



MODEL G0506X/G0506X3 EXTREME SERIES SUPER HEAVY-DUTY BANDSAWS OWNER'S MANUAL



COPYRIGHT © MARCH, 2006 BY GRIZZLY INDUSTRIAL, INC.
**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**
#BL7853 PRINTED IN TAIWAN



WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



WARNING!

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

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

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Table of Contents

INTRODUCTION	3
Foreword	3
Contact Info	3
G0506X Machine Data Sheet	4
G0506X3 Machine Data Sheet	6
Identification	8
SECTION 1: SAFETY	9
Safety Instructions for Machinery	9
Additional Safety Instructions for Bandsaws	11
SECTION 2: CIRCUIT REQUIREMENTS	12
Operation	12
Grounding	13
Extension Cords	13
SECTION 3: SET UP	14
Set Up Safety	14
Items Needed for Set Up	14
Unpacking	14
Inventory	15
Hardware Recognition Chart	16
Clean Up	17
Site Considerations	17
Moving & Placing Base Unit	18
Mounting	19
Table	19
Positive Stop	20
Dust Port	21
Dust Collection	22
Fence	22
Miter Gauge	23
Blade Guard	23
Blade Tracking	24
Test Run	25
Tensioning Blade	26
Adjusting Blade Guide Bearings	26
Adjusting Support Bearings	27
Aligning Table	29
Aligning Fence	29
Miter Gauge	30

Continued on next page 

SECTION 4: OPERATIONS	31
Operation Safety	31
Overview	31
Power Switch	32
Foot Brake.....	32
Guide Post	32
Fence Adjustment	33
Blade Lead	33
Table Tilt	34
Ripping	35
Crosscutting	35
Resawing.....	36
Cutting Curves	37
Stacked Cuts	37
Blade Information	38
Blade Changes.....	40
SECTION 5: ACCESSORIES.....	41
SECTION 6: MAINTENANCE	43
Schedule	43
Cleaning	43
Unpainted Cast Iron	43
Lubrication.....	43
Wheel Brush.....	43
SECTION 7: SERVICE	44
Troubleshooting.....	44
Checking and Tensioning V-Belt.....	46
Replacing V-Belt	47
Adjusting Wheel Brush.....	47
Wheel Alignment	48
G0506X Electrical Components.....	51
G0506X Single-Phase Wiring Diagram.....	52
G0506X3 Electrical Components	53
G0506X3 Three-Phase Wiring Diagram	54
G0506X/G0506X3 Lower Frame and Motor	55
G0506X/G0506X3 Lower Wheel Assembly	56
G0506X/G0506X3 Table and Blade Guides	57
G0506X/G0506X3 Upper Frame Assembly	58
G0506X/G0506X3 Upper Wheel Assembly	59
G0506X/G0506X3 Parts List.....	60
WARRANTY AND RETURNS	62

INTRODUCTION

Foreword

We are proud to offer the Model G0506X/G0506X3 Extreme Series Super Heavy Duty Bandsaw. This machine is part of a growing Grizzly family of fine woodworking machinery. When used according to the guidelines set forth in this manual, you can expect years of trouble-free, enjoyable operation and proof of Grizzly's commitment to customer satisfaction.

We are pleased to provide this manual with the Model G0506X/G0506X3. It was written to guide you through assembly, review safety considerations, and cover general operating procedures. It represents our effort to produce the best documentation possible.

The specifications, drawings, and photographs illustrated in this manual represent the Model G0506X/G0506X3 as supplied when the manual was prepared. However, owing to Grizzly's policy of continuous improvement, changes may be made at any time with no obligation on the part of Grizzly. For your convenience, we always keep current Grizzly manuals available on our website at **www.grizzly.com**. Any updates to your machine will be reflected in these manuals as soon as they are complete. Visit our site often to check for the latest updates to this manual!

Contact Info

If you have any comments regarding this manual, please write to us at the address below:

Grizzly Industrial, Inc.
c/o Technical Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069

We stand behind our machines. If you have any service questions or parts requests, please call or write us at the location listed below.

Grizzly Industrial, Inc.
1203 Lycoming Mall Circle
Muncy, PA 17756
Phone: (570) 546-9663
Fax: (800) 438-5901
E-Mail: techsupport@grizzly.com
Web Site: <http://www.grizzly.com>





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL G0506X EXTREME SERIES SUPER HEAVY-DUTY BANDSAW

Product Dimensions:

Weight462 lbs.
Length/Width/Height 29-1/2 x 32 x 72 in.
Foot Print (Length/Width)..... 15 x 26-3/4 in.

Shipping Dimensions:

TypeWood Slat Crate
Content.....Machine
Weight.....616 lbs.
Length/Width/Height..... 36-1/4 x 26 x 76-3/4 in.

Electrical:

Switch.....Magnetic with Thermal Overload Protection
Switch Voltage 220V
Cord Gauge 14 gauge
Recommended Breaker Size 25 amp
Plug.....No

Motors:

Main

Type TEFC Induction
Horsepower..... 3 HP
Voltage..... 220V
Prewired..... 220V
Phase Single
Amps..... 21A
Speed..... 3450 RPM
Cycle 60 Hz
Number Of Speeds 1
Power TransferBelt Drive
Bearings..... Shielded and Lubricated

Main Specifications:

Operation

Blade Speeds.....4610 FPM
Table TiltRight 45 deg.

Cutting Capacities

Height Capacity At Blade..... 9-3/4 in.
Overall Height Capacity 9-3/4 in.
Throat Capacity Left of Blade 17 in.

Blade Information

Standard Blade Length 147-5/8-149-5/8 in.
Blade Width Range 3/8-1 in.
Upper Blade Guides.....Ball Bearing
Lower Blade Guides.....Ball Bearing



Table Information

Table Length	19-3/4 in.
Table Width	24 in.
Table Thickness	1-7/8 in.
Floor To Table Height	35-3/4 in.

Fence Information

Locks in Front	Yes
Locks in Rear	No
Adjustable for Blade Lead	Yes

Construction

Table Construction	Precision Ground Cast Iron
Rip Fence	Precision Ground Cast Iron
Body Construction	Formed Steel
Upper Wheel	Fully Balanced Cast Iron
Lower Wheel	Fully Balanced Cast Iron
Tire Material	Polyurethane
Wheel Cover	Pre-Formed Steel
Paint	Powder Coated

Other Related Information

Wheel Diameter	18-7-8 in.
Wheel Width	1-1/4
Number of Dust Ports	1
Dust Port Size	4 in.

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	Label on Top Cover
Assembly Time	1 hour

Features:

Blade Tension Scale
Miter Gauge
Rack & Pinion Adjustable Upper Guide
Hinged Wheel Covers
Foot Brake
Includes 1" Blade
Precision Ground Cast Iron Rip Fence





MACHINE DATA SHEET

Customer Service #: (570) 546-9663 • To Order Call: (800) 523-4777 • Fax #: (800) 438-5901

MODEL G0506X3 EXTREME SERIES SUPER HEAVY-DUTY BANDSAW

Product Dimensions:

Weight462 lbs.
Length/Width/Height 29-1/2 x 32 x 72 in.
Foot Print (Length/Width)..... 15 x 26-3/4 in.

Shipping Dimensions:

TypeWood Slat Crate
Content.....Machine
Weight.....616 lbs.
Length/Width/Height..... 36-1/4 x 26 x 76-3/4 in.

Electrical:

Switch.....Magnetic with Thermal Overload Protection
Switch Voltage 220V
Cord Gauge 14 gauge
Recommended Breaker Size 15 amp
Plug.....No

Motors:

Main

Type TEFC Induction
Horsepower..... 3 HP
Voltage.....220V/440V
Prewired..... 220V
Phase Three
Amps.....9/4.5 A
Speed..... 3450 RPM
Cycle60 Hz
Number Of Speeds 1
Power TransferBelt Drive
Bearings..... Shielded and Lubricated

Main Specifications:

Operation

Blade Speeds.....4610 FPM
Table TiltRight 45 deg.

Cutting Capacities

Height Capacity At Blade..... 9-3/4 in.
Overall Height Capacity 9-3/4 in.
Throat Capacity Left of Blade 17 in.

Blade Information

Standard Blade Length 147-5/8-149-5/8 in.
Blade Width Range 3/8-1 in.
Upper Blade Guides.....Ball Bearing
Lower Blade Guides.....Ball Bearing



Table Information

Table Length	19-3/4 in.
Table Width	24 in.
Table Thickness	1-7/8 in.
Floor To Table Height	35-3/4 in.

Fence Information

Locks in Front	Yes
Locks in Rear	No
Adjustable for Blade Lead	Yes

Construction

Table Construction	Precision Ground Cast Iron
Rip Fence	Precision Ground Cast Iron
Body Construction	Formed Steel
Upper Wheel	Fully Balanced Cast Iron
Lower Wheel	Fully Balanced Cast Iron
Tire Material	Polyurethane
Wheel Cover	Pre-Formed Steel
Paint	Powder Coated

Other Related Information

Wheel Diameter	18-7-8 in.
Wheel Width	1-1/4
Number of Dust Ports	1
Dust Port Size	4 in.

Other Specifications:

ISO Factory	ISO 9001
Country Of Origin	Taiwan
Warranty	1 Year
Serial Number Location	Label on Top Cover
Assembly Time	1 hour

Features:

Blade Tension Scale
Miter Gauge
Rack & Pinion Adjustable Upper Guide
Hinged Wheel Covers
Foot Brake
Includes 1" Blade
Precision Ground Cast Iron Rip Fence



Identification

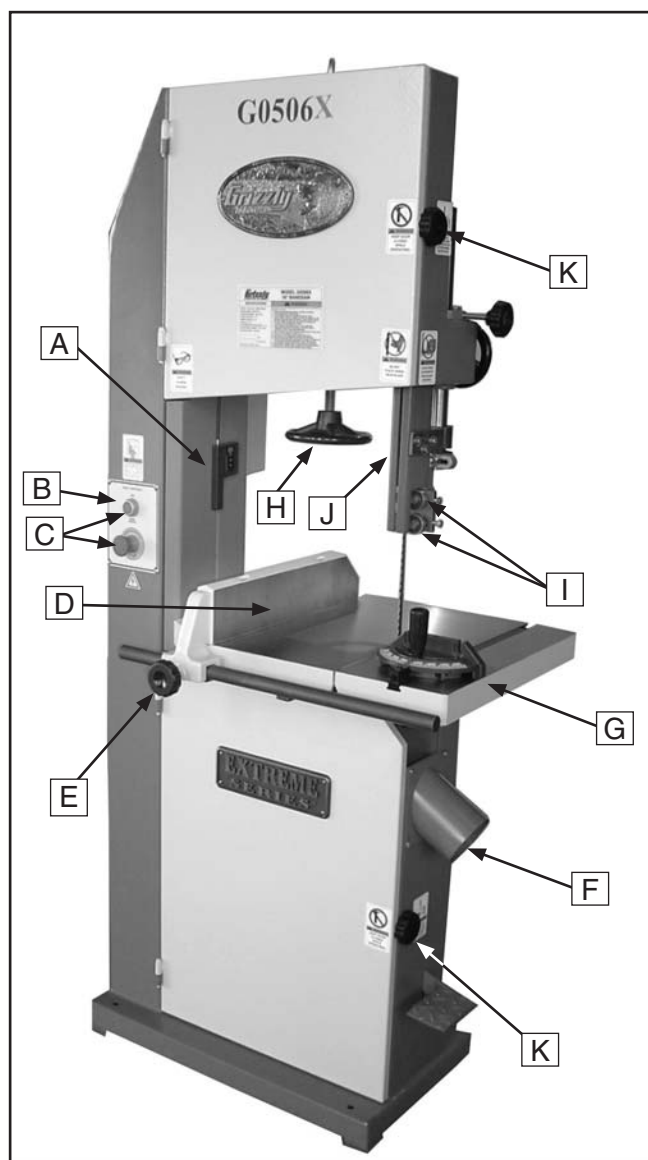


Figure 1. Bandsaw front view.

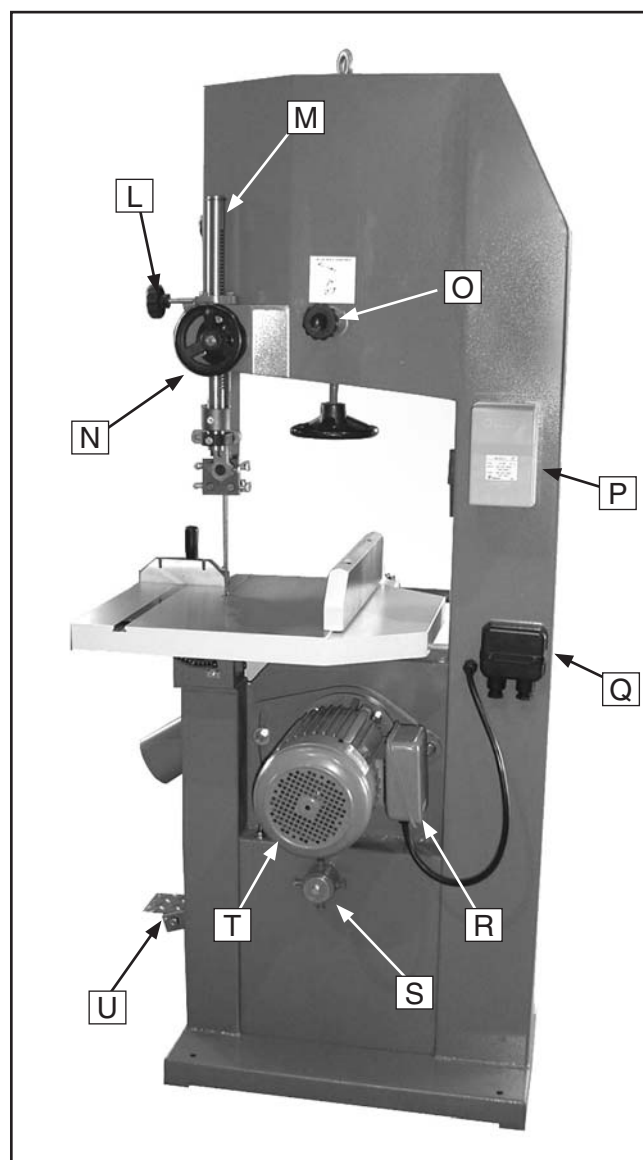


Figure 2. Bandsaw back view.

- A. Blade Tensioning Scale
- B. Control Panel
- C. ON/OFF Switch
- D. Rip Fence
- E. Fence Lock Knob
- F. Dust Port
- G. Miter Gauge
- H. Blade Tension Handwheel
- I. Ball Bearing Roller Guides
- J. Blade Guard
- K. Wheel Guard Lock Knob

- L. Guide Post Lock Knob
- M. Guide Post
- N. Guide Post Handwheel
- O. Blade Tracking Knob
- P. Magnetic Switch
- Q. Power Supply Terminal Block
- R. Junction Box
- S. Lower Wheel Adjustment Control
- T. Motor
- U. Foot Brake



SECTION 1: SAFETY

WARNING

For Your Own Safety, Read Instruction Manual Before Operating this Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.



Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

NOTICE

This symbol is used to alert the user to useful information about proper operation of the machine.

WARNING

Safety Instructions for Machinery

- 1. READ THROUGH THE ENTIRE MANUAL BEFORE STARTING MACHINERY.** Machinery presents serious injury hazards to untrained users.
- 2. ALWAYS USE ANSI APPROVED SAFETY GLASSES WHEN OPERATING MACHINERY.** Everyday eyeglasses only have impact resistant lenses—they are NOT safety glasses.
- 3. ALWAYS WEAR AN ANSI APPROVED RESPIRATOR WHEN OPERATING MACHINERY THAT PRODUCES DUST.** Wood dust is a carcinogen and can cause cancer and severe respiratory illnesses.
- 4. ALWAYS USE HEARING PROTECTION WHEN OPERATING MACHINERY.** Machinery noise can cause permanent hearing damage.
- 5. WEAR PROPER APPAREL. DO NOT** wear loose clothing, gloves, neckties, rings, or jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair and wear non-slip footwear.
- 6. NEVER OPERATE MACHINERY WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when running machinery.



WARNING

Safety Instructions for Machinery

7. **ONLY ALLOW TRAINED AND PROPERLY SUPERVISED PERSONNEL TO OPERATE MACHINERY.** Make sure operation instructions are safe and clearly understood.
8. **KEEP CHILDREN AND VISITORS AWAY.** Keep all children and visitors a safe distance from the work area.
9. **MAKE WORKSHOP CHILD PROOF.** Use padlocks, master switches, and remove start switch keys.
10. **NEVER LEAVE WHEN MACHINE IS RUNNING.** Turn power **OFF** and allow all moving parts to come to a complete stop before leaving machine unattended.
11. **DO NOT USE IN DANGEROUS ENVIRONMENTS.** DO NOT use machinery in damp, wet locations, or where any flammable or noxious fumes may exist.
12. **KEEP WORK AREA CLEAN AND WELL LIT.** Clutter and dark shadows may cause accidents.
13. **USE A GROUNDED EXTENSION CORD RATED FOR THE MACHINE AMPERAGE.** Undersized cords overheat and lose power. Replace extension cords if they become damaged. DO NOT use extension cords for 220V machinery.
14. **ALWAYS DISCONNECT FROM POWER SOURCE BEFORE SERVICING MACHINERY.** Make sure switch is in OFF position before reconnecting.
15. **MAINTAIN MACHINERY WITH CARE.** Keep blades sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **MAKE SURE GUARDS ARE IN PLACE AND WORK CORRECTLY BEFORE USING MACHINERY.**
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Make a habit of checking for keys and adjusting wrenches before turning machinery **ON**.
18. **CHECK FOR DAMAGED PARTS BEFORE USING MACHINERY.** Check for binding and alignment of parts, broken parts, part mounting, loose bolts, and any other conditions that may affect machine operation. Repair or replace damaged parts.
19. **USE RECOMMENDED ACCESSORIES.** Refer to the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury.
20. **DO NOT FORCE MACHINERY.** Work at the speed for which the machine or accessory was designed.
21. **SECURE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. A secured workpiece protects your hands and frees both hands to operate the machine.
22. **DO NOT OVERREACH.** Keep proper footing and balance at all times.
23. **MANY MACHINES WILL EJECT THE WORKPIECE TOWARD THE OPERATOR.** Know and avoid conditions that cause the workpiece to "kickback."
24. **ALWAYS LOCK MOBILE BASES (IF USED) BEFORE OPERATING MACHINERY.**
25. **BE AWARE THAT CERTAIN DUST MAY BE HAZARDOUS** to the respiratory systems of people and animals, especially fine dust. Make sure you know the hazards associated with the type of dust you will be exposed to and always wear a respirator approved for that type of dust.



WARNING

Additional Safety Instructions for Bandsaws

1. **BLADE CONDITION.** Do not operate with dull, cracked or badly worn blade. Dull blades require more effort to use and are difficult to control. Inspect blades for cracks and missing teeth before each use, and replace as required.
2. **HAND PLACEMENT.** Never position fingers or thumbs in line with the cut. Serious personal injury could occur.
3. **GUARDS.** Do not operate this bandsaw without the blade guard in place or with the doors open.
4. **BLADE REPLACEMENT.** When replacing blades, make sure teeth face toward the front of the machine and the blade is properly tensioned before operating.
5. **WORKPIECE HANDLING.** Never hold small workpieces with your fingers during a cut. Always support/feed the workpiece with push stick, table support, vise, or some type of clamping fixture.
6. **CUTTING TECHNIQUES.** Plan your cuts so you always cut out of the wood. DO NOT back the workpiece away from the blade while the saw is running. If you need to back the work out, turn the bandsaw **OFF** and wait for the blade to come to a complete stop, and DO NOT twist or put excessive stress on the blade while backing work away.
7. **BLADE SPEED.** Allow blade to reach full speed before cutting.
8. **LEAVING WORK AREA.** Never leave a machine running and unattended. Allow the bandsaw to come to a complete stop before you leave it unattended.
9. **FEED RATE.** Always feed stock evenly and smoothly. DO NOT force or twist blade while cutting, especially when sawing small radii.
10. **WORKPIECE MATERIAL.** This machine is designed to cut wood only. It is not designed to cut metal or use cutting fluid.
11. **MAINTENANCE/SERVICE.** All inspections, adjustments, and maintenance are to be done with the power **OFF** and the plug removed from the outlet. Wait for all moving parts to come to a complete stop.
12. **BLADE CONTROL.** Do not attempt to stop or slow the blade with your hand or a workpiece. Allow the blade to stop on its own, unless your machine is equipped with a brake.
13. **EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support Department at (570) 546-9663.

WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to lessen the possibility of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

CAUTION

No list of safety guidelines can be complete. Every shop environment is different. Always consider safety first, as it applies to your individual working conditions. Use this and other machinery with caution and respect. Failure to do so could result in serious personal injury, damage to equipment, or poor work results.



SECTION 2: CIRCUIT REQUIREMENTS

Operation

!WARNING

Serious personal injury could occur if you connect the machine to the power source before you have completed the set up process. **DO NOT** connect the machine to the power source until instructed to do so.

Amperage Draw

The motor for your machine may draw the following amps at maximum load.

