

# SETUP & OPERATION MANUAL

## FEATURES

- Heavy-duty one-piece frame designed for added stability. Requires no further assembly.
- Dynamically-balanced cast-iron wheels with replaceable rubber tires.
- Solid, high quality, precision machined, ribbed cast-iron table with 45° right tilting action for bevel cuts.
- Deluxe upper and lower blade guide bearings included.
- 2 cutting speeds for excellent results in either hard or soft woods.
- Precision metal miter gauge and dual miter slots in table for stable precision cross cuts on either side of the blade.
- Deluxe Excalibur bandsaw rip fence system with curved resaw guide block.
- Onboard storage mounts for miter gauge and rip fence.
- Smooth rack and pinion upper blade guard adjustment.
- Quick release blade tension lever for fast blade changes.
- 2 built-in 4" diameter dust chutes for better dust collection.
- Magnetic safety switch.
- Large 12" resaw capacity.
- 3/4" blade included.
- Safety foot brake simultaneously slows down the blade and disconnects electrical circuit for quick blade stoppage and emergency shut-off.

## SPECIFICATIONS

### WHEEL SIZE

14" (356 mm)

### WHEEL SPEEDS (2)

588/840 RPM

### MAXIMUM BLADE WIDTH

3/4" (19 mm)

### MINIMUM BLADE WIDTH

1/8" (3 mm)

### BLADE LENGTH

112" (2845 mm)

### BLADE SPEEDS (2)

2300 & 3250 Lin. FPM (690/975 Lin. MPM)

### TABLE SIZE

16" x 20" (406 x 508 mm)

### TABLE TILT

0°- 45° (Right)

### TABLE HEIGHT

36 1/2" (927 mm)

### MAXIMUM WIDTH OF CUT

13 1/2" (343 mm)

### MAXIMUM DEPTH OF CUT

12" (305 mm)

### DUST COLLECTION PORT

2 x 4" (102 mm)

### BASE DIMENSIONS (L x W)

25" x 15" (635 x 381 mm)

### MOTOR

1 1/2 HP, 110V, 1PH, 12.5A

### WEIGHT

293 LBS (133 kg)

## ***DELUXE 14" WOOD CUTTING BANDSAW***



# MODEL #90-170B MI





## **GENERAL® INTERNATIONAL**

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**THANK YOU** for choosing this General® International model 90-170B M1 14" Deluxe Wood Cutting Bandsaw. This bandsaw has been carefully tested and inspected before shipment and if properly used and maintained, will provide you with years of reliable service. For your safety, as well as to ensure optimum performance and trouble-free operation, and to get the most from your investment, please take the time to read this manual before assembling, installing and operating the unit.

The manual's purpose is to familiarize you with the safe operation, basic function, and features of this bandsaw as well as the set-up, maintenance and identification of its parts and components. This manual is not intended as a substitute for formal woodworking instruction, nor to offer the user instruction in the craft of woodworking. If you are not sure about the safety of performing a certain operation or procedure, do not proceed until you can confirm, from knowledgeable and qualified sources, that it is safe to do so.

Once you've read through these instructions, keep this manual handy for future reference.

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**Disclaimer:** The information and specifications in this manual pertain to the unit as it was supplied from the factory at the time of printing. Because we are committed to making constant improvements, General® International reserves the right to make changes to components, parts or features of this unit as deemed necessary, without prior notice and without obligation to install any such changes on previously delivered units. Reasonable care is taken at the factory to ensure that the specifications and information in this manual corres-

ponds with that of the unit with which it was supplied. However, special orders and "after factory" modifications may render some or all information in this manual inapplicable to your machine. Further, as several generations of this model of bandsaw and several versions of this manual may be in circulation, if you own an earlier or later version of this unit, this manual may not depict your machine exactly. If you have any doubts or questions contact your retailer or our support line with the model and serial number of your unit for clarification.

# GENERAL® & GENERAL® INTERNATIONAL WARRANTY

All component parts of General®, General® International and Excalibur by General International® products are carefully inspected during all stages of production and each unit is thoroughly inspected upon completion of assembly.

## **Limited Lifetime Warranty**

Because of our commitment to quality and customer satisfaction, General® and General® International agree to repair or replace any part or component which upon examination, proves to be defective in either workmanship or material to the original purchaser for the life of the tool. *However, the Limited Lifetime Warranty does not cover any product used for professional or commercial production purposes nor for industrial or educational applications. Such cases are covered by our Standard 2-year Limited Warranty only. The Limited Lifetime Warranty is also subject to the "Conditions and Exceptions" as listed below.*

## **Standard 2-Year Limited Warranty**

All products not covered by our lifetime warranty including products used in commercial, industrial and educational applications are warranted for a period of 2 years (24 months) from the date of purchase. General® and General® International agree to repair or replace any part or component which upon examination, proves to be defective in either workmanship or material to the original purchaser during this 2-year warranty period, subject to the "conditions and exceptions" as listed below.

## **To file a Claim**

To file a claim under our Standard 2-year Limited Warranty or under our Limited Lifetime Warranty, all defective parts, components or machinery must be returned freight or postage prepaid to General® International, or to a nearby distributor, repair center or other location designated by General® International. For further details call our service department at 1-888-949-1161 or your local distributor for assistance when filing your claim.

Along with the return of the product being claimed for warranty, a copy of the original proof of purchase and a "letter of claim" must be included (a warranty claim form can also be used and can be obtained, upon request, from General® International or an authorized distributor) clearly stating the model and serial number of the unit (if applicable) and including an explanation of the complaint or presumed defect in material or workmanship.

## **CONDITIONS AND EXCEPTIONS:**

This coverage is extended to the original purchaser only. Prior warranty registration is not required but documented proof of purchase i.e. a copy of original sales invoice or receipt showing the date and location of the purchase as well as the purchase price paid, must be provided at the time of claim.

Warranty does not include failures, breakage or defects deemed after inspection by General® or General® International to have been directly or indirectly caused by or resulting from; improper use, or lack of or improper maintenance, misuse or abuse, negligence, accidents, damage in handling or transport, or normal wear and tear of any generally considered consumable parts or components.

*Repairs made without the written consent of General® International will void all warranty.*

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# Rules for Safe Operation

To help ensure safe operation, please take a moment to learn the machine's applications and limitations, as well as potential hazards. General® International disclaims any real or implied warranty and hold itself harmless for any injury that may result from the improper use of its equipment.

1. Do not operate the bandsaw when tired, distracted or under the effects of drugs, alcohol or any medication that impairs reflexes or alertness.
2. The working area should be well lit, clean and free of debris.
3. Keep children and visitors at a safe distance when the bandsaw is in operation; do not permit them to operate the bandsaw.
4. Childproof and tamper proof your shop and all machinery with locks, master electrical switches and switch keys, to prevent unauthorized or unsupervised use.
5. Stay alert! Give your work your undivided attention. Even a momentary distraction can lead to serious injury.
6. Fine particulate dust is a carcinogen that can be hazardous to health. Work in a well-ventilated area and whenever possible use a dust collector. Wear face, eye, ear, respiratory and body protection devices.
7. Do not wear loose clothing, gloves, bracelets, necklaces or other jewelry while the bandsaw is in operation.
8. Be sure that adjusting wrenches, tools, drinks and other clutter are removed from the machine and/or the table surface before operating.
9. Keep hands well away from the blade and all moving parts. Use a brush, not hands, to clear away chips and dust.
10. Adjust and position upper and lower blade guides before starting to cut. Upper blade guide should be adjusted to approximately 1/8" above the material to be cut.
11. Adjust blade tension and tracking before starting to cut.
12. Saw teeth must point down toward the table.
13. Be sure that the blade has gained full operating speed before starting to cut.
14. Always use a clean, properly sharpened blade. Dirty or dull blades are unsafe and can lead to accidents.
15. Use suitable workpiece support if the workpiece does not have a flat surface.
16. Hold material firmly against the table.
17. Do not work on long stock without adequate support on the out feed end of the table.
18. If using a power feeder, stop the feeder before stopping the bandsaw.
19. Do not push or force stock into the blade. The bandsaw will perform better and more safely when working at the rate for which it was designed.
20. Avoid working from awkward or off balance positions. Do not overreach and keep both feet on floor.
21. Keep guards in place and in working order. If a guard must be removed for maintenance or cleaning be sure it is properly re-attached before using the tool again.
22. Never leave the machine unattended while it is running or with the power on.
23. Use of parts and accessories NOT recommended by **General® International** may result in equipment malfunction or risk of injury.
24. Never stand on machinery. Serious injury could result if the tool is tipped over or if the cutting tool is unintentionally contacted.
25. Always disconnect the machine from the power source before servicing or changing accessories such as blades, or before performing any maintenance or cleaning, or if the machine will be left unattended.
26. Make sure that the switch is in the "OFF" position before plugging in the power cord.
27. Make sure the tool is properly grounded. If equipped with a 3-prong plug it should be used with a three-pole receptacle. Never remove the third prong.
28. Do not use this bandsaw for other than its intended use. If used for other purposes, **General® International** disclaims any real or implied warranty and holds itself harmless for any injury, which may result from that use.



# ELECTRICAL REQUIREMENTS



**BEFORE CONNECTING THE MACHINE TO THE POWER SOURCE, VERIFY THAT THE VOLTAGE OF YOUR POWER SUPPLY CORRESPONDS WITH THE VOLTAGE SPECIFIED ON THE MOTOR I.D. NAMEPLATE. A POWER SOURCE WITH GREATER VOLTAGE THAN NEEDED CAN RESULT IN SERIOUS INJURY TO THE USER AS WELL AS DAMAGE TO THE MACHINE. IF IN DOUBT, CONTACT A QUALIFIED ELECTRICIAN BEFORE CONNECTING TO THE POWER SOURCE.**

**THIS TOOL IS FOR INDOOR USE ONLY. DO NOT EXPOSE TO RAIN OR USE IN WET OR DAMP LOCATIONS.**

## **CIRCUIT CAPACITY**

Make sure that the wires in your circuit are capable of handling the amperage draw from your machine, as well as any other machines that could be operating on the same circuit. If you are unsure, consult a qualified electrician. If the circuit breaker trips or the fuse blows regularly, your machine may be operating on a circuit that is close to its amperage draw capacity. However, if an unusual amperage draw does not exist and a power failure still occurs, contact a qualified technician or our service department.

## **EXTENSION CORDS**

If you find it necessary to use an extension cord with your machine, use only 3-wire extension cords that have 3-prong grounding plug and a matching 3-pole receptacle that accepts the tool's plug. Repair or replace a damaged extension cord or plug immediately.

Make sure the cord rating is suitable for the amperage listed on the motor I.D. plate. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The accompanying chart shows the correct size extension cord to be used based on cord length and motor I.D. plate amp rating. If in doubt, use the next heavier gauge. The smaller the number, the heavier the gauge.

**TABLE - MINIMUM GAUGE FOR CORD**

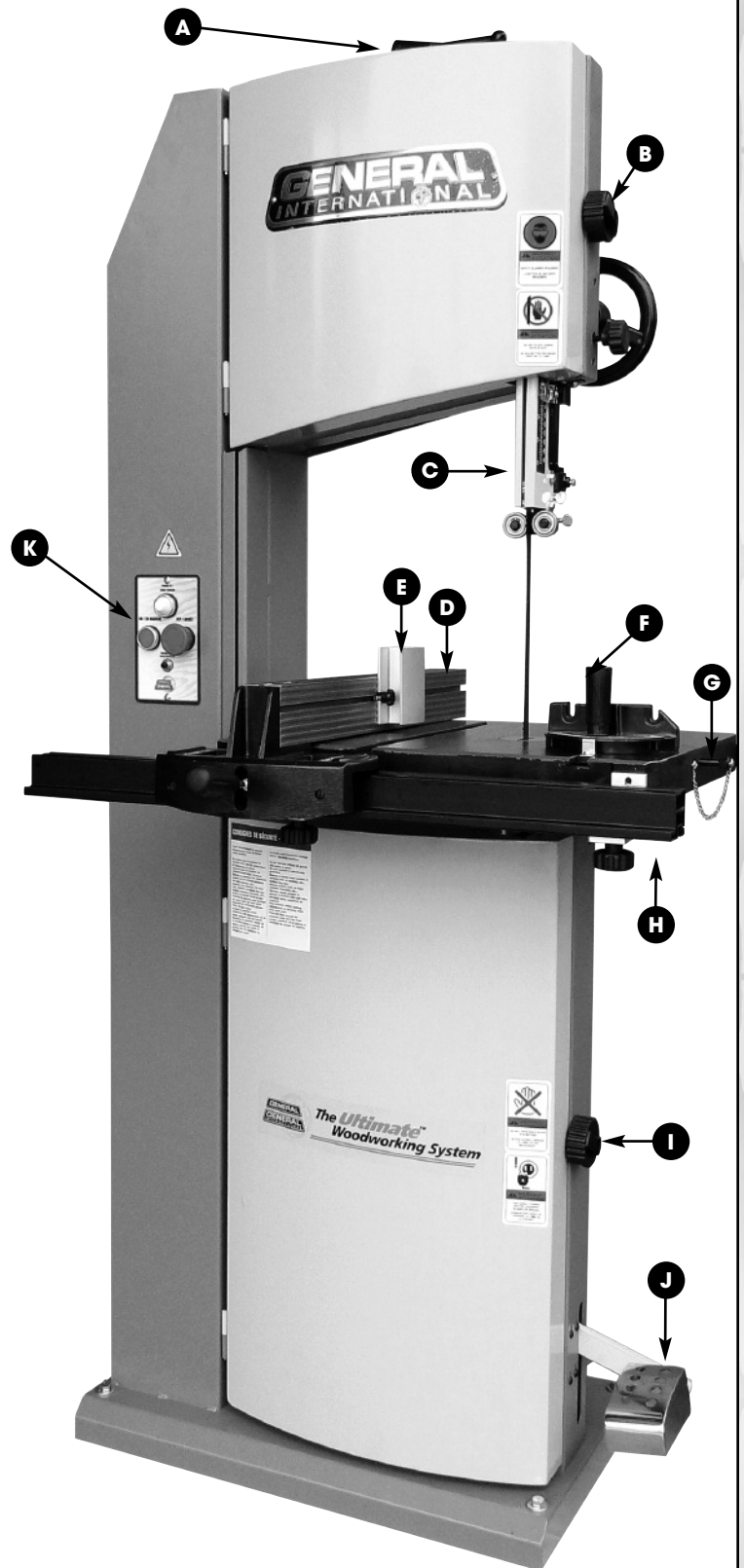
AMPERE RATING	TOTAL LENGTH OF CORD IN FEET				
	110 VOLTS	25 FEET	50 FEET	100 FEET	150 FEET
	220 VOLTS	50 FEET	100 FEET	200 FEET	300 FEET
AWG					
< 5	----->	18	16	16	14
6 TO 10	----->	18	16	14	12
10 TO 12	----->	16	16	14	12
12 TO 16	----->	14	12	* NR	* NR

