



15" VARIABLE SPEED FLOOR DRILL PRESS



MODEL: KC-15HS-VS

INSTRUCTION MANUAL

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WARRANTY INFORMATION



**2-YEAR
LIMITED WARRANTY
FOR THIS 15" DRILL PRESS**

**KING CANADA TOOLS
OFFERS A 2-YEAR LIMITED WARRANTY
FOR NON-COMMERCIAL USE.**

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada. Please use the 10 digit part numbers listed in this manual for all part orders where applicable.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized service center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

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GENERAL SAFETY INSTRUCTIONS FOR POWER TOOLS

1. KNOW YOUR TOOL

Read and understand the owners manual and labels affixed to the tool. Learn its application and limitations as well as its specific potential hazards.

2. GROUND THE TOOL.

This tool is equipped with an approved 3-conductor cord and a 3-prong grounding type plug to fit the proper grounding type receptacle. The green conductor in the cord is the grounding wire. **NEVER** connect the green wire to a live terminal.

3. KEEP GUARDS IN PLACE.

Keep in good working order, properly adjusted and aligned.

4. REMOVE ADJUSTING KEYS AND WRENCHES.

Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

5. KEEP WORK AREA CLEAN.

Cluttered areas and benches invite accidents. Make sure the floor is clean and not slippery due to wax and sawdust build-up.

6. AVOID DANGEROUS ENVIRONMENT.

Don't use power tools in damp or wet locations or expose them to rain. Keep work area well lit and provide adequate surrounding work space.

7. KEEP CHILDREN AWAY.

All visitors should be kept a safe distance from work area.

8. MAKE WORKSHOP CHILD-PROOF.

-with padlocks, master switches or by removing starter keys.

9. USE PROPER SPEED.

A tool will do a better and safer job when operated at the proper speed.

10. USE RIGHT TOOL.

Don't force the tool or the attachment to do a job for which it was not designed.

11. WEAR PROPER APPAREL.

Do not wear loose clothing, gloves, neckties or jewelry (rings, watch) because they could get caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair. Roll up long sleeves above the elbows.

12. ALWAYS WEAR SAFETY GLASSES.

Always wear safety glasses (ANSI Z87.1). Everyday eye-glasses only have impact resistant lenses, they are **NOT** safety glasses. Also use a face or dust mask if cutting operation is dusty.

13. DON'T OVERREACH.

Keep proper footing and balance at all times.

14. MAINTAIN TOOL WITH CARE.

Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

15. DISCONNECT TOOLS.

Before servicing, when changing accessories or attachments.

16. AVOID ACCIDENTAL STARTING.

Make sure the switch is in the "OFF" position before plugging in.

17. USE RECOMMENDED ACCESSORIES.

Consult the manual for recommended accessories. Follow the instructions that accompany the accessories. The use of improper accessories may cause hazards.

18. NEVER STAND ON TOOL.

Serious injury could occur if the tool tips over. Do not store materials such that it is necessary to stand on the tool to reach them.

19. CHECK DAMAGED PARTS.

Before further use of the tool, a guard or other parts that are damaged should be carefully checked to ensure that they will operate properly and perform their intended function. Check for alignment of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other parts that are damaged should be properly repaired or replaced.

20. NEVER LEAVE MACHINE RUNNING UNATTENDED.

Turn power "OFF". Don't leave any tool running until it comes to a complete stop.

SPECIFIC SAFETY INSTRUCTIONS FOR 15" DRILL PRESS

1. USING A DRILL PRESS VISE. When using a drill press vise, always fasten it to the table.

2. NEVER DO "FREEHAND WORK". Never do any work "Freehand" (hand holding the workpiece rather than supporting it on the table) except when you have polishing to do.

3. NEVER move the head or table while the drill press is running.

4. USE THE RECOMMENDED SPINDLE SPEED for the specific operation and workpiece material.

5. NEVER climb on the drill press table, it could break or pull the entire drill press down on you.

6. KEEP HANDS well away from the drill bit and all moving parts. Use a hold-down or clamp to secure the workpiece, and use a brush, not hands, to clear away chips and dust.

7. BE SURE THAT THE DRILL BIT IS SECURELY INSTALLED in the chuck before operation.

8. BE SURE THE DRILL BIT has gained full operating speed before beginning to drill.

9. ALWAYS USE a clean, properly sharpened bit. Dirty or dull bits are unsafe and can lead to accidents.

10. USE SUITABLE WORKPIECE SUPPORT if the workpiece does not have a flat surface.

11. DO NOT PUSH OR FORCE THE BIT into the workpiece. The drill will perform better and more safely when working at the rate feed for which it was designed.

12. AVOID WORKING FROM AWKWARD OR OFF BALANCE POSITIONS. Do not overreach and keep both feet on floor.

13. KEEP GUARDS IN PLACE and in working order. If a guard must be removed for maintenance or cleaning be sure it is properly reinstalled before using the machine again.

14. NEVER LEAVE THE MACHINE unattended while it is running or with the power on.

ELECTRICAL INFORMATION



WARNING

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE MACHINE DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

POWER SUPPLY

WARNING: YOUR DRILL PRESS MUST BE CONNECTED TO A 120V WALL OUTLET, WITH A MINIMUM 15-AMP. BRANCH CIRCUIT AND USE A 15-AMP TIME DELAY FUSE OR CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

GROUNDING

Your drill press must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

WARNING: IF NOT PROPERLY GROUNDED, THIS DRILL PRESS CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

If this drill press should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This drill press is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: TO MAINTAIN PROPER GROUNDING, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

120V OPERATION

As received from the factory, your drill press is ready to run for 110V-120V operation. This machine is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTER(S) FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. If you do not have a choice, use the table in Fig.2 to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord needed. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the drill press motor. Refer to Fig.2 for wire length and size.