G0506X at 220V Single-Phase	21 Amps
G0506X3 at 220V 3-Phase	9 Amps
G0506X3 at 440V 3-Phase*	4.5 Amps

Circuit Requirements

We recommend using a dedicated circuit for this machine. You **MUST** connect your machine to a grounded circuit that is rated for the amperage given below. Never replace a circuit breaker on an existing circuit with one of higher amperage without consulting a qualified electrician to ensure compliance with wiring codes. **If you are unsure about the wiring codes in your area or you plan to connect your machine to a shared circuit, consult a qualified electrician.**

220V Circuit	25 Amps (G0506X)
220V Circuit	15 Amps (G0506X3)
440V Circuit.....	10 Amps (G0506X3)

*** To run on 440V, you must rewire the motor and replace the 220V magnetic switch assembly with the 440V magnetic switch assembly (Part #P0506X3038A). Refer to the wiring diagram on Page 54 for 440V connections.**

Plug Type

The cord set enclosed does not have a plug as the style of plug you require will depend upon the type of service you currently have or plan to install. We recommend using the following plugs for your machine on a dedicated circuit only (see **Figures 3–4** for examples):

G0506X	NEMA L6-20 Plug
G0506X3 at 220V	NEMA L15-20 Plug
G0506X3 at 440V**	NEMA L16-20 Plug

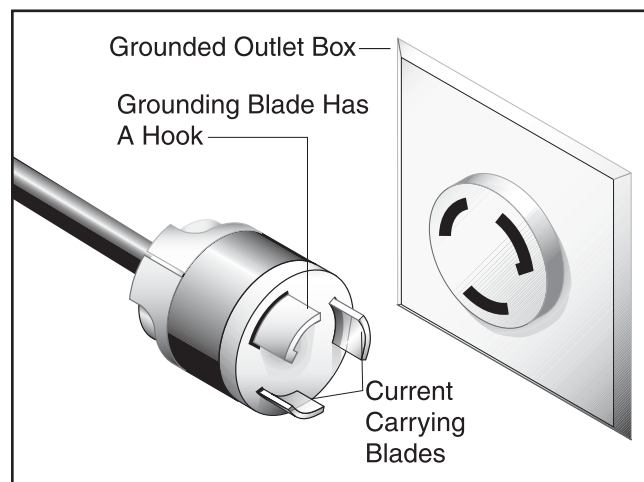


Figure 3. NEMA L6-20 plug and receptacle.

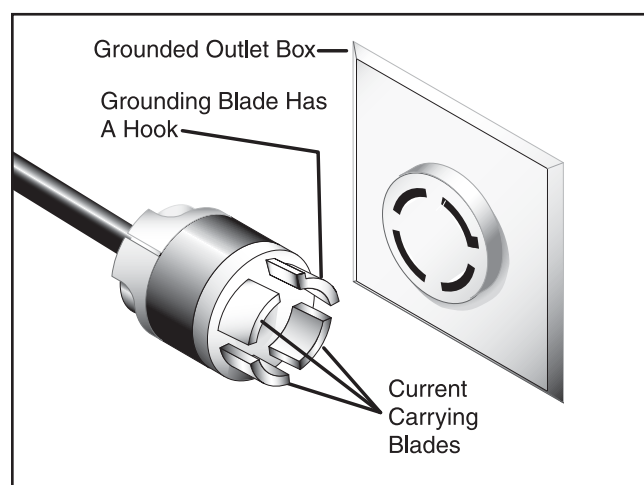


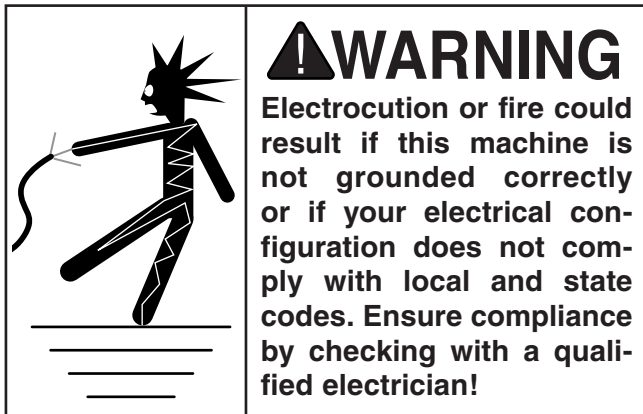
Figure 4. NEMA L15-20 plug and receptacle.



Grounding

In the event of an electrical short, grounding reduces the risk of electric shock. The grounding wire in the power cord must be properly connected to the grounding prong on the plug; likewise, the outlet must be properly installed and grounded. All electrical connections must be made in accordance with local codes and ordinances.

Improper connections of the electrical-grounding conductor increases the risk of electric shock. Check with a qualified electrician or one of our service personnel if you do not understand the grounding instructions, or if you doubt the machine is properly grounded.



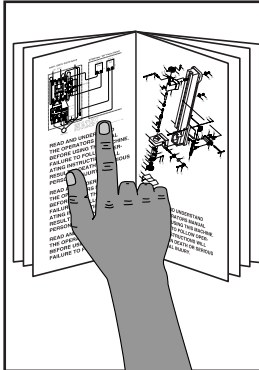
Extension Cords

Because of the high amperage draw from this machine, we do not recommend the use of extension cords. Instead, position your equipment near installed wiring to eliminate the need for extension cords.



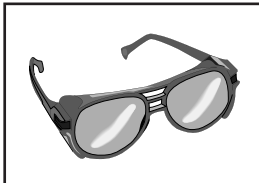
SECTION 3: SET UP

Set Up Safety



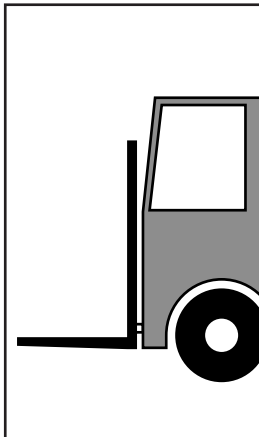
!WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



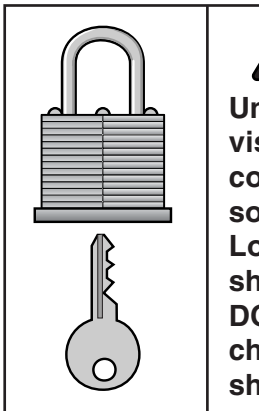
!WARNING

Wear safety glasses during the entire set up process!



!WARNING

This is an extremely heavy machine. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and a forklift or pallet jack when moving the shipping crate.



!CAUTION

Unsupervised children and visitors inside your shop could cause serious personal injury to themselves. Lock all entrances to the shop when you are away and **DO NOT** allow unsupervised children or visitors in your shop at any time!

Items Needed for Set Up

The following items are needed to complete the set up process, but are not included with your machine:

DESCRIPTION	Qty
• Safety Glasses (for each person)	1
• Solvent Cleaner.....	As Needed
• Shop Rags.....	As Needed
• Forklift (700 lb. Capacity)	1
• 1000 Lb. Capacity Lifting Straps	2
• 1 x 4 Shim (Optional)	1
• 2 x 4 Shim (Optional)	1
• Assistant for Lifting.....	1
• Leather Gloves.....	1 pair
• Machinist's Square	1
• Open End Wrenches $\frac{9}{16}$, $\frac{3}{4}$	1 ea
• Open End Wrench $\frac{1}{2}$	2
• Hex Wrenches $\frac{9}{16}$, $\frac{3}{4}$, $\frac{1}{2}$	1 ea
• Feeler Gauge 0.016"	1
• Straightedge	1
• Fine Ruler.....	1
• Dust Collector.....	1
• Dust Hoses 4"	1
• Hose Clamps.....	2
• Mounting Hardware (Optional) ...	As Needed

Unpacking

The Model G0506X/G0506X3 was carefully packed when it left our warehouse. If you discover the machine is damaged after you have signed for delivery, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

When you are completely satisfied with the condition of your shipment, you should inventory the contents.



Inventory

After all the parts have been removed from the crate, you should have the following items:

Crate Contents (Figure 5 & 6): Qty

A. Table Assembly	1
B. Miter Gauge	1
C. Fence Assembly	1
D. Dust Port	1

Hardware and Tools: Qty

• Hex Wrench 6mm	1
• Open End Wrench 12 x 14mm	1
• Open End Wrench 19 x 21mm	1
• Phillips Screwdriver #2	1
• Hex Bolt $\frac{1}{2}$ -12 x 2 (Table)	1
• Flat Washer $\frac{1}{2}$ (Table)	1
• Hex Bolt $\frac{3}{8}$ -16 x 2 (Positive Stop)	1
• Hex Nut $\frac{3}{8}$ -16 (Positive Stop)	1
• Phillips Head Screws #10- 24 x $\frac{3}{8}$ (Dust Port)	4

NOTICE

Some hardware/fasteners on the inventory list may arrive pre-installed on the machine. Check these locations before assuming that any items from the inventory list are missing.



Figure 5. Bandsaw components.

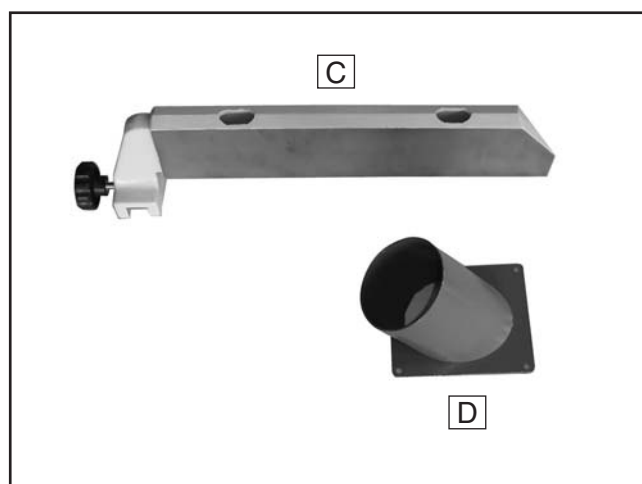


Figure 6. Fence components.

In the event that any nonproprietary parts are missing (e.g. a nut or a washer), we would be glad to replace them, or for the sake of expediency, replacements can be obtained at your local hardware store.



Hardware Recognition Chart

USE THIS CHART TO MATCH UP
HARDWARE DURING THE ASSEMBLY
PROCESS!

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

○ #10

○ 1/4"

○ 5/16"

○ 3/8"

○ 7/16"

○ 1/2"



Key

4mm ○

6mm ○

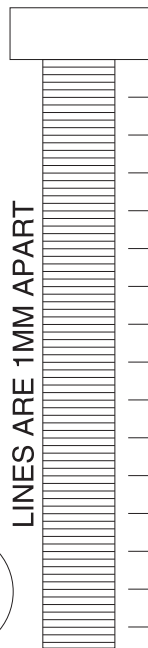
8mm ○

10mm ○

12mm ○

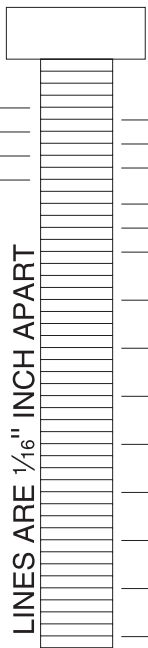
16mm ○

LINES ARE 1MM APART



5mm
10mm
15mm
20mm
25mm
30mm
35mm
40mm
45mm
50mm
55mm
60mm
65mm
70mm
75mm

LINES ARE 1/16" INCH APART



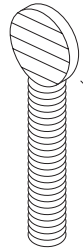
1/4"
3/8"
1/2"
5/8"
5/16"
7/16"
9/16"
3/4"
7/8"
1"
1 1/4"
1 1/2"
1 3/4"
2
2 1/4"
2 1/2"
2 3/4"
3



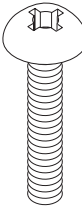
Lock Nut



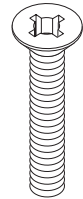
Wing Nut



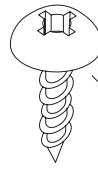
Thumb Screw



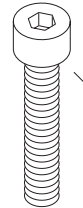
Phillips Head Screw



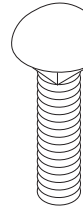
Flat Head Screw



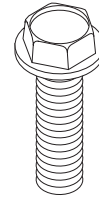
Tap Screw



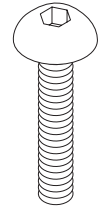
Cap Screw



Carriage Bolt



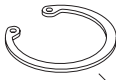
Flange Bolt



Button Head Screw



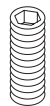
External Retaining Ring



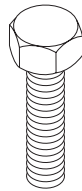
Internal Retaining Ring



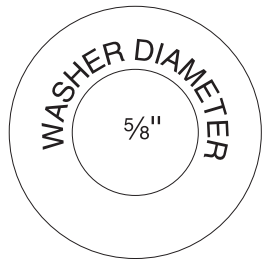
E-Clip



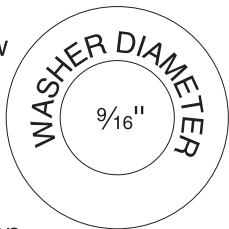
Setscrew



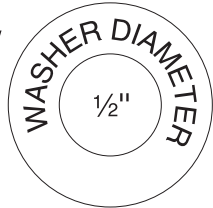
Hex Bolt



WASHER DIAMETER
5/8"



WASHER DIAMETER
9/16"



WASHER DIAMETER
1/2"



WASHER DIAMETER
7/16"



WASHER DIAMETER
3/8"



WASHER DIAMETER
5/16"



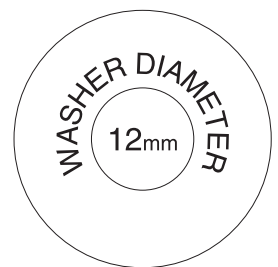
WASHER DIAMETER
1/4"



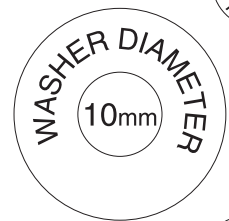
WASHER DIAMETER
1/8"

#10

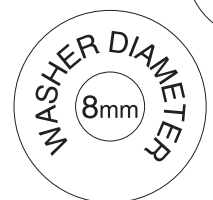
WASHERS ARE MEASURED BY THE INSIDE DIAMETER



WASHER DIAMETER
12mm



WASHER DIAMETER
10mm



WASHER DIAMETER
8mm



WASHER DIAMETER
4mm




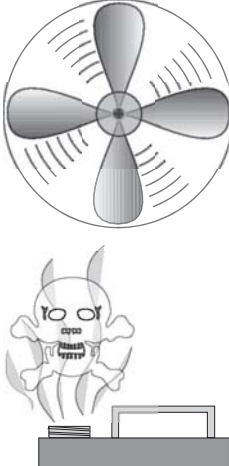
WASHER DIAMETER
6mm



Clean Up

The unpainted surfaces are coated with a waxy oil to protect them from corrosion during shipment. Remove this protective coating with a solvent cleaner or citrus-based degreaser such as Grizzly's G7895 Degreaser. To clean thoroughly, some parts may need to be removed. **For optimum performance from your machine, make sure you clean all moving parts or sliding contact surfaces that are coated.** Avoid chlorine-based solvents, such as acetone or brake parts cleaner, as they may damage painted surfaces should they come in contact. Always follow the manufacturer's instructions when using any type of cleaning product.

	<p>!WARNING</p> <p>Gasoline and petroleum products have low flash points and could cause an explosion or fire if used to clean machinery. DO NOT use gasoline or petroleum products to clean the machinery.</p>
--	---

	<p>!CAUTION</p> <p>Many of the solvents commonly used to clean machinery can be toxic when inhaled or ingested. Lack of ventilation while using these solvents could cause serious personal health risks or fire. Take precautions from this hazard by only using cleaning solvents in a well ventilated area.</p>
---	---

Site Considerations

Floor Load

Refer to the **Machine Data Sheet** for the weight and footprint specifications of your machine. Some floors may require additional reinforcement to support both the machine and operator.

Working Clearances

Consider existing and anticipated needs, size of material to be processed through each machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your new machine. See **Figure 7** for the minimum working clearances.

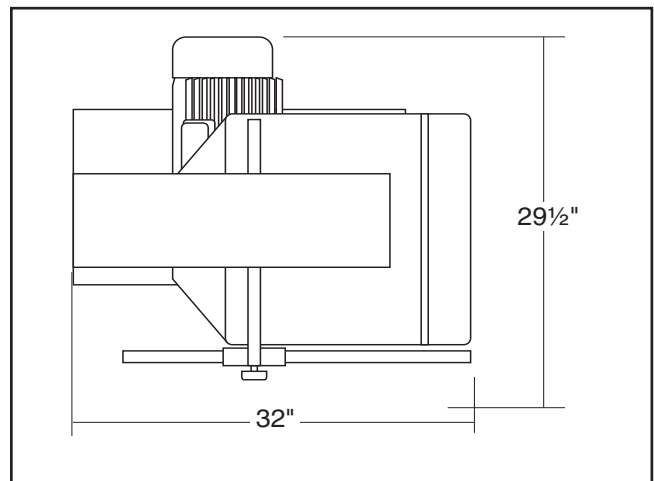


Figure 7. G0506X and G0506X3 minimum working clearances.



Moving & Placing Base Unit

WARNING

This is an extremely heavy machine. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and a forklift or a hoist when removing the machine from the crate. Use chains or a lifting straps with a minimum of 1000 lbs. lifting capacity. If the chains or lifting straps break, serious personal injury may occur.

Special care should be taken when moving this bandsaw. Only use the following methods to lift or move this bandsaw.

To move and place the bandsaw using a lifting hook and eye bolt:

1. Use a forklift to move the bandsaw on the pallet to its final location.
2. Unbolt the bandsaw from the pallet.
3. Install the eye bolt shown in **Figure 8** if it is not already installed (make sure it is threaded all the way in), then place the lifting hook through the eye bolt and lift the bandsaw off of the pallet with a forklift.
4. Slowly set the bandsaw into position.

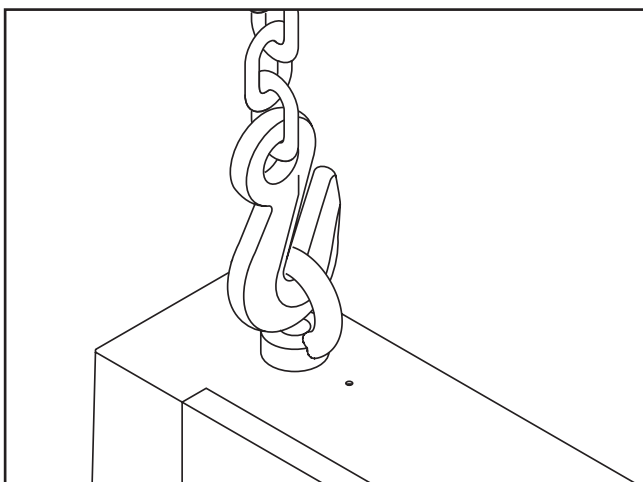


Figure 8. Lifting the bandsaw.

To move and place the bandsaw using wood shims:

1. Use a forklift to move the bandsaw on the pallet to its final location.
2. Unbolt the bandsaw from the pallet.
3. Carefully place the forklift forks under the head and install a 1x4 shim between the head and the left fork and a 2x4 shim between the head and right fork so the bandsaw is level, as shown in **Figure 9**.

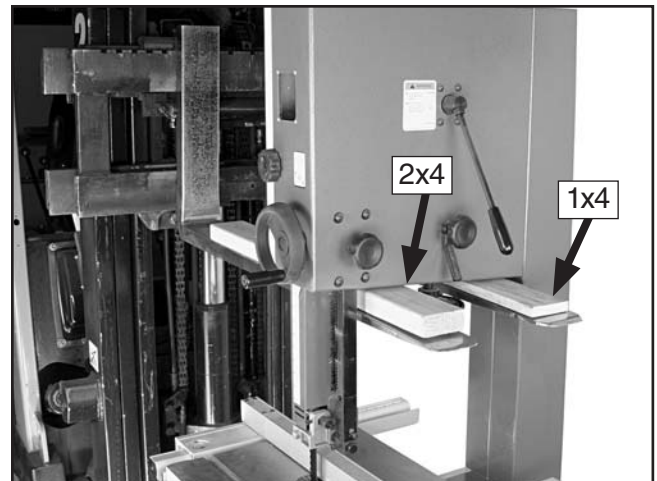


Figure 9. Example of lifting bandsaw with forklift using wood shims.

4. Lift the bandsaw off of the pallet and slowly set the bandsaw into position.



Mounting

We recommend mounting your new machine to the floor. Because floor materials may vary, floor mounting hardware is not included. You may also mount your machine to a mobile base (see **Figure 12**) that has wheel locking or wheel retracting capabilities that keep the mobile base from rolling when not in use. We recommend using the Grizzly Model G7315 mobile base.

Bolting to Concrete Floors

Lag shield anchors with lag bolts (**Figure 10**) and anchor studs (**Figure 11**) are two popular methods for anchoring an object to a concrete floor. We suggest you research the many options and methods for mounting your machine and choose the best that fits your specific application.

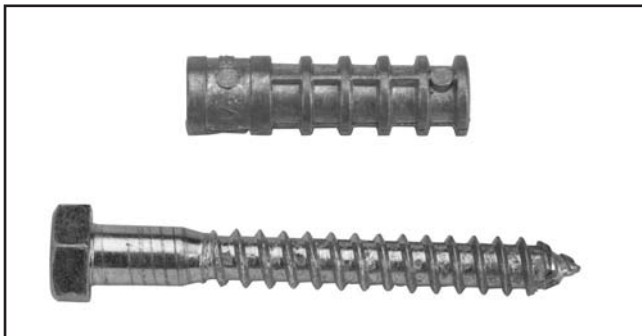


Figure 10. Typical lag shield anchor and bolt.

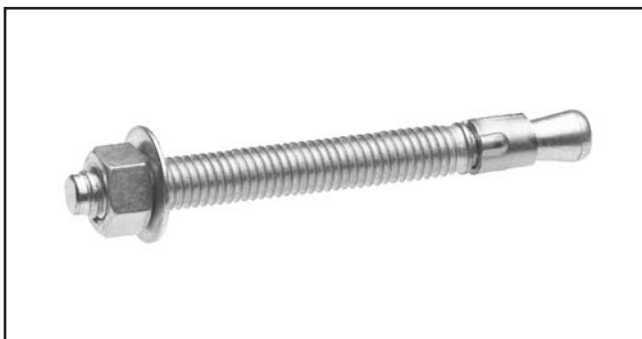


Figure 11. Typical anchor stud.

NOTICE

Anchor studs are stronger and more permanent alternatives to lag shield anchors; however, they will stick out of the floor, which may cause a tripping hazard if you decide to move your machine.



Figure 12. Bandsaw mounted on mobile base.

