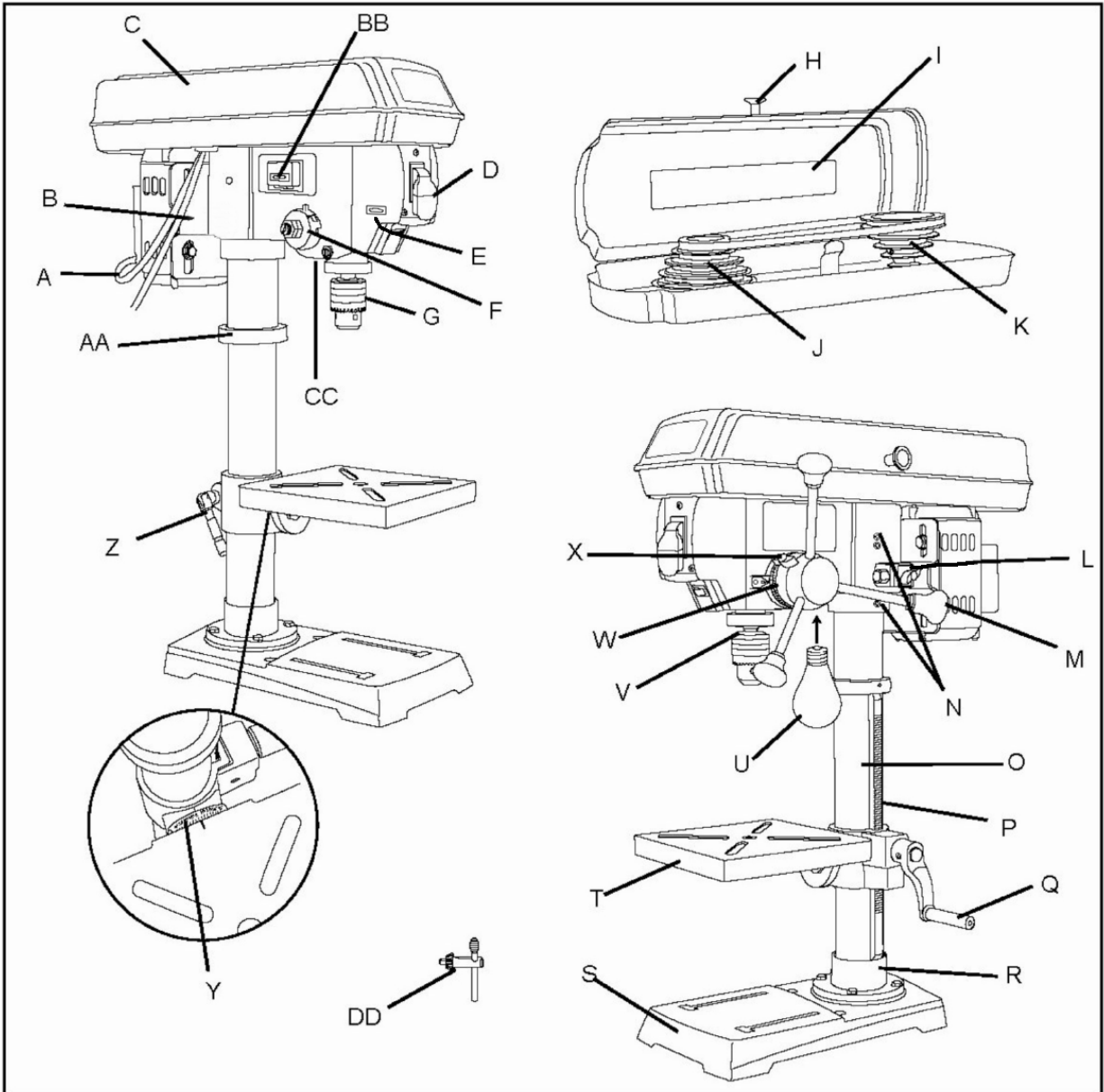
Protect your extension cords from sharp objects, excessive heat and damp/wet areas.



**WARNING:** Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

**WARNING:** This tool must be grounded while in use to protect the operator from electric shock.

# KNOW YOUR DRILL PRESS



- |   |                        |    |                         |
|---|------------------------|----|-------------------------|
| A | Electrical Cord        | P  | Rack                    |
| B | Motor Mount            | Q  | Table Adjustment Handle |
| C | Housing Cover          | R  | Column Mount            |
| D | ON/OFF Switch          | S  | Base                    |
| E | Light ON/OFF Switch    | T  | Table                   |
| F | Spindle Return Spring  | U  | Light Bulb              |
| G | Chuck                  | V  | Spindle                 |
| H | Housing Knob           | W  | Depth Adjustment Lock   |
| I | Speed Chart            | X  | Depth Adjustment Guide  |
| J | Front (Spindle) Pulley | Y  | Table Bevel Guide       |
| K | Drive (Motor) Pulley   | Z  | Table Lock              |
| L | Motor                  | AA | Rack Collar             |
| M | Feed Handle            | BB | Laser ON/OFF Switch     |
| N | Head                   | CC | Lasers                  |
| O | Column                 | DD | Chuck Key               |

# ASSEMBLY AND ADJUSTMENTS

## UNPACKING

Unpack the drill press and all of its parts. Compare against the list below. Do not discard the carton or any packaging until the drill press is completely assembled.

To protect the drill press from moisture, a protective coating has been applied to the machine's surfaces. Remove this coating with a soft cloth moistened with kerosene or WD-40®. Do not use acetone, gasoline, or lacquer thinner to clean. Apply a coat of good paste wax to the table and column. Wipe all parts with a clean dry cloth.