\* NR = Not Recommended

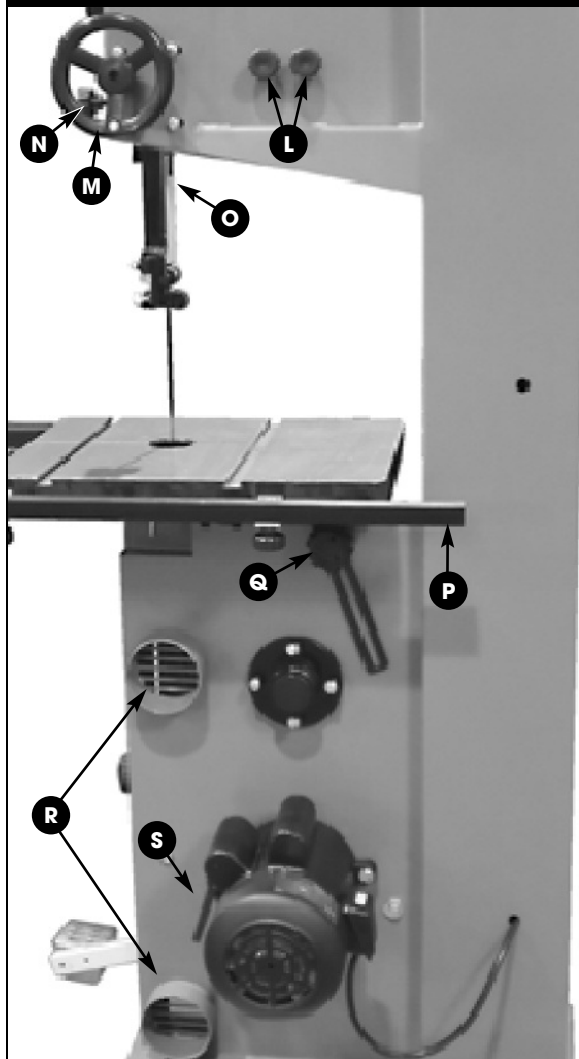
# IDENTIFICATION OF MAIN PARTS AND COMPONENTS

## FRONT VIEW

- A- BLADE TENSION ADJUSTMENT HANDLE
- B- UPPER WHEEL COVER DOOR LOCK KNOB
- C- BLADE GUARD
- D- RIP FENCE
- E- RESAW GUIDE BLOCK
- F- MITER GAUGE
- G- TABLE ALIGNMENT PIN
- H- FENCE FRONT RAIL- I- LOWER WHEEL COVER DOOR LOCK KNOB
- J- FOOT BRAKE
- K- MAGNETIC SAFETY SWITCH



## REAR VIEW



- L- BLADE TRACKING ADJUSTMENT KNOBS
- M- BLADE GUARD ADJUSTMENT HANDWHEEL
- N- BLADE GUARD LOCK KNOB
- O- UPPER BLADE GUIDES
- P- REAR FENCE RAIL
- Q- TABLE TILT LOCK KNOB
- R- DUST OUTLET
- S- MOTOR PIVOT LOCKING LEVER

# UNPACKING

Carefully unpack and remove the unit and its components from its shipping container and check for missing or damaged items as per the list of contents below.

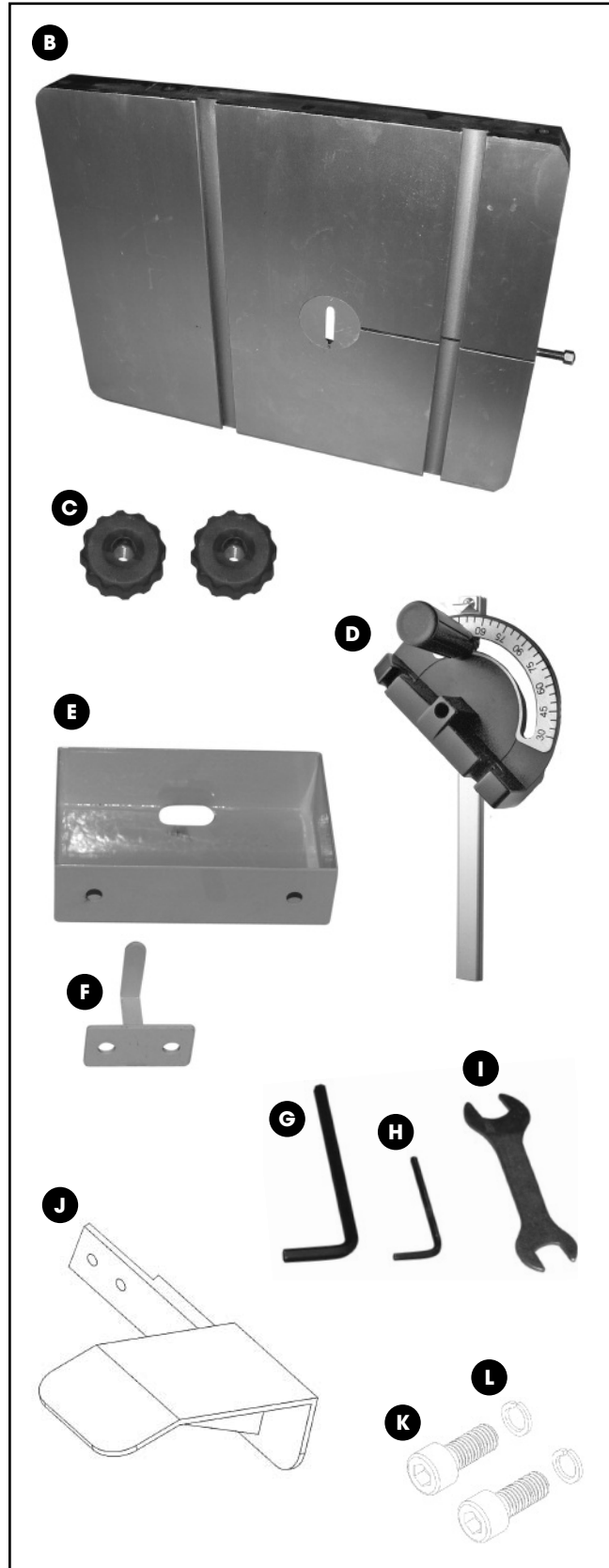
**NOTE:** Please report any damaged or missing items to your GENERAL® INTERNATIONAL distributor immediately.

## LIST OF CONTENTS

Once the parts have been removed from the packaging, you should have the following items:

	<b>QTY</b>
<b>A-</b> BANDSAW (NOT SHOWN) .....	1
<b>B-</b> TABLE .....	1
<b>C-</b> TABLE LOCK KNOB .....	2
<b>D-</b> MITER GAUGE .....	1
<b>E-</b> MITER GAUGE STORAGE BRACKET .....	1
<b>F-</b> RIP FENCE STORAGE BRACKET .....	1
<b>G-</b> 8 MM ALLEN KEY .....	1
<b>H-</b> 3 MM ALLEN KEY .....	1
<b>I-</b> 10-12 MM OPEN END WRENCH .....	1
<b>J-</b> FOOT BRAKE .....	1
<b>K-</b> CAP SCREW .....	2
<b>L-</b> LOCK WASHER .....	2

*Note: Deluxe Excalibur Universal Bandsaw Rip Fence System is packaged separately. Refer to the manual supplied in the box with the Excalibur Rip Fence for complete list of contents.*



## ADDITIONAL REQUIREMENTS FOR SET UP

- Extra person for help with lifting
- Phillips screwdriver
- Flat head screwdriver
- 10 mm wrench
- 15 mm wrench
- Feeler gauge set
- Combination square





# BASIC FUNCTIONS OF THE UNIT

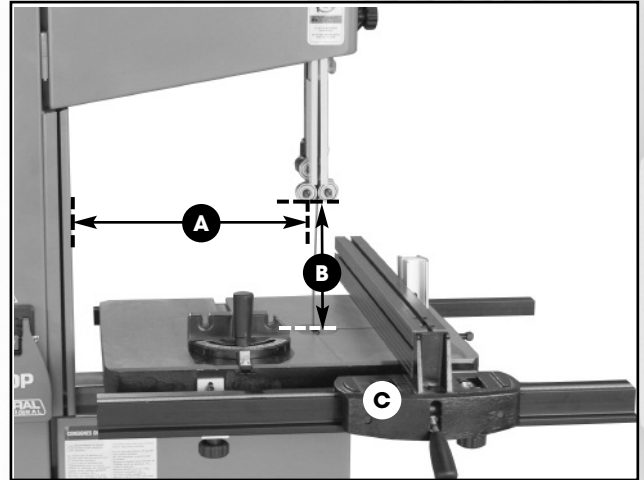
This Deluxe 14" Wood Cutting Bandsaw is supplied with a 3/4" wide general purpose blade and is designed to accommodate blade widths from 1/8" to 3/4". Ideal blade length for this model 90-170B M1 is 112" (2845 mm).

*Note: Generally speaking, because the upper wheel height is somewhat adjustable (to allow for blade tensioning), a blade length variation of plus or minus 1/2" from the "ideal blade length" can be accommodated.*

Maximum inboard width of cut (space between the blade and the body of the saw **A**) is 13 1/2".

For cutting thicker stock or for resawing, the maximum depth of cut **B** (or max. workpiece height) is 12".

An adjustable rip fence **C** is supplied to serve as a straight-edge to guide the workpiece for longer rip cuts. The fence can easily be removed and set aside when not required, for example when making curved cuts.



# PLACEMENT WITHIN THE SHOP / ESTABLISHING A SAFETY ZONE

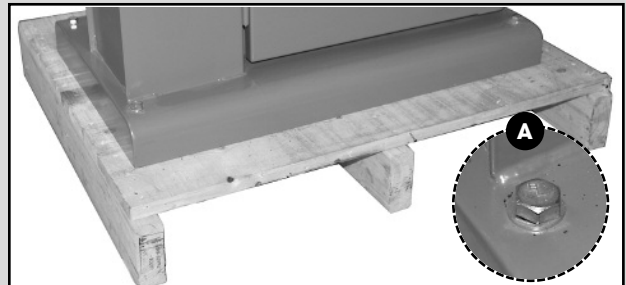


**THIS MODEL 90-170B M1 IS HEAVY. DO NOT OVER-EXERT. THE HELP OF AT LEAST ONE ASSISTANT OR A HOIST WILL BE NEEDED FOR THE FOLLOWING STEP.**

**TO LIMIT THE RISK OF SERIOUS INJURY OR DAMAGE TO THE MACHINE, ANY EQUIPMENT USED TO LIFT THIS MACHINE SHOULD HAVE A RATED CAPACITY IN EXCESS OF 293 LBS (133 KG).**

## Lifting and handling the machine

To limit the potential for damage in transport, this bandsaw is shipped from the factory bolted to its crate in the vertical position. With a forklift or hydraulic pallet jack, move the entire crate as close to the final installation location as possible, and then uncrate the saw and remove the 4 bolts **A** that secure it to the crate using a 15 mm wrench.

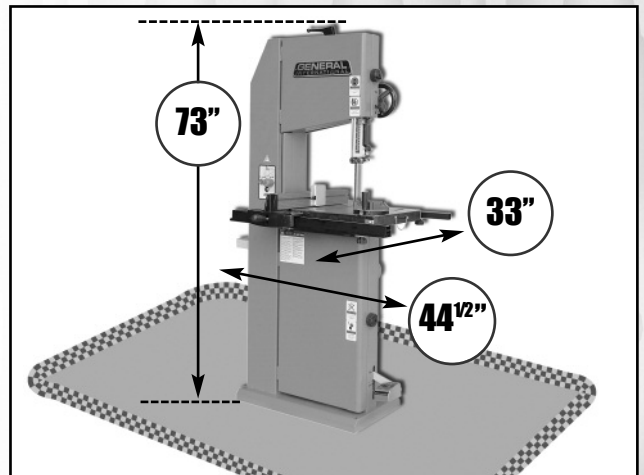


## **PLACEMENT WITHIN THE SHOP**

This machine should be installed and operated only on a solid, flat and stable floor that is able to support the weight of the bandsaw and the operator. Using the dimensions shown as a guideline, plan for placement within your shop that will allow the operator to work unencumbered and unobstructed by foot traffic (either passing shop visitors or other shop workers) or other tools or machinery.

## **ESTABLISHING A SAFETY ZONE**

For shops with frequent visitors or multiple operators, it is advisable to establish a Safety Zone around shop machinery. A clearly defined "no-go" zone on the floor around each machine can help avoid accidents that could cause injury to either the operator or the shop visitor. It is advisable to take a few moments to either paint (using non-slip paint) or using tape, define on the floor the limits or perimeter of each machines safety zone. Take steps to ensure that all operators and shop visitors are aware that these areas are off limits whenever a machine is running for everyone but the individual operating the unit.

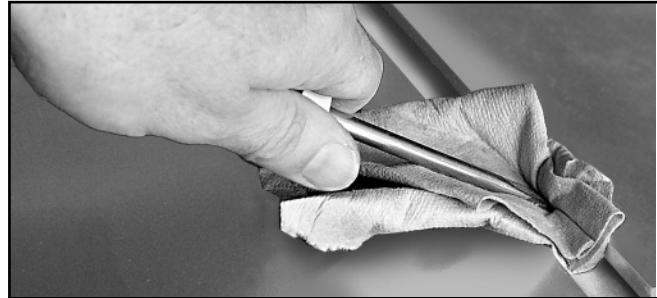


# CLEAN UP

The protective coating on the saw table prevents rust from forming during shipping and storage. Remove it by rubbing with a rag dipped in kerosene, mineral spirits or paint thinner. (Dispose of potentially flammable solvent-soaked rags according to manufacturer's safety recommendations.)

A putty knife, held flat to avoid scratching the surface, may also be used to scrape off the coating followed by clean-up with solvent. Avoid rubbing the saw's painted surfaces, as many solvent-based products will remove paint.

To prevent rust, apply a light coating of paste wax or use regular applications of any after-market surface protectant or rust inhibitor.



**Tip:** With a screw driver, push a solvent-saturated rag into the T-slots to remove the grease so the miter gauge will slide freely.

# ASSEMBLY INSTRUCTIONS

For your convenience this bandsaw is shipped from the factory partially assembled and requires only minimal assembly and set up before being put into service.



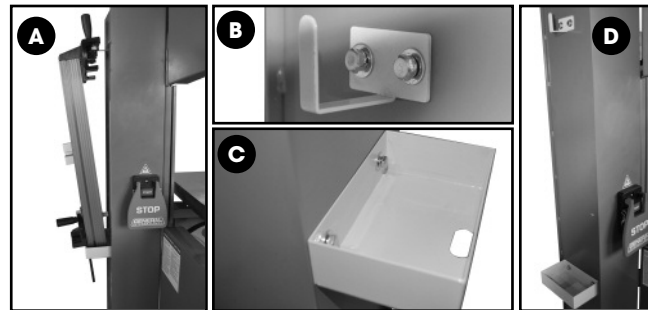
**SERIOUS PERSONAL INJURY COULD OCCUR IF YOU CONNECT THE SAW TO THE POWER SOURCE BEFORE YOU HAVE COMPLETED THE INSTALLATION AND ASSEMBLY STEPS.**

**DO NOT CONNECT THE SAW TO THE POWER SOURCE UNTIL INSTRUCTED TO DO SO.**

## ATTACH THE STORAGE BRACKETS

This model 90-170B is supplied with convenient onboard storage brackets to safely stow the rip fence and miter gauge out of the way when not in use **A**.