Table

The table is heavy and requires two people to lift it onto the trunnion. The saw blade must also be removed to install the table.

Components and Hardware Needed:	Qty
Table Assembly	1
Hex Bolt ½ -12 x 2	1
Flat Washer ½	1

To install the table:

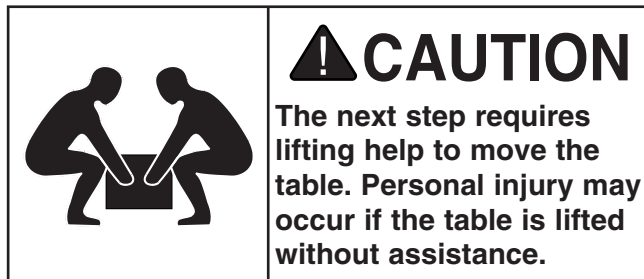
1. Loosen the blade tension handwheel.
2. Adjust the upper and lower blade guides away from the blade. Refer to **Adjusting Blade Guide Bearings** on **Page 26** for more details.

CAUTION

Handling saw blades may cause personal injury. Wear leather gloves when handling.



3. Open the upper and lower wheel covers, and slide the blade off of both wheels.



4. With the help of another person, lift the table onto the trunnion.
5. Secure the table to the trunnion as shown in **Figure 13** with the $\frac{1}{2}$ -12 x 2 hex bolt (trunnion bolt) and flat washer.

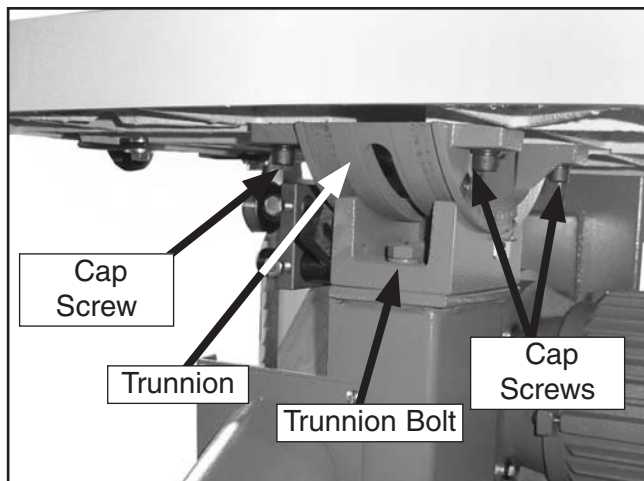


Figure 13. Table mounted to trunnion.

6. With the blade teeth pointing downward and toward the front of the bandsaw, slide the blade through the table slot.
7. Slide the blade through the upper and lower blade guides, and mount it over the upper and lower wheels.
8. Tighten the blade tension handwheel.
9. Keep the upper and lower blade guides adjusted away from the blade until the blade tracking and tension have been adjusted.
10. Close the wheel covers. The table should look like **Figure 14** when properly installed.

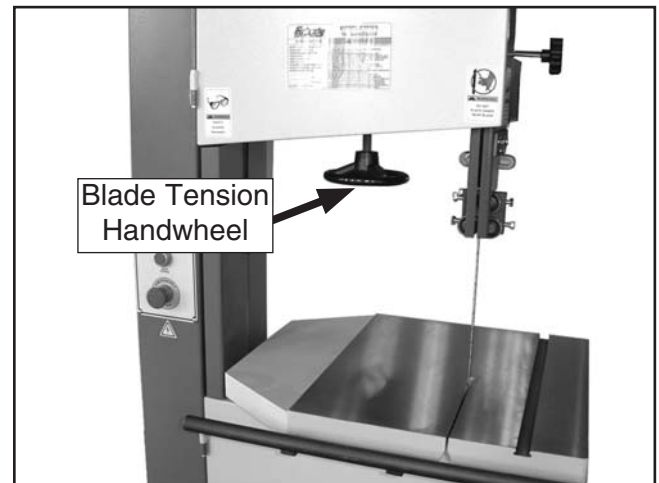


Figure 14. Table installed correctly.

Positive Stop

The positive stop allows the table to be quickly and accurately returned to the horizontal (0°) position after being adjusted to a different angle.

Components and Hardware Needed:		Qty
Hex Bolt $\frac{3}{8}$ -16 x 2		1
Hex Nut $\frac{3}{8}$ -16		1

To set the positive stop:

1. DISCONNECT BANDSAW FROM POWER!
2. Loosen the trunnion bolt in the center of the table trunnion, as shown in **Figure 15**.

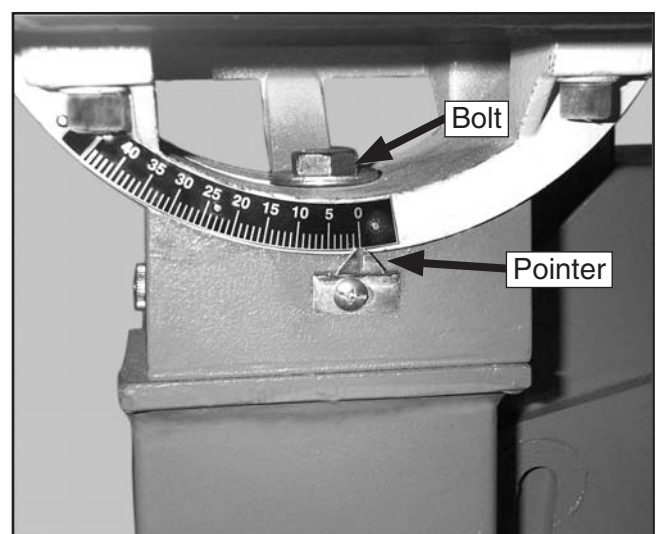


Figure 15. Large hex bolt in table trunnion.



- Using a $\frac{9}{16}$ " wrench, loosen the jam nut that locks the positive stop bolt in place (**Figure 16**).

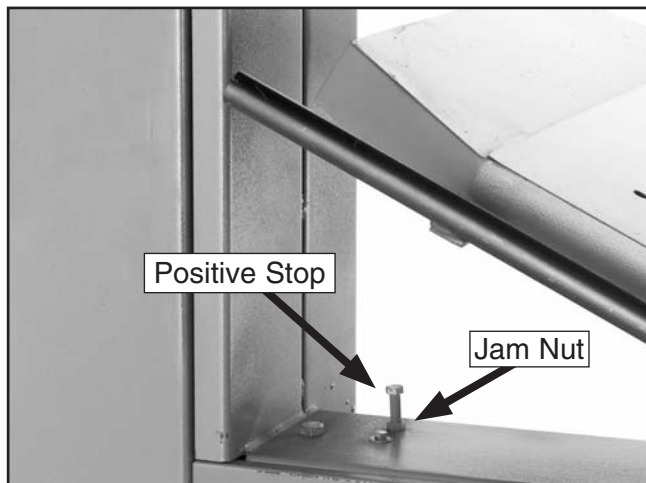


Figure 16. Installed positive stop bolt.

- Raise the upper blade guide assembly and place a machinist's square on the table next to the side of the blade as shown in **Figure 17**. Adjust the table square with the blade.

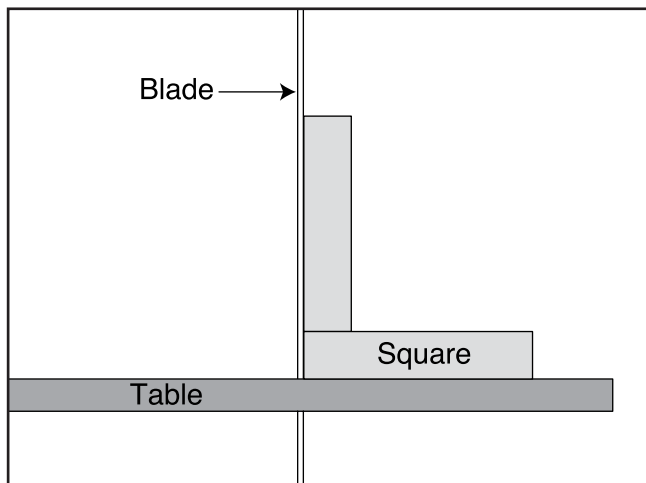


Figure 17. Squaring table to blade.

- Adjust the positive stop bolt to the table and secure it by tightening the jam nut.
- Check the adjustment for accuracy once you have tightened the jam nut.
- Secure the hex bolt in the center of the table trunnion.

- Loosen the screw on the pointer (**Figure 15**), but do not remove it.
- Align the tip of the pointer with the "0" mark on the table tilt scale.
- Tighten the screw on the pointer so that the pointer is locked in place.

Dust Port

Components and Hardware Needed:	Qty
Dust Port	1
Phillips Head Screws #10-24 x $\frac{3}{8}$	4

To install the dust port:

- Place the dust port on the saw as shown in **Figure 18**.
- Secure it with the #10-24 x $\frac{3}{8}$ Phillips head screws.



Figure 18. Dust port installed.



Dust Collection

⚠ CAUTION

DO NOT operate this bandsaw without an adequate dust collection system. This saw creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

Recommended CFM at Dust Port: 400
Do not confuse this CFM recommendation with the rating of the dust collector. To determine the CFM at the dust port, you must take into account many variables, including the CFM rating of the dust collector, the length of hose between the dust collector and the machine, the amount of branches or wyes, and the amount of other open lines throughout the system. Explaining this calculation is beyond the scope of this manual. If you are unsure of your system, consult an expert or purchase a good dust collection "how-to" book.

Components and Hardware Needed:	Qty
4" Dust Hose (length varies)	1
4" Hose Clamp	1

To connect a dust collection hose:

1. Fit a 4" dust hose over the dust port, as shown in **Figure 19**, and secure in place with a hose clamp.



Figure 19. Dust hose attached to dust port.

2. Pull the hose to make sure it does not come off.

Note: A tight fit is necessary for proper performance.

3. Attach the dust hoses to a dust collector.

Fence

Components and Hardware Needed:	Qty
Fence.....	1

To mount the fence:

1. Loosen the lock knob and place the fence onto the rail as shown in **Figure 20**.



Figure 20. Fence mounted on rail.

2. Slide the fence on the rail until it is near the blade and tighten the lock knob.



Miter Gauge

Components and Hardware Needed:		Qty
Miter Gauge		1
Lock Knob		1

To install the Miter Gauge:

1. Thread the lock knob into the miter gauge and slide it into the miter slot as shown in **Figure 21**.



Figure 21. Miter gauge installed.

Blade Guard

The blade guard can be adjusted along the support rod to help facilitate adjustments made to the blade guide assembly. **The blade guard must be adjusted to the lowest position on the support rod before starting the machine.**

To move the blade guard:

1. Loosen the hex bolt shown in **Figure 22** that secures the blade guard bracket to the guide post.
2. Move the blade guard up prior to making adjustments to the guide bearing assembly, or **down, prior to using the machine.**
3. Align the slot in the front of the guard with the blade and tighten the hex bolt that secures it to the guide post.

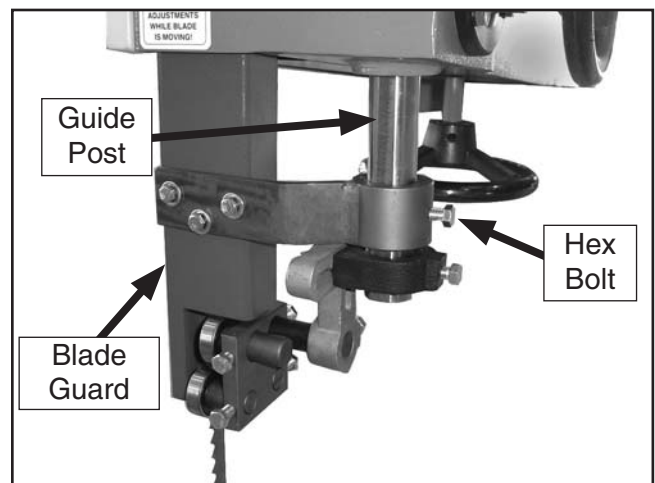
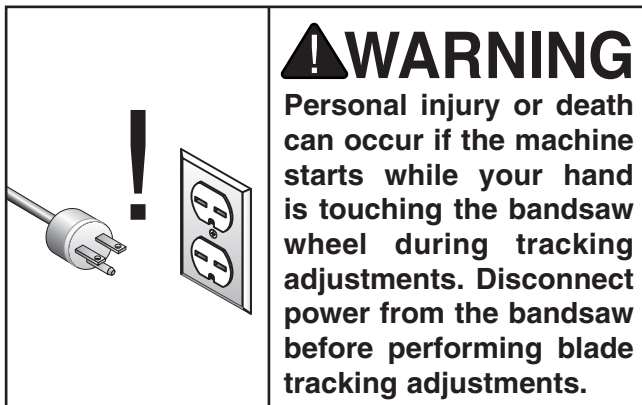


Figure 22. Blade guard mounting bracket.



Blade Tracking



The blade tracking is primarily affected by the tilt of the upper wheel, also known as "Center Tracking"; and the alignment of both wheels, also known as "Coplanar Tracking." (For Coplanar Tracking, see the **Wheel Alignment** instructions on **Page 48**.)

The wheels on this bandsaw were aligned at the factory, so Center Tracking is the only adjustment that needs to be performed when the saw is new.

To center track the blade:

1. DISCONNECT BANDSAW FROM POWER!
2. Make sure the upper and lower blade guides are adjusted away from the blade.
3. Turn the blade tension handwheel until there is moderate tension on the blade (**Figure 23**).

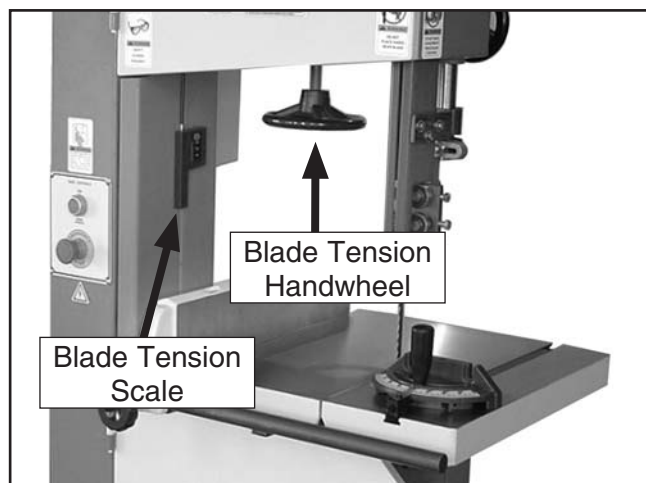


Figure 23. Blade tensioning controls.

4. Open the upper wheel cover.
5. Spin the upper wheel by hand at least three times and watch how the blade rides on the crown of the wheel. Refer to **Figure 24** for an illustration of this concept.

—If the blade rides in the center of the upper wheel and is centered on the peak of the wheel crown, then the bandsaw is already tracked properly and no further adjustments are needed at this time.

—If the blade does not ride in the center of the upper wheel and is not centered on the peak of the wheel crown, then continue with the following steps.

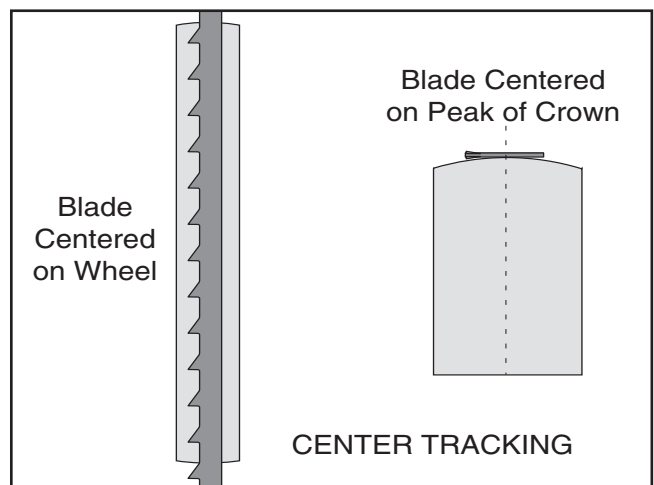


Figure 24. Center tracking profiles.



6. Using a $\frac{9}{16}$ " wrench, loosen the jam nut shown in **Figure 25**.

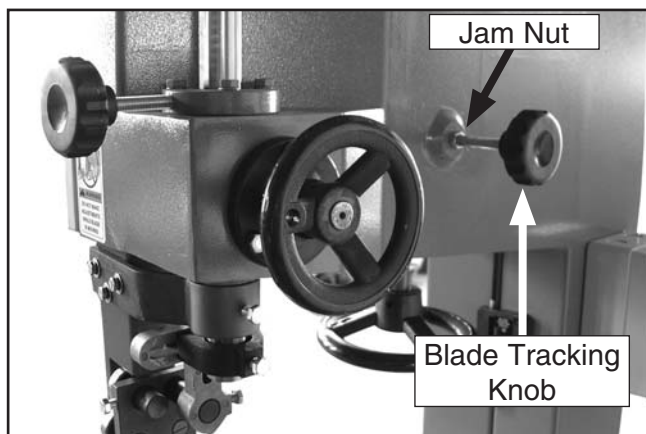


Figure 25. Blade tracking controls.

7. Spin the upper wheel with one hand and rotate the blade tracking knob with the other hand to make the blade ride in the center of the bandsaw wheel tire.

Note: Turning the blade tracking knob clockwise will move the blade further into the saw body.

8. Tighten the blade tracking knob, tighten the jam nut, and close the upper wheel cover.

For the best performance from your saw, regularly maintain proper tracking of the blade.

NOTICE

Changes in the blade tension may change the blade tracking.

Test Run

Once the assembly is complete and you have finished the **Blade Tracking** procedure on **Page 24**, you need to test run the machine to continue with the remainder of the adjustments.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then contact our service department for further assistance.

	<p>WARNING</p> <p>Wear safety glasses during the entire test run process. Failure to comply may result in serious personal injury.</p>
--	--

To test run the machine:

1. Make sure that you have completed the **Blade Tracking** procedure before continuing.
2. Make sure that the blade guides are adjusted as far away from the blade as possible, and that the blade is not touching the table.
3. Refer to **CIRCUIT REQUIREMENTS** on **Page 12**, and connect the plug to the power cord.
4. Make sure that any tools or foreign objects have been removed from the machine.
5. Plug the machine into the power source.
6. Turn the bandsaw **ON**.
7. Listen to and watch the bandsaw for abnormal noises or actions. The bandsaw should run smoothly with little or no vibration or rubbing noises. Strange or unusual noises **MUST** be investigated and corrected before operating the machine further—always turn **OFF** and unplug the machine when investigating or correcting potential problems.



Tensioning Blade

A properly tensioned blade is essential for making accurate cuts and is required before making many bandsaw adjustments. (Everytime you replace the blade, you should perform this procedure because all blades tension differently.)

To tension the bandsaw blade:

1. Complete the **Test Run** procedure and make sure the blade is tracking properly.
2. Raise the upper blade guide assembly as high as it will go, and adjust the upper and lower blade guides as far away from the blade as possible.

Note: *This procedure will NOT work if the blade guides have any contact with the blade.*

3. Turn the blade tension handwheel until the tension scale reads 20, or until there is moderate tension on the blade.

Note: *Due to variations in blades, the tension scale on your bandsaw may display a different number.*

4. Turn the bandsaw **ON**.
5. Slowly release the tension one quarter of a turn at a time. When you see the bandsaw blade start to flutter, stop decreasing the tension.
6. Now, slowly increase the tension until the blade stops fluttering, then tighten the tension another quarter turn.
7. Look at what the tension gauge reads and use that as a guide for tensioning that blade in the future.

Note: *Always detension the blade after use to increase blade life and reduce strain on the bandsaw components.*

8. Re-adjust the blade tracking as instructed on **Page 24**.

Adjusting Blade Guide Bearings

The blade guide bearings provide side-to-side support to help keep the blade straight while cutting. The blade guides are designed to be adjusted forward/backward.

Always adjust the upper and lower blade guides away from the blade before removing, installing or tracking a new blade.

To adjust the upper and lower blade guides:

1. DISCONNECT BANDSAW FROM POWER!
2. Make sure the blade is tracking properly and that it is correctly tensioned.
3. Familiarize yourself with the blade guide controls shown in **Figure 26** and **Figure 27**.

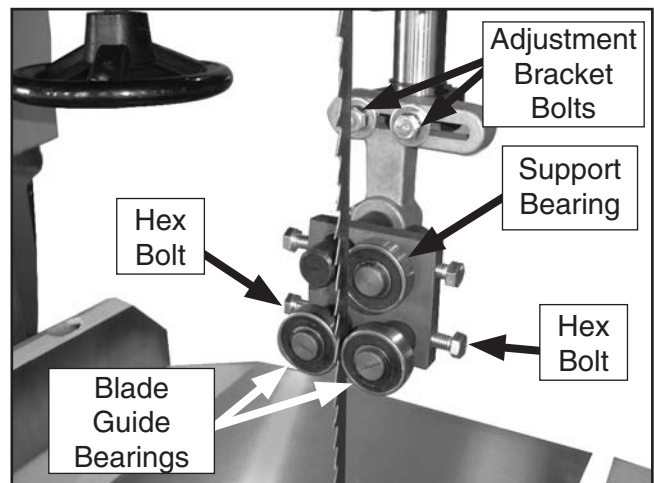


Figure 26. Upper blade guide controls.

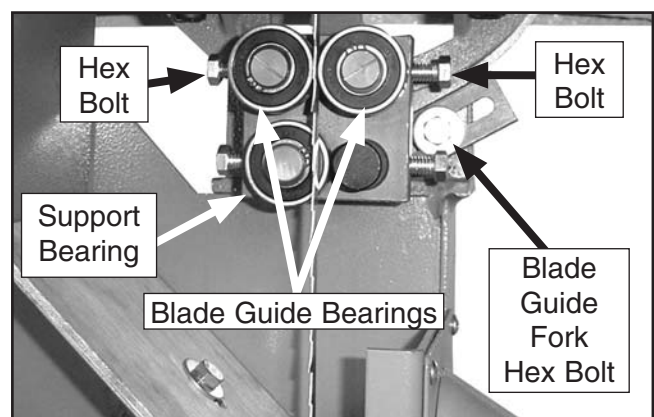


Figure 27. Lower blade guide controls.