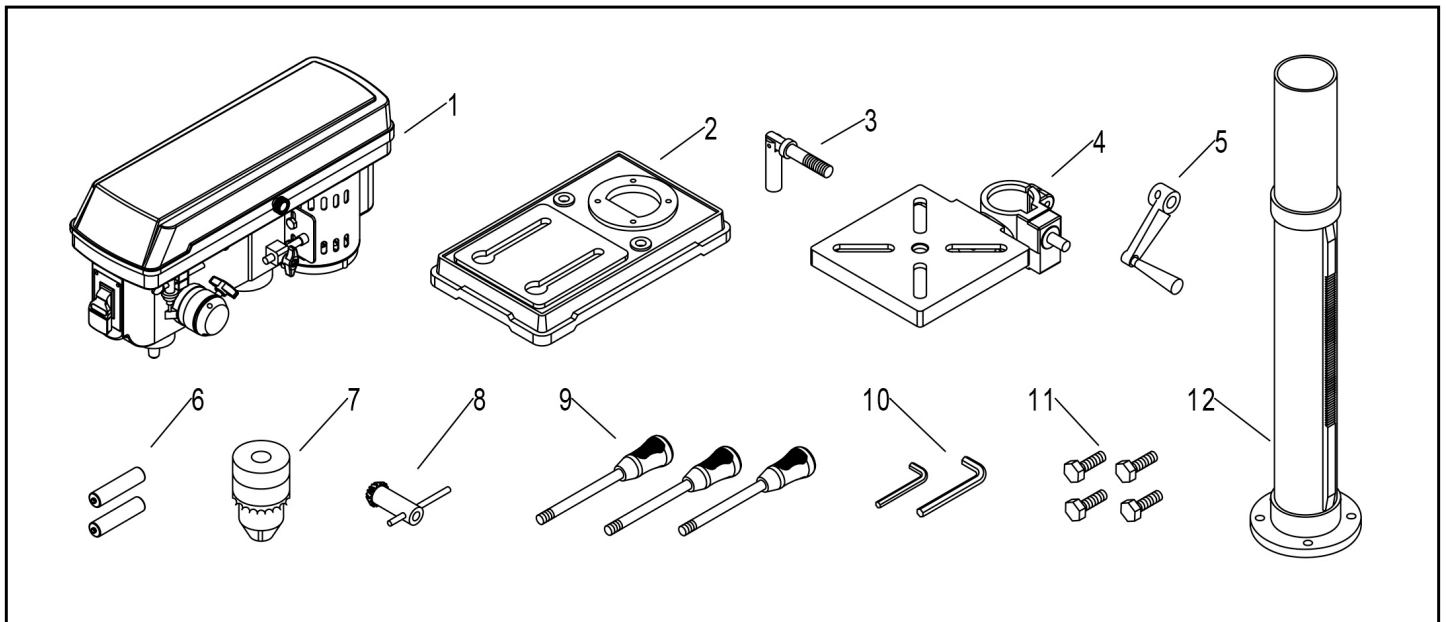


**WARNING:** If any part is missing or damaged, do not plug the drill press in until the missing or damaged part is repaired or replaced.

The column assembly (column, column support, rack, rack collar, and table support bracket) must be attached to the base. The table and table support handles must be attached to the table support bracket. The motor housing must be attached to the column.

Tools needed for assembly (not included):

- Adjustable wrench
- Hammer and block of wood, or rubber mallet, or dead-blow hammer



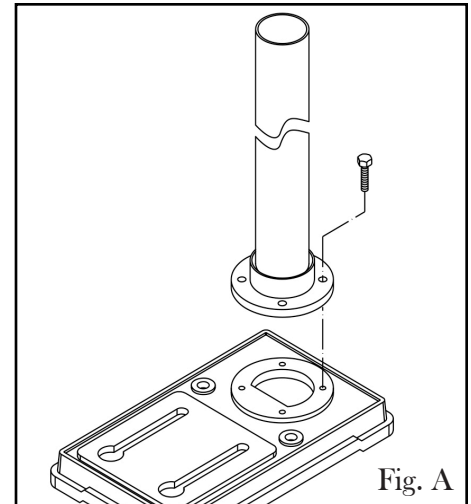
- |   |                                       |    |  |
|---|---------------------------------------|----|--|
| 1 | Head/Motor Assembly (1)               | 7  | Chuck (1)  |
| 2 | Base (1)                              | 8  | Chuck Key (1)                                      |
| 3 | Table Locking Handle (1) (with table) | 9  | Feed Handles (3)                                   |
| 4 | Table Assembly (1)                    | 10 | Hex Wrench (2)                                     |
| 5 | Table Adjusting Handle (1)            | 11 | Hex Head Bolts (4)                                 |
| 6 | AAA Batteries (2) (inside head)       | 12 | Column Assembly (1)<br>(with rack and rack collar) |



# ASSEMBLY AND ADJUSTMENTS

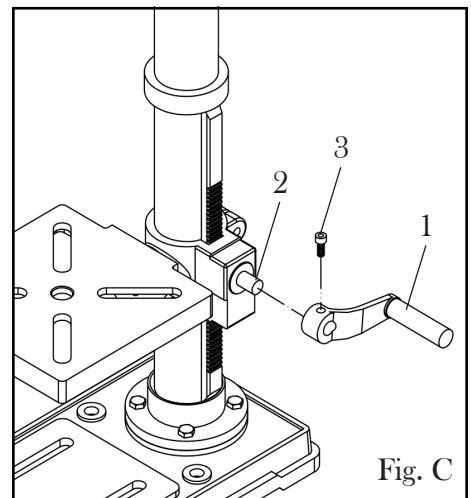
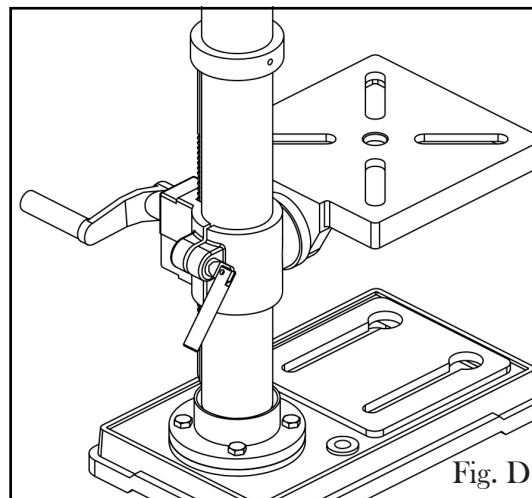
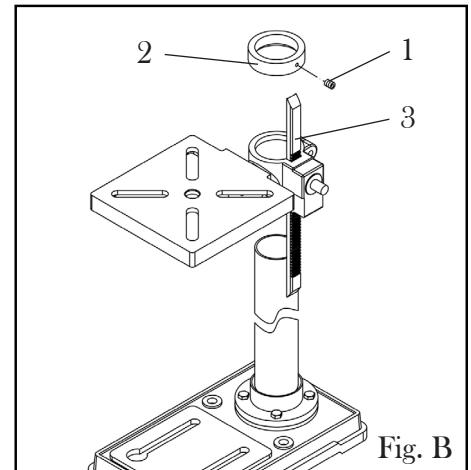
## ATTACHING COLUMN ASSEMBLY TO BASE

1. Place the column tube on the base, aligning the column support holes to the base holes.
2. Install a hex head bolt in each column support hole and tighten bolts using an adjustable wrench (not included).



## ATTACHING TABLE TO COLUMN

1. Loosen set screw (Fig. B - 1) in rack collar (Fig. B - 2) and remove the collar from the column.
2. Remove the rack (Fig. B - 3) from the column.
3. Placing the rack into the table bracket, slide the table assembly with rack down directly onto the column (Fig. B). The longer edge of the rack without gear teeth should be towards the top of the drill press.
4. Place the column collar down onto the rack and tighten the set screw with the smaller hex wrench to hold the rack in position.
4. Insert the table adjustment shaft (Fig. C - 2). Align the socket-head set screw (Fig. C - 3) on the handle with the flat of the adjustment shaft. Using the larger hex wrench, tighten the set screw.
5. Position the table directly over the base, and tighten the table locking handle (Fig. D - 1) to secure table assembly.