ON/OFF SWITCH WITH REMOVABLE SAFETY KEY

The On/Off switch (A) Fig.3 comes with a removable safety key (B). When the safety key is removed from the switch and placed in a safe location, unauthorized persons or children can't turn the switch to the On position. It is recommended to always remove the safety key from the switch whenever the Drill Press is not in use.

To turn the Drill Press On, lift the switch (A) Fig.3. To turn the Drill Press Off press down on the switch.

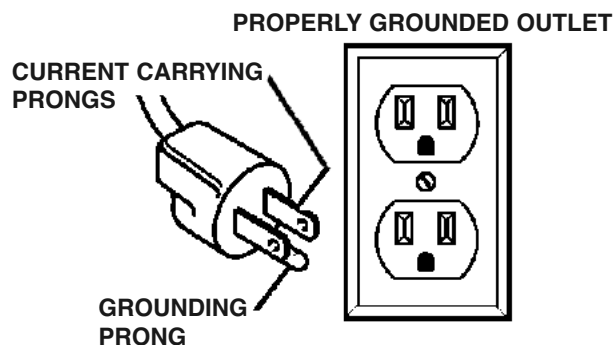


Figure 1

Tool's Amperage Rating	Cord Size in A.W.G.			
	Cord Length in Feet			
	25	50	100	150
3-6	18	16	16	14
6-8	18	16	14	12
8-10	18	16	14	12
10-12	18	16	14	12
12-16	14	12	-	-

Figure 2



Figure 3



GETTING TO KNOW YOUR DRILL PRESS

1. Base
2. Column
3. Table locking lock handle
4. Tilting table
5. 5/8" chuck
6. Dual laser switch
7. On/Off switch
8. Variable speed digital readout
9. Pulley cover
10. Motor
11. Chuck key & chuck key holder
12. Feed handle (1 of 3)
13. Table raising/lowering handle
14. Drive belt
15. Speed range setting belt
16. Flexible worklight w/ LED bulb
17. Laser guide (1 of 2)
18. Mechanical variable speed adjusting lever
19. Depth stop