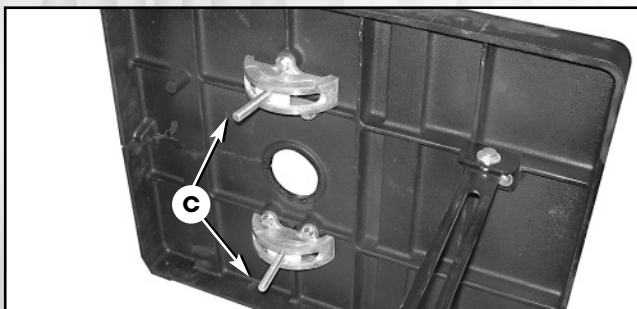
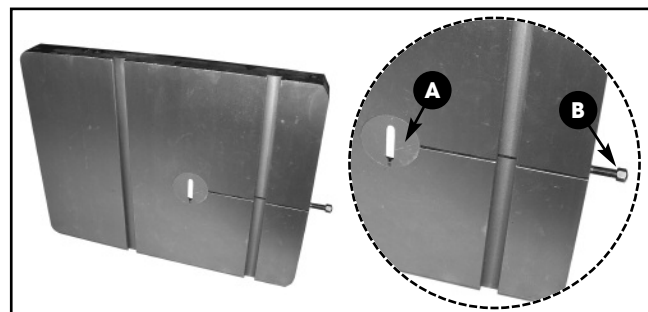
Attach the rip fence storage bracket **B** and miter gauge storage brackets **C** to the back of the saw as shown in **D**, using the bolts and washers already mounted to the saw.



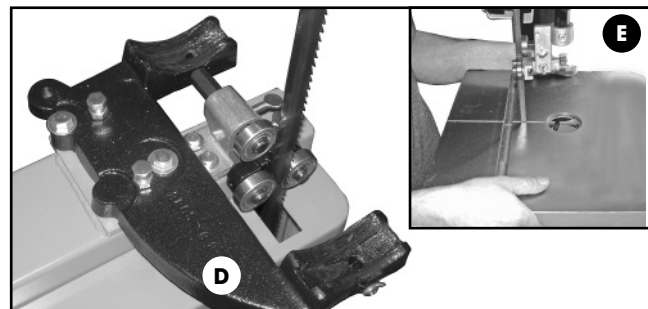
## ATTACHING THE TABLE

The worktable mounts on a bracket which allows adjustment from flat (0°) to any angle up to 45° to the right. Adjustments can be made easily with the angle scale and lock knobs.

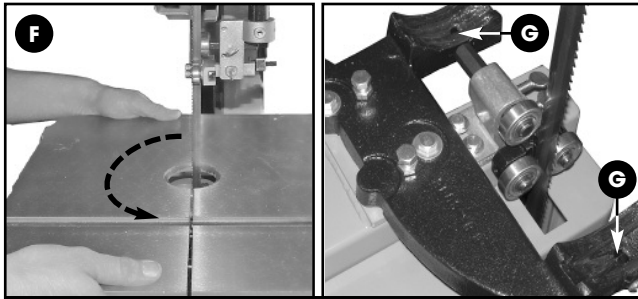
1. Remove the red insert **A** from the center of the table and the table alignment pin **B** from the table slot.



2. Turn the table right side up. Verify that the long bolts **C** in the center of each trunnion are pointing down.

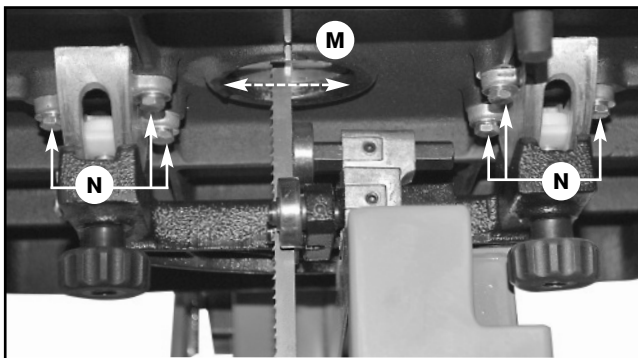


3. Carefully move the table into position over the table-tilt bracket **D**, guiding the saw blade through the table slot **E**.



**Note:** If the long bolts have moved out of position, have an assistant tap them into place with a screw driver.

4. Rotate the table 1/4 turn counterclockwise so that the saw blade is now perpendicular to the table slot **F**.
5. Gently lower the table onto the bracket so the long bolts **C** in the center of the trunnions pass through the holes in the table-tilt bracket **G**.



8. Make sure that the blade is centered in the table opening. If the blade is not centered, slide the table back or forward **M** until the blade is centered in the table opening, then fully tighten the two lock knobs, **N**.

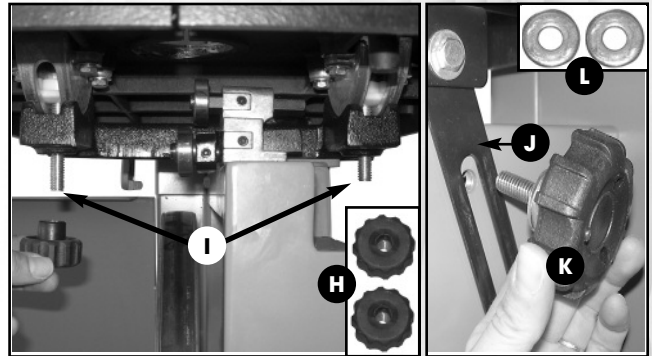
### **INSTALL THE FOOT BRAKE**

1. Open the lower wheel cover door.
2. Attach the foot brake to the foot brake mounting bar as shown in **Q** using the two supplied cap screws and lock washers, in the assembly order shown in **R**.
3. Firmly tighten with the supplied 8 mm Allen key.

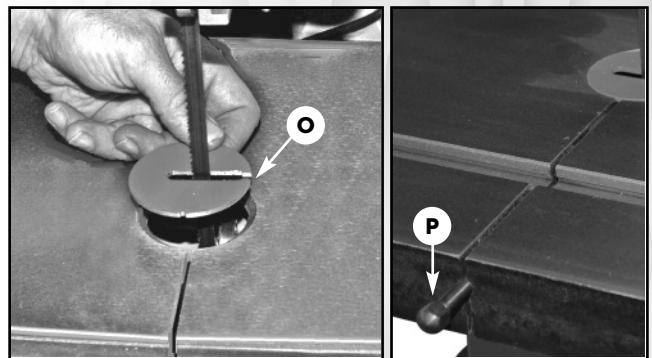
### **INSTALL THE FENCE ASSEMBLY**

*This model 90-170B M1 is equipped with an Excalibur T-fence and guide rail system.*

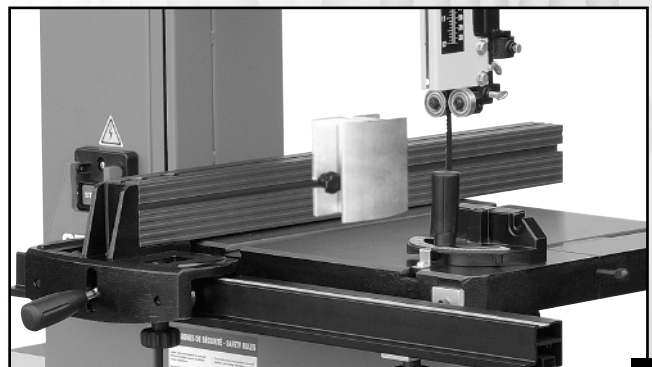
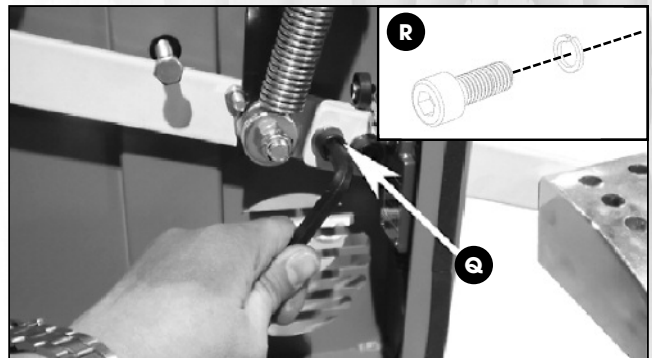
*Follow all assembly and adjustment instructions in the 90-075A manual supplied in the box with the Excalibur Universal Bandsaw Rip Fence System.*



6. Thread the two small lock knobs **H** onto the long bolts **I** now protruding from the underside of the table-tilt bracket and tighten loosely.
7. Attach the table tilt support bracket **J** to the rear of the saw using the big lock knob **K** with the two flat washers **L** already mounted on the frame.



9. Re-install the insert into the center of the table, with the opening in the slot **O** facing the rear of the saw.
10. Re-install the table alignment pin into the table slot **P**.



# BASIC ADJUSTMENTS AND CONTROLS

## CONNECTING TO A POWER SOURCE

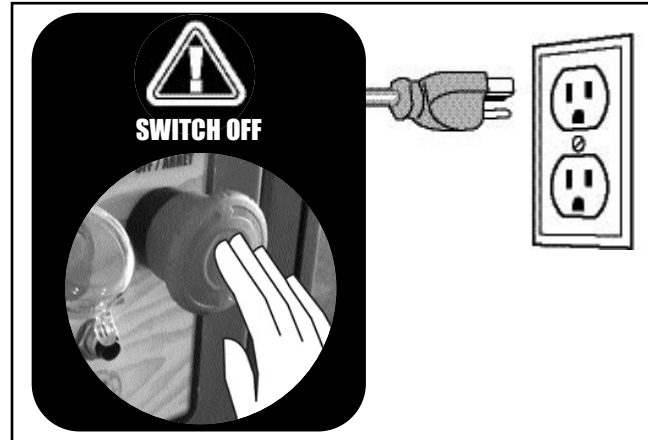


**TO REDUCE THE RISK OF SHOCK OR FIRE DO NOT OPERATE THE UNIT WITH A DAMAGED POWER CORD OR PLUG. REPLACE DAMAGED CORD OR PLUG IMMEDIATELY.**

**TO AVOID UNEXPECTED OR UNINTENTIONAL START-UP, MAKE SURE THAT THE POWER SWITCH IS IN THE OFF POSITION BEFORE CONNECTING TO A POWER SOURCE.**

Refer back to the section entitled "ELECTRICAL REQUIREMENTS" and make sure all requirements and grounding instructions are followed.

Once the assembly has been completed, plug the power cord into an appropriate outlet. The "POWER IN" indicator light **A** will illuminate.

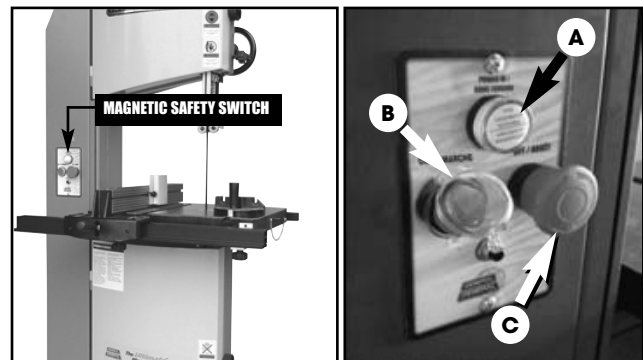


## MAGNETIC SAFETY SWITCH

This model 90-170B is equipped with a MAGNETIC SAFETY SWITCH located at the front, on the frame of the machine. This magnetic switch is designed to protect the unit and the user from power surges, power outages and unwanted or unintentional start-up.

The switch assembly is equipped with a GREEN "ON" button with protective cap **B** to prevent unwanted or unintentional start-up, and a RED spring loaded "OFF" button **C**. Once the RED "OFF" button has been pressed, the machine can only be started by turning the RED button to the right to release the stop button it.

**When you have finished using the machine be sure to unplug the bandsaw from the power source.**



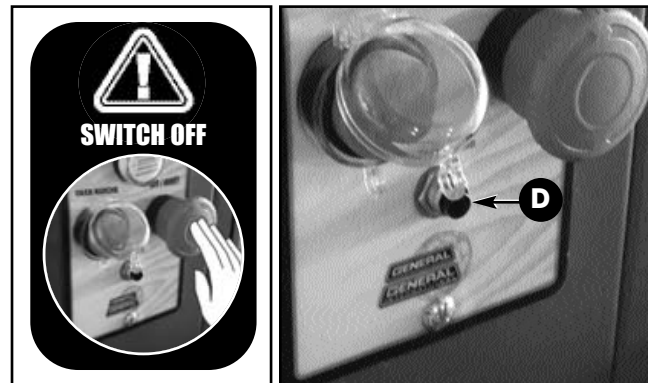
## THERMAL RELAY / CIRCUIT BREAKER

The unit is equipped with a thermal relay (circuit breaker) **D** located under the magnetic switch, to protect the motor from power surges or spikes in line voltage. In the event of a power surge, the thermal relay will be automatically tripped thereby cutting off the power to the motor.



**TO AVOID UNEXPECTED OR UNINTENTIONAL START-UP BE CERTAIN THAT THE POWER SWITCH HAS BEEN SET TO THE OFF POSITION BEFORE RE-SETTING THE THERMAL RELAY.**

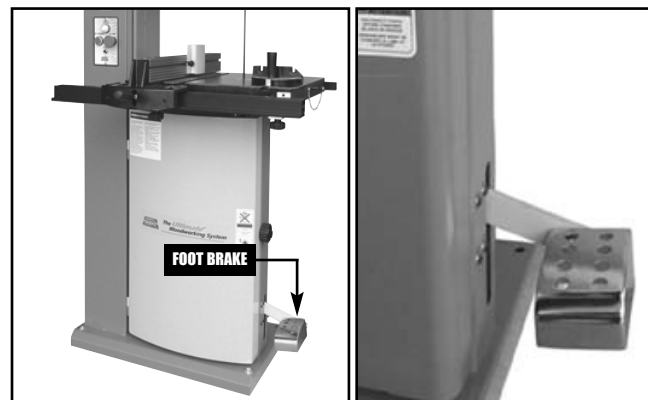
To reset the thermal relay after it has been tripped: set the power switch to the "off" position and press the thermal relay re-set button **D**, then restart the machine.



## FOOT BRAKE

This bandsaw is also equipped with a FOOT BRAKE located at the bottom of the machine. This device allows for **immediate immobilization of the blade and machine shut off.**

**Notice - The foot brake is not designed to function as the primary stop mechanism of this saw. The foot brake should be used for emergency situations or any time it is necessary to immobilize the blade quicker than normal. Under normal working conditions the red stop button should be used as the primary stop mechanism. Continuously using the foot brake as the primary stop mechanism will lead to premature wear of the brake and may cause damage to the motor.**



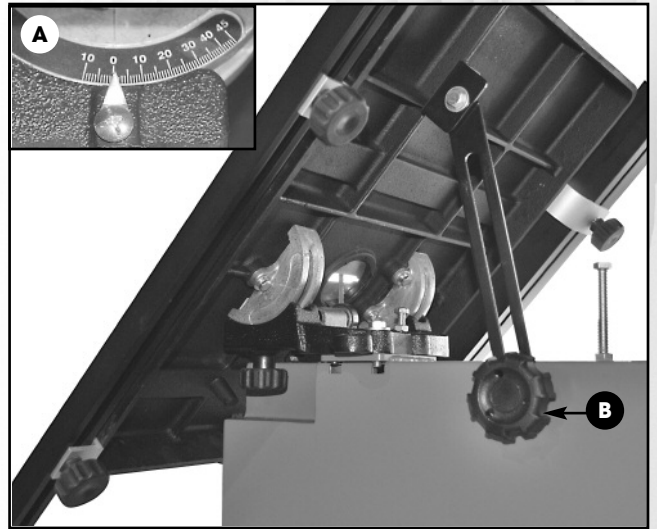
## TILTING THE TABLE

The table can be tilted to any angle from 0° to 45° to the right to allow for any type of bevel (or angle) cutting. Refer to the table tilt angle indicator **A** located under the band-saw table, to set the angle of the table to the desired position.