G0506X/G0506X3 Extreme Series Bandsaw



4. Loosen the adjustment bracket bolts and shift the upper blade guide assembly so the blade intersects the face of the support bearing by at least $\frac{1}{8}$ ".
5. Tighten the adjustment bracket bolts.
6. Loosen the hex bolts on each blade guide bearing shaft and adjust the bearings in or out until the edges of the bearings are $\frac{1}{16}$ " behind the blade gullets as illustrated in **Figure 28**.

Note: The $\frac{1}{16}$ " spacing is ideal, although with larger blades it may not be possible. In such cases, adjust the guide bearings as far forward as possible to the blade gullets and still maintain the proper support bearing spacing adjustment.

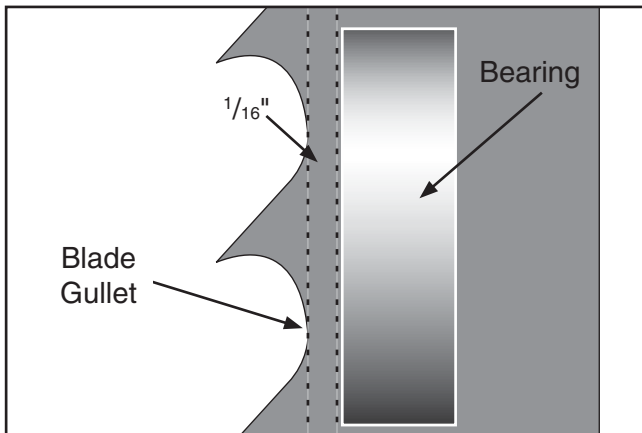


Figure 28. Spacing between bearing and gullet.

7. Finger tighten the hex bolts.

NOTICE

Make sure that the blade teeth will not contact the guide bearings when the blade is against the rear support bearing during the cut or the blade teeth will be ruined.

8. Using a flat head screwdriver, rotate the bearings 0.004" away from the blade. **Note:** 0.004" is approximately the thickness of a dollar bill.
9. Tighten the hex bolts to lock the blade guide bearings in position.

NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and guide bearings must be properly adjusted before cutting operations.

10. Loosen the hex bolt securing the blade guide fork (**Figure 27**).
11. Adjust the blade guide assembly up or down so the blade intersects the face of the support bearing by at least $\frac{1}{8}$ ".
12. Tighten the hex bolt on the blade guide fork.
13. Repeat **Steps 6-9** for the lower guides.

Adjusting Support Bearings

NOTICE

Whenever changing a blade or adjusting tension and tracking, the upper and lower blade support bearings and blade guide bearings must be properly adjusted before cutting operations.

The support bearings are positioned behind the blade for support during cutting operations. Proper adjustment of the support bearings is an important part of making accurate cuts and also keeps the blade teeth from coming in contact with the guide bearings while cutting.

To adjust the upper support bearing:

1. DISCONNECT BANDSAW FROM POWER!
2. Make sure the blade is tracking properly and that it is correctly tensioned.



3. Familiarize yourself with the upper support bearing controls shown in **Figure 29**.

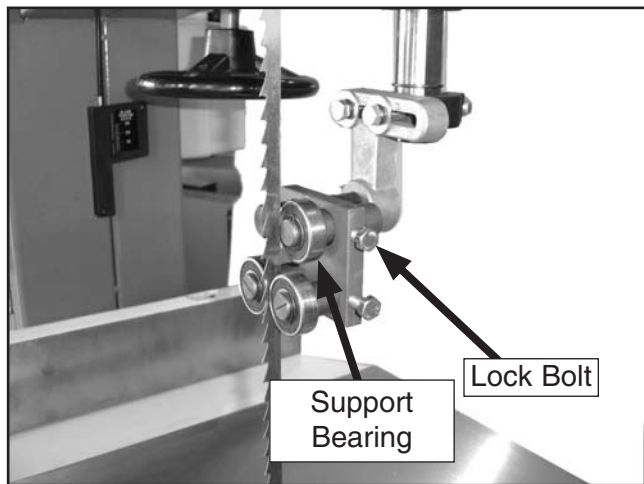


Figure 29. Upper support bearing controls.

4. Loosen the lock bolt on the support bearing shaft (**Figure 29**).
5. Place a 0.016" feeler gauge between the support bearing and the blade, and position the bearing 0.016" away from the back of the blade as illustrated in **Figure 30**.

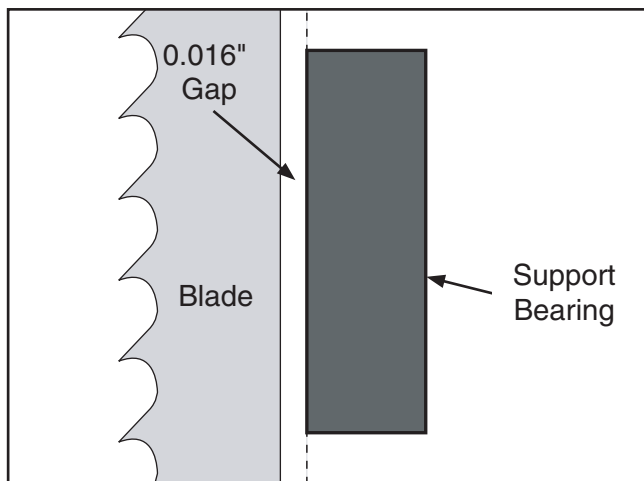


Figure 30. Blade should be aligned approximately 0.016" away from the bearing edge.

Note: For a quick gauge, fold a dollar bill in half twice (four thicknesses of a dollar bill is approximately 0.016") and place it between the support bearing and the blade.

6. Tighten the lock bolt to keep the support bearing locked in place.

To adjust the lower support bearing:

1. DISCONNECT BANDSAW FROM POWER!
2. Make sure that the blade is tracking properly and is correctly tensioned.
3. Familiarize yourself with the lower support bearing controls shown in **Figure 31**.

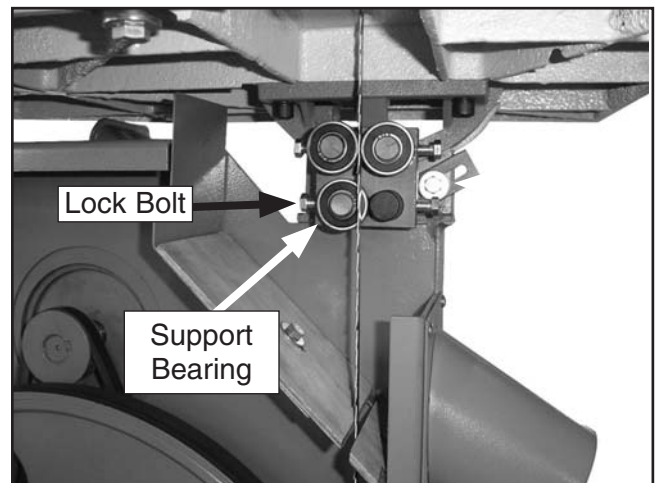


Figure 31. Lower support bearing controls.

4. Loosen the lock bolt on the lower support bearing shaft.
5. Place a 0.016" feeler gauge between the support bearing and the blade, and position the bearing 0.016" away from the back of the blade as illustrated in **Figure 30** or use a dollar bill.
6. Tighten the lock bolt to keep the support bearing locked in place.



Aligning Table

To ensure cutting accuracy when the table is first installed, the table should be aligned so that the miter slot is parallel to the bandsaw blade. This procedure works best with a $\frac{3}{4}$ " blade installed.

To align the table so the miter slot is parallel to the bandsaw blade:

1. Make sure that the blade is tracking properly and that it is correctly tensioned.
2. **DISCONNECT BANDSAW FROM POWER!**
3. Using a $\frac{5}{16}$ hex wrench, loosen the four cap screws (**Figure 13 on Page 20**) that secure the trunnion to the table.
4. Place an accurate straightedge along the blade. The straightedge should lightly touch both the front and back of the blade.

Note: Make sure the straightedge does not go across a tooth. Do not let the straightedge bend the blade or measurements will not be correct.

5. Use a fine ruler to gauge the distance between the straightedge and the miter slot. The distance you measure should be the same at both the front and the back of the table (see **Figure 32**).
6. Adjust the table as needed for proper alignment.
7. Tighten the cap screws loosened in **Step 3**.

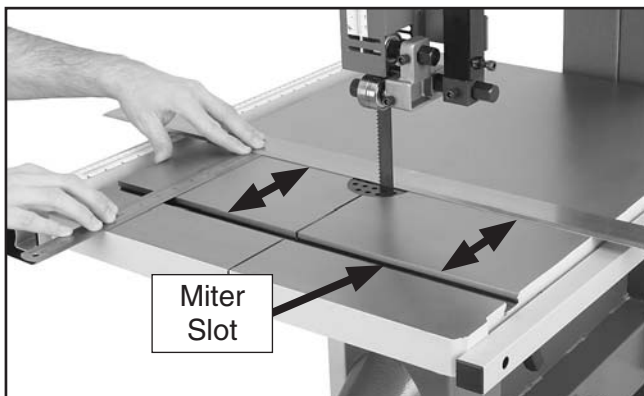


Figure 32. Example of table alignment.

Aligning Fence

To ensure cutting accuracy when the fence is first installed, the fence should be aligned with the miter slot.

To align the fence parallel with the miter slot:

1. If the fence is mounted on the left-hand side of the blade, remove it and remount it next to the miter slot.
2. Loosen the two hex bolts that secure the rail to the table.
3. Adjust the fence face parallel with the edge of the miter slot as shown in **Figure 33**.



Figure 33. Typical example of fence parallel with miter slot.

4. Tighten the hex bolts that secure the rail to the table, being careful not to move the fence.
5. Move the fence back to the left side of the blade.

NOTICE

Adjusting the fence parallel to the miter slot does not guarantee straight cuts. The miter slot may need to be adjusted parallel to the side of the blade. Refer to the "Aligning Table" instructions.



Miter Gauge

The miter gauge needs to be calibrated to the blade when it is first mounted in the miter slot.

To calibrate the miter gauge:

1. Place one edge of a machinist's square against the face of the miter gauge and the other against the blade face as shown in **Figure 34**.

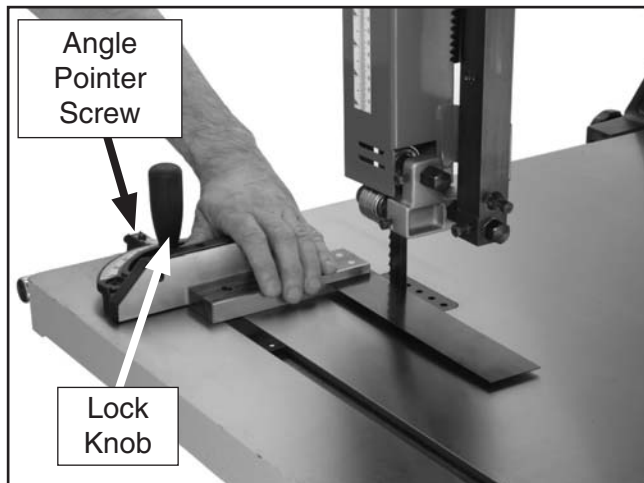


Figure 34. Example of squaring miter gauge to blade.

2. Loosen the lock knob on the miter gauge and adjust the gauge flush with the edge of the square.
3. Tighten the lock knob, and verify the setting.

Note: Sometimes the tightening procedure can affect the adjustment.

4. Loosen the screw that secures the angle pointer and adjust the pointer to the 0° mark on the scale.
5. Retighten the screw that secures the angle pointer.

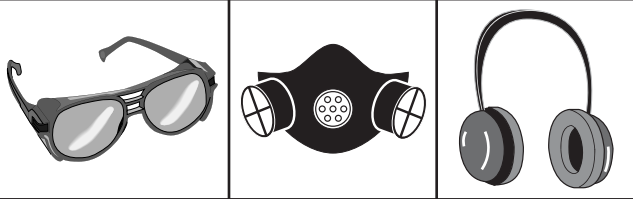


SECTION 4: OPERATIONS

Operation Safety

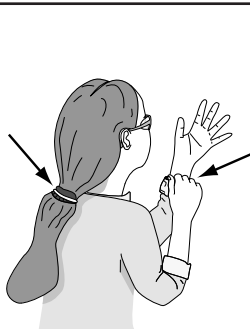
WARNING

Damage to your eyes, ears, and respiratory system could result from using this machine without proper protective gear. Always wear safety glasses, a respirator, and hearing protection when operating this machine.



WARNING

Loose hair and clothing could get caught in machinery and cause serious personal injury. Keep loose clothing and long hair away from moving machinery.



NOTICE

If you have never used this type of machine or equipment before, **WE STRONGLY RECOMMEND** that you read books, trade magazines, or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

Overview

The bandsaw is one of the most versatile wood cutting tools in the shop. It is capable of performing many different cutting functions including:

Straight Cuts

- Miters
- Angles
- Compound Angles
- Resawing
- Ripping
- Crosscutting

Irregular Cuts

- Simple and Complex Curves
- Duplicate Parts
- Circles
- Beveled Curves

A properly adjusted and tuned bandsaw can be safer to operate than most other saws and performs many functions with ease and accuracy.

Basic Cutting Tips

Here are some basic tips to follow when operating the bandsaw:

- Replace, sharpen, and clean blades as necessary and make adjustments periodically to keep the saw always running in top condition.
- Use light and even pressure while cutting. Light contact with the blade will permit easier line following and prevent undue friction.
- Avoid trying to turn tight corners because this will twist the blade. Remember, you must saw around corners.
- Misuse of the saw or using incorrect techniques is unsafe and results in frustration and poor cuts. Remember—the blade does the cutting with the operator's guidance.



Power Switch

The power switch on the Model G0506X/G0506X3 is located on the column for easy access (**Figure 35**). Immediately turn the machine **OFF** if there becomes a safety hazard.



Figure 35. G0506X/G0506X3 power switch.

Foot Brake

The Model G0506X/G0506X3 is equipped with a foot brake (**Figure 36**). Use the brake only in emergency situations to disconnect power to the motor and bring the blade to a halt.

⚠ CAUTION

The foot brake will not stop the bandsaw wheels and blade instantly. **DO NOT** become over confident and relax your safety awareness because of the foot brake feature.



Figure 36. Foot brake.

Guide Post

The guide post connects the upper blade guide assembly to the bandsaw. The guidepost allows the blade guide assembly to move up or down via a rack and pinion. In order to cut accurately, the blade guide assembly must be no more than 1" from the top of the workpiece at all times—this positioning provides the best support for the blade.

To adjust guide post:

1. Make sure that the blade tension, blade tracking, support bearing, and blade guides are adjusted correctly.
2. Loosen the guide post lock knob shown in **Figure 37**.

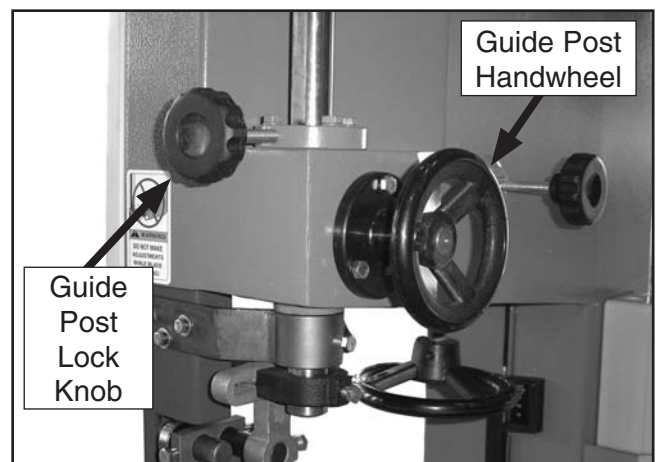


Figure 37. Guide post controls.

G0506X/G0506X3 Extreme Series Bandsaw



3. Turn the guide post handwheel to raise or lower the guide post until the upper blade guide assembly is within 1" from the top of the workpiece.
4. Lock the guide post in place with the lock knob.

Fence Adjustment

The fence slides along the rail for adjustment and can be secured in place by tightening the lock knob located on the front of the fence.

If you notice that the fence is not parallel to the blade, adjustments can be made where the rail mounts to the bottom of the table. See **Blade Lead** instructions below.

Blade Lead

Bandsaw blades commonly wander off the cut line when sawing, as shown in **Figure 38**. This is called blade lead. Blade lead is commonly caused by too fast of a feed rate, a dull or abused blade, or improper tension. If your blade is sharp/undamaged and you still have blade lead, perform the following instructions.

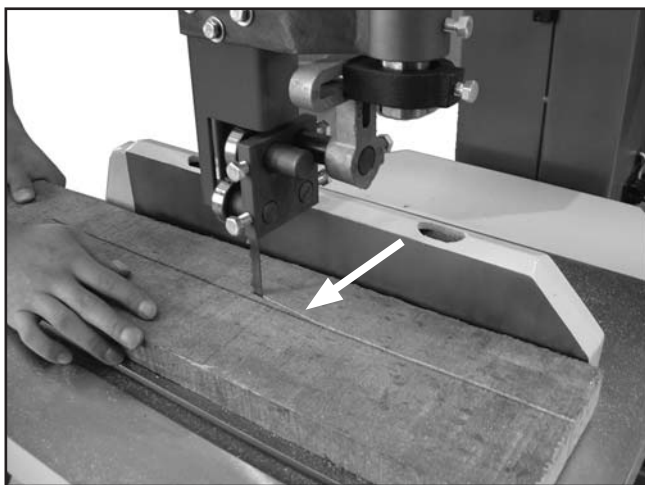


Figure 38. Example of blade leading away from line of cut.

To correct blade lead:

1. Use less pressure when feeding the workpiece through the cut.
2. Check that the miter slot or fence is parallel to the blade line, and correct if necessary (See **Aligning Table, Page 29** and **Aligning Fence, Page 29**).
3. Check for proper blade tension. If the blade tension is correct and it is not convenient to replace the blade, compensate for lead by skewing the fence or adjusting the table.

To skew your fence:

1. Cut a piece of scrap wood approximately $\frac{3}{4}$ " thick x 3" wide x 17" long. On a wide face of the board, draw a straight line parallel to the long edge.
2. Slide the bandsaw fence out of the way and cut halfway through the board on the line by pushing it into the blade. Turn the bandsaw **OFF** and wait for the blade to stop.
3. Clamp the board to the bandsaw table without moving it. Now slide the fence over to the board so it barely touches one end of the board.
4. Loosen the two hex bolts that secure the fence rail to the underside of the table.
5. Skew the fence so it is parallel to the edge of the scrap piece.

Continued on next page →



6. While maintaining the skew, tighten the bolts loosened in **Step 4**.
7. Make a few cuts using the fence. If the fence still does not seem parallel to the blade, repeat **Steps 1-6** until the blade and fence are parallel with each other.

To shift the table:

1. On a scrap piece of wood, mark a line that is perpendicular to the front edge.
2. Cut halfway through the board on the line by pushing it into the blade.
3. Turn the bandsaw **OFF** and wait for the blade to stop.
4. Using a $\frac{5}{16}$ hex wrench, loosen the four cap screws that mount the table to the trunnion (**Figure 14**). Shift the table to compensate for the blade lead, then retighten the cap screws.
5. Repeat **Steps 1-4** until the blade cuts straight.

Table Tilt

The bandsaw table will tilt 45° right to provide a range of cutting options.

To tilt the table:

1. DISCONNECT BANDSAW FROM POWER!
2. Loosen the trunnion bolt shown in **Figure 39** $\frac{1}{2}$ turn—just enough so the table moves.
3. Tilt the table to the desired angle. Use the angle gauge for easy reference.
4. Tighten the trunnion bolt.

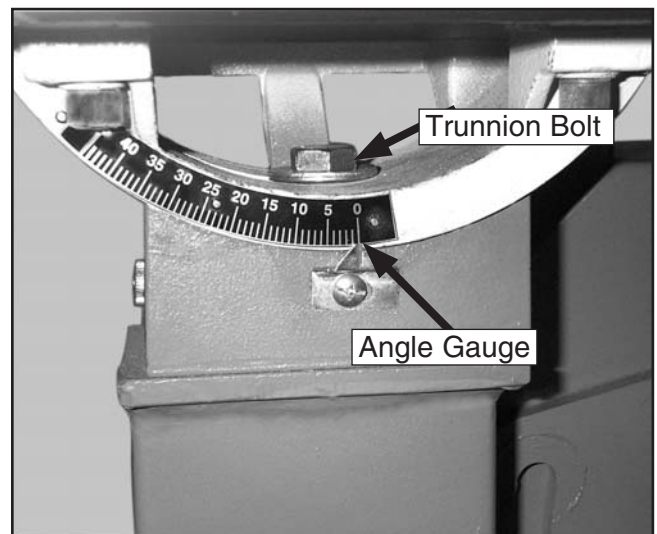


Figure 39. Trunnion bolt.



Ripping

Ripping is the process of cutting with the grain of the wood stock. For plywood and other processed wood, ripping simply means cutting down the length of the workpiece. For ripping, a wider blade is better. In most ripping applications, a standard raker tooth style will be sufficient.

To make a rip cut:

1. Adjust the fence to match the width of the cut on your workpiece and lock the fence in place.
2. Adjust the blade guide assembly to the correct height.
3. After all safety precautions have been met, turn the bandsaw **ON**. Slowly feed the workpiece into the blade and continue with the cut until the blade is completely through the workpiece. **Figure 40** shows a typical ripping operation. **Note:** *If you are cutting narrow pieces, use a push stick to protect your fingers.*



Figure 40. Example of typical ripping operation with a push stick.

WARNING

NEVER place fingers or hands in the line of cut. In the event that something unexpected happens, your hands or fingers may be pulled into the blade. **ALWAYS** use a push stick when ripping narrow pieces. Failure to follow these warnings may result in serious personal injury!