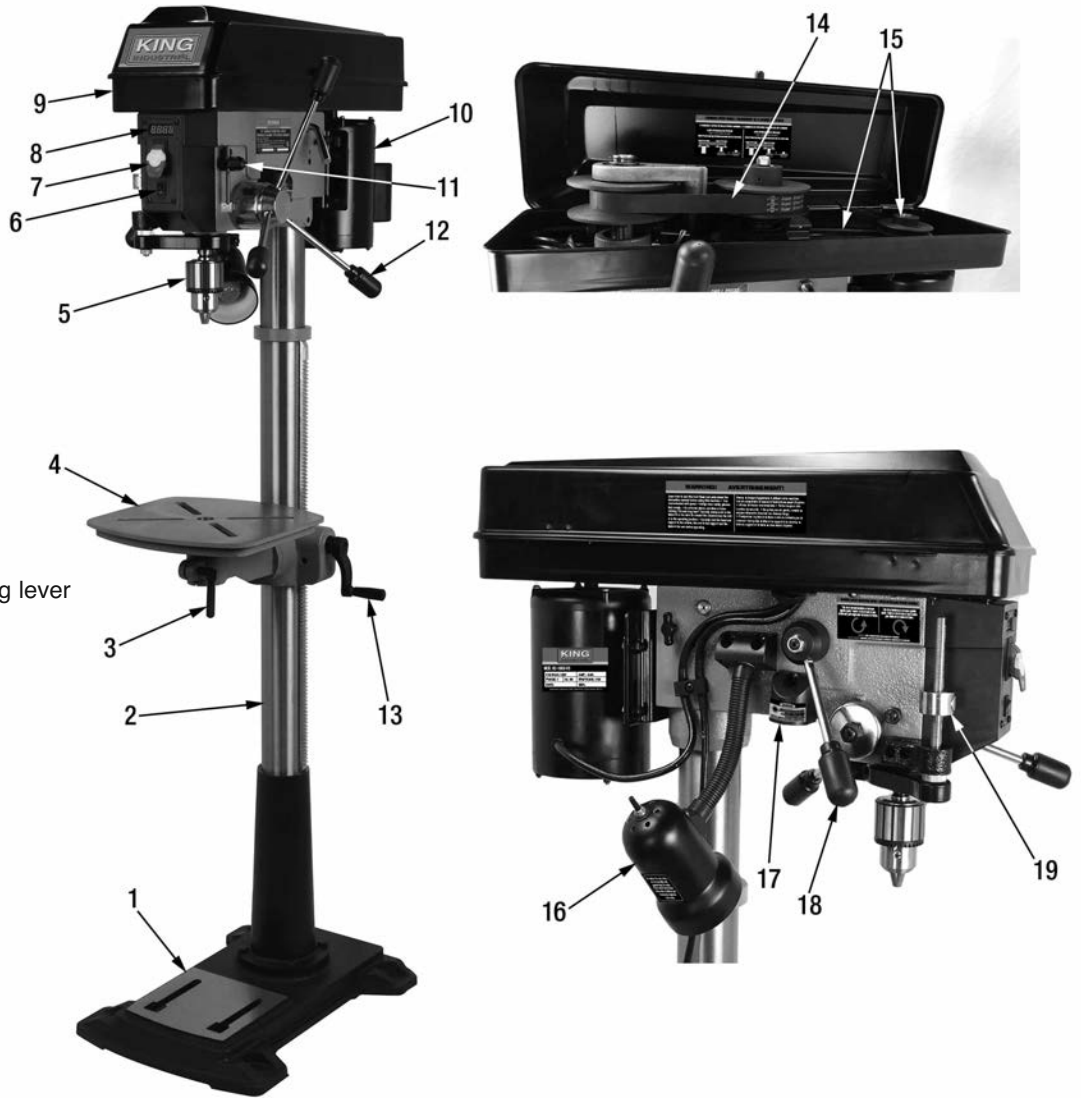


FIGURE 4

SPECIFICATIONS

MODEL	KC-15HS-VS
Capacity	5/8"
Chuck size	5/8"
Swing	15"
Max. distance chuck to column	7-1/2"
Max. distance chuck to table	25"
Stroke	4"
Table size	12" x 12"
Spindle taper	MT#2
Variable speeds	2 (280 -1100/900-3300) RPM
Table T-slots	9/16"
Motor/Voltage	8.6 Amp. @ 120V, 60 Hz, 1 phase
Ass. dimensions (LxWxH)/weight	14-3/4" x 25" x 64" / 155 lbs
Pkg dimensions (LxWxH)/weight	55-1/2" x 22-1/2" x 11-1/4" / 160 lbs

FIGURE 5

ASSEMBLY



BASE, COLUMN & TABLE ASSEMBLY

- 1) Position the base (A) Fig.6 on the floor. Remove the protective covering and discard.
- 2) Remove protective bag from the column, column support and table support assembly (B) and discard. Place the column assembly on the base, align the holes in the column support with the holes in the base.
- 3) Locate four long hex. bolts from the parts bag.
- 4) Install a hex. bolt (C) Fig.6 in each hole through the column support and the base and tighten with a wrench.

Note: It is recommended to securely fasten the drill press base (A) Fig.6 to a wooden base or floor. This would prevent the drill press from possibly tipping over, walking during operation.

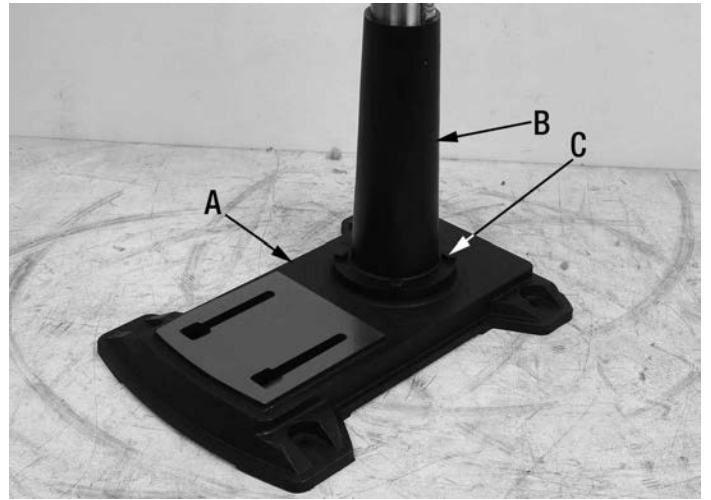


FIGURE 6

- 5) Locate the crank handle (A) Fig.7 and install it on the worm gear shaft on the side of the table support (B). Tighten the set screw (C) on the flat section of the worm gear shaft.
- 6) Install the table support lock handle (D) Fig.7 to the table support as shown.

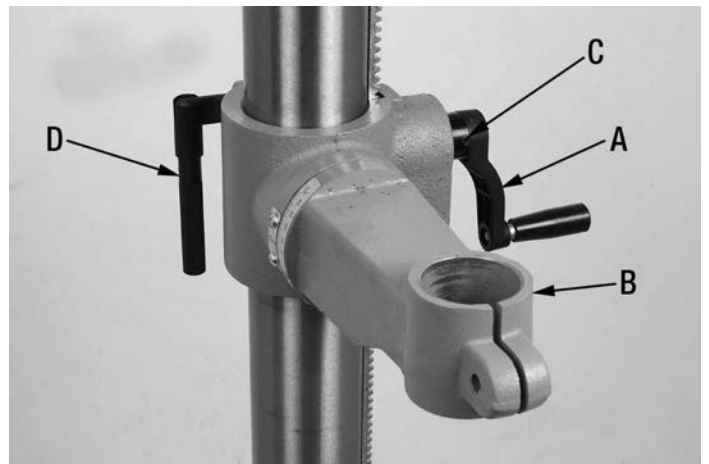


FIGURE 7

- 7) Install the table lock handle (A) Fig.8 to the table support as shown. Do not tighten.
- 8) Slide the table (B) Fig.8 into the opening of the table support. Tighten table lock handle (A).