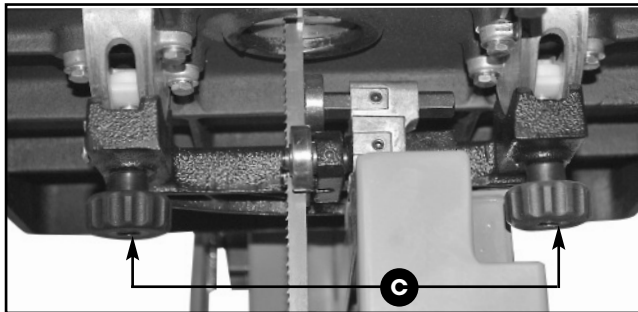
**BEFORE MAKING ANY ADJUSTMENTS, MAKE SURE THAT THE SWITCH IS IN THE "OFF" POSITION AND THAT THE POWER CORD IS UNPLUGGED.**

1. Loosen lock knobs **C** (below) and lock knob **B** (right) located under the saw table.
2. Tilt the table until it is at the desired angle. (Refer to the angle indicator **A**.)
3. Tighten the lock knobs to lock the table in position.

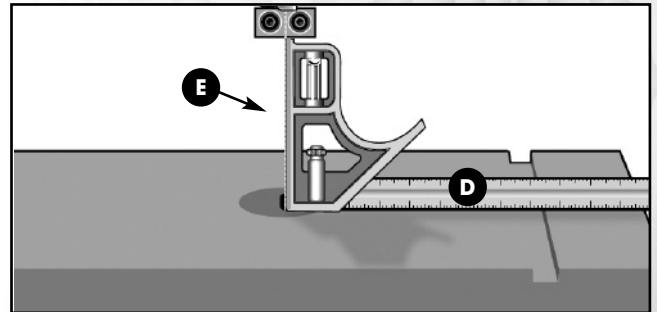


## ADJUSTING THE 90° TABLE STOP AND RE-ALIGNING THE ANGLE POINTER

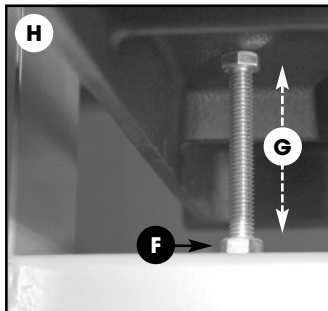
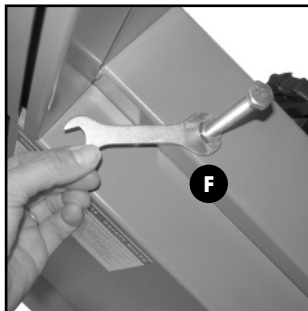
To ensure that your 90° cuts are square and that angled cuts are accurate with the angle indicator scale, the table default position must be set to 90° to the blade and the angle indicator pointer must be set to read 0 when the table is in the default (90°) position. To set the table-stop bolt:



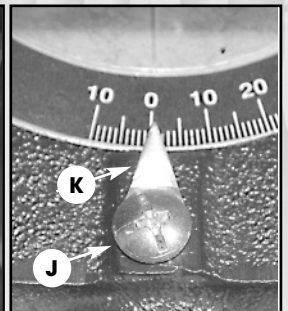
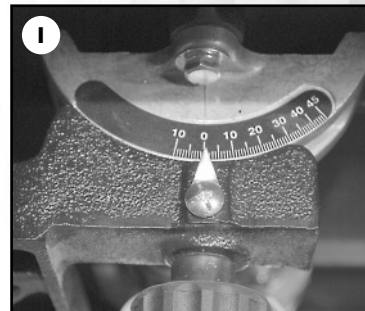
1. Loosen lock knobs **C** and lock knob **B**.



2. Place a combination square **D** flat on the table with the heel of the square flat against the saw blade **E**.
3. Level the table until it is exactly 90° to the blade, then tighten lock knobs **C** and **B**.



4. Using the supplied open end wrench, loosen the jam nut **F** on the 90° table-stop bolt then adjust the height of the bolt **G** until it touches the underside of the table as shown in **H**.
5. Loosen the lock knobs **B** and **C** and make sure the table is resting on the table-stop bolt **H**.
6. Check the square and make sure the table is still at 90° to the blade. If not, re-adjust the table-stop bolt.
7. Re-tighten jam nut **F**.



8. With the table set to 90° and the stop bolt at the correct height, make sure the table tilt angle indicator pointer **I** is set to read 0°.
9. If the pointer needs to be adjusted, loosen the screw **J** on the pointer of the front trunnion and adjust the pointer **K** to the 0 point on the scale. Then re-tighten the screw to secure the pointer in place.

You will now be able to accurately return the table to the 90° position automatically without further adjustments and scale reading for any angle other than 0 will also be accurate.

## REMOVING/INSTALLING THE BLADE

Your bandsaw is designed to handle several blade widths ranging from 1/8" and 3/8" used for tight radius curves, up to 1/2" and 3/4" for larger radius curves or for cutting thicker stock.

### BLADE CLEARANCE

*Note: When performing blade installation, removal, tensioning or tracking, maximum clearance between the blade and both upper and lower blade guide assemblies is required to minimize friction, which would be damaging to the blade.*

Move the upper & lower guide bearings away from the blade:

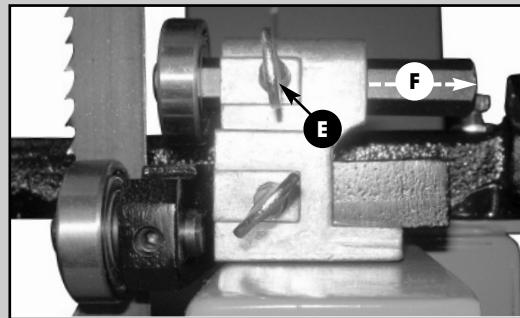
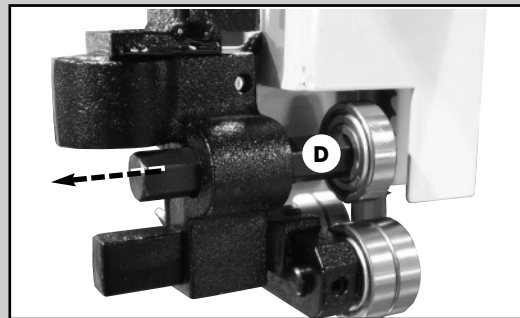
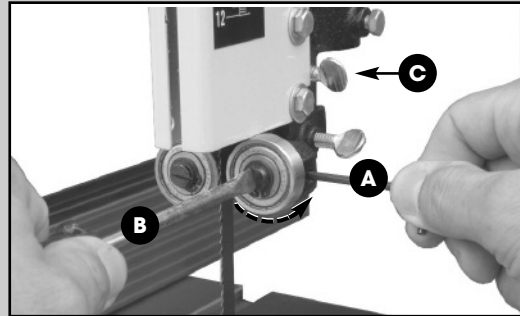
1. Using the supplied 3 mm Allen key, loosen set screw **A**.
2. Use a flat head screwdriver to make a quarter of a turn toward the outside to the guide bearing **B** to obtain maximum blade clearance.
3. Re-tighten set screw **A**.
4. Repeat steps 1 to 3 with the other upper guide bearing and two lower guide bearings.

Move the upper thrust bearing away from the blade:

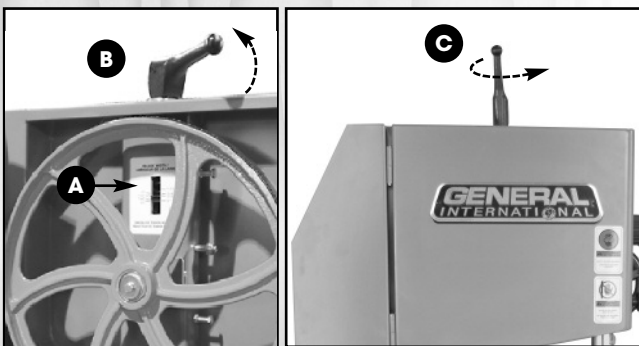
1. Loosen the upper thumb screw **C** on the upper blade guide assembly.
2. Pull on the upper thrust bearing shaft **D** going back as far as possible for maximum blade clearance.
3. Re-tighten the upper thumb screw **C** to lock the thrust bearing in place.

Move the lower thrust bearing away from the blade:

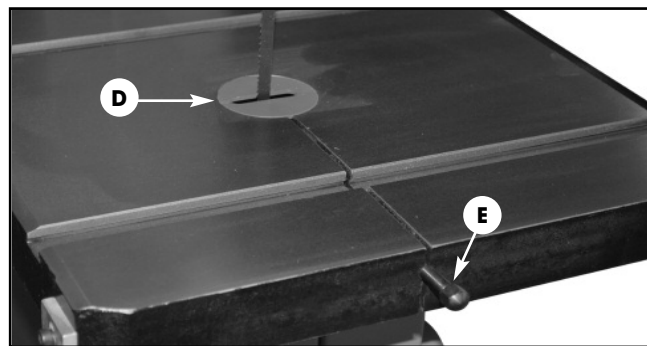
1. Loosen the upper thumb screw **E** on the lower blade guide assembly.
2. Pull on the lower thrust bearing shaft **F** going back as far as possible for maximum blade clearance.
3. Re-tighten the upper thumb screw **E** to lock the thrust bearing in place.



**Do Not Over-Loosen Blade Tension Mechanism!** To avoid inadvertently unseating/disconnecting the tension mechanism, do not loosen the blade tension beyond the range shown on the tension scale **A**. Loosen the tension gradually, in increments, to avoid loosening too much.



1. Turn off the bandsaw and unplug the power cord.
2. Release blade tension by lifting handle **B**. It may be necessary to also turn handle counterclockwise **C** for the blade to be loose enough to remove easily.



3. Remove the insert from the center of the table **D**.
4. Remove the table alignment pin **E** from the table slot.



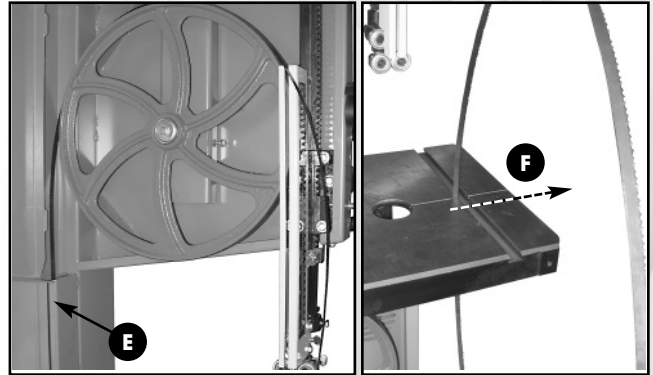
**BLADE TEETH ARE SHARP.  
USE CARE WHEN HANDLING A SAW BLADE.**

5. Open the top and bottom wheel cover doors and bring the left hand side of the loose blade toward you and out of the left hand blade guard slot **E**.

*Note: You may want to use a thick shop towel to handle the loose blade or wear a pair of heavy duty work gloves.*

6. With the blade perpendicular to the wheels, feed the blade through the table slot to free it from the saw **F**.

7. Carefully hang the blade on a hook in a safe, dry place in your workshop if it will be re-used, or dispose of it safely if it is worn or damaged.



**DO NOT ATTEMPT TO COIL UP THE BLADE AS IT WAS WHEN YOU FIRST PURCHASED IT AS IT HAS A TENDANCY TO POP OPEN UNEXPECTEDLY AND COULD CAUSE INJURY.**

### **BLADE SELECTION**

There are a variety of different types of bandsaw blades on the market to suit various cutting applications. Your results may vary based on usage, experience and personal preference.

Standard size - 112" (2845 mm) - replacement blades made from high carbon steel can be purchased in a variety of widths from your General® International dealer under the following parts numbers:

- #90170-B14: 1/4" - 6 TPI, blade thickness: 0.65 mm
- #90170-B38: 3/8" - 6 TPI, blade thickness: 0.50 mm
- #90170-B12: 1/2" - 4 TPI, blade thickness: 0.65 mm
- #90170-B34: 3/4" - 4 TPI, blade thickness: 0.65 mm

or (depending on availability) from your local tool dealer. These are standard sizes that should be readily available in most areas. The use of any other size is not recommended and can lead to serious injury and/or damage to the machine.

Some general guidelines to consider when choosing bandsaw blades:

- Wider blades with fewer teeth per inch are best suited to cutting straight lines, re-sawing and for sweeping curves, but will not turn tight radius curves. They will cut quickly and aggressively but do have a tendency to bind (or get stuck in the cut) if turned too sharply.
- Narrower, thinner blades with more teeth per inch will cut more slowly but can turn much tighter corners for cutting more intricate work.

Common causes of blade breakage:

- Poor guide bearing alignment and adjustment.
- Forcing or twisting a wide blade around a short radius.
- Setting blade guard assembly too high above the workpiece.
- Lumpy or improperly finished braze or weld on the blade.
- Feeding the workpiece too quickly.
- Dull teeth.
- Too much blade tension.
- Continuous running of blade when not cutting.

To install a blade:

1. Turn off the bandsaw and unplug the power cord.



**BEWARE OF THE BLADE POPPING OPEN.**

2. If you are installing a new blade, carefully remove the blade from its package. Hold it firmly with one hand as you remove the twist ties. Slowly separate the coils of the blade until it unravels into one hoop.

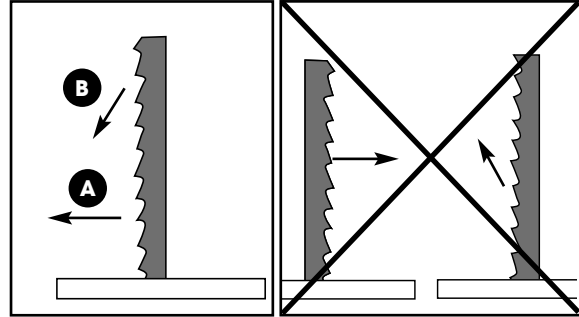
*Note: You may want to use a thick shop towel to handle the loose blade or wear a pair of heavy duty work gloves for the following steps.*



*Note: Steps 3 and 4 may be unnecessary if you've just removed a blade. (If needed, refer back to page 14.)*

3. Remove the table alignment pin from the table slot and the red circular insert from the center of the table.
4. With the blade perpendicular to the wheels, guide it through the table slot, then rotate the side of the blade nearest you back toward the left side of the wheels.
5. Feed the blade into the left blade guard and around the wheels. Make sure the blade teeth point forward **A** and down **B**.

With the blade properly installed, proceed to blade tension adjustments and blade tracking adjustments, as per instructions on the next few pages.



## ADJUSTING BLADE TENSION

Determining ideal blade tension is somewhat subjective. It is learned through practice and experience and is somewhat dependant on personal preference and individual work habits.

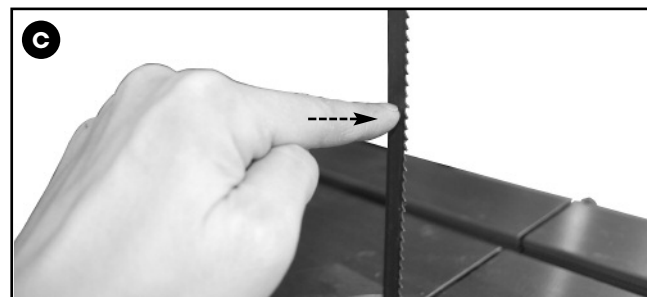
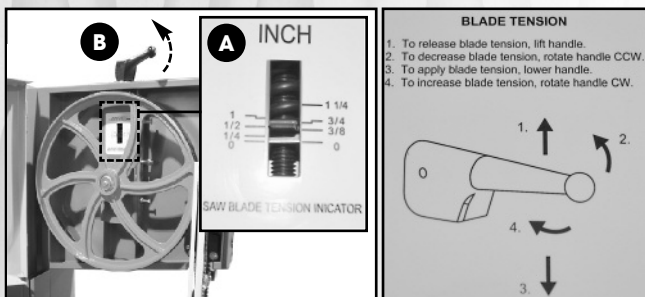
A properly tensioned blade is critical to obtaining maximum performance from any bandsaw. A properly tensioned blade will last longer and be much less likely to break prematurely. If the blade tension is too loose you will notice that the blade will have a tendency to drift or slip off-line when cutting and you will have more difficulty controlling your cuts. A blade that is tensioned too tightly will break prematurely and will be difficult to work with when making tighter radius cuts.