# ASSEMBLY AND ADJUSTMENTS

## DRILL PRESS HEAD TO COLUMN (Fig. E)



**CAUTION:** The drill press head is heavy. To avoid injury, two people should lift it into position.

1. Carefully lift the drill press head assembly and position it over the column (Fig. E).
2. Place the mounting opening on the drill press head over the top of the column. Make sure the drill press head is seated properly on the column.
3. Align the direction of the drill press head with the direction of the base and the table.
4. Tighten the set screw using a hex wrench (Fig. F).

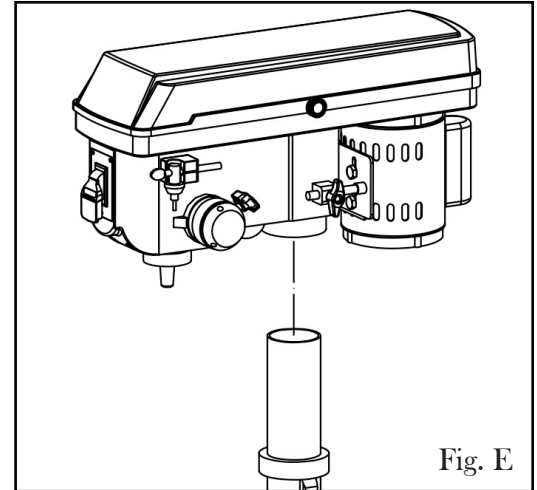


Fig. E

## FEED HANDLES (Fig. G)

1. Insert the three feed handles into the threaded openings on the feed hub (Fig. G - 1).
2. Manually tighten the handles into the openings. If desired, use the adjustable wrench to grip the flats of the feed handles and fully tighten them into the feed hub.

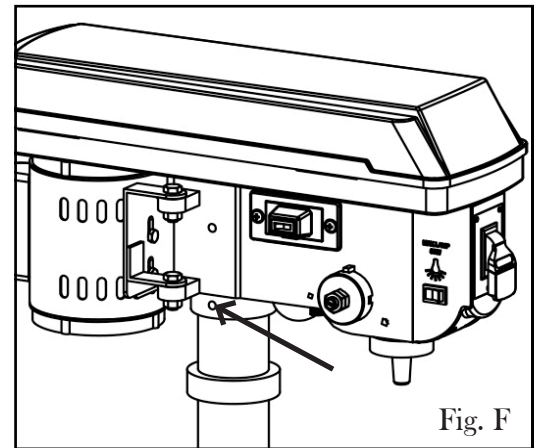


Fig. F

**NOTE:** When using the drill press, one or two of the feed handles may be removed if an unusually-shaped workpiece interferes with handle rotation.

## MOUNT THE DRILL PRESS (Fig. H)

The drill press must be securely fastened through the mounting holes to a stand or workbench with heavy-duty fasteners (Fig. H; fasteners and mounting hardware not included). This will prevent the drill press from tipping over, sliding, or walking during operation.

**IMPORTANT:** If the stand or workbench has a tendency to move during operation, fasten the workbench securely to the floor.

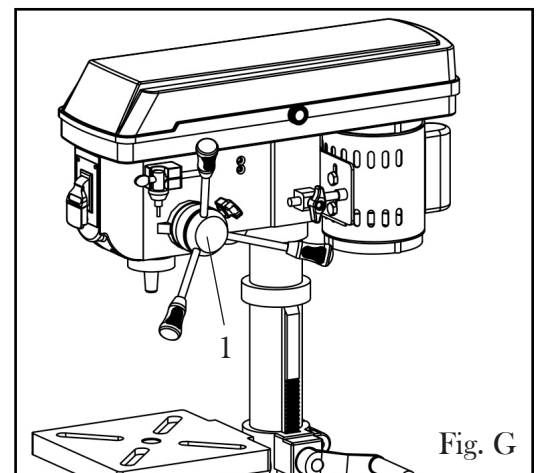


Fig. G

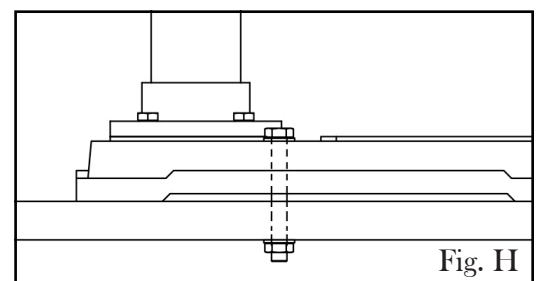
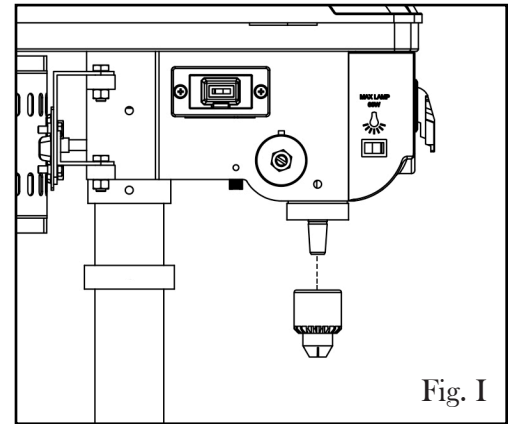


Fig. H

# ASSEMBLY AND ADJUSTMENTS

## INSTALL THE CHUCK

1. Unplug your drill press before you begin installing the chuck. Lower the drill press table and place a cloth on it to protect the chuck if it is dropped.
2. Wipe the chuck and spindle with a clean rag. Do not use solvents yet, these will be used when you are ready to set it into place.
3. Completely remove any burrs found on the inner mating surface of the chuck with a diamond coated tool or a fine file. Use a grade 000 steel wool pad to lightly go over the chuck and spindle. This removes oxidation and dirt that you cannot see.



**NOTE:** Do steps 1-3 even if your chuck is new. New chucks can still have burrs, oxidation, and dirt.



**WARNING:** Before any assembly of the chuck to the drill press spindle, clean all mating surfaces with a non-petroleum based product, such as acetone or lacquer thinner. Any oil or grease used in the packing of these parts must be removed; otherwise the chuck may come loose during operation.

4. Use lacquer thinner or acetone on a lint free rag to clean the chuck. Do not touch these surfaces with your hands after cleaning. Rubbing alcohol does not work well, as it contains oil. Let the chuck dry before continuing.
5. Retract the jaws of the chuck all the way into the body. Slide the chuck's socket onto the spindle. See Fig. I.



**CAUTION:** To avoid damaging the chuck, make sure the jaws are completely recessed into its body and only tap the chuck one time, with a firm tap. Do not use excessive force. Do not use a metal hammer to drive the chuck into the spindle.