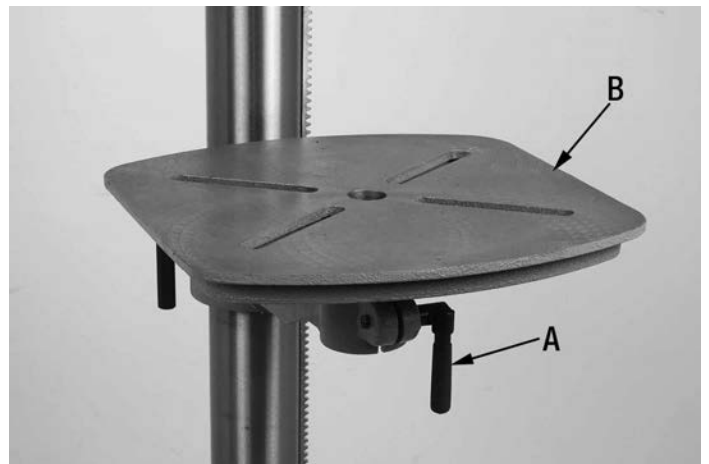


FIGURE 8



ASSEMBLY

INSTALLING THE HEAD

Warning! The drill press head is very heavy, it is not recommended to attempt installation of the head by yourself, obtain help.

- 1) Carefully lift the head (A) Fig.9 above the column (B) and slide it down on the column as far as it will go. Align the head with the table and the base.
- 2) Using a 5 mm hex. key, tighten both head set screws (C) Fig.9 on the right side of the head.

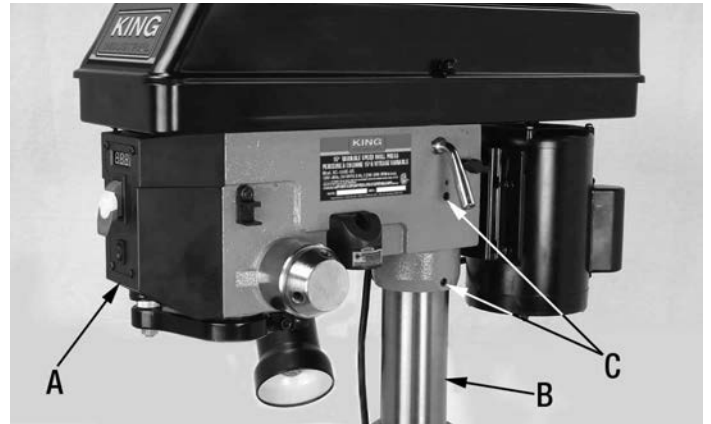


FIGURE 9

INSTALLING DOWNFEED HANDLES

- 1) Screw the 3 downfeed handles (A) Fig.10 to the feed hub (B) as shown.

INSTALLING VARIABLE SPEED ADJUSTING HANDLE

- 1) Screw the variable speed handle (C) Fig.10 to the variable speed hub (D) as shown.

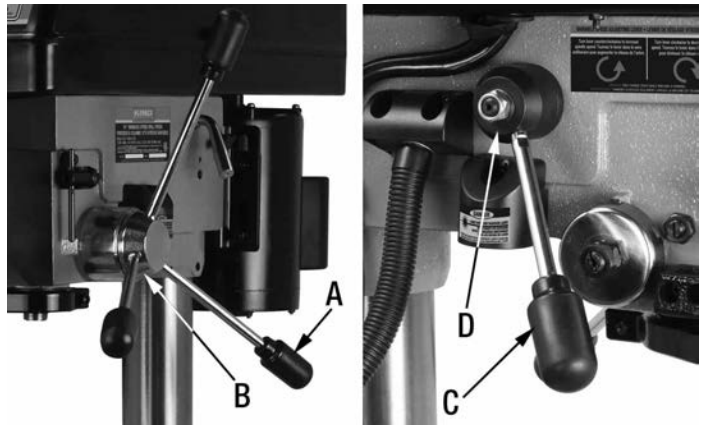


FIGURE 10

INSTALLING CHUCK & ARBOR

- 1) Before attempting to install chuck on the drill press arbor, and installing arbor in spindle, it is extremely important to clean all grease and or dirt particles from the chuck opening and the arbor. Make sure there are no foreign particles sticking to the surfaces. The slightest piece of dirt on the arbor nose or the chuck will prevent the chuck from seating properly. This will cause the drill to “wobble”.
- 2) Locate the 5/8” chuck (A) Fig.11 and arbor (B). Insert the arbor into the chuck opening.
- 3) Push the chuck and arbor assembly up into the drill spindle (C) as far as they will go. Turn chuck and arbor assembly until it completely enters the spindle.
- 4) Turn the chuck sleeve clockwise, or use the supplied chuck key, and open the chuck jaws completely.
- 5) Lightly tap the nose of the chuck with a piece of wood to insure the proper seating of the chuck on the arbor and arbor in the spindle.

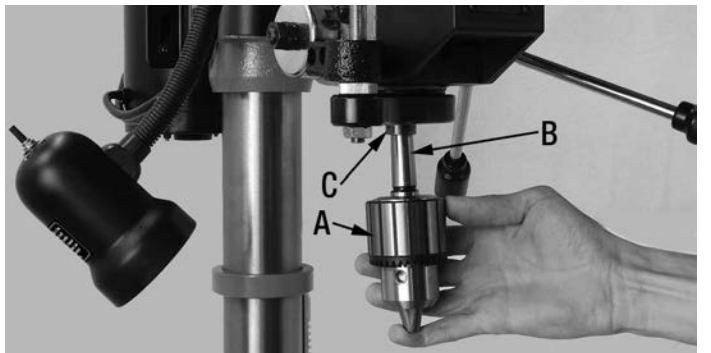


FIGURE 11

REMOVING THE CHUCK & ARBOR

- 1) Lower the quill using the feed handles. Align key holes in spindle and quill (A) Fig.12 as shown by rotating the chuck (B) by hand.
- 2) Insert drift key (C) into key holes in the quill.
- 3) Tap drift key lightly until the chuck and arbor fall out of the spindle.