The following information can be used as a guideline or starting point to assist you in determining ideal blade tension for your needs:

- When working with wider blades, re-sawing taller stock, making straight cuts or wide sweeping curves tighter blade tensions will provide better results.
- When working with narrower blades, sawing shorter stock and making tighter curved cuts are best performed using less tension

This model 90-170B M1 bandsaw is equipped with a blade tension scale, which can be used as a reference for the ideal setting with various blade widths.

***Do Not Over-Loosen Blade Tension Mechanism! To avoid inadvertently unseating/disconnecting the tension mechanism, do not loosen the blade tension beyond the range shown on the tension scale. Loosen the tension gradually, in increments, and retighten the tension lever periodically as you go to verify on the tension scale and avoid loosening too much.***



1. Referring to the blade tension scale **A**, set the blade tension to correspond with the width of the blade installed on your bandsaw. Adjust the blade tension by lifting the blade tension handle **B**, then by turning it:
  - Clockwise to tighten
  - Counter-clockwise to loosen the blade tension.
2. **With the saw turned off and the tension lever lowered**, press against the side of the blade to test the tautness of the blade **C**. For ideal results with most blade widths and cutting applications the blade should flex in no more than 1/4" to 3/8".
3. Make a test cut on a sample piece of wood and if needed re-adjust the blade tension

*Note: To prolong the life of the blade whenever the bandsaw is not in use for prolonged periods (more than 24 hours), release the blade tension lever to remove tension from the blade, Over time, maintaining tension on a blade that is not in use will cause the blade to deform, by taking the shape of the wheels at both extremities. This can weaken the blade and cause premature breakage.*



## ADJUSTING BLADE TRACKING

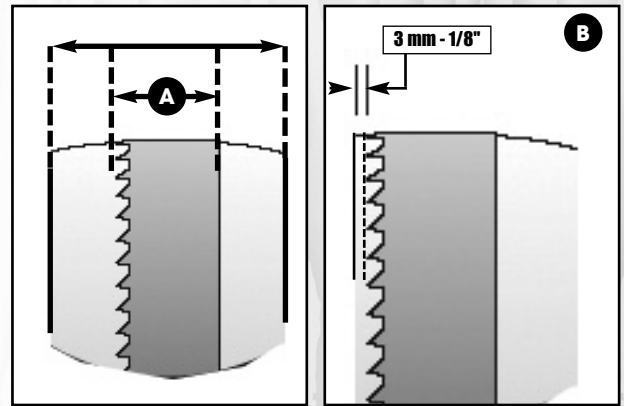
Blade tracking means centering the blade on the wheels **A**. Ideally, the blade should stay relatively centered on both the upper and lower wheels.

Due to natural variations in castings, blade thickness or density and tire wear, absolute perfect centering alignment is rarely attainable. A slight misalignment of the blade on the wheels is inevitable and as long as it is kept to a minimum (following the steps listed below) will not hinder the performance of the saw.

This misalignment is controlled and kept to a minimum by adjusting the tilt angle of the upper wheel.

When adjusting blade tracking to center the blade on the wheels and assuming that perfect centering is not attainable, it is preferable to have the blade slightly off-center towards the front of the wheels rather than towards the rear because the teeth on most bandsaw blades have alternating hook (one inner, one outer) - therefore if the blade is centered too far back on the wheel (or if the blade tension is too tight), inner hooked teeth will dig into the wheel tire and cause premature wear of the tire.

Nonetheless, to avoid having the blade come off of the wheels on it's own during operation, the front edge of the blades teeth should never be any closer than 3 mm (1/8") from the front edge of the wheel **B**.



### BLADE CLEARANCE

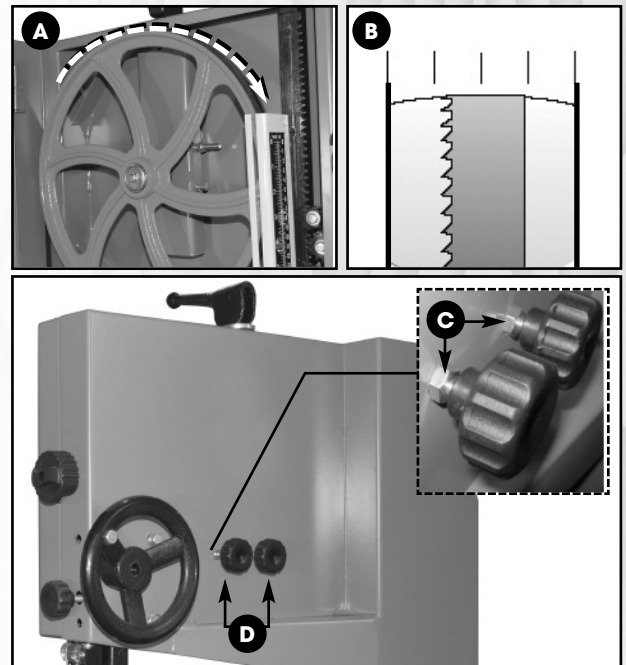
*Note: As previously stated, when performing blade installation, removal, tensioning or tracking, maximum clearance between the blade and both upper and lower bearing assemblies is required to minimize friction, which would be damaging to the blade. Refer back and follow the instructions for "blade clearance" before performing blade tracking adjustments.*

To adjust the blade tracking:

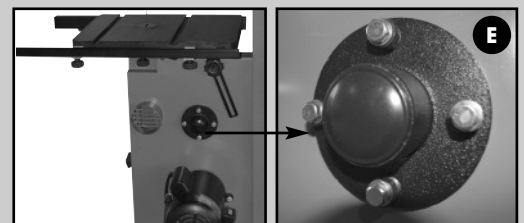
1. Open the upper wheel cover door then rotate the wheel slowly forward by hand **A** and check the position of the blade on the wheel. The blade should remain as centered as possible on the wheel as it turns **B**.
2. If the blade tracking must be adjusted, loosen the lock nut **C** on the tracking adjustment knobs **D**, then turn the knobs:
  - Clockwise if the blade moves toward the front of the wheel. This tilts the top of the wheel to the back and moves the blade toward the center.
  - Counterclockwise if the blade moves toward the back edge. This tilts the top of the wheel to the front and moves the blade toward the center.

*Note: Turn the tracking knobs in 1/2 turn increments, re-check and adjust again as needed.*

3. With the tracking set, re-tighten lock nuts **C**.



*Note: The upper and lower wheels are factory set to allow for easy and optimal blade tracking adjustments using the primary blade tracking adjustment knobs, which adjusts the angle of tilt of the upper wheel. In extremely rare cases, if acceptable blade tracking cannot be attained through the primary adjustment it may eventually become necessary to make minor adjustments to the angle of tilt of the lower wheel. The four bolts **E** may be adjusted in or out to tilt the lower wheel up/down or left/right as needed.*

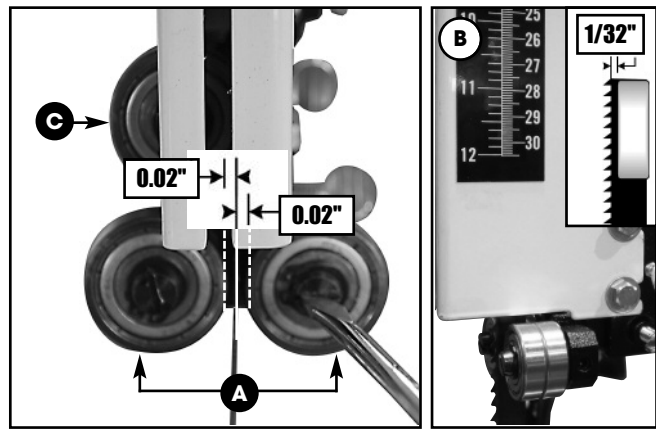


## ADJUSTING THE UPPER / LOWER BLADE GUIDES ASSEMBLIES

The guide bearings **A** keep the blade from moving from side to side during cutting and must be snug but not touching the blade in order to ensure accurate cuts. The space between each guide bearing and the blade must not exceed 0.02" (the thickness of a sheet of paper). If less space is left, the blade will get stuck or jammed between both bearings. Too much friction will cause blade to over-heat and break.

Also, the guide bearings must remain at least 1/32" behind the blade teeth to prevent damage to the blade **B**.

The thrust bearing **C** keeps the blade from moving back and out of position when the work is being fed into the blade and must be very close to the back of the blade to prevent damage to the blade during cutting.



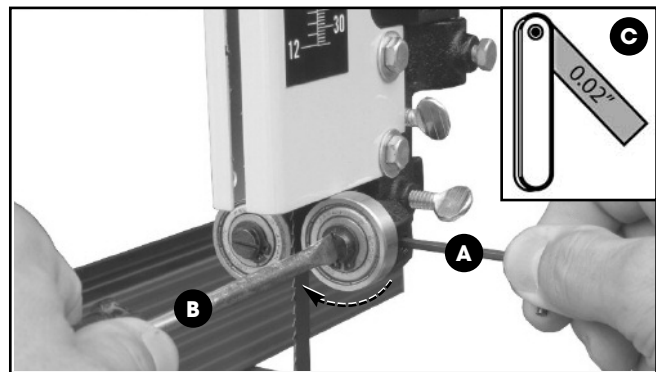
*Note: Before adjusting the upper and lower blade guides assemblies, make sure the blade is tensioned and tracking properly. Adjust the upper and lower blade guides assemblies after each blade tension and tracking adjustment. Whenever the upper guide bearings and thrust bearing are adjusted, the lower guide bearings and thrust bearing should also be adjusted.*



**TO AVOID INJURY, MAKE SURE THAT THE POWER SWITCH IS IN THE "OFF" POSITION AND THAT THE POWER CORD IS UNPLUGGED BEFORE PERFORMING ANY ADJUSTMENTS ON THE BANDSAW.**

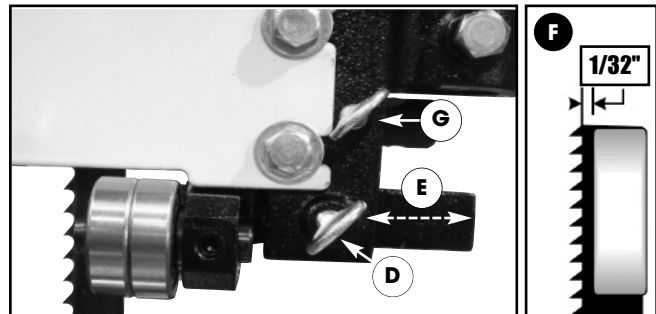
Adjust the positioning of the upper guide bearings:

1. Using the supplied 3 mm Allen key, loosen set screw, **A**.
2. Use a flat head screwdriver to make a quarter of a turn (approx.) toward the inside to the guide bearing **B**, to obtain a space of 0.02" (the thickness of a sheet of paper) between the bearing and the blade.
3. Re-tighten set screw **A** to lock the guide bearing in position.
4. Repeat steps 1 to 3 with the other upper guide bearing.
5. Loosen the lower thumb screw **D**.
6. Move the upper guide bearing shaft in or out **E** until the guide bearing are at least 1/32" behind the blade teeth, (do not protrude past the hollowed part of the teeth of the blade **F**).
7. Re-tighten the lower thumb screw **D**.



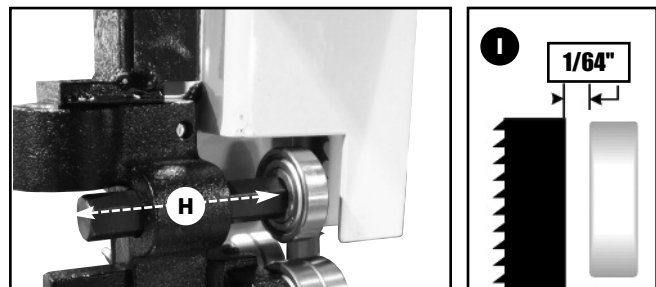
*Tip: Place a feeler gauge **C** or sheet of paper between the bearing and the blade to make sure there is a 0.02" space.*

3. Re-tighten set screw **A** to lock the guide bearing in position.
4. Repeat steps 1 to 3 with the other upper guide bearing.
5. Loosen the lower thumb screw **D**.
6. Move the upper guide bearing shaft in or out **E** until the guide bearing are at least 1/32" behind the blade teeth, (do not protrude past the hollowed part of the teeth of the blade **F**).
7. Re-tighten the lower thumb screw **D**.



Adjust the positioning of the upper thrust bearing:

8. Loosen the upper thumb screw **G**.
9. Move the upper thrust bearing shaft in or out **H** until the thrust bearing barely touches the blade (is 1/64" behind the back of the blade **I**).
10. Re-tighten the upper thumb screw **G**.



Adjust the positioning of the lower guide bearings and thrust bearing:

**Repeat steps 1 to 10 with the lower guide bearings and thrust bearing.**

## CHANGING SPEED SETTINGS

This model 90-170B has 2 different speed settings; low and high.

- Low speed is to be used for cutting soft woods over 4" in height or hard woods over 2" in height.
- High speed is best for cutting soft woods under 4" in height or hard woods under 2" in height.

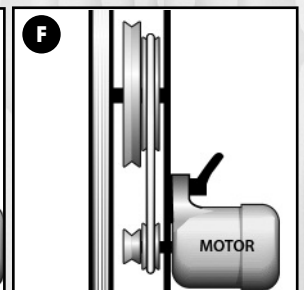
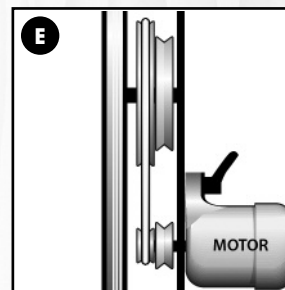
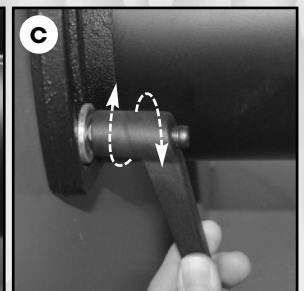
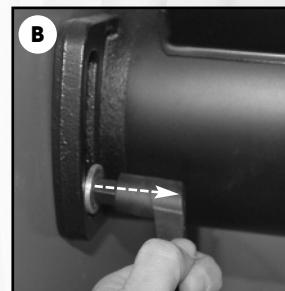
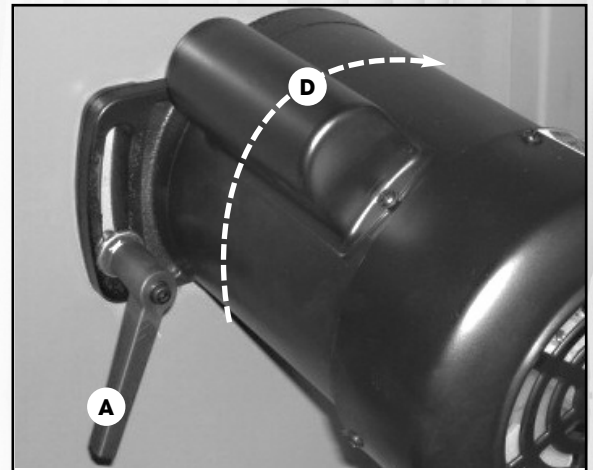
*Note: If wood starts to burn at high speed, stop and change to the lower speed setting.*



**BEFORE MAKING ANY ADJUSTMENTS, MAKE SURE THAT THE SWITCH IS IN THE "OFF" POSITION AND THAT THE POWER CORD IS UNPLUGGED.**

At the back of the bandsaw, just next to the motor, there is a ratchet lever **A** for loosening the tension on the drive belt. When you pull it out as shown in **B**, it disengages for resetting. When you release it, it engages the bolt for screwing or unscrewing **C**.