Crosscutting

Crosscutting is the process of cutting across the grain of wood. For plywood and other processed wood, crosscutting simply means cutting across the width of the material.

To make a 90° crosscut:

1. Mark the workpiece on the edge where you want to begin the cut.
2. Adjust the blade guide assembly to the correct height and make sure the miter gauge is set to 90°.
3. Move the fence out of the way. Place the workpiece evenly against the miter gauge.
4. Hold the workpiece against the miter gauge and line up the mark with the blade.
5. After all safety precautions have been met, turn the bandsaw **ON**. Slowly feed the workpiece into the blade and continue the cut until the blade is all the way through the workpiece. **Figure 41** shows a typical crosscutting operation.



Figure 41. Example of crosscutting operation with miter gauge.



Resawing

Resawing (**Figure 42**) is the process of cutting a board into two or more thinner boards. The maximum board width that can be resawn is limited by the maximum cutting height of the bandsaw.

One of the most important considerations when resawing is blade selection. Generally, the wider blade, the better. In most applications, a hook or a skip tooth style will be desirable. Choose blades with fewer teeth-per-inch (from 3 to 6), because they offer larger gullet capacities for clearing sawdust, reducing heat buildup and reducing strain on the motor.

WARNING

When resawing thin pieces, a wandering blade (blade lead) can tear through the surface of the workpiece, exposing your hands to the blade teeth. Always use push blocks when resawing and keep your hands clear of the blade.

To resaw a workpiece:

1. Verify that the bandsaw is setup properly and that the fence is parallel to the blade.
2. Adjust the upper blade guide so it is just above the workpiece with a minimum amount of blade exposed.
3. Use the widest blade your bandsaw will accept. **Note:** *The blade must also be sharp and clean.*
4. Set the fence to the desired depth of cut and use it to guide the work.
5. Support the ends of the board if necessary.
6. Turn the bandsaw **ON**.
7. Using push paddles and a push stick, keep pressure against the fence and table, and slowly feed the workpiece into the moving blade until the blade is completely through the workpiece (see **Figure 42**).

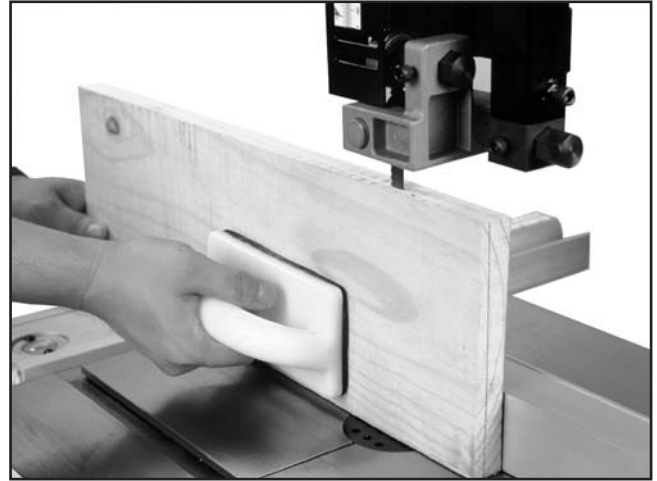


Figure 42. Example of typical resawing technique.

WARNING

Do not force the wood into the blade during cutting. This will distort the blade, cause excessive heat and often results in blade breakage. Breakage can cause serious personal injury.

When resawing, consider using an auxiliary fence that is higher than the standard fence. This provides a more solid surface for the workpiece to slide against. An auxiliary fence can be made from any straight and flat piece of lumber and can be bolted or screwed to the standard fence.

When using a fence to guide the board, the actual line of cut may not be exactly parallel to the fence. This is due to a number of reasons involving the configuration of the table, condition of the blade, the cutting forces, and the blade tension. To correct this condition, refer to the **Blade Lead** instructions on **Page 33**.



Cutting Curves

When cutting curves, simultaneously feed and turn the stock carefully so that the blade follows the layout line without twisting. If a curve is so abrupt that it is necessary to repeatedly back up and cut a new kerf, use either a narrower blade or a blade with more TPI (teeth per inch), or make more relief cuts.

Always make short cuts first, then proceed to the longer cuts. Relief cuts will also reduce the chance that the blade will be pinched or twisted. Relief cuts are cuts made through the waste portion of the workpiece and are stopped at the layout line. As you cut along the layout line, waste wood is released from the workpiece, alleviating any pressure on the back of the blade. Relief cuts also make backing the workpiece out easier, if needed.

NOTICE

The list below displays blade widths and the corresponding minimum radii for those blade widths.

Width	Radius
1/8"	1/8"
3/16"	3/8"
1/4"	5/8"
3/8"	1 1/4"
1/2"	2 1/2"
5/8"	3 3/4"
3/4"	5 1/2"

Stacked Cuts

One of the benefits of a bandsaw is its ability to cut multiple copies of a particular shape by stacking a number of workpieces together. Before making stacked cuts, ensure that both the table and the blade are properly adjusted to 90°. Otherwise, any error will be compounded.

To complete a stacked cut:

1. Align your pieces from top to bottom to ensure that each piece has adequate scrap to provide a clean, unhampered cut.
2. Secure all the pieces together in a manner that will not interfere with the cutting. Hot glue on the edges works well, as do brad nails through the waste portion. (Be careful not to cut into the brads or you may break the blade!)
3. On the face of the top piece, lay out the shape you intend to cut.
4. Make relief cuts perpendicular to the outline of your intended shape in areas where changes in blade direction could strain the woodgrain or cause the blade kerf to bind.
5. Cut the stack of pieces as though you were cutting a single piece. Follow your layout line with the blade kerf on the waste side of your line as shown in **Figure 43**.

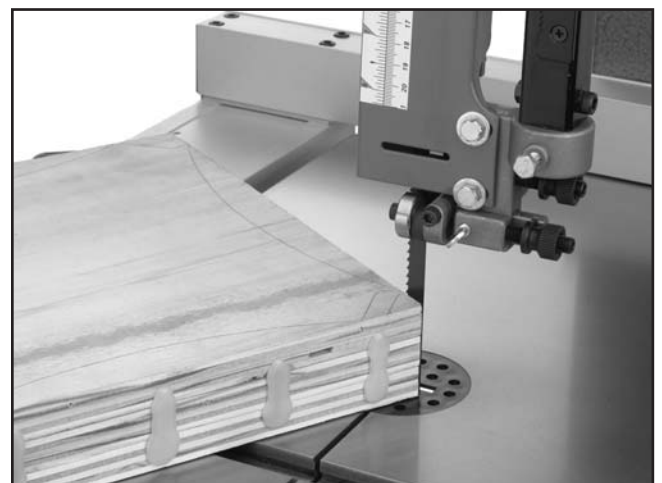


Figure 43. Typical stacked cut.



Blade Information

Selecting the right blade requires a knowledge of the various blade characteristics to match the blade with the particular cutting operation.

Blade Length

Measured by the circumference, blade lengths are usually unique to the brand of your bandsaw and the distance between wheels. The Model G0506X/G0506X3 is designed for blades that are 148½" long. Refer to **Page 41** for blade replacements.

Blade Width

Measured from the back of the blade to the tip of the blade tooth (the widest point), blade width is often the first consideration given to blade selection. Blade width dictates the largest and smallest curve that can be cut, as well as how accurately it can cut a straight line.

The Model G0506X/G0506X3 can use blades from ⅜" to 1" in width. Always pick the size of blade that best suits your application.

- **Curve Cutting:** Use the chart in **Figure 44** to determine the correct blade for curve cutting. Determine the smallest radius curve that will be cut on your workpiece and use the corresponding blade width.

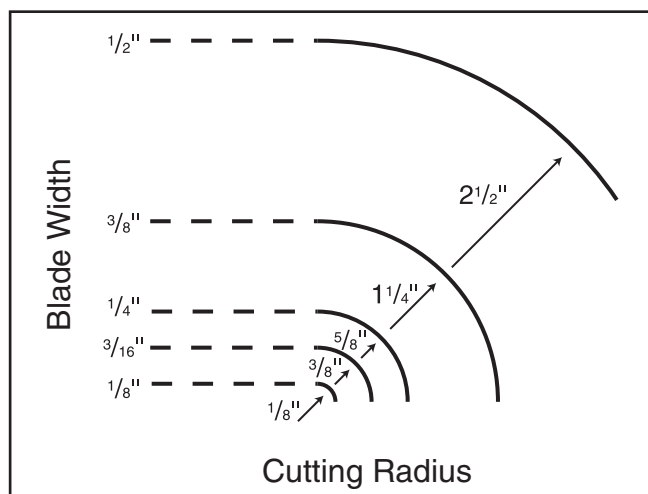


Figure 44. Blade width radii.

- **Straight Cutting:** Use the largest width blade that you own. Narrow blades can cut tight curves (a small radius) but are not very good at cutting straight lines because they naturally wander (blade lead). However, larger blades are much better at cutting straight lines, but function poorly at cutting small curves because of their size.

Tooth Style

When selecting blades, another option to consider is the shape, gullet size, teeth set and teeth angle—otherwise known as “Tooth Style.”

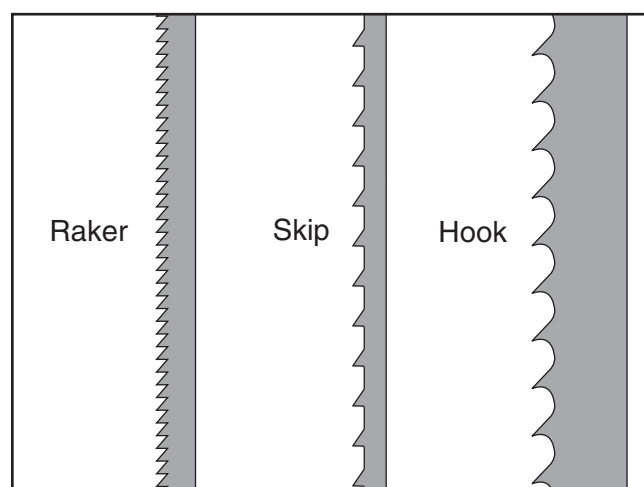


Figure 45. Raker, Skip & Hook tooth styles.

Figure 45 shows the three main categories of tooth style:

- **Raker:** This style is considered to be the standard because the tooth size and shape are the same as the tooth gullet. The teeth on Raker blades usually are very numerous, have no angle, and produce cuts by scraping the material; these characteristics result in very smooth cuts, but do not cut fast and generate more heat while cutting.
- **Skip:** This style is similar to a raker blade that is missing every other tooth. Because of the design, skip toothed blades have a much larger gullet than raker blades, and therefore, cut faster and generate more heat. However, these blades also leave a rougher cut than raker blades.



- **Hook:** The teeth on this style have a positive angle (downward) which makes them dig into the material, and the gullets are usually rounded for easier waste removal. These blades are excellent for the tough demands of resawing and ripping thick material.

Tooth Pitch

Usually measured as TPI (teeth per inch), tooth pitch determines the size of the teeth. More teeth per inch (fine pitch) will cut slower, but smoother; while fewer teeth per inch (coarse pitch) will cut rougher, but faster. As a general rule, choose blades that will have at least three teeth in the material at all times. Use fine pitched blades on harder woods and coarse pitched blades on softer woods.

Blade Care

A bandsaw blade is a delicate piece of steel that is subjected to tremendous strain. You can obtain longer use from a bandsaw blade if you give it fair treatment and always use the appropriate feed rate for your operation.

Be sure to select blades with the proper width, style, and pitch for each application. The wrong choice of blades will often produce unnecessary heat which will shorten the life of your blade.

A clean blade will perform much better than a dirty blade. Dirty or gummed up blades pass through the cutting material with much more resistance than clean blades. This extra resistance also causes unnecessary heat.

Blade Breakage

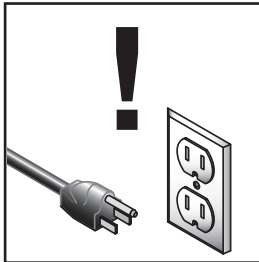
Many conditions may cause a bandsaw blade to break. Blade breakage is unavoidable, in some cases, since it is the natural result of the peculiar stresses that bandsaw blades are subjected to. Blade breakage is also due to avoidable circumstances. Avoidable breakage is most often the result of poor care or judgement on the part of the operator when mounting or adjusting the blade or support guides.

The most common causes of blade breakage are:

- Faulty alignment and adjustment of the guides.
- Forcing or twisting a wide blade around a curve of short radius.
- Feeding the workpiece into the blade too fast.
- Tooth dullness or absence of sufficient set.
- Incorrect tension.
- Top blade guide assembly set too high above the workpiece.
- Using a blade with a lumpy or improperly finished braze or weld.
- Continuously running the bandsaw when not in use.



Blade Changes



! WARNING

Always disconnect power to the machine when changing blades. Failure to do this may result in serious personal injury.



! CAUTION

All saw blades are dangerous and may cause personal injury. To reduce the risk of being injured, wear leather gloves when handling saw blades.

To remove a blade:

1. DISCONNECT BANDSAW FROM POWER!
2. Release the blade tension by turning the blade tension handwheel counterclockwise.
3. Adjust the upper and lower guide bearings as far away as possible from the blade.
4. Open the upper and lower wheel covers, and with gloved hands, slide the blade off of both wheels.
5. Slide the blade through the slot in the table.

To replace a blade:

1. Slide the blade through the table slot, ensuring that the teeth are pointing forward and down toward the table. **Note:** If the teeth will not point downward in any orientation, the blade is inside-out. Put on heavy gloves, remove the blade, and twist it right side-out.
2. Slip the blade through the guides, and mount it on the upper and lower wheels (**Figure 46**).

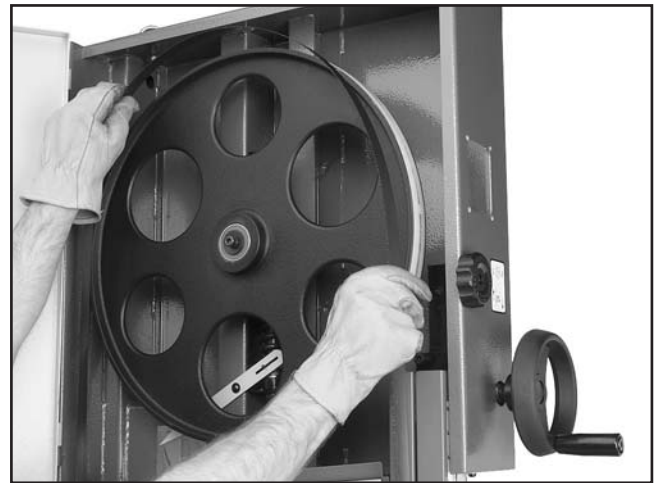


Figure 46. Typical example of placing blade on the wheels.

3. Apply tension to the blade by turning the blade tension handwheel clockwise. Rotate the wheel slowly by hand as tension is applied to allow the blade to center itself on the wheel. Adjust tracking if needed.
4. Adjust tension as described **Page 26**.
5. Adjust the upper/lower guide bearings and the support bearings.
6. Close the wheel covers.



SECTION 5: ACCESSORIES

Replacement Blades

These replacement blades are milled for exact tooth set and are made with high quality tool steel.

148½" Carbon Steel Replacement Blades for the Model G0506X and Model G0506X3.

MODEL	WIDTH	TPI
H4812	⅜"	6 HOOK
H4813	⅜"	10 RAKER
H4814	½"	4 HOOK
H4815	½"	6 HOOK
H4816	¾"	3 HOOK
H4817	1"	6 HOOK
H4818	1"	2 HOOK

148½" Lenox® Carbide-Tipped Blades for the Model G0506X and Model G0506X3.

MODEL	WIDTH	TPI
H4902	⅜"	3-4 VP
H4903	½"	3
H4904	¾"	3
H4905	1"	2-3 VP
H4906	1"	3-4 VP

G1094—Bandsaw Power Feeder with Fence, Single-Phase

G1172—Bandsaw Power Feeder with Fence, 3 Phase



Figure 47. G1094 Bandsaw Power Feeder.

G7315—Super Heavy-Duty SHOP FOX® Mobile Base

This patented, super heavy-duty mobile machine base is the strongest mobile base on the market. 18" x 24-½" minimum and adjusts to 28-½" x 33-½" maximum 1300 lb. capacity. This base is extremely stable with outrigger type supports and a four wheel system. Weighs 61 lbs.



Figure 48. G7315 SHOP FOX® Mobile Base.

G5683—Magnetic Base Light

Light up your work just where you need it. Flexible neck lamp features magnetic base that attaches with the twist of a switch so you can use it on every machine.



Figure 49. G5683 Magnetic Base Light.

Call 1-800-523-4777 To Order



- G7984—Face Shield**
- H1298—Dust Sealed Safety Glasses**
- H1300—UV Blocking, Clear Safety Glasses**
- H2347—Uvex® Spitfire Safety Glasses**
- H0736—Shop Fox® Safety Glasses**

Safety Glasses are essential to every shop. If you already have a pair, buy extras for visitors or employees. You can't be too careful when it comes to shop safety!



Figure 50. Our most popular safety glasses.

- H1302—Standard Earmuffs**
 - H4979—Deluxe Twin Cup Hearing Protector**
 - H4977—Work-Tunes Radio Headset Earmuffs**
- Protect yourself comfortably with a pair of cushioned earmuffs. Especially important if you or employees operate for hours at a time.



Figure 51. Our most popular earmuffs.

- H2499—Small Half-Mask Respirator**
- H3631—Medium Half-Mask Respirator**
- H3632—Large Half-Mask Respirator**
- H3635—Disposable Cartridge Filter Pair P100**

Wood dust is now considered a known carcinogen and has been linked to nasal cancer and severe respiratory illnesses. If you work around dust everyday, a half-mask respirator can be a lifesaver. Also compatible with safety glasses!



Figure 52. Half-mask respirator and disposable cartridge filters.

- G5562—SLIPIT® 1 Qt. Gel**
- G5563—SLIPIT® 12 oz Spray**
- G2871—Boeshield® T-9 12 oz Spray**
- G2870—Boeshield® T-9 4 oz Spray**
- H3788—G96® Gun Treatment 12 oz Spray**
- H3789—G96® Gun Treatment 4.5 oz Spray**

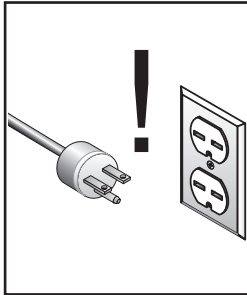


Figure 53. Recommended products for protecting unpainted cast iron/steel on machinery.

Call 1-800-523-4777 To Order



SECTION 6: MAINTENANCE



! WARNING

Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Daily Check:

- Loose mounting bolts.
- Damaged saw blade.
- Worn or damaged wires.
- Any other unsafe condition.

Monthly Check:

- V-belt tension, damage, or wear.
- Clean/vacuum dust buildup from inside cabinet and off motor.

Cleaning

Cleaning your bandsaw is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin dissolving cleaner to remove it. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the table by wiping the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep tables rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **SECTION 5: ACCESSORIES** on **Page 41** for more details).

Lubrication

Sealed and pre-lubricated ball bearings require no lubrication for the life of the bearings. All bearings are standard sizes, and replacements can be purchased from our parts department or a bearing supply store.

For adjustment controls, an occasional “shot” of light oil is just about all that is necessary. Wipe off any sawdust with a clean cloth, towel, or dry paint brush, and spray on the lubricant. Do not get oil on the pulleys or V-belt as it can cause belt deterioration and slipping.

Wheel Brush

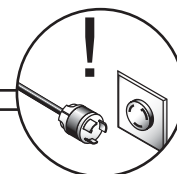
The bandsaw is equipped with a lower wheel brush. The brush should be checked daily and cleaned when it becomes dirty. There is an adjustment bracket that allows the brush to be adjusted for bristle wear. Refer to **Adjusting Wheel Brush** on **Page 47** for adjustment details.



SECTION 7: SERVICE

This section is provided for your convenience—it is not a substitute for the Grizzly Service Department. If you need help troubleshooting, you need replacement parts, or you are unsure of how to perform the procedures in this section, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Plug/receptacle is at fault or wired incorrectly. 2. Motor connection wired incorrectly. 3. Power supply is at fault/switched OFF. 4. Motor ON/OFF switch is at fault. 5. Wiring is open/has high resistance. 6. Start capacitor is at fault. 7. Motor is at fault. 	<ol style="list-style-type: none"> 1. Test for good contact or correct the wiring. 2. Correct motor wiring connections (Page 52). 3. Ensure hot lines have correct voltage on all legs and main power supply is switched ON. 4. Replace faulty ON/OFF switch. 5. Check for broken wires or corroded/disconnected connections, and repair/replace as necessary. 6. Test/replace if faulty. 7. Repair/replace.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Wrong workpiece material (wood). 2. Processing speed too fast for task. 3. V-belt slipping. 4. Blade is slipping on wheels. 5. Low power supply voltage. 6. Plug/receptacle is at fault. 7. Motor connection is wired incorrectly. 8. Motor bearings are at fault. 9. Motor has overheated. 10. Motor is at fault. 	<ol style="list-style-type: none"> 1. Use wood with correct moisture content, without glues, and little pitch/resins. 2. Decrease processing speed. See Basic Cutting Tips on Page 31. 3. Replace bad V-belt, align pulleys, and re-tension (Page 47). 4. Adjust blade tracking and tension to factory specifications. See Page 24 or 26. 5. Ensure all hot lines have correct voltage on all legs. 6. Test for good contacts and correct wiring. 7. Correct motor wiring connections (Page 52). 8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 9. Let motor cool, clean it off, and reduce workload. 10. Repair/replace.

! WARNING

Disconnect power to the machine when performing any troubleshooting. Failure to do this may result in serious personal injury.



Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation when running.	<ol style="list-style-type: none"> 1. Blade weld hits guides or teeth are broken. 2. Bent or worn out blade. 3. Motor or component is loose. 4. V-belt worn or loose. 5. Motor fan is rubbing on fan cover. 6. Pulley is loose. 7. Machine is incorrectly mounted or sits unevenly on floor. 8. Motor bearings are at fault. 9. Worn arbor bearings. 10. Wheels not coplanar/aligned correctly. 11. Tires incorrectly installed on wheels. 12. Wheels out of balance. 	<ol style="list-style-type: none"> 1. Replace blade (Page 40). 2. Replace blade (Page 40). 3. Inspect/replace stripped or damaged bolts/nuts, and re-tighten with thread locking fluid. 4. Inspect/replace belt (Page 47). 5. Replace dented fan cover and loose/damaged fan. 6. Realign/replace shaft, pulley, setscrew, and key as required. 7. Relocate or remount machine. 8. Test by rotating shaft — rotational grinding/loose shaft requires bearing replacement. 9. Check/replace arbor bearings. 10. Adjust wheel alignment to coplaner (Page 48). 11. Re-install tires on wheels. 12. Replace wheels.

Cutting Operations



Symptom	Possible Cause	Possible Solution
Machine slows when operating.	<ol style="list-style-type: none"> 1. Feeding workpiece too fast. 2. Blade is dull. 	<ol style="list-style-type: none"> 1. Reduce feed rate. See Basic Cutting Tips on Page 31. 2. Replace blade (Page 40).
Ticking sound when the saw is running.	<ol style="list-style-type: none"> 1. Blade weld contacting support bearing. 2. Blade weld may be failing. 	<ol style="list-style-type: none"> 1. Use file or stone to smooth and round the back of the blade. 2. Inspect and replace blade if necessary (Page 40).
Blade contacting table insert.	<ol style="list-style-type: none"> 1. Excessive side pressure when cutting. 2. Table improperly adjusted. 	<ol style="list-style-type: none"> 1. Reduce side pressure. 2. Adjust table (Page 29).
Vibration when cutting.	<ol style="list-style-type: none"> 1. Loose or damaged blade. 2. Blade is tracking incorrectly. 3. Blade tension is loose. 	<ol style="list-style-type: none"> 1. Tighten or replace blade. See Page 26 or 40. 2. Fix blade tracking. 3. Fix blade tension.
Burn marks on the edge of the cut.	<ol style="list-style-type: none"> 1. Too much side pressure when feeding workpiece. 2. Blade too wide for size of radius being cut. 	<ol style="list-style-type: none"> 1. Feed workpiece straight into the blade. See Basic Cutting Tips on Page 31. 2. Install a smaller width blade/increase blade tension. See Page 26 or 40.
Rough or poor quality cuts.	<ol style="list-style-type: none"> 1. Feeding workpiece too fast. 2. Tracking and tension incorrect. 	<ol style="list-style-type: none"> 1. Reduce feed rate. See Basic Cutting Tips on Page 31. 2. Fix tracking and tension.
Sawdust buildup inside cabinet.	<ol style="list-style-type: none"> 1. Clogged dust port. 2. Low CFM (airflow) from dust collection system. 	<ol style="list-style-type: none"> 1. Clean out dust port. 2. Three options: <ul style="list-style-type: none"> —Check dust lines for leaks or clogs. —Move dust collector closer to saw. —Install a stronger dust collector.
Blade wanders or won't follow line of cut.	<ol style="list-style-type: none"> 1. Blade lead. 	<ol style="list-style-type: none"> 1. Refer to Blade Lead on Page 33.



Checking and Tensioning V-Belt

To ensure optimum power transmission from the motor to the blade, the V-belt must be in good condition and operate under proper tension. The belt should be checked for cracks, fraying, and wear. Belt tension should be checked at least every 3 months—more often if the bandsaw is used daily.

Tools Needed:	Qty
Ruler.....	1
Wrench $\frac{9}{16}$	1
Wrench $\frac{3}{4}$	1

To check the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Note the condition of the V-belt. If the V-belt is cracked, frayed, or glazed; it should be replaced as soon as convenient.
4. Push the center of the V-belt. Note the amount of deflection (**Figure 54**). If deflection is more than $\frac{3}{4}$ ", tension the V-belt. (Refer to the instructions in **Tensioning V-Belt**.)

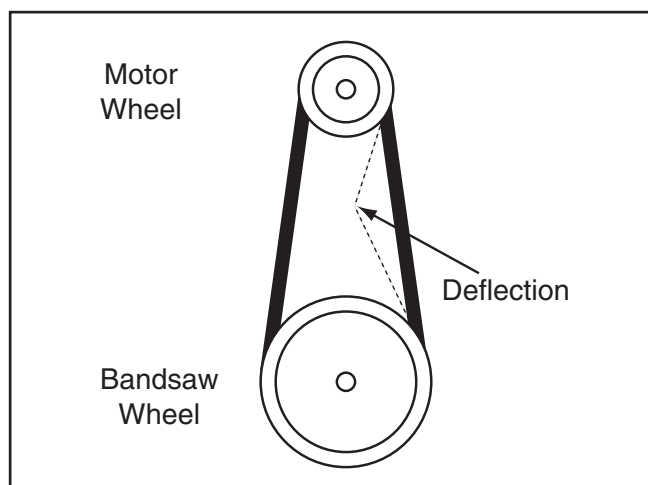


Figure 54. V-belt deflection.

To tension the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Loosen the motor adjustment bolts shown in **Figure 55**.

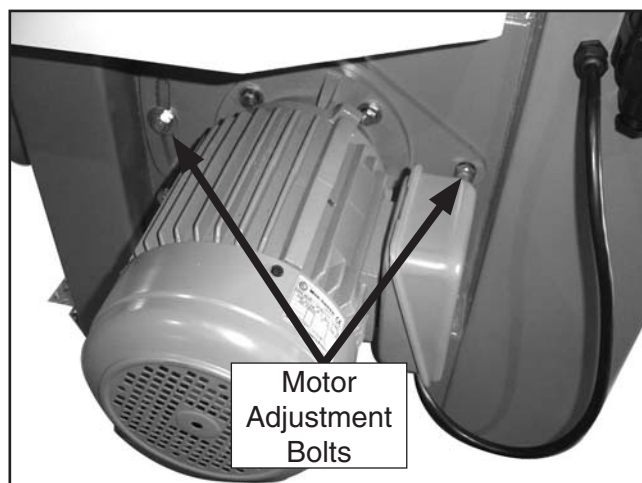


Figure 55. Motor mount screws.

4. Turn the bottom jam nut on the shaft shown in **Figure 56** clockwise to tension the V-belt.

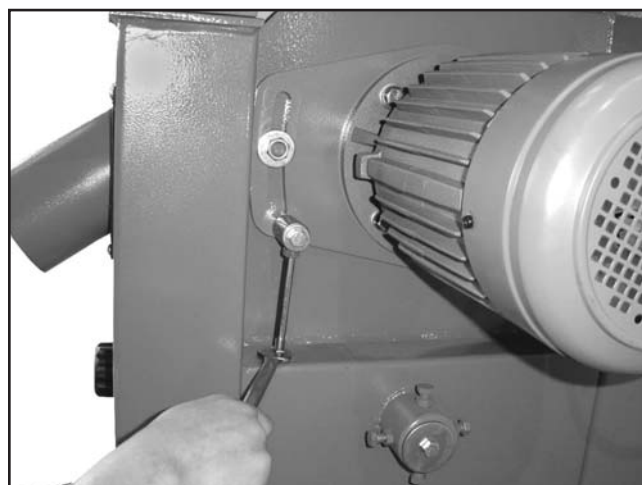


Figure 56. Tightening jam nut.



5. Push the center of the V-belt. If deflection is approximately $\frac{3}{4}$ ", then the tension is correct. If the deflection is more than $\frac{3}{4}$ ", repeat **Step 4**.
6. When the V-belt tension is correct, tighten the motor adjustment bolts and close the lower wheel cover.

Replacing V-Belt

Tools Needed: **QTY**
Wrench $\frac{9}{16}$ 1

To replace the V-belt:

1. DISCONNECT BANDSAW FROM POWER!
2. Open both wheel covers, and remove the blade.
3. Loosen the motor adjustment bolts shown in **Figure 55** and turn the jam nut on the shaft (**Figure 56**) counterclockwise to remove tension on the V-belt.
4. Remove the wheel adjustment control shaft center bolt and washer (**Figure 57**).

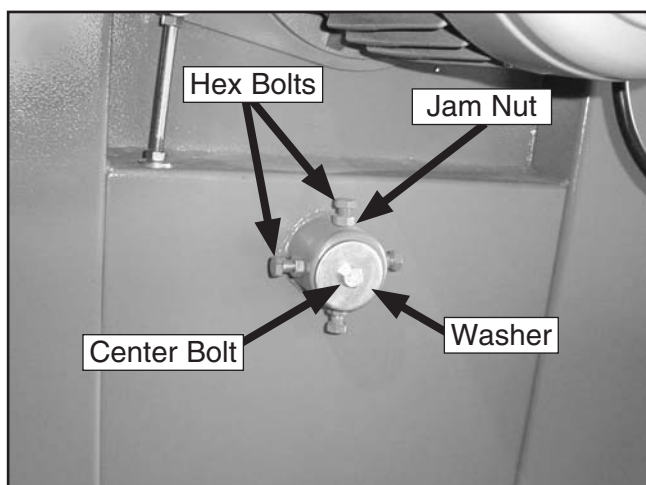


Figure 57. Wheel adjustment control shaft.

5. Remove two hex bolts (**Figure 57**) on the wheel adjustment control.
6. Remove the lower wheel.

7. Pull the V-belt off of the motor and wheel pulleys, and install the new V-belt in its place.
8. Reinstall the lower wheel.
9. Reinstall the hex bolts, the center bolt, and washer.
10. Using a wrench, tighten all the hex bolts and secure the jam nuts.
11. Turn the bottom jam nut on the shaft shown in **Figure 56** clockwise to tension the V-belt, then tighten the motor adjustment bolts (**Figure 55**).
12. Check the V-belt tension and adjust if necessary as described in the **Tensioning V-Belt** instructions.
13. When the V-belt tension is correct, close the lower wheel cover.

Adjusting Wheel Brush

The lower wheel compartment contains the wheel brush shown in **Figure 58**. This brush is designed to sweep sawdust off the wheel tire as the bandsaw is operating. In order to work properly the brush must be making contact with the wheel.

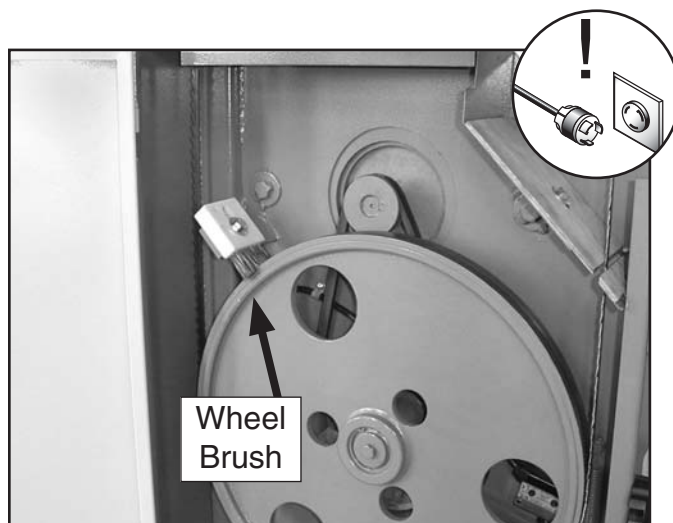


Figure 58. The wheel brush.



Tools Needed:	QTY
Wrench/Socket 1/2"	2

To adjust the wheel brush:

1. DISCONNECT BANDSAW FROM POWER!
2. Open the lower wheel cover.
3. Loosen the bolt/nut that secures the wheel brush in place.
4. Adjust the wheel brush so it makes good contact with the wheel.
5. Tighten the bolt/nut to secure the wheel brush in place.

Wheel Alignment

Components and Hardware Needed:	Qty
60" Long 2x4	1

Tools Needed:

Wrench 13mm	1
Tape Measure	1
Coplanarity Gauge (see Figure 59)	1

Wheel alignment is one of the most critical factors for optimal performance from your bandsaw.

Heat, vibration, wandering, blade wear, tire wear and overall bandsaw wear are considerably decreased when the wheels are properly aligned or "coplanar."

Coplanar wheels automatically track the blade by balancing it on the crown of the wheel. This is known as coplanar tracking.

To check if your wheels are coplanar (Checking coplanarity):

1. Make the "Coplanarity Gauge" shown in **Figure 59**. **Note:** For best results, straighten the 2x4 with a jointer before cutting.
2. Remove the fence and table, then open both wheel covers.

3. Make sure the guide bearings and support bearings are away from the blade, then tighten your blade to the tension that it will be used during operation.
4. Place your coplanarity gauge up against both wheels in the positions shown in **Figure 60**.

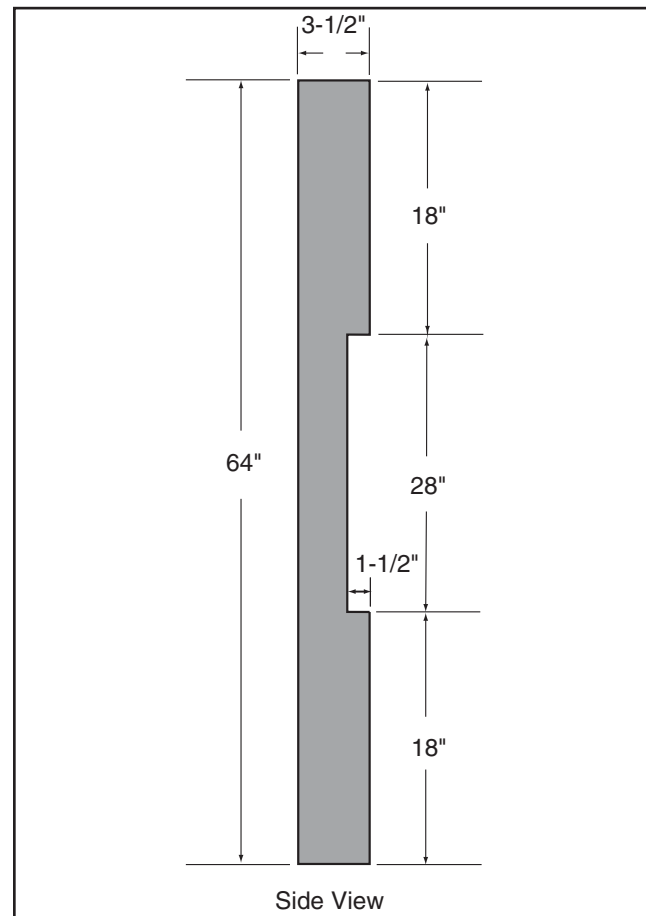


Figure 59. Dimensions of coplanarity gauge.

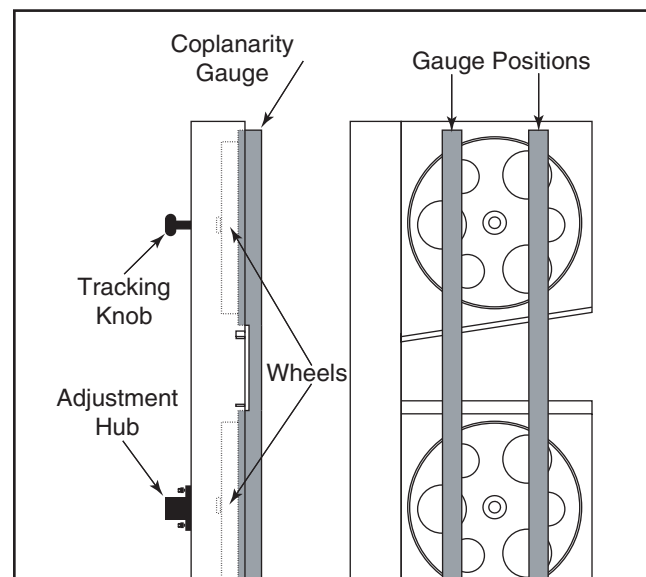


Figure 60. Checking for coplanarity.

G0506X/G0506X3 Extreme Series Bandsaw



5. Adjust the tracking knob to get both wheels parallel. If the wheels won't go parallel to each other, then move the lower wheel at the adjustment hub (**Figure 61**) so they line up.
6. If the wheels will go parallel but not coplanar, measure the distance between the coplanarity gauge and the wheel that is sitting too far back and shim the required wheel out as necessary, using thin 25mm washers on the shaft behind the wheel. Follow instructions for shimming the lower and upper wheel on **Page 50**.
7. **Figure 62** shows the positions of the wheels when coplanar. When your wheels are coplanar, readjust the guide bearings and support bearings, and close the wheel covers.

Note: *The blade may track slightly off-center when the wheels are coplanar. This is natural because the blade will be balanced on the crown of the tire, rather than just in the center of the tire. This will be more noticeable with larger blades.*

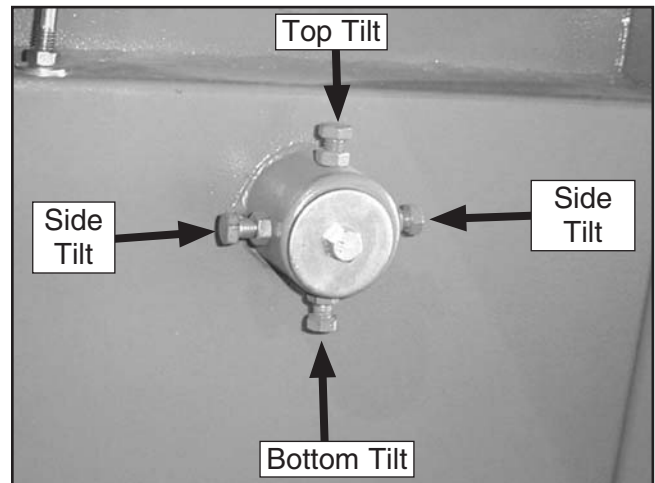


Figure 61. Lower wheel adjustment hub.

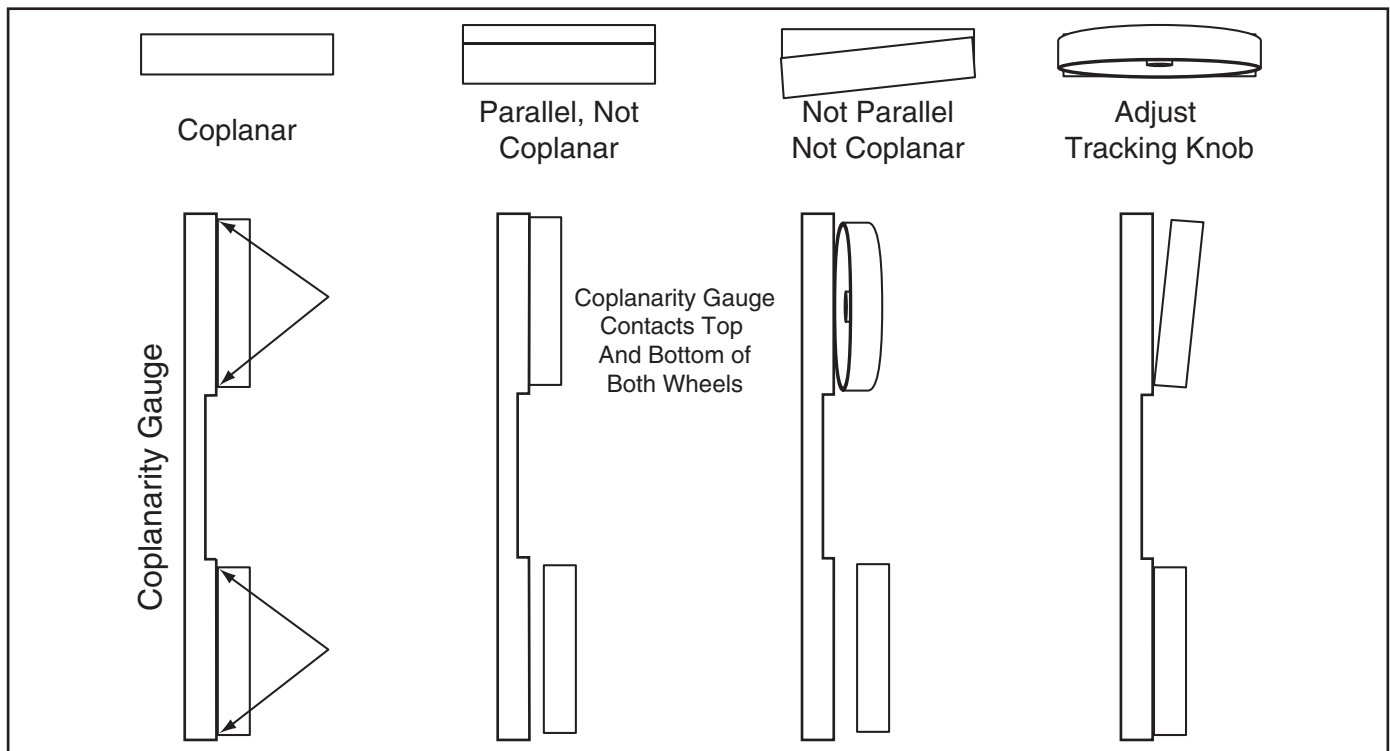


Figure 62. Coplanarity diagram.



To shim the lower wheel:

Note: Only do this adjustment if the lower wheel is sitting too far back and adjustments in **Step 5 (See Checking Coplanarity)** did not work.

1. Follow **Replacing V-Belt** instructions, **Steps 1-6** on **Page 47**.
2. Install several 25mm shim washers on the shaft (**Figure 63**) equal in thickness to the distance between the coplanarity gauge and the wheel.