NOTE: Place one hand below the chuck to catch it when it falls out.



FIGURE 12

ASSEMBLY & ADJUSTMENTS



INSTALLING A DRILL BIT IN THE 5/8" CHUCK

- 1) Insert the chuck key (A) Fig.13 into the chuck (B) as shown, turn chuck key counterclockwise to open the chuck jaws.
- 2) Insert a drill bit (C).
- 3) Tighten the chuck key clockwise to secure the drill bit in the chuck.

Note: This drill press comes with a convenient chuck key holder (D) Fig.13. Reposition chuck key in chuck key holder after adjustment to avoid misplacing the chuck key.

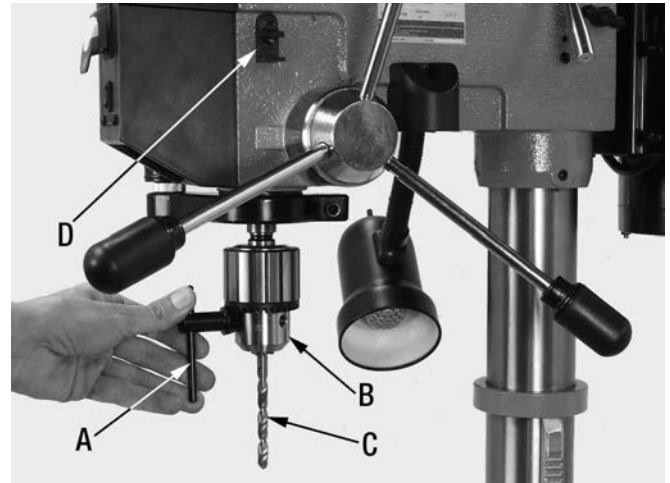


FIGURE 13

ADJUSTMENTS

RAISING/TILTING TABLE

Raising Table-

- 1) Loosen table lock handle (A) Fig.14.
- 2) Turn the table height adjustment handle (B) until the table is at the desired height.
- 3) Retighten table lock handle (A).

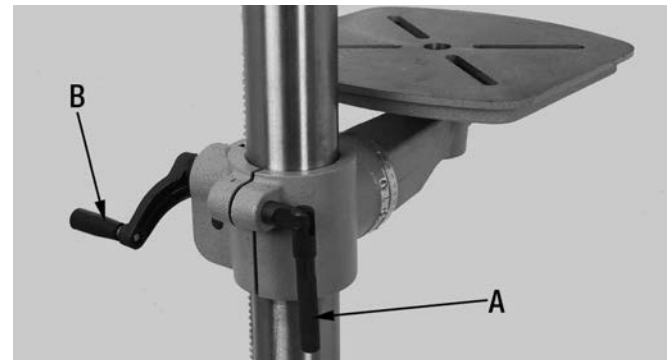


FIGURE 14

Tilting Table-

- 1) Loosen table angle setting hex bolt (A) Fig.15 using a 24mm wrench.
- 2) Tilt the table (B) to the desired position. Use the angle scale (C) as a general guide for the desired angle.
- 3) Retighten table angle setting hex bolt (A).

Note: When working with taller workpieces, swing the table 180° out of the way and use the base as a table.

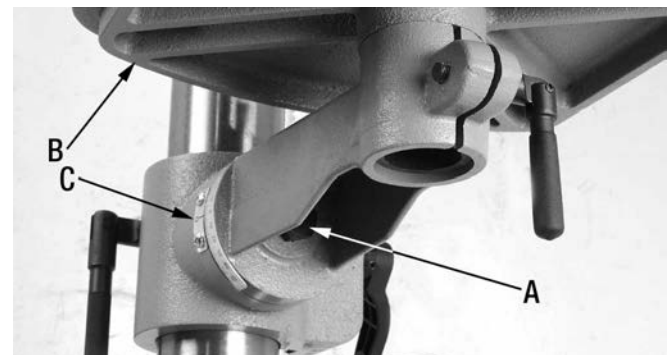


FIGURE 15

SQUARING TABLE WITH DRILL BIT

- 1) With a drill bit installed in the 5/8" chuck, raise table until it is a few inches away from the tip of the drill bit. Lock the table.
- 2) Position a square (A) Fig.16 on the table, and up against the drill bit (B) as shown in Fig.16.
- 3) Check to make sure the table is perfectly square with the drill bit. If an adjustment is needed, loosen table angle setting hex bolt (A) Fig.15 using a 24mm wrench.
- 4) Slightly tilt the table until it is square with the drill bit, once adjustment is done, retighten table angle setting hex bolt (A) Fig.15 using a 24mm wrench.