1. Unscrew the bolt a few turns counterclockwise then lift the motor by hand **D** and tighten ratchet lever **A** to lock the motor in position. This will loosen the drive belt enough to move it between one set of pulleys and the other.
2. Open the lower wheel cover door.
3. To set the bandsaw speed to the slower setting; 2300 Lin. FPM (690 MPM), place the belt on the frontmost set of pulleys as in **E**.
4. To set the bandsaw speed to the faster setting; 3250 Lin. FPM (975 MPM), place the belt on the rearmost set of pulleys as in **F**.
5. Having repositioned the belt, set the motor back to its initial position to tighten the belt around the pulleys, then turn the ratchet lever clockwise until it is tight and the motor does not move.



## ADJUSTING THE BLADE GUARD FOR DEPTH OF CUT

The blade guard can be moved up or down to accommodate the height of the work to be cut **A**. To prevent the blade (which is flexible and which would not otherwise be supported) from slipping out of position during cutting, and to reduce risks of injuries, a minimum amount of blade should be exposed.

*The blade guard should be set 1/8" - 1/4" above the workpiece **B** to prevent the blade from flexing out of position or off-line during cutting.*

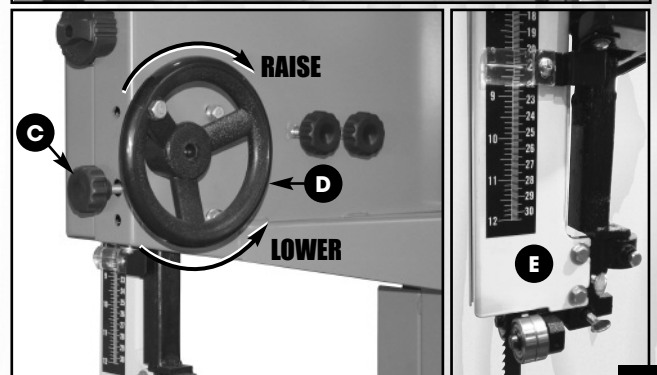
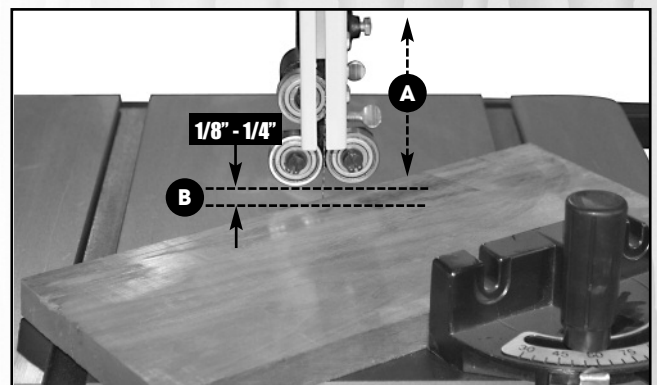
Adjust the height of the blade guard to suit the thickness of the workpiece as follows:



**BEFORE MAKING ANY ADJUSTMENTS, MAKE SURE THAT THE SWITCH IS IN THE "OFF" POSITION AND THAT THE POWER CORD IS UNPLUGGED.**

1. Make sure the bandsaw is turned off and the power cord is disconnected from the power source.
2. Loosen the lock knob **C**.
3. Move the blade guide assembly up or down by turning the handwheel **D**. Then re-tighten the lock knob **C**.

*Note: The depth gauge **E** on the blade guard can be used as a reference but it is not intended for high precision measurements.*



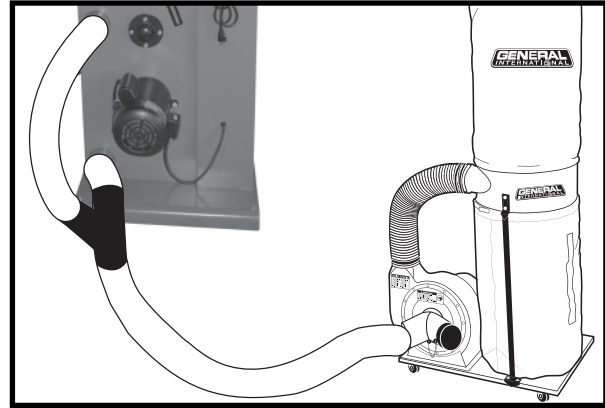
# OPERATING INSTRUCTIONS

## CONNECTING TO A DUST COLLECTOR

This model 90-170B is equipped with two built-in 4" diameter dust chutes to accommodate connection to a dust collector (not included).

Be sure to use appropriate sized hose and fittings (not included) and check that all connections are sealed tightly to help minimize airborne dust.

If you do not already own a dust collection system consider contacting your General® International distributor for information on our complete line of dust collection systems and accessories or visit our Web Site at: [www.general.ca](http://www.general.ca).



## CHECKLIST BEFORE STARTING

**NOTE:** Now that you have completed the four adjustment steps which are an essential part of safe, accurate bandsaw operation, it would be a good idea to make yourself a checklist as follows to ensure that each adjustment to the bandsaw is made in the proper order starting with the general safety precaution:

1. Turn off the bandsaw and unplug the power cord.
2. Adjust blade tension.
3. Adjust blade tracking.
4. Adjust upper blade guides and thrust bearing.
5. Adjust lower blade guides and thrust bearing.

These additional safety measures should be included in your checklist:

6. Make sure all the blade guards are in place.
7. Make sure the bandsaw table and work area in general are clean and free of sawdust and debris.

These steps should always be followed when any adjustment is performed, the blade is changed, or periodically as vibration and normal wear and tear on the machine could throw these parts out of alignment.

## OPERATIONS STEP-BY-STEP



**TO REDUCE THE RISK OF DAMAGE TO THE BANDSAW OR THE WORKPIECE, AS WELL AS A POTENTIAL FOR PERSONAL INJURY, AFTER INITIAL SET-UP AS WELL AS BEFORE EACH USE, MAKE SURE THAT EVERYTHING IS SECURELY INSTALLED AND THAT ALL FASTENERS AND MOVING PARTS ON THIS BANDSAW ARE LOCKED IN PLACE BEFORE STARTING THE MACHINE.**

1. Trace the cutting line on your workpiece with a pencil.
2. Set the height of the blade guard according to the thickness of your workpiece (see section: "Adjusting the blade guard for depth of cut".)
3. If a dust collector is connected to your bandsaw, turn it on.



**MAKE SURE TO HAVE ON SAFETY GLASSES AT ALL TIMES WHEN USING THE BANDSAW.**

**MAKE SURE YOU ARE WEARING SAFE APPROPRIATE WORKSHOP ATTIRE. ROLL UP LONG SLEEVES, SECURE LONG HAIR AND REMOVE ANY JEWELRY: WATCHES, RINGS, BRACELETS OR ANYTHING THAT COULD GET STUCK INTO THE MOVING PARTS OF THE BANDSAW, POTENTIALLY CAUSING SERIOUS INJURIES.**

4. Push the green "START" button to start the bandsaw.

*Note: The safety pin must first be removed from the start button.*

5. Align the cutting line on your workpiece with the blade and feed the workpiece into the blade.

*Tip: The use of a roller stand provides an extra support for more convenience when working with longer workpieces.*

## TO STOP THE MACHINE

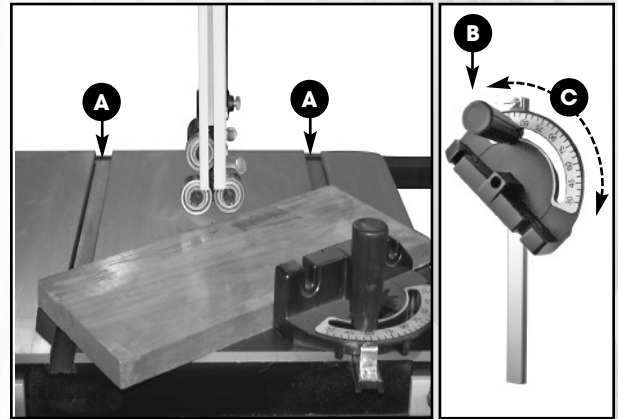
1. Push on the RED "STOP" panel and wait for the blade to come to a complete stop.
2. Turn your dust collector off.

## USING THE MITER GAUGE

Using the miter gauge supplied with your bandsaw allows for easier and safer sawing by providing workpiece support when cutting straight (90°) or angled ends (0° to 30°).

The miter gauge rides in either the left or right table slot **A** and can be set to any angle up to 30° to the left or right. It also acts as a feeder for advancing smaller workpieces through the blade with reduced risk of injury to the hands.

To use a setting other than 90°, loosen the locking handle **B** by turning it counterclockwise. Rotate the miter head to the required angle, shown on the angle indicator **C**. Then turn the locking handle **B** clockwise to tighten it.

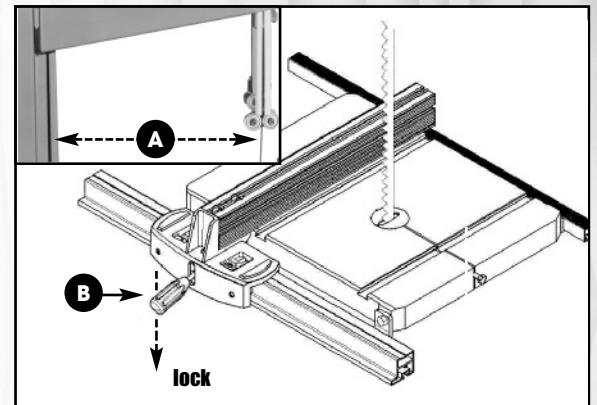


## USING THE RIP FENCE

1. Set the fence down on the rail either to the left or right of the blade.

*Note: For narrow workpieces that fit between the frame of the saw and the blade **A**, position the fence at the left side of the blade. For cutting longer or wider workpieces, position the fence, on the right side of the saw blade.*

2. Adjust the positioning of the fence on the rail so that the distance from the inside face of the rip fence to the blade matches the required width of cut.
3. Lock down the fence locking handle **B**.



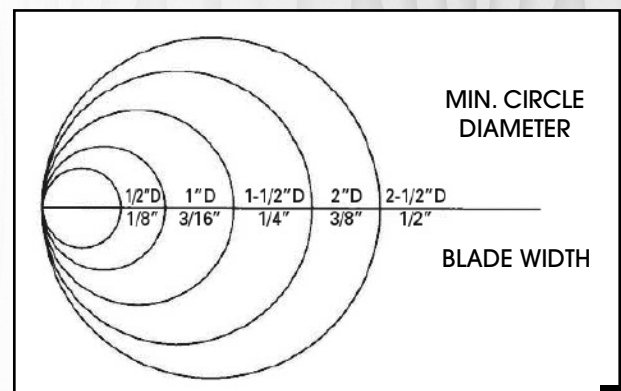
**MAKE SURE TO LOCK THE FENCE IN PLACE BEFORE STARTING TO CUT AGAINST THE RIP FENCE.**

## CUTTING CURVES

- When cutting curves, carefully turn the workpiece so the blade follows without twisting. If the curve is so sharp that you repeatedly back up and cut new kerf, use a narrower blade, or a blade with more set (teeth further apart). When a blade has more set, the workpiece turns easier but the cut is rougher.
- When changing a cut, do not withdraw the workpiece from the blade. The blade may get drawn off the wheels.
- To change a cut, turn the workpiece and cut your way out through the waste material area.
- When cutting long curves, make relief cuts as you go along.

## CUTTING CIRCLES

1. Adjust the blade guard assembly to 1/8" above the workpiece.
2. Use both hands while feeding the work into the blade. Hold the workpiece firmly against the table. Use gentle pressure. Do not force the work. Allow the blade to cut.
3. The smallest diameter circle that can be cut is determined by the width of the blade. For example, a 1/4" wide blade will cut a minimum diameter of approximately 1-1/2" .

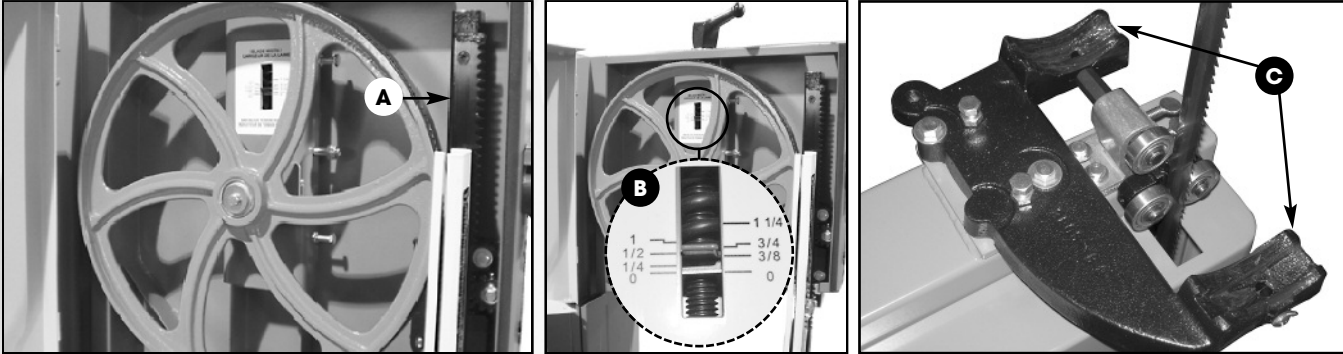


# PERIODIC MAINTENANCE & LUBRICATION



**ALWAYS DISCONNECT THE MACHINE FROM THE POWER SOURCE BEFORE PERFORMING ANY LUBRICATION OR MAINTENANCE.**

## LUBRICATION



Keep the rack and pinion **A**, blade tension adjustment screw **B**, as well as the table trunnion **C**, well greased and free of dust or debris.

Clean and remove dust, debris, and old grease after every 10-15 hours of use. After cleaning, reapply grease as needed. (Use any all purpose grease.)

The motor and all bearings are sealed and permanently lubricated – no further lubrication is required. No other part of this bandsaw needs lubrication.

## PERIODIC MAINTENANCE



**NEVER OPERATE THE BANDSAW WITH ANY DAMAGED PART. REPLACE A DAMAGED PART AT THE FIRST VISIBLE SIGNS OF DAMAGE.**

1. Inspect/test the ON/OFF switch before each use. Do not operate the bandsaw with a damaged switch; replace a damaged switch immediately.
2. Periodically inspect the power cord/plug and the blade for damage.



**TO AVOID EYE INJURY FROM BLOWING DEBRIS, WEAR SAFETY GOGGLES WHEN BLOWING OUT SAWDUST.**

3. Keep the machine clean and free of sawdust. Frequently blow out or vacuum up the sawdust and wipe down the machine occasionally with a damp rag.

*Note: The wheels must always be kept clean. Dirt on the wheels will cause blade slippage.*

4. Do not allow dirt, pitch or gum to build up on the table, blade, guide/thrust bearings. Clean as needed with gum and pitch remover.