6. Using hand force, firmly push the chuck up onto the spindle. Using a rubber mallet or dead blow hammer, tap the chuck upwards once to lock the tapers together. You can also use a piece of wood between the chuck and a standard hammer. Test the fit by gently pulling downward on the chuck. If the chuck pulls off, go back to step one and try again, making sure to thoroughly clean the mating surfaces. Your chuck is now set into your drill press and should stay in place until you need to remove it.

## REMOVE THE CHUCK

**NOTE:** To avoid possible damage to the drill or chuck, be prepared to catch the chuck as it falls. Placing a towel on the drill press table can soften the impact if you do drop the chuck.

1. Turn the feed handles to lower the chuck to the lowest position, making it close to the table.
2. Place a ball joint separator above the chuck and tap it lightly with a hammer to cause the chuck to drop from the spindle. You should hold the chuck and be ready to catch it when it is released.

### Alternate Method:

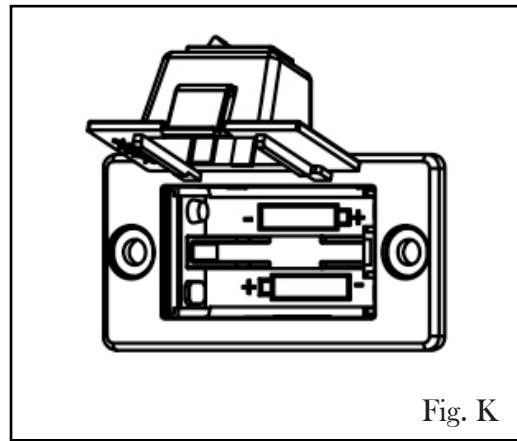
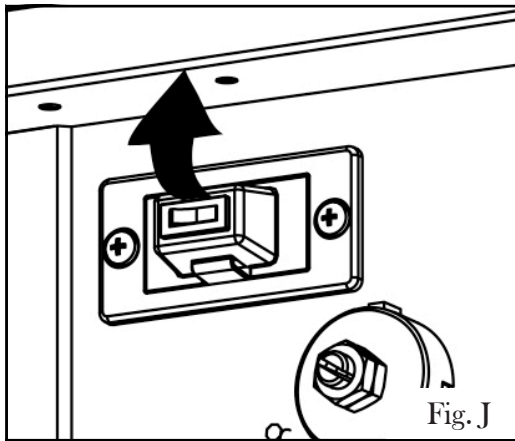
Place the chuck key into the opening on the side of the chuck. Open the drill press cover and hold the spindle pulley stationary. Using the chuck key for leverage, rotate the entire chuck clockwise while gently pulling downwards. Remove the chuck from the spindle.

# ASSEMBLY AND ADJUSTMENTS

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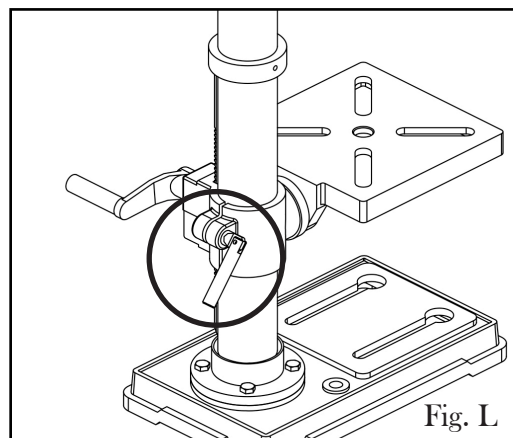
## INSTALLING LASER BATTERIES (PRE-INSTALLED)

1. Turn off the drill laser.
2. Pull the tab located below the laser switch and lift up the laser switch cover (Fig. J).
3. Install two AAA batteries into the battery slots and close the switch cover (Fig. K).



## RAISE OR LOWER THE TABLE

1. Loosen the table locking handle and turn the crank handle until the table is at the desired height (Fig. L).
2. Tighten the table locking handle before drilling.



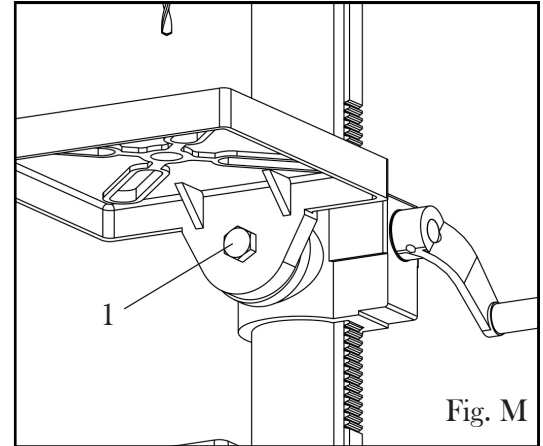
# ASSEMBLY AND ADJUSTMENTS

## ROTATE THE TABLE

1. Loosen the table locking handle and turn the table around the column to the desired position.

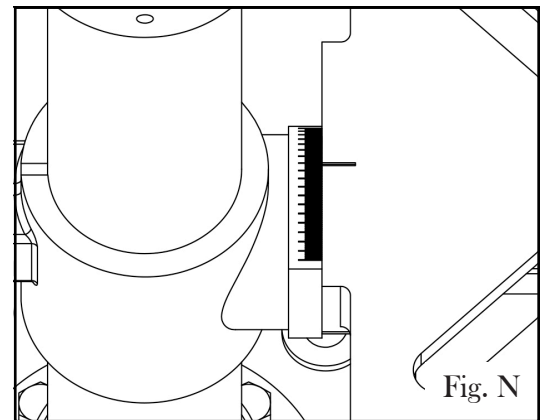
**NOTE:** The rack should rotate around the column with the table support bracket. If the rack binds and does not rotate, slightly loosen the set screw in the rack collar.

2. Tighten the table lock handle before drilling.



## TILT THE TABLE

1. Loosen the bevel lock bolt (Fig. M - 1) with a 19mm socket or wrench.
2. Tilt the table to the desired angle, using the bevel scale (Fig. N) as a basic guide.
3. Re-tighten the bevel lock bolt.
4. To return the table to its original horizontal position, loosen the bevel lock bolt.



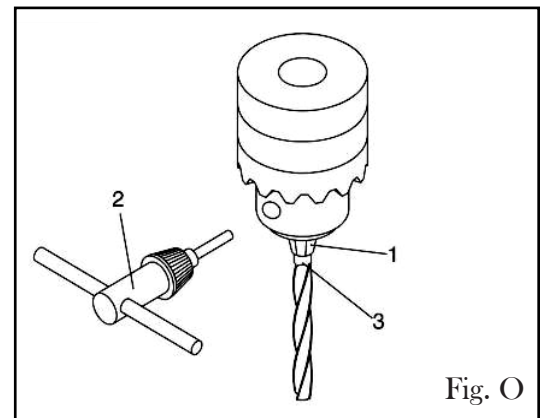
5. Realign the table to the 0° setting on the bevel scale.
6. Tighten the bevel lock bolt with the wrench.