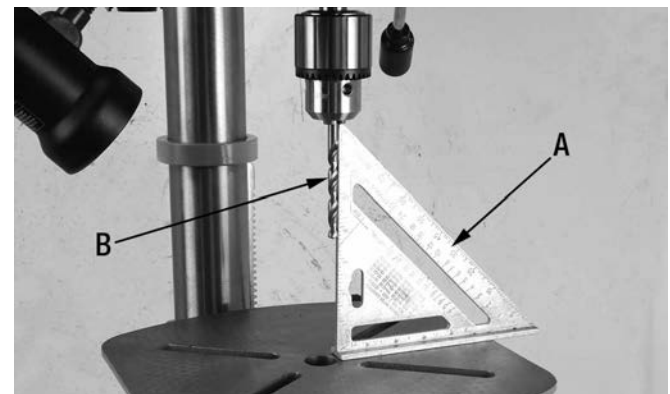


FIGURE 16



ADJUSTMENTS & OPERATION

USING AND ADJUSTING DUAL LASER GUIDES

Warning! Do not look into the direct or reflected laser beam; can cause eye injury up to 50 feet (15m) away. Class 2 lasers are considered safe for accidental eye exposure. Do not look or stare into laser beam. This is not a toy.



- 1) The dual laser guide system can be turned On/Off using the front mounted laser switch (A) Fig.17.
- 2) Position your workpiece on the table and clamp it. Lower the drill bit just above the workpiece. Turn on dual laser guide, The dual laser guide laser beams must cross where the drill bit touches the workpiece. If the dual laser guide laser beams is not properly aligned, an adjustment can be made:

- To access the adjusting set screw (A) Fig.18, first remove the pan head screw (B) and remove the protective cover (C).
- Loosen the 3mm set screw (A) Fig.18 using a hex. key. Turn laser tip (D) until the laser beam is correctly positioned. Retighten set screw and reinstall protective cover. Repeat this step for the other laser guide if needed.

USING THE DEPTH STOP

The depth stop mechanism Fig.19 allows repetitive drilling to an equal depth, to adjust the depth stop mechanism:

- 1) Lower the downfeed handles until your cutting tool reaches the desired drilling depth.
- 2) At the same time, push in the spring button (A) Fig.19 of the depth stop setting nut (B) and move it against the head casting (C). The depth stop scale (D) can also be used as a guide for setting the depth adjustment.
- 3) Release the downfeed handles and check your adjustment.

CHANGING SPEED

This drill press has 2 variable spindle speed ranges from 280 to 1100 RPM and 900-3300 RPM, the factory setting is set to low speed range (280 to 1100 RPM). The spindle speed setting is conveniently displayed on the digital readout on the head of the drill press. To change the spindle speed:

WARNING! Always adjust the spindle speed while the drill press is running to avoid damaging the speed adjustment mechanism.

- 1) Turn the drill press on.
- 2) The spindle speed is controlled by the speed adjusting lever (A) Fig.20 located on the left side of the drill press head.
- 3) Turn the lever counterclockwise to increase the spindle speed.
- 4) Turn the lever clockwise to decrease the spindle speed.
- 5) Refer to the digital readout (B) Fig.20 on the front of the drill press head to set the desired speed.