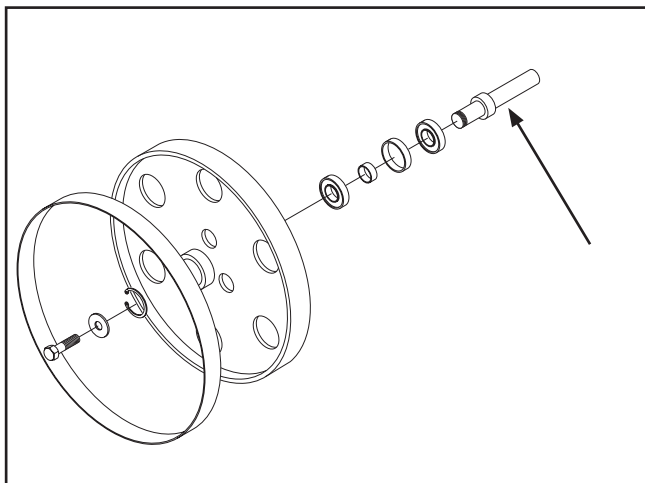


Figure 63. Location for installing shims on lower wheel shaft.

3. Follow **Steps 8-12** on **Page 47**.
4. Place the coplanarity gauge against the wheels and check to see if they are coplanar.
5. Continue adjustments in **Step 5 (See Checking Coplanarity)** and **Steps 1-4** above until the wheels are coplanar.

To shim the upper wheel:

Note: Only do this adjustment if the upper wheel is sitting too far back and adjustments in **Step 5 (See Checking Coplanarity)** did not work.

1. Loosen the jam nut and remove the bolt shown in **Figure 64**.

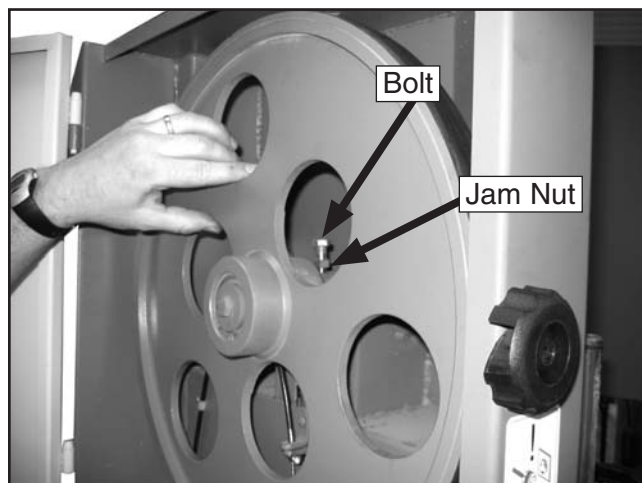


Figure 64. Bolt and jam nut securing upper wheel.

2. Remove the wheel and add thin 25mm shim washers on the shaft (**Figure 65**) behind the wheel equal in thickness to the coplanarity gauge-wheel distance.

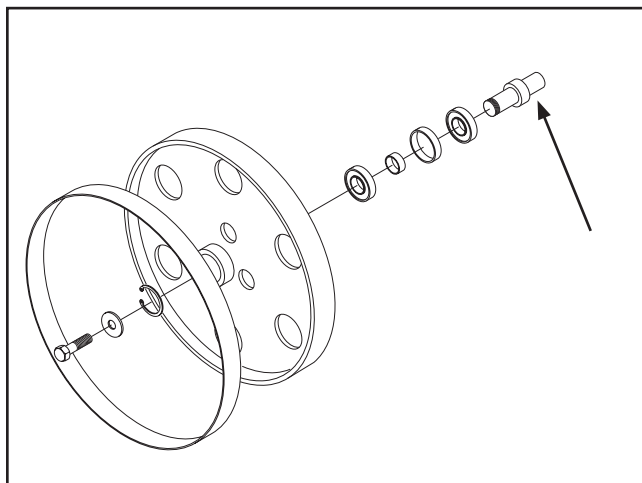
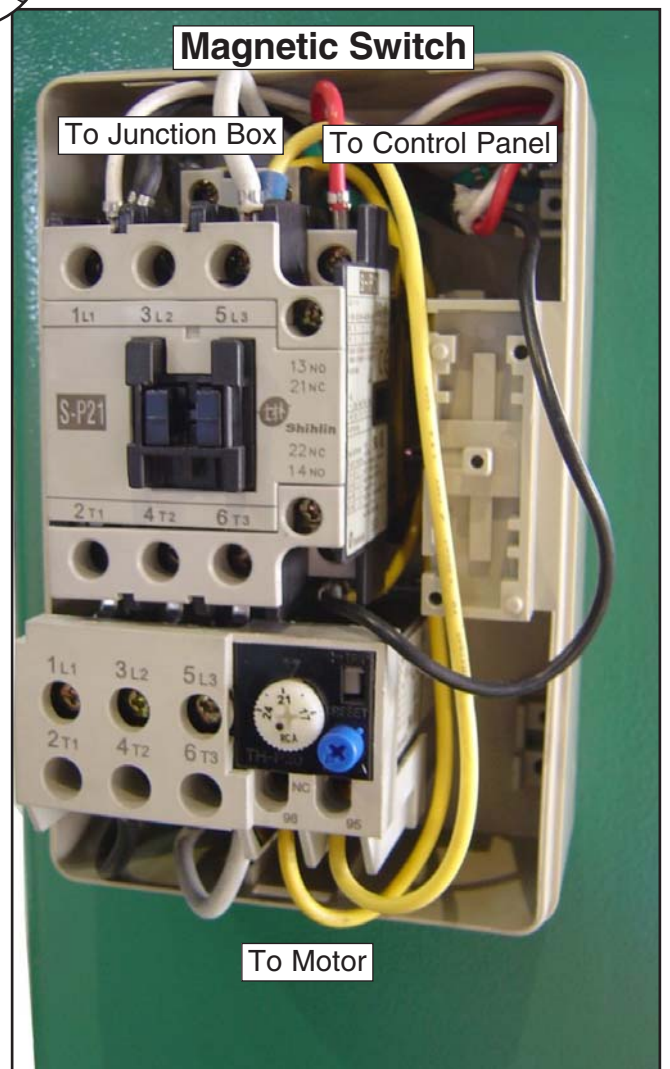
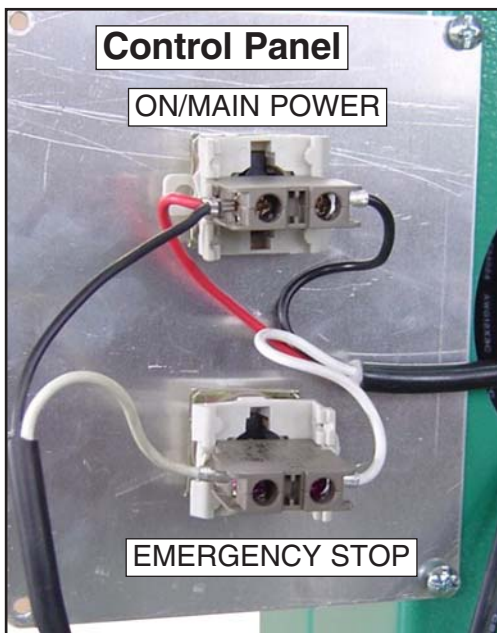
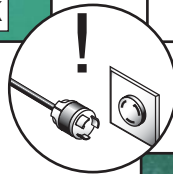
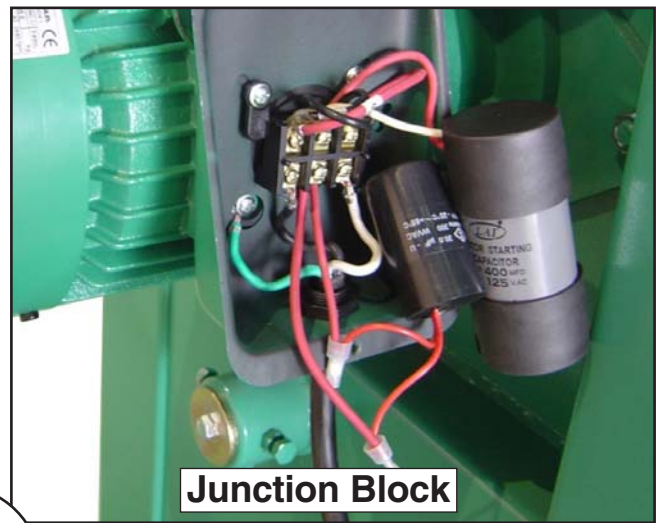


Figure 65. Location for installing shims on upper wheel shaft.

3. Reinstall the wheel, reinstall the bolt removed in **Step 2**, and secure the jam nut.
4. Place the coplanarity gauge against the wheels and check to see if they are coplanar.
5. Continue adjustments in **Step 5 (See Checking Coplanarity)** and **Steps 1-4** above until the wheels are coplanar.



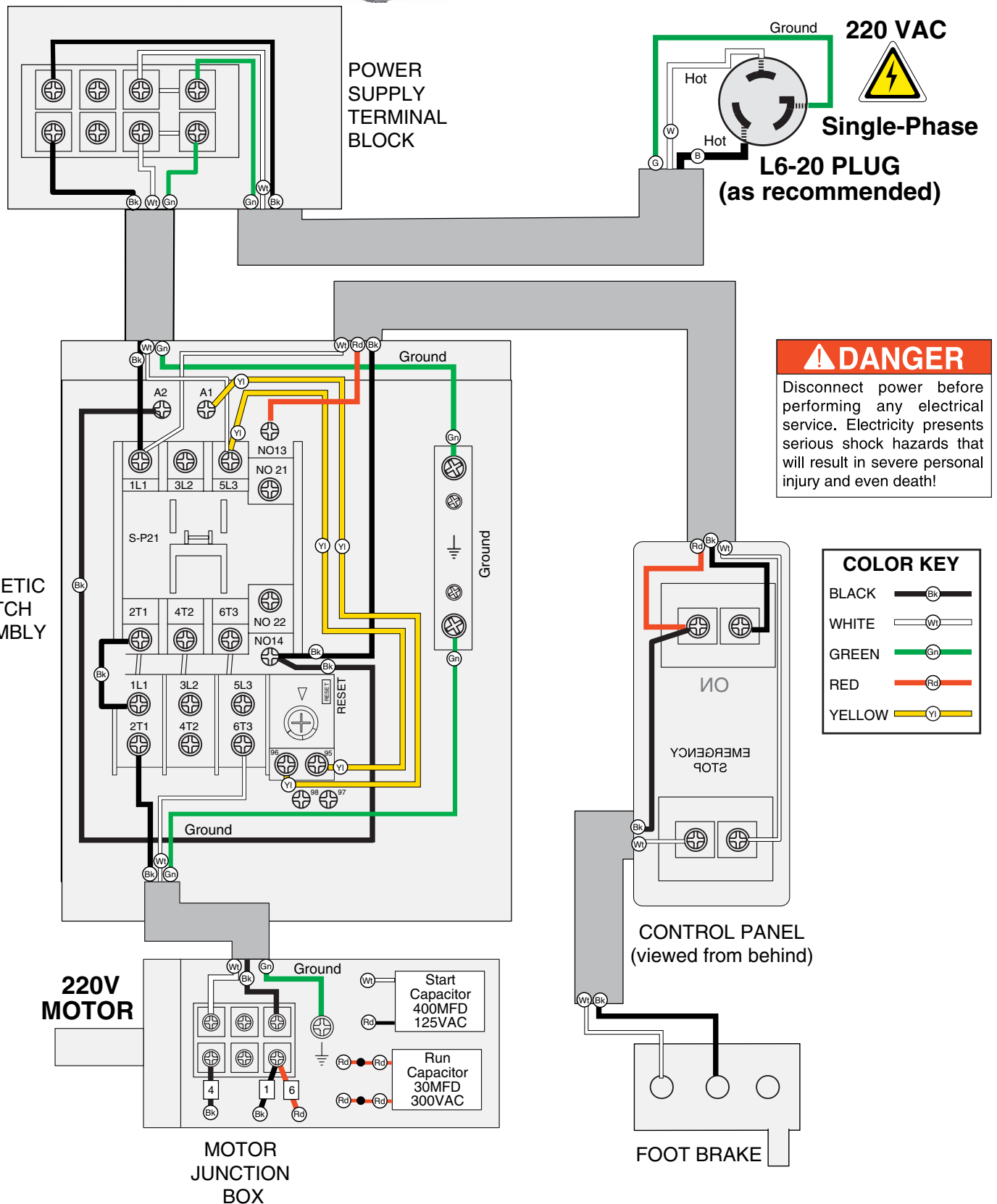
G0506X Electrical Components



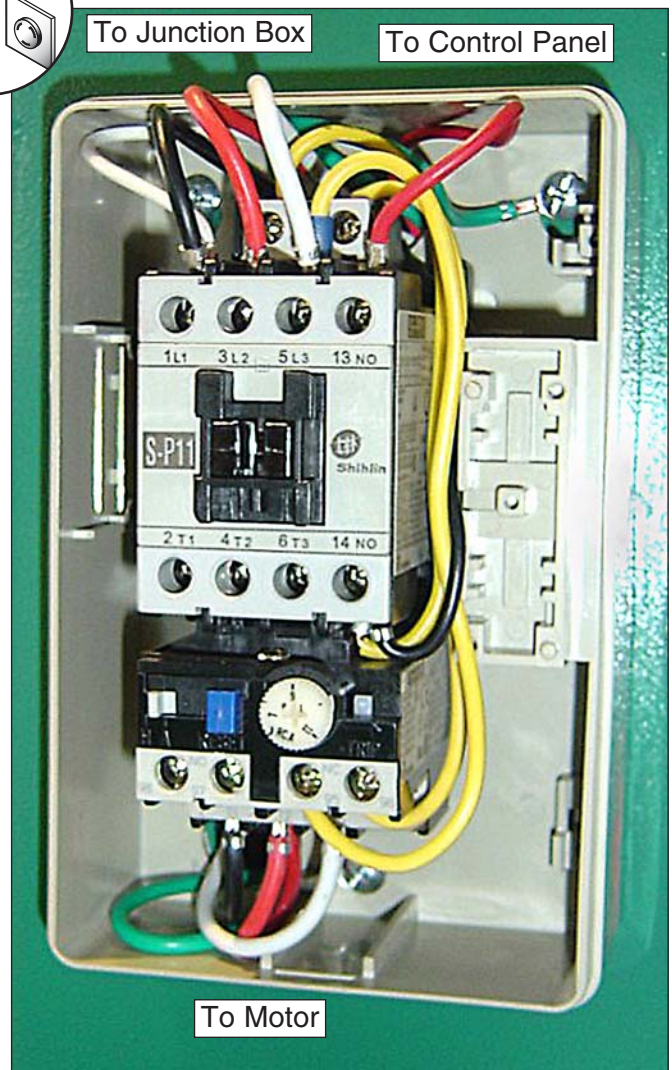
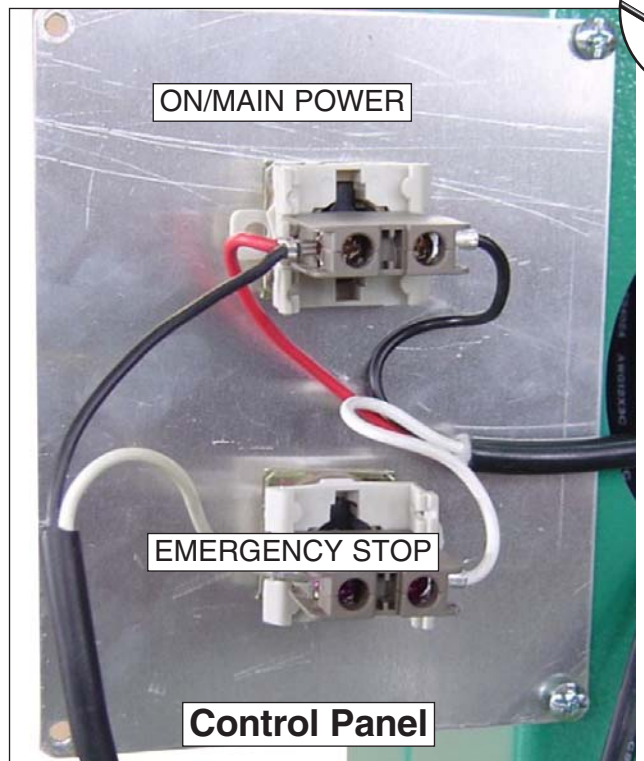
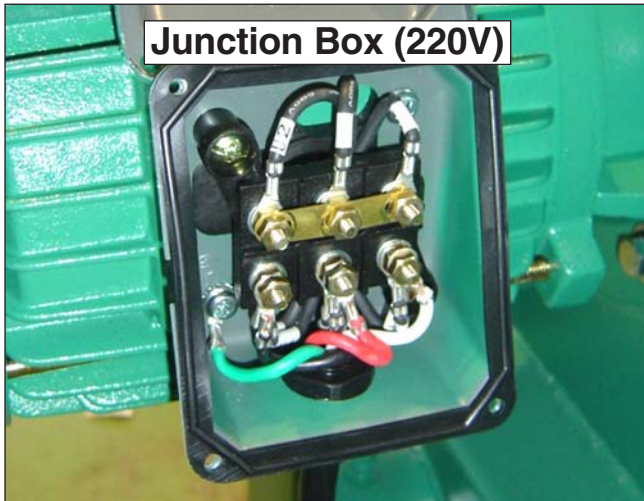
G0506X Single-Phase Wiring Diagram



MODEL G0506X



G0506X3 Electrical Components

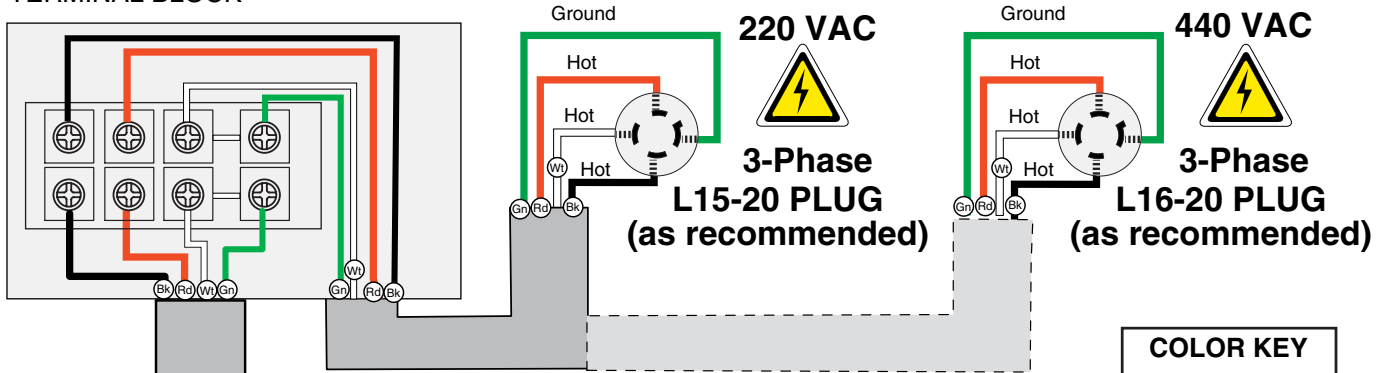


G0506X3 Three-Phase Wiring Diagram



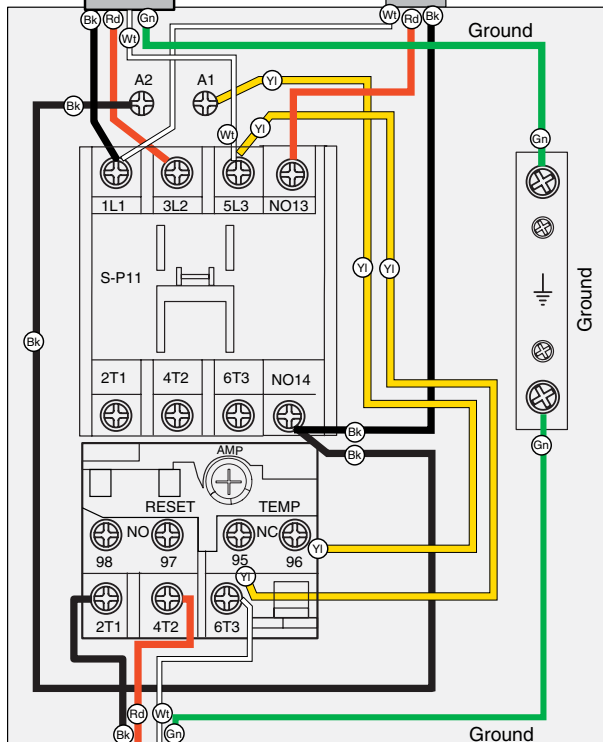
POWER SUPPLY
TERMINAL BLOCK

MODEL G0506X3

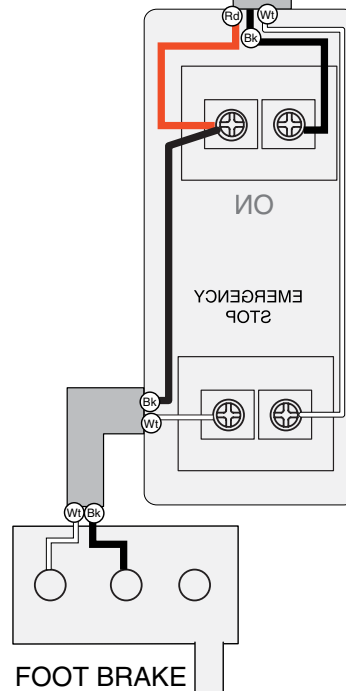


COLOR KEY	
BLACK	— Bk —
WHITE	— Wh —
GREEN	— Gn —
RED	— Rd —
YELLOW	— Yl —

MAGNETIC
SWITCH
ASSEMBLY



CONTROL PANEL
(viewed from behind)



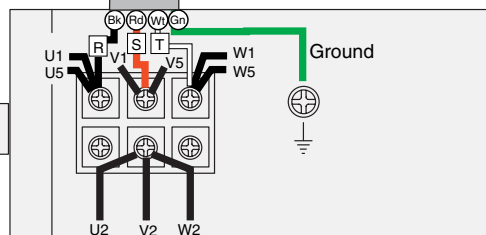
NOTICE

If motor rotates in the opposite direction, swap the black or red wires at the power source.