**WARNING:** To avoid injury, make sure the chuck key is removed from the chuck before starting any drilling operation.

## INSTALLING A DRILL BIT

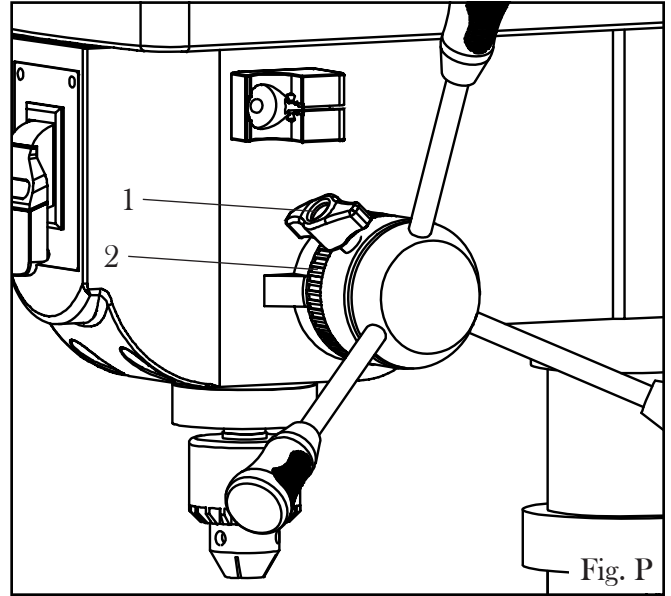
1. Place the chuck key into the side keyhole of the chuck, meshing the key with the gear teeth.
2. Turn the chuck key counterclockwise to open the chuck jaws.
3. Insert a drill bit into the chuck so the chuck jaws grip as much of the bit's shank as possible.
4. Center the drill bit in the chuck jaws before the final tightening of the chuck.
5. Tighten the chuck jaws using the chuck key to ensure that the drill bit will not slip while drilling. Tighten the jaws using all three keyholes of the chuck.
6. Remove the chuck key. Store in the rubber key holder, mounted above the feed hub.



# ASSEMBLY AND ADJUSTMENTS

## FEED DEPTH ADJUSTMENT

1. Loosen the depth locking knob (Fig. P - 1).
2. Turn the depth scale ring (Fig. P - 2) to the desired depth.
3. Lock the scale ring in place by tightening the depth locking knob.

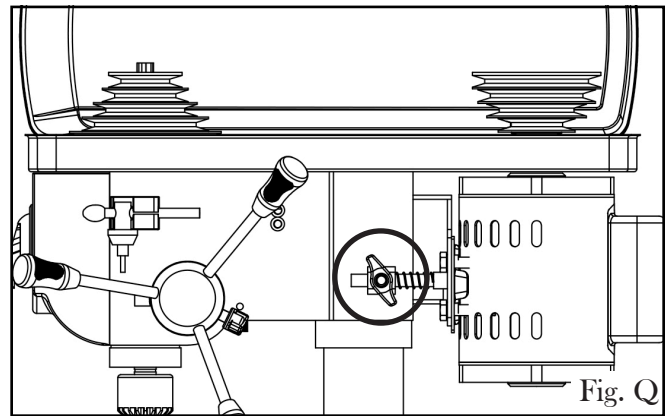


## SPEED ADJUSTMENT

For a video demonstration using the WEN 8-Inch Drill Press, visit <http://bit.ly/1LGcLIb>

1. To change to another one of the five available speeds, open the belt housing cover and loosen the belt tension locking knob found circled in Fig. Q.
2. Pull the motor towards the front of the press and tighten the belt tension locking knob. Adjust the position of the belt on the belt pulleys.

**NOTE:** Ensure that the belt runs on the same setting of each pulley (e.g. if the belt is on the third setting of the motor pulley, it should be on the third setting of the spindle pulley as well).



3. Loosen the belt tension locking knob and push the motor towards the rear of the drill press, ensuring that the belt is under tension. Tighten the belt tension locking knob. Close the belt housing cover.

## CHANGING THE LIGHT BULB

To change the light bulb, turn off and unplug the machine. Turn the old bulb counter-clockwise to remove it, and screw in the new bulb. You may then plug in and restart the machine.

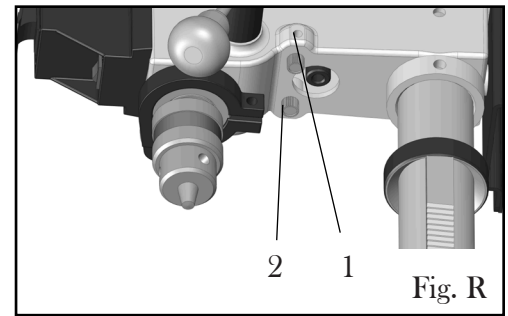
**NOTE:** do not install a bulb rated higher than 60W. Replacement bulbs can be ordered from [wenproducts.com](http://wenproducts.com) by searching part number 4210B-086.

# ASSEMBLY AND ADJUSTMENTS

## ADJUSTING THE LASER (Fig. R)

**WARNING:** Do not stare directly at the laser beam. Please observe all safety rules.

- Never aim the beam at a person or an object other than the workpiece.
- Do not project the laser beam into the eyes of others.
- Always make sure the laser beam is aimed at a non-reflective workpiece, as the laser beam could project into your eyes or the eyes of others.

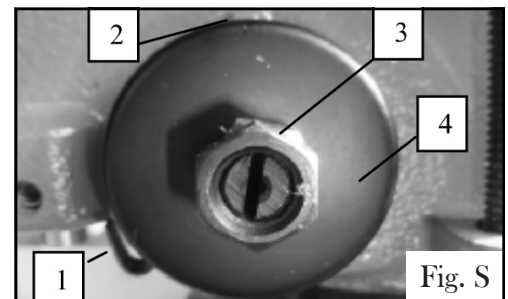


1. Unplug the drill press and place a workpiece on the table.
2. Turn the laser switch to the ON position.
3. Lower the drill bit to meet the workpiece. The two laser lines should cross where the drill meets the workpiece.
4. If the laser needs to be adjusted:
  - A. Using a 3 mm hex key, turn the laser adjustment set screws (Fig. R - 1) counterclockwise.
  - B. Rotate the laser light housing (Fig. R - 2) until the two laser lines intersect where the drill meets the workpiece. **DO NOT** stare directly at the laser lines.
5. Re-tighten the adjustment set screws (1). Be sure to not over tighten the set screws.