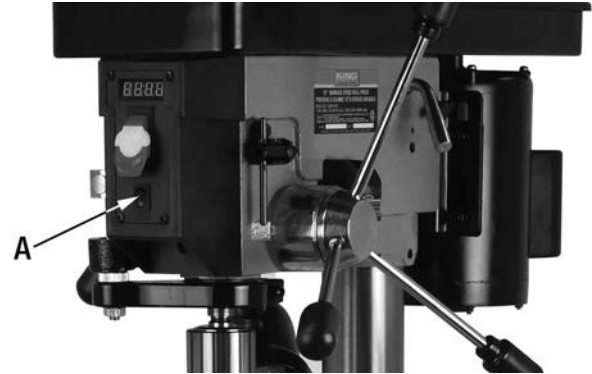


FIGURE 17

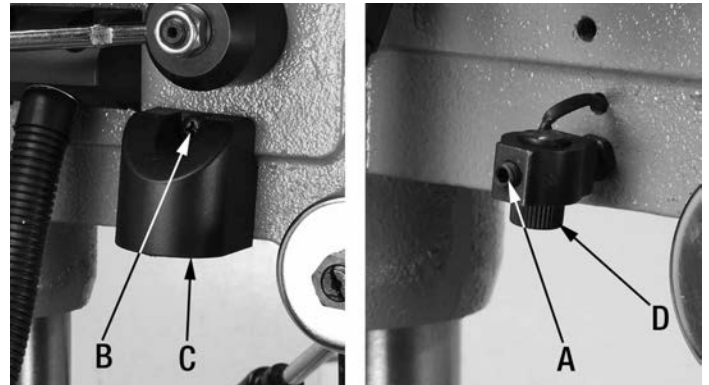


FIGURE 18

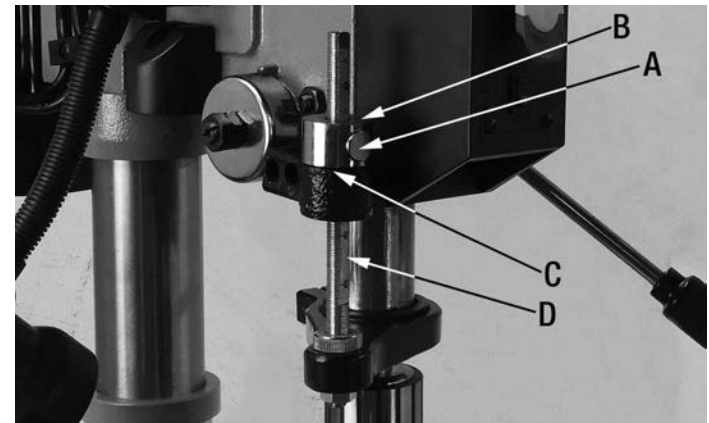


FIGURE 19

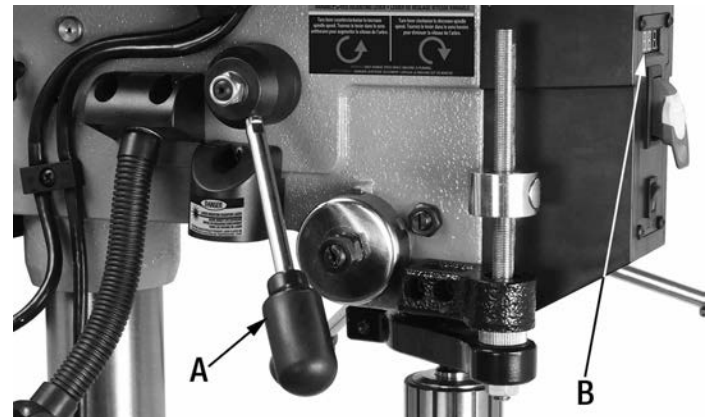


FIGURE 20

VARIABLE SPEED ADJUSTING LEVER • LEVIER DE RÉGLAGE VITESSE VARIABLE

Turn lever counterclockwise to increase spindle speed. Tournez le levier dans le sens antihoraire pour augmenter la vitesse de l'arbre.	Turn lever clockwise to decrease spindle speed. Tournez le levier dans le sens horaire pour diminuer la vitesse de l'arbre.
WARNING! ONLY CHANGE SPEED WHILE MACHINE IS RUNNING. AVERTISSEMENT! CHANGER LA VITESSE SEULEMENT LORSQUE LA MACHINE EST EN MARCHÉ.	

ADJUSTMENTS & OPERATION



CHANGING SPEED RANGE (LOW/HIGH)

This drill press has 2 variable spindle speed ranges. Low range from 280 to 1100 RPM and high range from 900-3300 RPM. To change the spindle speed range:

WARNING! Always disconnect the Drill Press from the power source before attempting to change the speed range (adjusting position of the belt).

- 1) Open the belt and pulley cover as shown in Fig.21.
- 2) The large drive belt (A) Fig.21 drives the spindle and requires no adjusting, it is the smaller speed range belt (B) which sets the speed range and must be repositioned on the motor pulley (C) and intermediate pulley (D).
- 3) First, loosen both motor fixing lock knobs (A) Fig.22 (one on each side of the head), and turn the motor position adjusting lever (B) counterclockwise to move the motor inward and to release the tension on the smaller speed range belt (B) Fig.21.
- 4) Refer to the illustration below for proper speed range belt position for Low or High speed range. Reposition the speed range belt to obtain the desired speed range.

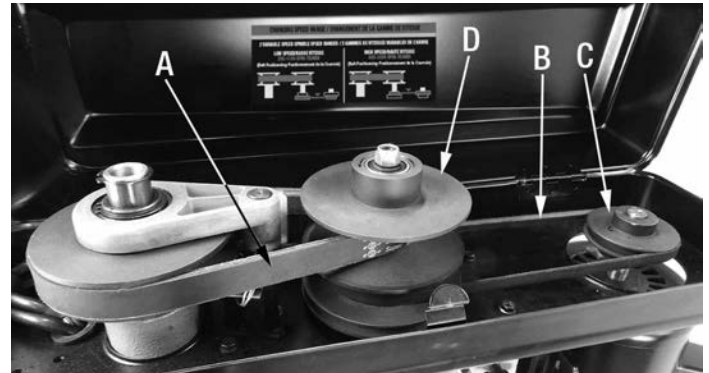
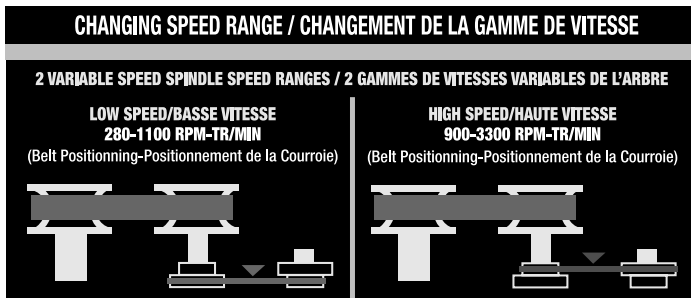


FIGURE 21



FIGURE 22



- 5) Once adjustment is made, turn the motor position adjusting lever (B) Fig.22 clockwise to move the motor outward and to tension the speed range belt (B) Fig.21.

NOTE: The belt should deflect approximately 1/2" by applying finger pressure at the mid-point of the belt between the pulleys. If the belt slips while drilling, readjust the belt tension.

ADJUSTING PLAY IN QUILL/SPINDLE

If a small or excessive play in the quill/spindle is noticed, an adjustment can be made. Using the downfeed handles, lower the quill/spindle (C) Fig.23 as far as it will go. Check to see if there is excessive play (side-to-side movement) in the quill/spindle. If there is play, adjust as follows:

- 1) Place a flat head screwdriver on the screw (B) Fig.23, while preventing the screw from turning, loosen large hex. nut (A).
- 2) Slightly tighten the flat head screw (B) until the play is eliminated. Note that a small amount of play is normal.
- 3) Make sure the up and down movement of the quill/spindle is unobstructed.
- 4) Place a flat head screwdriver on the screw (B) Fig.23, while preventing the screw from turning, retighten large hex. nut (A).