*Note: Do not immerse the bearings in the gum and pitch remover.*

5. To prevent rust from forming on the unpainted cast iron of the table, and so that the wood slides easily while cutting, apply a light coating of paste wax or use regular applications of any after-market surface protectant or rust inhibitor.

# REQUIRED MAINTENANCE



**ALWAYS DISCONNECT THE MACHINE FROM THE POWER SOURCE BEFORE PERFORMING ANY MAINTENANCE.**

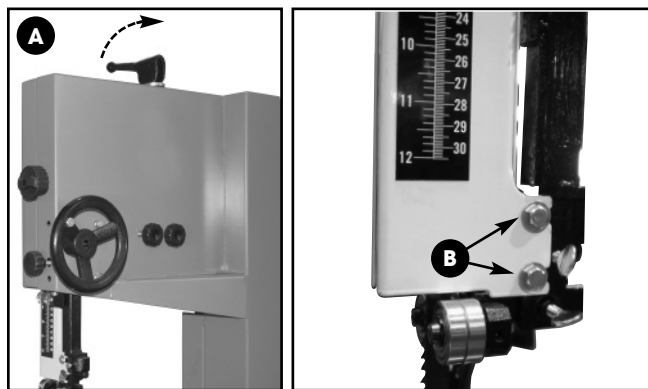
## REPLACING THE BANDSAW BLADE

The blade should be replaced when worn out. Refer to the following symptoms to determine whether or not it is time to replace the blade:

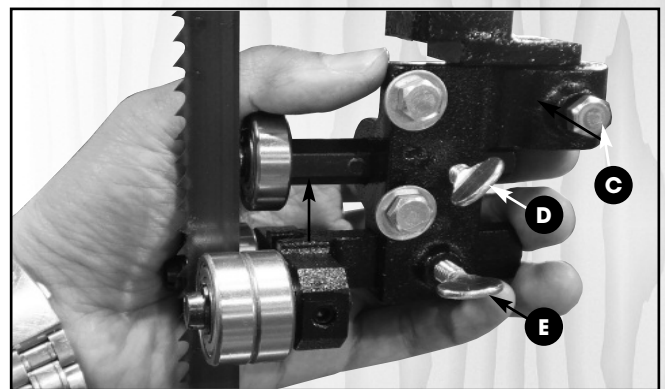
- It is not cutting as fast.
- It is not able to follow a cutting line as it used to.

## REPLACING THE UPPER AND LOWER BLADE GUIDES AND THRUST BEARINGS

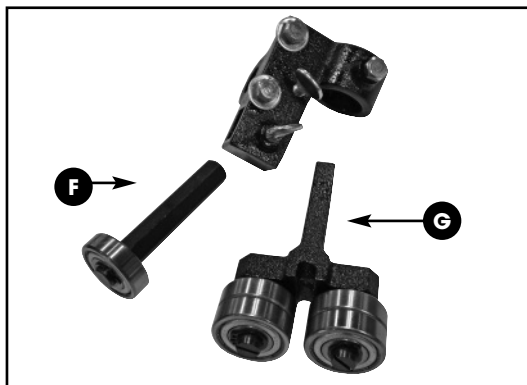
Blade guides and thrust bearings should be verified each time the blade is replaced. Check if they turn well. If not, the blade will get stuck or jammed between them and will wear prematurely.



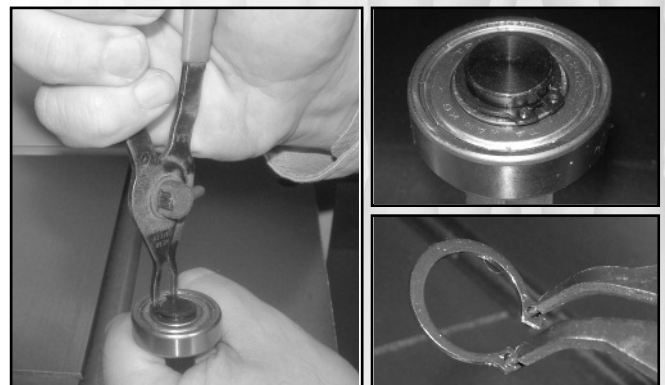
1. Turn off the bandsaw and unplug the power cord.
2. Release the blade tension by lifting handle **A**.
3. Using a 10 mm wrench, loosen but do not remove the two bolts **B** and remove the blade guard.



4. Using a 10 mm wrench, loosen bolt **C** and remove the upper blade guides/thrust bearing assembly.
5. Loosen the upper thumb screw **D** and lower thumb screw **E**.



6. Remove the thrust bearing mounting shaft **F**
7. Remove the blade guide mounting shaft **G**.



8. Use C-ring pliers **H** to remove the "C ring" **I** and slide the thrust bearing off the shaft **J**.

9. Install a new bearing on the mounting shaft then re-install the C-ring.
10. Put the bearing and mounting shaft assembly back in place, and tighten the thumb screw.
11. Repeat steps 8 to 10 with the blade guide bearings.
12. Re-install the upper blade guides/thrust bearing assembly and blade-guard.

**Repeat steps 5 to 10 with the lower guide bearings and thrust bearing.**

## **REPLACING THE WHEEL TIRE**

Wheel tires must be replaced if they get worn out or damaged. (If it is worn out, the blade will not track straight on the wheels.)

Use a flat screwdriver to remove the tire from the groove on the wheel, then install a new tire.

*Note: When replacing the tires, stretch them around the wheels but do not glue them on.*

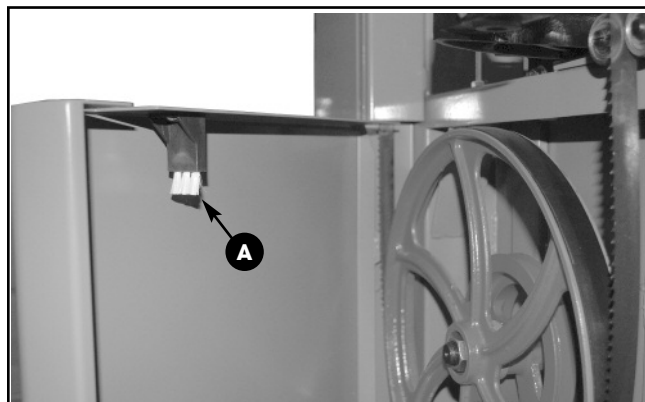


## **REPLACING THE LOWER WHEEL BRUSH**

The lower wheel cover door is equipped with a cleaning brush **A** that prevents pitch and sawdust build up on the lower tire. Any pitch and sawdust that builds up on the upper wheel tire should be removed with a stiff brush or scraped off with a piece of wood.

*Note: To avoid damaging the tire do not use a sharp knife or any kind of solvent to remove pitch build up.*

Verify that the brush keeps the lower wheel surface clean at all times. With use and normal wear over time, the brush hairs will soften and will not clean the surface of the wheel as well. You then must replace the brush.



## **REPLACING LOWER WHEEL MOTOR BELT**

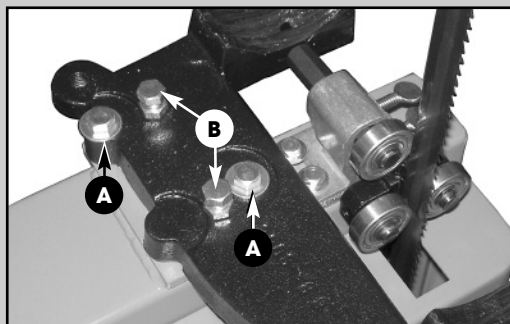
The lower wheel is driven by one belt mounted on either of the two pulleys powered by the motor. The belt's tension should be verified upon reception of the machine, then every 6 months. Slightly push on the belt with your finger. The belt must not move more than 1/8". If the belt becomes too loose due to wear or if a breakage occurs, you must replace it.

1. Turn off power and disconnect the bandsaw from the power source to avoid unintentional start-up.
2. If needed, loosen the belt (if needed, refer back to section "Changing speed settings", on page 19).
3. Remove the belt from the groove in the pulleys and install a new one.
4. Having installed a new belt, set the motor back to its initial position to tighten the belt around the pulleys, then turn the ratchet lever clockwise until it is tight and the motor does not move.

## **FRONT TO BACK TABLE TILT ADJUSTMENTS**

If needed, front to back table tilt adjustment can be done as follows:

Using the supplied open end wrench, loosen bolts **A** and adjust bolts **B** as needed, to tilt the table either slightly forward or slightly backward.





# RECOMMENDED OPTIONAL ACCESSORIES

We offer a large variety of products to help you increase convenience, productivity, accuracy and safety when using your bandsaw. Here's a small sampling of optional accessories available from your local General International dealer.

For more information about our products, please visit our website at [www.general.ca](http://www.general.ca)



## **DUST COLLECTORS**

Dust collectors contribute to a cleaner more healthful workshop environment.

We offer a wide selection of top quality dust collectors to suit all your shop needs.

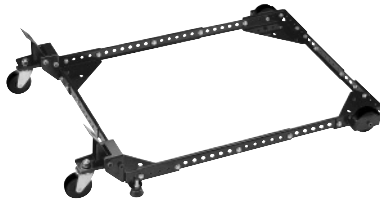


## **Roller Stand** **item #50-150** **item #50-160** **item #50-170**

We offer a selection of roller stands to suit all your shop needs.

## **Mobile Base - #50-025**

Easily roll your bandsaw anywhere in your shop. Load capacity: 500 LBS. Wheels lock when equipment is in use.



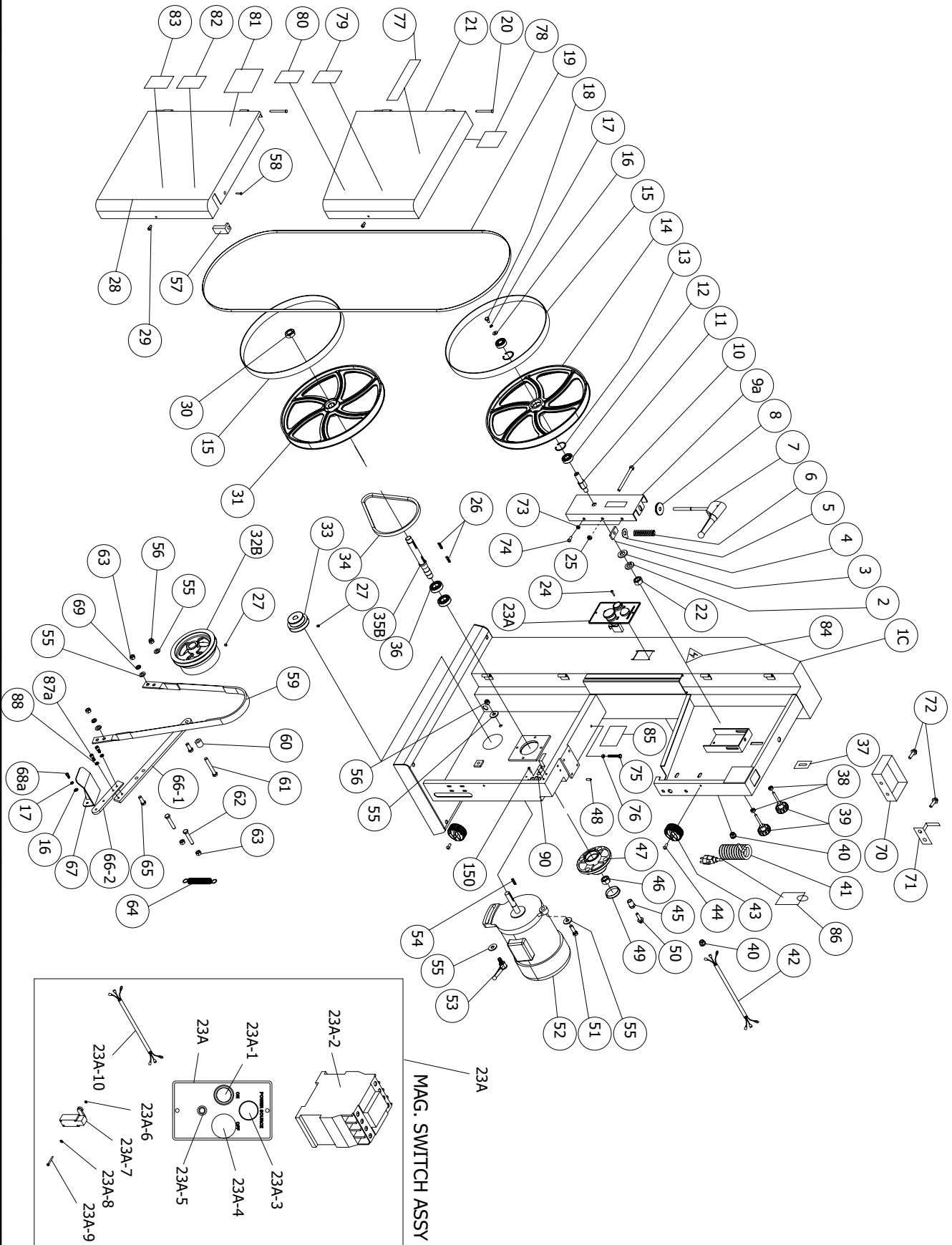
## **Blades**

- #90170-B14**  
1/4" - 6 TPI, blade thickness: 0.65 mm
- #90170-B38**  
3/8" - 6 TPI, blade thickness: 0.50 mm
- #90170-B12**  
1/2" - 4 TPI, blade thickness: 0.65 mm
- #90170-B34**  
3/4" - 4 TPI, blade thickness: 0.65 mm