## SPINDLE RETURN SPRING (Fig. S)

The spindle is equipped with an auto-return mechanism. The main components are a spring and a notched housing. The spring was properly adjusted at the factory and should not be readjusted unless absolutely necessary.

1. Unplug the drill press.
2. Place a screwdriver into the loop (Fig. S - 1) to hold the spring in place.
3. Loosen the two housing nuts (Fig. S - 3) approximately 1/4" (6 mm). Do not remove the nuts from the threaded shaft. Do not allow the spring or spring housing to slip out of control.
4. While firmly holding the spring housing (Fig. S - 4), carefully pull the spring housing out until it clears the raised notch (Fig. S - 2).
5. Turn the housing so that the next notch is engaged with the raised notch (Fig. S - 2).
  - To increase the spindle return tension, turn the spring housing counter-clockwise.
  - To decrease the tension, turn the spring housing clockwise.
6. Tighten the two housing nuts. Do not overtighten the two nuts. If the nuts are tightened too much, the movement of the spindle and feed handles will become sluggish.



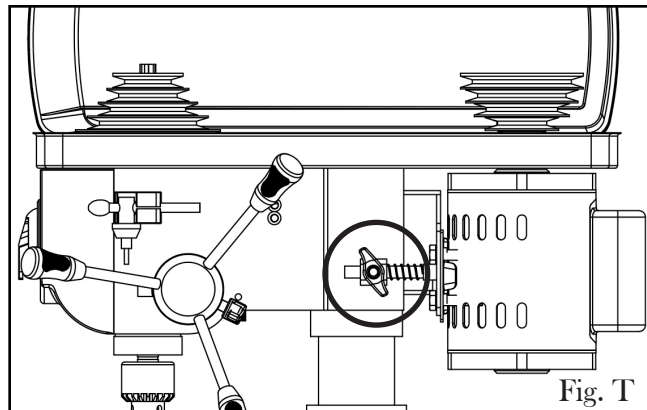
## ASSEMBLY AND ADJUSTMENTS

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### REPLACING THE BELT

**WARNING:** Disconnect the drill press from the power source before replacing the belt.

1. Open the housing cover. Loosen the belt tension locking knob (Fig. T).
2. Remove the belt from the housing cover if it is broken. If it is not broken, but is too stretched to operate correctly, work the belt off the drive (motor) pulley. Then remove the belt from the front (spindle) pulley.
3. Replace with a new belt. Install the belt over the pulleys at the desired speed. Pull the motor back to make the belt taut. Once the desired tension has been achieved, tighten the belt tension locking knob (Fig. T).



## MAINTENANCE

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**WARNING:** For your safety, turn the switch off and remove the plug from the power supply before maintaining or lubricating the drill press.

Vacuum sawdust or metal shavings that accumulate in and on the motor, pulley housing, table, and work surface.

Apply a light coat of paste wax to the column and table to help keep these surfaces clean and rust-free.

The ball bearings in the spindle and the V-belt pulley assembly are greased and permanently sealed. Pull the spindle down and oil the quill moderately every three months.

Lubricate the table bracket and locking knobs if they become difficult to use.

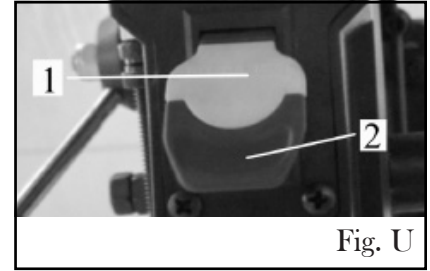
**CAUTION:** All servicing of the drill press should be performed by a qualified service technician.



# OPERATION

## DRILL PRESS ON/OFF SWITCH (Fig. U)

1. To turn the drill press ON, insert the yellow safety key (Fig. U - 1) into the switch housing (Fig. U - 2). As a safety feature, the switch cannot be turned ON without the safety key.
2. Flip the switch upward to the ON position.
3. To turn the drill press OFF, flip the switch downward.
4. To lock the switch in the OFF position, remove the safety key (1) from the switch. Store the safety key in a safe place.

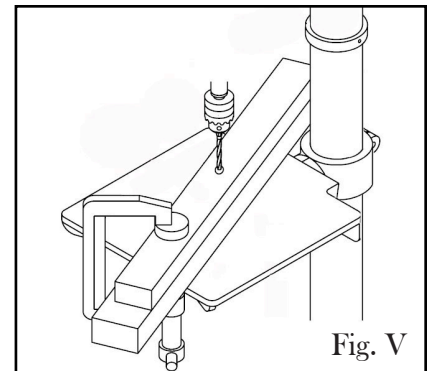


## LASER ON/OFF SWITCH

The laser switch is located on the left-hand side of the drill press (Fig. J, p. 12). Replace batteries as needed. Follow the instructions on p. 12.

## POSITION THE TABLE AND WORKPIECE

Always place a piece of scrap material (wood, plywood, etc.) on the table underneath the workpiece. This will prevent splintering on the underside of the workpiece as the drill bit breaks through. To keep the material from spinning out of control, it must contact the left side of the column as illustrated (Fig. V), or be clamped (not included) to the table.



**NOTE:** For small workpieces that cannot be clamped to the table, use a drill press vise (not included). The vise must be clamped or bolted to the table to avoid injury. Drill press clamps and drill press vises can be purchased at [wenproducts.com](http://wenproducts.com).

## GENERAL DRILLING GUIDELINES - DRILLING A HOLE

**WARNING:** To prevent the workpiece and the scrap material from slipping from your hand while drilling, position the workpiece and scrap material to the left side of the column. If the workpiece and the scrap material are not long enough to reach the column, clamp the workpiece and scrap material to the table. Failure to do this could result in personal injury.

1. Mark where you want to drill in workpiece by using a center punch or a sharp nail, or turn ON the laser to mark your drilling point.
2. Before turning the drill press ON, turn the feed handles to bring the drill bit down. Line the drill bit tip up with the mark. Clamp the workpiece in place.
3. Turn ON the drill press and pull down on the feed handles with the appropriate force needed to allow the drill bit to drill through the material.

**NOTE:** Feeding too slowly might cause the drill bit to turn in the chuck. Feeding too rapidly might stop the motor, cause the belt to slip, force the workpiece loose, or break the drill bit. Practice with scrap material to get the feel of the machine before attempting to do any drilling operation.

# OPERATION

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## **DRILLING SPEEDS**

There are a few important factors to keep in mind when determining the best drilling speed:

- Material type
- Hole size
- Drill bit or cutter type
- Quality desired

Smaller drill bits require greater speed than larger drill bits. Softer materials require greater speed than harder materials.