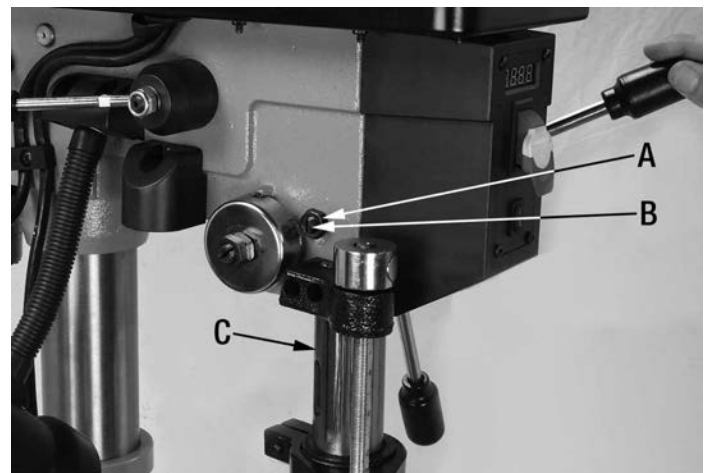


FIGURE 23



OPERATION & MAINTENANCE

OPERATION

TURNING DRILL PRESS ON/OFF

The On/Off switch (A) Fig.24 comes with a removable safety key (B). When the safety key is removed from the switch and placed in a safe location, unauthorized persons or children can't turn the switch to the On position. It is recommended to always remove the safety key from the switch whenever the Drill Press is not in use.

To turn the Drill Press On, lift the switch (A) Fig.24. To turn the Drill Press Off press down on the switch.

ACTIVATING THE LASER GUIDE SYSTEM

In order to activate the laser guide system, first the Drill Press power cord must be connected to a power source, or the lasers will not turn on. The laser switch (C) Fig.24 turns the laser guide system on/off.

TURNING WORKLIGHT ON/OFF

In order to activate the worklight (A) Fig.25, first the Drill Press power cord must be connected to a power source, or the worklight will not turn on. Turn worklight switch (B) Fig.25 to turn the worklight on/off.

WARNING! To reduce the risk of fire, do not use light bulb greater than 40 watts.

OPERATIONAL GUIDELINE

FEEDING

Pull down the feed handles with only enough effort to allow the drill to cut. Feeding too slowly might cause the drill to burn...feeding too rapidly might stop the motor...cause the belt or drill to slip... tear the workpiece loose or break the drill bit.

HOLE LOCATION

Make an indentation in the workpiece where you want the to drill a hole using a centre punch or a sharp nail. Before turning the switch ON, bring the drill bit down to the workpiece, lining it up with the hole location.

POSITIONING THE TABLE AND WORKPIECE

Lock the table to the column in a position so that the tip of the drill is just a little above the top of the workpiece. Always place a piece of back-up material (wood, plywood) on the table underneath the workpiece. This will prevent splintering or making a heavy burr on the underside of the workpiece as the drill breaks through. To keep the back-up material from spinning out of control, it must come in contact with the left side of the column.

WARNING! To prevent the workpiece or the back-up material from being torn from your hand while drilling, position them against the left side of the column. If the workpiece or the back-up material are not long enough to reach the column, clamp them to the table. Failure to do this could result in personal injury.

MAINTENANCE

WARNING! For your own safety, turn the switch "OFF" and remove the plug from the power source before maintaining or lubricating your drill press.

- Keep the Drill Press clean and free of dust and debris. Painted surfaces can be wiped with a damp rag.
- Periodically lubricate all sliding or moving parts including the column, rack and the quill (use any all purpose grease, available at any hardware store).
- Bearings in the quill and the pulleys are sealed and permanently lubricated – no further lubrication is required.
- Frequently blow out any dust that may accumulate inside the motor. After operation, remove chips or dirt on the machine and apply a coat of furniture-type paste wax to the table and the column, this will help keep the surfaces clean and free of rust.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.



FIGURE 24

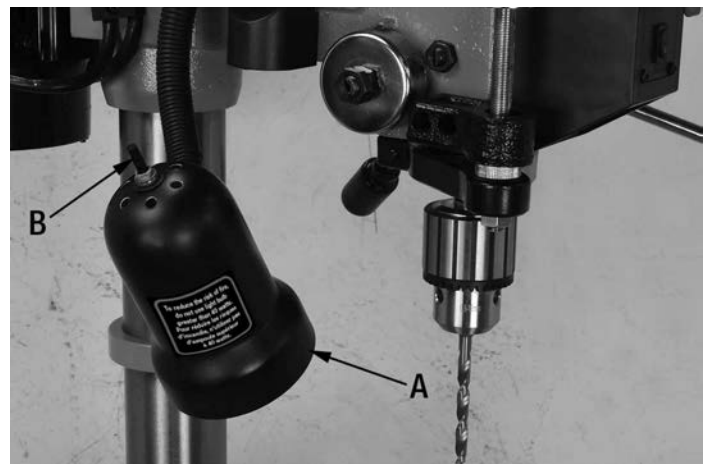


FIGURE 25