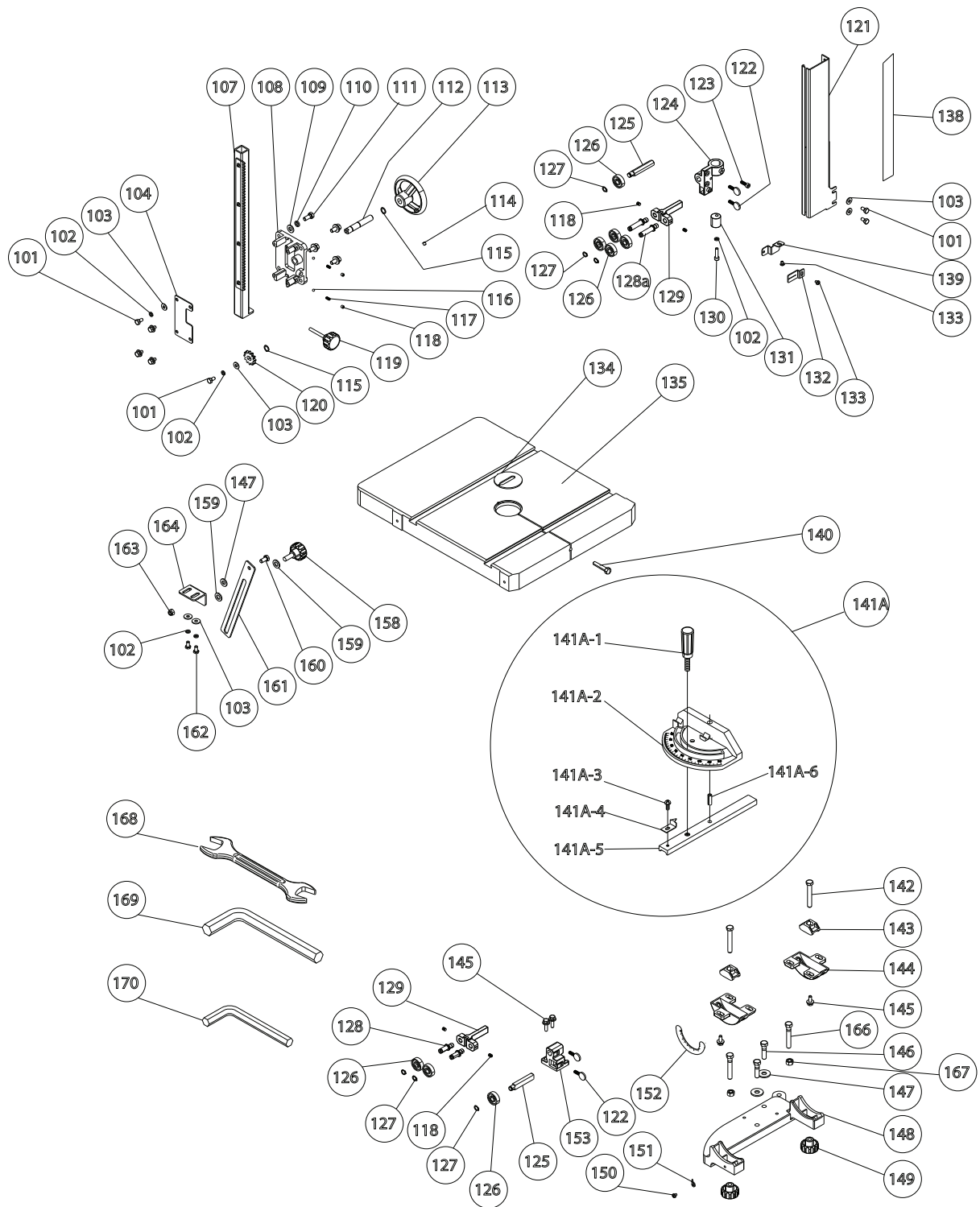


## **NOTES**

# MAIN ASSEMBLY



# TABLE ASSEMBLY



**PARTS LIST  
90-170B M1**

REF #	PART. NO.	DESCRIPTION	SPECIFICATION	QTY
1C	90170B-001C	SAW FRAME		1
2	90170-002	LOCK WASHER	1/2"	1
3	90170-003	WASHER	1/2"	1
4	90170-004	SQUARE NUT		1
5	90170-005	POINTER		1
6	90170-006	SPRING		1
7	90170-007	HANDLE		1
8	90170-008	WASHER		1
9A	90170-009A	UPPER WHEEL BRACKET		1
10	90170-010	SCREW		1
11	90170-011	UPPER WHEEL SHAFT		1
12	90170-012	BEARING	6202ZZ	2
13	90170-013	C-RING	R-35	2
14	90170-014	UPPER WHEEL		1
15	90170-015	TIRE		1
16	90170-016	WASHER	1/4"	1
17	90170-017	LOCK WASHER	1/4"	1
18	90170-018	HEX BOLT	1/4"-1/4"	1
19	90170-019	BLADE (SEE 90170-B34)		1
20	90170-020	HINGE PIN		4
21	90170-021	UPPER DOOR		1
22	90170-022	NUT	1/2"	2
23A	90170B-023A	SWITCH ASSEMBLY		1
23A-1	90170B-023A-1	ON SWITCH		1
23A-2	90170B-023A-2	CONTACTOR		1
23A-3	90170B-023A-3	POWER LIGHT		1
23A-4	90170B-023A-4	OFF SWITCH		1
23A-5	90170B-023A-5	OVERLOAD SWITCH		1
23A-6	90170B-023A-6	NUT	M4	4
23A-7	90170B-023A-7	LIMIT SWITCH		1
23A-8	90170B-023A-8	WASHER	M4	4
23A-9	90170B-023A-9	SCREW	M4x35	4
23A-10	90170B-023A-10	WIRE		1
24	90170-024	PHILLIPS HD. SCREW	M4	2
25	90170-025	NUT	M8	1
26	90170-026	KEY	5x5	1
27	90170-027	SET SCREW	1/4"-3/8"	2
28	90170-028	LOWER DOOR		1
29	90170-029	CAP SCREW	1/4"-3/8"	2
30	90170-030	HEX NUT (LH)	3/4"	1
31	90170-031	LOWER WHEEL		1
32B	90170-032B	PULLEY		1
33	90170-033	MOTOR PULLEY		1
34	90170-034	DRIVE BELT	A-33	1
35B	90170-035B	SHAFT		1
36	90170-036	BEARING	6005ZZ	2
37	90170-037	BLADE TENSION SCALE		1
38	90170-038	HEX NUT	5/16"	2
39	90170-039	KNOB		2
40	90170-040	RETAINER		2
41	90170-041	POWER CORD		1
42	90170-042	MOTOR CORD		1
43	90170-043	DOOR LOCK KNOB		2
44	90170-044	CAP SCREW	1/4"-3/4"	3
45	90170-045	ADJUSTING SCREW		4

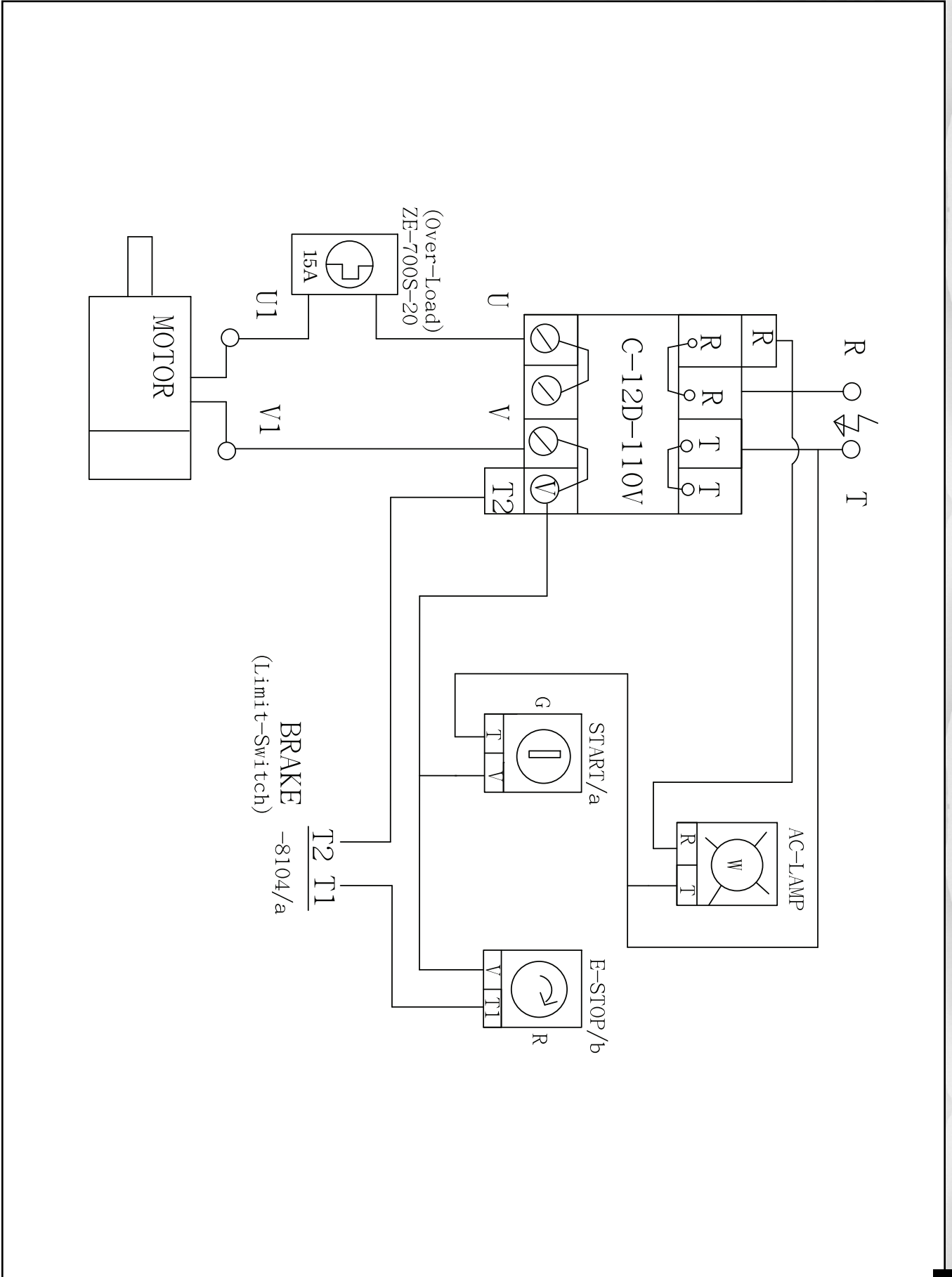
**PARTS LIST  
90-170B M1**

REF #	PART. NO.	DESCRIPTION	SPECIFICATION	QTY
46	90170-046	HEX NUT	3/4"	1
47	90170B-047	BEARING HOUSING		1
48	90170-048	PIN	6mm	2
49	90170-049	COVER		1
50	90170-050	HEX BOLT	3/8"-1 1/2	4
51	90170-051	HEX BOLT	3/8"-2 1/2"	2
52	90170-052	MOTOR		1
53	90170-053	RATCHET LEVER	3/8"-1"	1
54	90170-054	KEY	5x5	2
55	90170-055	WASHER	3/8"	1
56	90170-056	HEX NUT	3/8"	1
57	90170-057	WHEEL BRUSH		1
58	90170-058	HEX BOLT	3/16"	1
59	90170B-059	BRAKE BELT		1
60	90170B-060	SHAFT		1
61	90170B-061	SCREW	3/8"-2 1/2"	1
62	90170B-062	SCREW	3/8"-2"	1
63	90170B-063	NUT	3/8"	3
64	90170B-064	SPRING		1
65	90170B-065	SCREW	3/8"-1 1/4"	1
66-1	90170B-066-1	BRAKE BAR		1
66-2	90170B-066-2	BRAKE BAR (LONG)		1
67	90170B-067	BRAKE BAR (SHORT)		1
68A	90170B-068A	CAP SCREW	1/4"-3/4"	2
69	90170B-069	LOCK WASHER	3/8"	2
70	90170B-070	MITER GAUGE STORAGE BRACKET		1
71	90170B-071	RIP FENCE STORAGE BRACKET		1
72	90170B-072	HEX HEAD BOLT	1/4" - 3/4"	4
73	90170B-073	NUT		2
74	90170B-074	HEX HEAD BOLT		2
75	90170B-075	HEX HEAD BOLT		1
76	90170B-076	NUT		1
77	90170B-077	GENERAL LOGO		1
78	90170B-078	LABEL		1
79	90170B-079	LABEL		1
80	90170B-080	LABEL		1
81	90170B-081	LABEL		1
82	90170B-082	LABEL		1
83	90170B-083	LABEL		1
84	90170B-084	ELECTRIC WARNING LABEL		1
85	90170B-085	MACHINE PLATE		1
86	90170B-086	LABEL		1
87A	90170B-087A	CAP SCREW	3/8"-1"	2
88A	90170B-088A	LOCK WASHER	3/8"	2
90	90170B-90	GUARD		1
101	90170-101	HEX BOLT	3/16"	1
102	90170-102	LOCK WASHER	1/4"-3/8"	4
103	90170-103	WASHER	1/4"	16
104	90170-104	GUIDE BAR COVER	1/4"	14
107	90170-107	GUIDE BAR		1
108	90170-108	BRACKET		1
109	90170-109	WASHER	5/16"	4
110	90170-110	LOCK WASHER	5/16"	4
111	90170-111	HEX BOLT	5/16"-5/8"	4
112	90170-112	SHAFT		1
113	90170-113	HAND WHEEL		1

**PARTS LIST 90-170B M1**

<b>REF #</b>	<b>PART. NO.</b>	<b>DESCRIPTION</b>	<b>SPECIFICATION</b>	<b>QTY</b>
114	90170-114	SET SCREW	1/4"	1
115	90170-115	C-RING	S13	1
116	90170-116	BALL		2
117	90170-117	SPRING		2
118	90170-118	SET SCREW	1/4"	6
119	90170-119	KNOB		1
120	90170-120	GEAR		1
121	90170-121	BLADE GUARD		1
122	90170-122	THUMB SCREW	1/4"-3/4"	2
123	90170-123	HEX BOLT	1/4"-3/4"	1
124	90170-124	UPPER BLADE GUIDE HOLDER		1
125	90170-125	BEARING SHAFT		1
126	90170-126	BEARING	6200ZZ	8
127	90170-127	C-RING	S-10	6
128	90170-128	BEARING SHAFT		2
128A	90170-128A	BEARING SHAFT (LONG)		2
129	90170-129	BEARING MOUNT		2
130	90170-130	CAP SCREW	1/4"-3/4"	1
131	90170-131	GUARD POST		1
132	90170-132	POINTER		1
133	90170-133	PHILLIPS HD. SCREW	3/16" - 1/2"	2
134	90170-134	TABLE INSERT		1
135	90170-135	TABLE		1
138	90170-138	SCALE		1
139	90170-139	POINTER PLATE		1
140	90170-140	TABLE ALIGNMENT PIN	3/8"-2/1/2"	2
141A	90170B-141A	MITER GAUGE		2
141A-1	90170B-141A-1	LOCKING KNOB		1
141A-2	90170B-141A-2	GAUGE BODY		1
141A-3	90170B-141A-3	PHILLIPS HD. SCREW	3/16" - 1/4"	1
141A-4	90170B-141A-4	POINTER		1
141A-5	90170B-141A-5	GAUGE BAR		1
141A-6	90170B-141A-6	BLOCK		1
142	90170-142	HEX BOLT	3/8" - 2-1/2"	2
143	90170-143	TRUNNION CLAMP SHOE	5/16"-3/4"	4
144	90170-144	TRUNNION	5/16"-1 1/4"	4
145	90170-145	SHOULDER BOLT	5/16"	8
146	90170-146	HEX BOLT	5/16" - 1-1/4"	1
147	90170-147	WASHER	3/8"	2
148	90170-148	TABLE TILT BRACKET	3/16" - 3/4	2
149	90170-149	LOCK KNOB		1
150	90170-150	PHILLIPS HD. SCREW	3/16" - 1/4"	1
151	90170-151	POINTER		1
152	90170-152	SCALE	1/4"-3/4"	2
153	90170-153	LOWER BLADE GUIDE HOLDER		1
158	90170-158	LOCK KNOB	5/16"	1
159	90170-159	WASHER	3/8"	1
160	90170-160	HEX BOLT	1/4"	2
161	90170-161	ANGLE ADJUSTMENT BRACKET	1/4"	1
162	90170-162	HEX BOLT	1/4" - 5/8"	1
163	90170-163	HEX NUT	3/8"-1	1
164	90170-164	BASE	3/8"	1
166	90170-166	HEX BOLT	5/16" x 1 1/4"	2
167	90170-167	HEX NUT	3/8"	2
168	90170B-168	OPEN END WRENCH	10 x 12	1
169	90170B-169	ALLEN KEY	5 mm	1
170	90170B-170	ALLEN KEY	3 mm	1

# WIRING DIAGRAM



## MODEL 90-170B M1



8360 Champ-d'Eau, Montreal (Quebec) Canada H1P 1Y3

Tel.: (514) 326-1161

Fax: (514) 326-5565 - Parts & Service / Fax: (514) 326-5555 - Order Desk

orderdesk@general.ca  
www.general.ca

### **IMPORTANT**

**When ordering replacement parts, always give the model number, serial number of the machine and part number. Also a brief description of each item and quantity desired.**