## **DRILLING WOOD**

- Brad point bits are preferred. Metal-piercing twist bits may be used on wood.
- Do not use auger bits. Auger bits turn so rapidly that they can lift the workpiece off of the table and whirl it around.
- Always protect the drill bit by positioning the table so that the drill bit will enter the center hole when drilling through the workpiece.
- To prevent splintering, feed the drill bit slowly right as the bit is about to cut through to the backside of the workpiece.
- To reduce splintering and protect the point of the bit, use scrap wood as a backing or a base block under the workpiece.

## **FEEDING THE DRILL BIT**

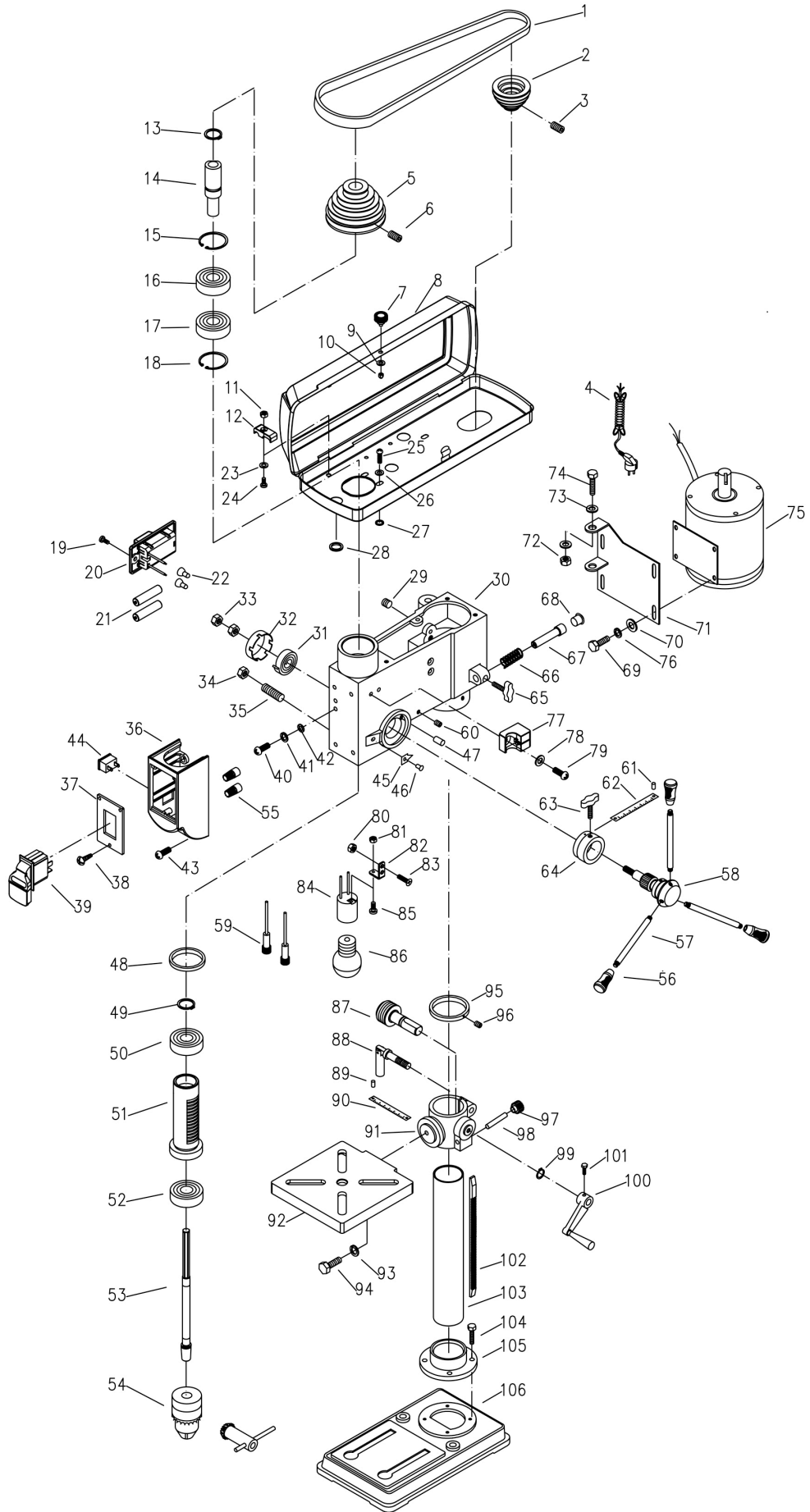
- Pull down on the feed handles with only enough force to allow the drill bit to cut.
- Feeding too rapidly might stall the motor, cause the belt to slip, damage the workpiece, or break the drill bit.
- Feeding too slowly will cause the drill bit to heat up and burn the workpiece.

## TROUBLESHOOTING

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PROBLEM	CAUSES	SOLUTIONS
Noisy operation	<ol style="list-style-type: none"> <li>1) Incorrect belt tension</li> <li>2) Dry spindle</li> <li>3) Loose spindle pulley</li> <li>4) Loose motor pulley</li> </ol>	<ol style="list-style-type: none"> <li>1) Adjust the belt tension (See REPLACE THE BELT section)</li> <li>2) Lubricate the spindle</li> <li>3) Tighten the set screws on the side of the spindle pulley</li> <li>4) Tighten the set screws on the side of the motor pulley</li> </ol>
The drill bit burns or smokes	<ol style="list-style-type: none"> <li>1) Drilling at the incorrect speed</li> <li>2) The wood chips are not coming out of the hole</li> <li>3) Dull drill bit</li> <li>4) Feeding the workpiece too slowly</li> <li>5) Not lubricated</li> </ol>	<ol style="list-style-type: none"> <li>1) Change the speed</li> <li>2) Retract the drill bit frequently to clear the chips</li> <li>3) Resharpen or replace the drill bit</li> <li>4) Feed fast enough to cut the workpiece</li> <li>5) Lubricate the drill bit with cutting oil or motor oil</li> </ol>
Excessive drill run out or wobble; drilled hole is not round	<ol style="list-style-type: none"> <li>1) Bent drill bit</li> <li>2) Bit improperly installed in the chuck</li> <li>3) Worn spindle bearings</li> <li>4) Lengths of cutting flutes or angles not appropriate for the hardness of the wood grain</li> <li>5) Chuck not properly installed</li> </ol>	<ol style="list-style-type: none"> <li>1) Replace the drill bit</li> <li>2) Reinstall the drill bit.</li> <li>3) Bearings may need replacement. Contact customer service (1-800-232-1195)</li> <li>4) Resharpen the drill bit correctly or replace with the appropriate type.</li> <li>5) Reinstall the chuck.</li> </ol>
Drill bit binds in the workpiece	<ol style="list-style-type: none"> <li>1) The workpiece is pinching the bit</li> <li>2) Excessive feed pressure</li> </ol>	<ol style="list-style-type: none"> <li>1) Support or clamp the workpiece.</li> <li>2) Feed more slowly.</li> </ol>
Spindle returns too slowly or too quickly	Coil spring has improper tension	Adjust the coil spring tension (see p. 15)
Chuck falls off spindle	Dirt, grease, or oil on the tapered surface on the spindle or in the chuck	Clean the tapered surface of both the chuck and spindle with acetone or lacquer thinner.
Motor will not run	<ol style="list-style-type: none"> <li>1) Defective or broken switch</li> <li>2) Defective or damaged power cord</li> <li>3) Open circuit, loose connections, or burned out motor</li> <li>4) Low voltage</li> </ol>	<ol style="list-style-type: none"> <li>1) Contact customer service (1-800-232-1195)</li> <li>2) Contact customer service (1-800-232-1195)</li> <li>3) Contact customer service (1-800-232-1195)</li> <li>4) Check the power line for the proper voltage. Use another circuit or have a qualified electrician upgrade the service.</li> </ol>
Motor stalls	<ol style="list-style-type: none"> <li>1) Short circuit in motor</li> <li>2) Incorrect fuses or circuit breakers</li> <li>3) Overloaded circuit</li> <li>4) Low voltage</li> </ol>	<ol style="list-style-type: none"> <li>1) Contact customer service (1-800-232-1195)</li> <li>2) Replace with correct fuse or circuit breaker for the circuit</li> <li>3) Turn off other machines and retry</li> <li>4) Check the power line for the proper voltage. Use another circuit or have a qualified electrician upgrade the service.</li> </ol>

# EXPLODED VIEW & PARTS LIST



## EXPLODED VIEW & PARTS LIST

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No.	Part No.	Description	Qty.
1	4210B-001	V-belt	1
2	4210B-002	Motor Pulley	1
3	4210B-003	Set Screw	2
4	4210B-004	Power Cord	1
5	4210B-005	Spindle Pulley	1
6	4210B-006	Set Screw	2
7	4210B-007	Belt House Knob	1
8	4210B-008	Belt House	1
9	4210B-009	Flat Washer	1
10	4210B-010	Nut	1
11	4210B-011	Hex Nut	3
12	4210B-012	Cord Clamp	3
13	4210B-013	Retaining Ring	1
14	4210B-014	Sleeve	1
15	4210B-015	Retaining Ring	1
16	4210B-016	Ball Bearing	1
17	4210B-017	Ball Bearing	1
18	4210B-018	Retaining Ring	1
19	4210B-019	Pan Head Screw	2
20	4210B-020	Laser Battery Housing	1
21	4210B-021	AAA Battery	2
22	4210B-022	Connecting terminal	2
23	4210B-023	Flat Washer	3
24	4210B-024	Pan Head Screw	3
25	4210B-025	Pan Head Screw	4
26	4210B-026	Flat Washer	4
27	4210B-027	Rubber Washer	4
28	4210B-028	Bushing	3
29	4210B-029	Set Screw	2
30	4210B-030	Head	1
31	4210B-031	Spring	1
32	4210B-032	Spring Cap	1
33	4210B-033	Hex Nut	2
34	4210B-034	Hex Nut	1
35	4210B-035	Set Screw	1

No.	Part No.	Description	Qty.
36	4210B-036	Switch Box	1
37	4210B-037	Switch Plate	1
38	4210B-038	Thread Forming Screw	3
39	4210B-039	Switch	1
40	4210B-040	Pan Head Screw	2
41	4210B-041	Lock Washer	2
42	4210B-042	Serrated Washer	2
43	4210B-043	Pan Head Screw	4
44	4210B-044	Light Switch	1
45	4210B-045	Depth Pointer	1
46	4210B-046	Rivet	1
47	4210B-047	Pin	1
48	4210B-048	Rubber Washer	1
49	4210B-049	Retaining Ring	1
50	4210B-050	Ball Bearing	1
51	4210B-051	Quill	1
52	4210B-052	Ball Bearing	1
53	4210B-053	Spindle	1
54	4210B-054	Chuck with Key	1
55	4210B-055	Connecting Terminal	2
56	4210B-056	Knob	3
57	4210B-057	Feeding Handle	3
58	4210B-058	Gear Shaft	1
59	4210B-059	Laser	2
60	4210B-060	Set Screw	2
61	4210B-061	Rivet	2
62	4210B-062	Depth Scale	1
63	4210B-063	Wing Screw	1
64	4210B-064	Depth Stop Ring	1
65	4210B-065	Wing Screw	1
66	4210B-066	Spring	1
67	4210B-067	Pushing Shaft	1
68	4210B-068	Cap	1
69	4210B-069	Hex Head Bolt	4
70	4210B-070	Flat Washer	4

## EXPLODED VIEW & PARTS LIST

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<b>No.</b>	<b>Part No.</b>	<b>Description</b>	<b>Qty.</b>
71	4210B-071	Motor Support	1
72	4210B-072	Hex Nut	2
73	4210B-073	Flat Washer	4
74	4210B-074	Hex Head Bolt	2
75	4210B-075	Motor	1
76	4210B-076	Lock Washer	4
77	4210B-077	Chuck Key Seat	1
78	4210B-078	Pan Head Screw	1
79	4210B-079	Flat Washer	1
80	4210B-080	Hex Nut	2
81	4210B-081	Hex Nut	1
82	4210B-082	Support Plate	1
83	4210B-083	Flat Head Screw	2
84	4210B-084	Light Bulb Holder	1
85	4210B-085	Pan Head Screw	1
86	4210B-086	Light Bulb	1
87	4210B-087	Worm Shaft	1
88	4210B-088	Table Locking Handle	1
89	4210B-089	Rivet	2
90	4210B-090	Angle Scale	1
91	4210B-091	Table Support	1
92	4211-092	Table	1
93	4210B-093	Washer	1
94	4210B-094	Hex Head Bolt	1
95	4210B-095	Column Collar	1
96	4210B-096	Set Screw	1
97	4210B-097	Worm Gear	1
98	4210B-098	Pin	1
99	4210B-099	Retaining Ring	1
100	4210B-100	Table Adjusting Handle	1
101	4210B-101	Socket Head Bolt	1
102	4210B-102	Rack	1
103	4210B-103	Column	1
104	4210B-104	Hex Head Bolt	4
105	4210B-105	Column Support	1
106	4211-106	Base	1
107	4210B-107	Wrench	2

## LIMITED TWO YEAR WARRANTY

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WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

### LIMITED WARRANTY OF WEN CONSUMER POWER TOOLS PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC (“Seller”) warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship for a period of two (2) years from date of purchase. Ninety days for all WEN products, if the tool is used for professional use.

**SELLER’S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY** under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of purchase must be a direct vendor of Great Lakes Technologies, LLC. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com) or 1-800-232-1195 to make arrangements for repairs and transportation.

When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the warranty card and/or the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge.

**THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC.**

**ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S., SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

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**THANKS FOR  
REMEMBERING**