⚠ DANGER

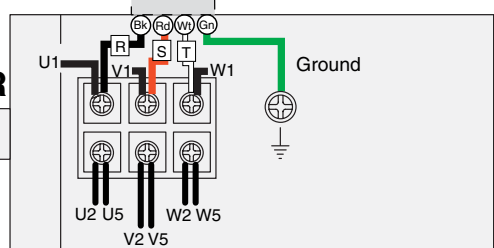
Disconnect power before performing any electrical service. Electricity presents serious shock hazards that will result in severe personal injury and even death!

220V
MOTOR



MOTOR
JUNCTION
BOX

440V
MOTOR

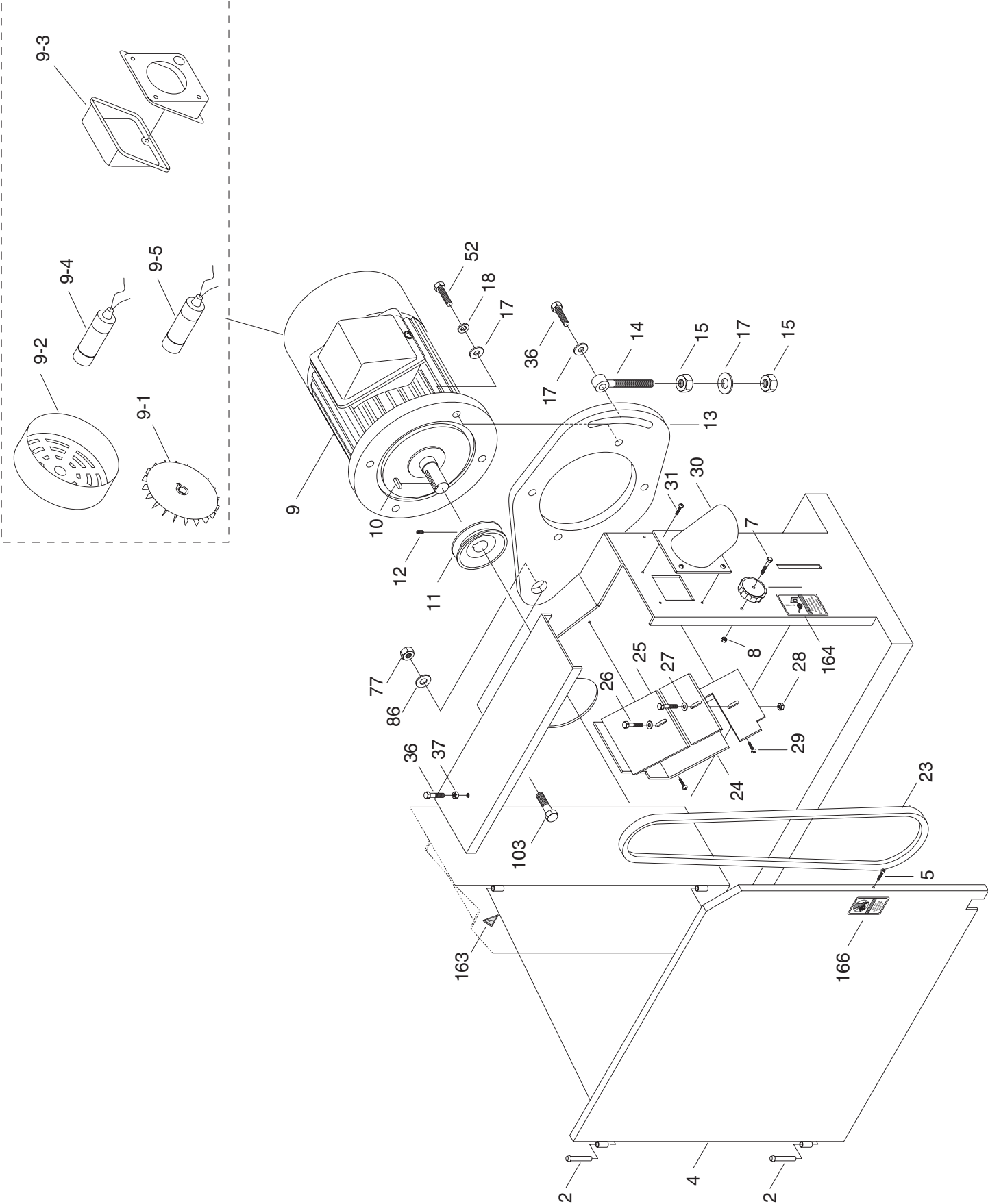


MOTOR
JUNCTION
BOX

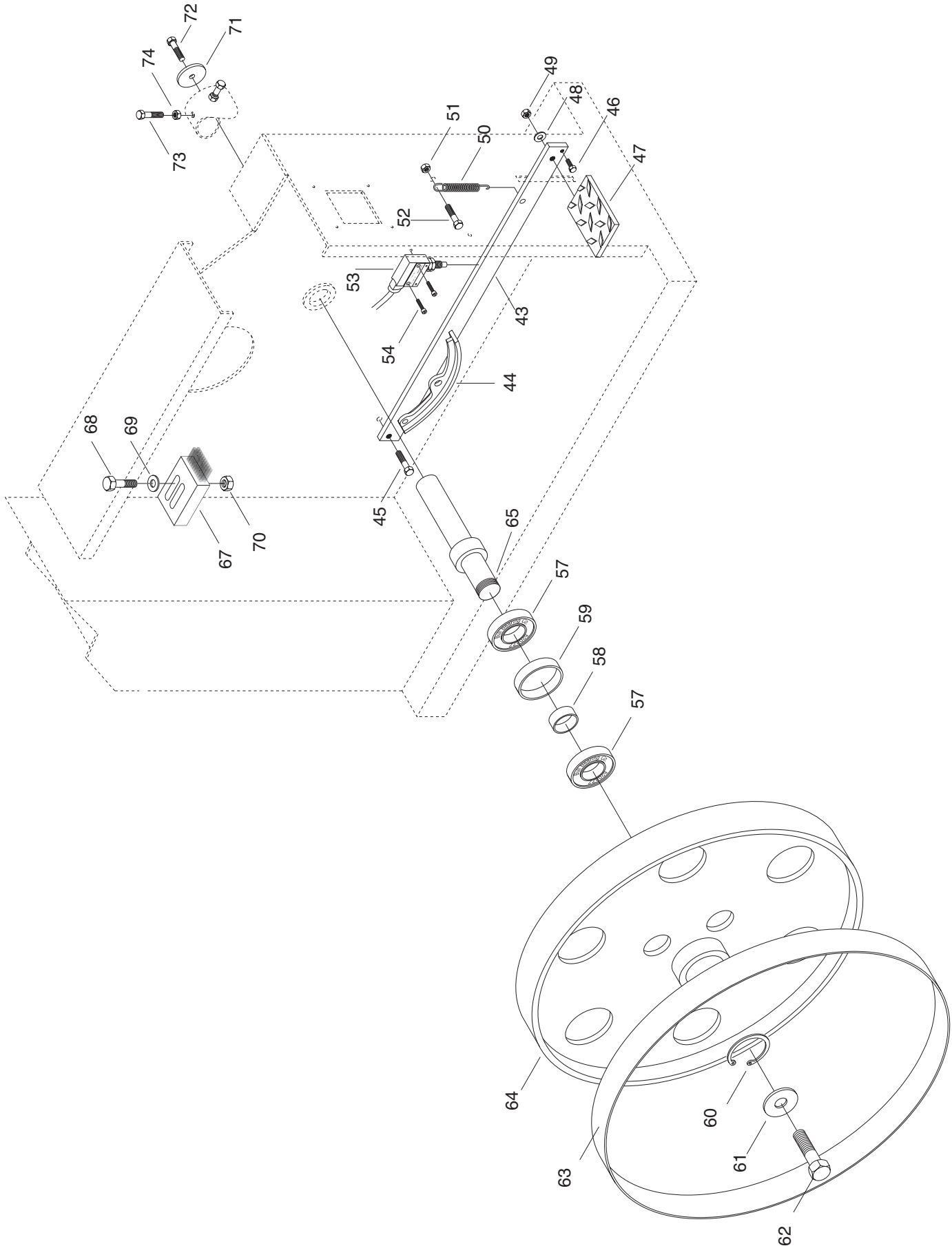
(must also replace magnetic switch assembly for 440V)



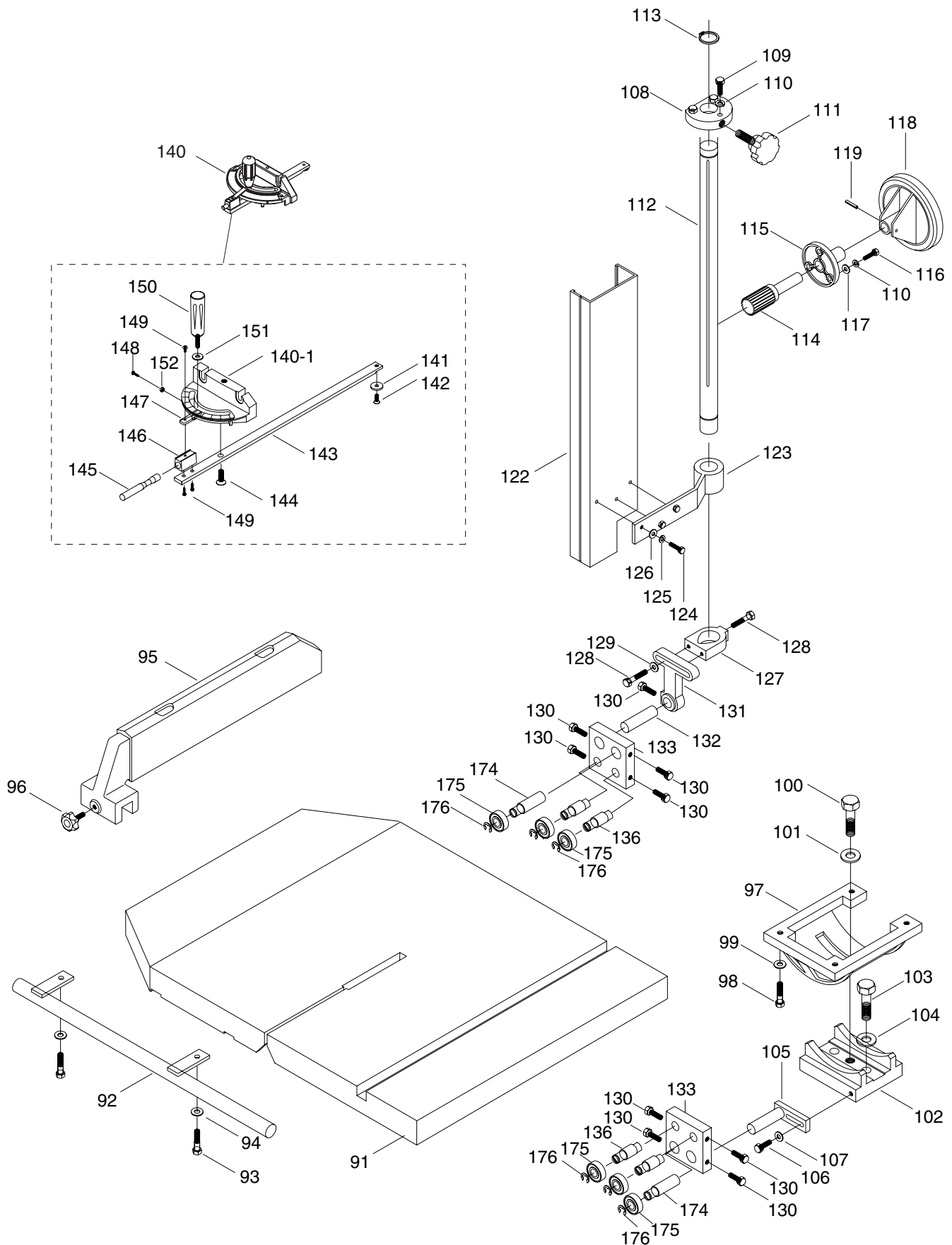
G0506X/G0506X3 Lower Frame and Motor



G0506X/G0506X3 Lower Wheel Assembly

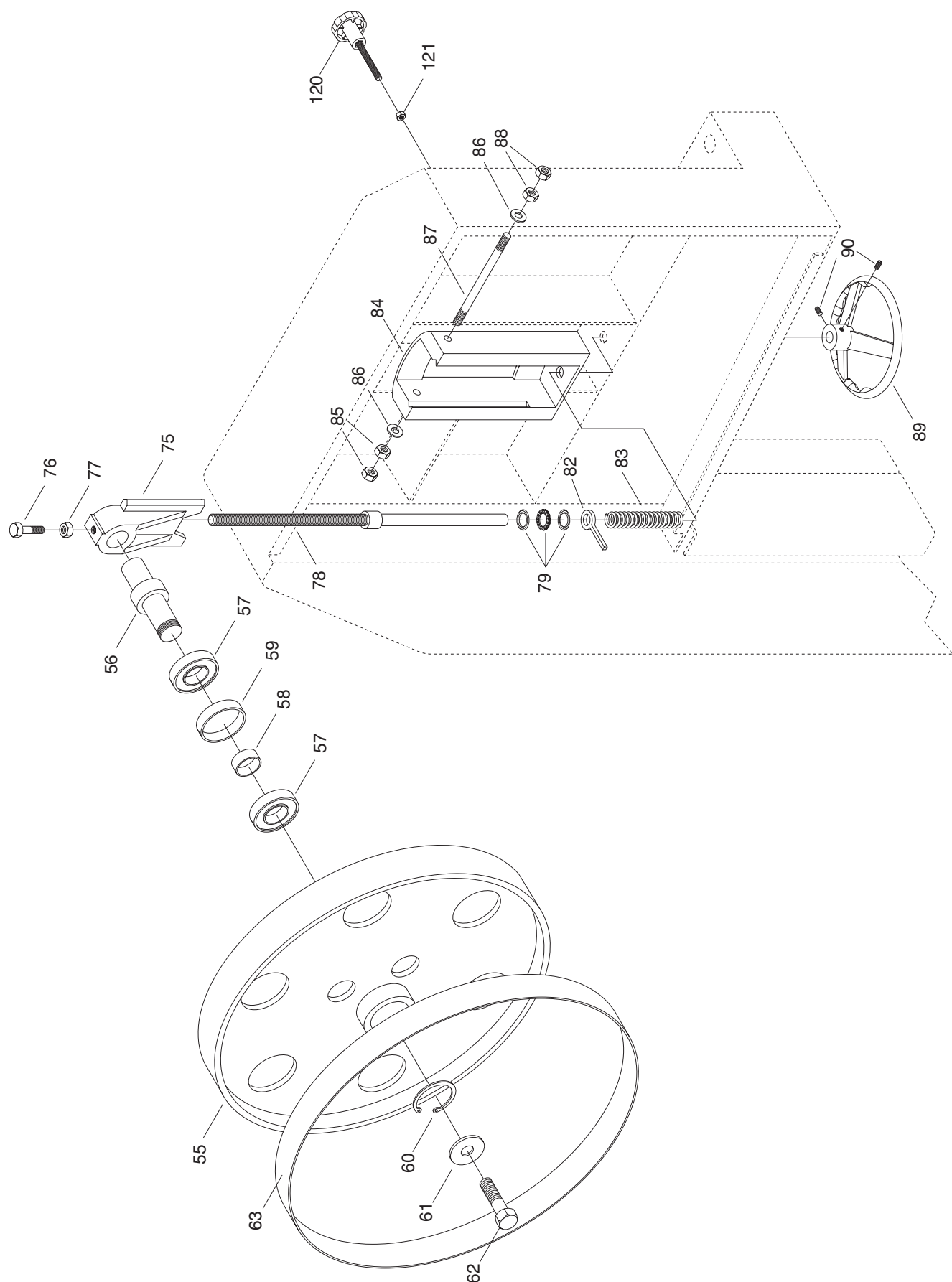


G0506X/G0506X3 Table and Blade Guides



[illegible]

G0506X/G0506X3 Upper Wheel Assembly



G0506X/G0506X3 Parts List

REF	PART #	DESCRIPTION
1	P0506001	FRAME
2	P0506002	HINGE PIN
3	P0506003	UPPER WHEEL GUARD
4	P0506004	LOWER WHEEL GUARD
5	PSB17	CAP SCREW 1/4-20 X 3/8
6	P0506006	WHEEL GUARD LOCK KNOB
7	PSB05	CAP SCREW 1/4-20 X 3/4
8	PN05	HEX NUT 1/4-20
9	P0506X009	MOTOR 3HP, 1 PHASE (G0506X)
9	P0506X3009	MOTOR 3HP, 3 PHASE (G0506X3)
9-1	P0506X009-1	MOTOR FAN (G0506X)
9-1	P0506X3009-1	MOTOR FAN (G0506X3)
9-2	P0506X009-2	FAN COVER (G0506X)
9-2	P0506X3009-2	FAN COVER (G0506X3)
9-3	P0506X009-3	JUNCTION BOX (G0506X)
9-3	P0506X3009-3	JUNCTION BOX (G0506X3)
9-4	P0506X009-4	START CAPACITOR 400MFD-125VAC
9-5	P0506X009-5	RUN CAPACITOR 30MFD, 300VAC
10	PK43M	KEY 8 X 8 X 45
11	P0506011	MOTOR PULLEY
12	PSS08	SET SCREW 5/16-18 X 1/2
13	P0506013	MOTOR FLANGE
14	P0506X014	SPECIAL BOLT 3/8-16 X 1-1/4
15	PN08	HEX NUT 3/8-16
17	PW02	FLAT WASHER 3/8
18	PLW04	LOCK WASHER 3/8
23	PVA37	V-BELT A-37 4L370
24	P0506024	DUST BOARD
25	P0506025	WOOD BOARD
26	PB07	HEX BOLT 5/16-18 X 3/4
27	PW07	FLAT WASHER 5/16
28	PN02	HEX NUT 5/16-18
29	PS06	PHLP HD SCR 10-24 X 3/8
30	P0506030	DUST PORT
31	PS06	PHLP HD SCR 10-24 X 3/8
32	P0506032	BLADE TENSION SCALE
33	PSB41	CAP SCREW 10-24 X 1/2
34	P0506034	WIRE BRACKET
35	PS06	PHLP HD SCR 10-24 X 3/8
36	PB58	HEX BOLT 3/8-16 X 2
37	PN08	HEX NUT 3/8-16
38	P0506X038	MAG SWITCH 3HP-1 PH, 22A (G0506X)
38	P0506X3038	MAG SWITCH 3HP-3 PH, 9A (G0506X3)
38-1	P0506X038-1	MAG SWITCH BACK COVER (G0506X)
38-1	P0506X3038-1	MAG SWITCH BACK COVER (G0506X3)
38-2	P0506X038-2	CONTACTOR (G0506X)
38-2	P0506X3038-2	CONTACTOR (G0506X3)
38-3	P0506X038-3	THERMAL OVERLOAD RELAY (G0506X)
38-3	P0506X3038-3	THERMAL OVERLOAD RELAY (G0506X3)
38-4	P0506X038-4	MAG SWITCH FRONT COVER (G0506X)
38-4	P0506X3038-4	MAG SWITCH FRONT COVER (G0506X3)
38A	P0506X3038A	MAG SWITCH (440V-5A, G0506X3)
38A-1	P0506X3038A-1	MAG SWITCH BACK COVER (G0506X3)

REF	PART #	DESCRIPTION
38A-2	P0506X3038A-2	CONTACTOR (G0506X3)
38A-3	P0506X3038A-3	THERMAL OVERLOAD RELAY (G0506X3)
38A-4	P0506X3038A-4	MAG SWITCH FRONT COVER (G0506X3)
39	P0506039	ON SWITCH (GREEN)
40	P0506040	OFF SWITCH (RED)
41	P0506041	POWER CONTROL PANEL
42	PS06	PHLP HD SCR 10-24 X 3/8
43	P0506043	CONNECTION PLATE
44	P0506044	BRAKE LINING
45	PB18	HEX BOLT 3/8-16 X 1
46	PB19	HEX BOLT 1/4-20 X 1/2
47	P0506047	FOOT BRAKE PEDAL
48	PLW04	LOCK WASHER 3/8
49	PN08	HEX NUT 3/8-16
50	P0506050	HELICAL SPRING 110MM
51	PN08	HEX NUT 3/8-16
52	PB18	HEX BOLT 3/8-16 X 1
53	P0506053	STOP SWITCH
54	PSB22M	CAP SCREW M4-.7 X 35
55	P0506055	UPPER WHEEL
56	P0506056	UPPER WHEEL SHAFT
57	P6205	BALL BEARING 6205ZZ
58	P0506058	IN BUSHING
59	P0506059	OUT BUSHING
60	PR26M	INT RETAINING RING 52MM
61	P0506061	SPECIAL FLAT WASHER 10MM
62	PB07	HEX BOLT 5/16-18 X 3/4
63	P0506063	TIRE
64	P0506064	LOWER WHEEL
65	P0506065	LOWER WHEEL SHAFT
66	P0506066	BRUSH BRACKET*
67	P0506067	BRUSH
68	PB03	HEX BOLT 5/16-18 X 1
69	PW07	FLAT WASHER 5/16
70	PN02	HEX NUT 5/16-18
71	P0506071	SPECIAL WASHER 3/8~2
72	PB21	HEX BOLT 3/8-16 X 3/4
73	PB24	HEX BOLT 3/8-16 X 1-1/4
74	PN08	HEX NUT 3/8-16
75	P0506075	ARBOR BRACKET
76	PB42	HEX BOLT 1/2-12 X 2
77	PN06	HEX NUT 1/2-12
78	P0506078	BLADE TENSION SHAFT
79	P51104	THRUST BEARING 51104
82	P0506082	INDICATOR WIRE PULLER
83	P0506083	HELICAL SPRING 50MM
84	P0506084	BRACKET HOLDER
85	PN06	HEX NUT 1/2-12
86	PW01	FLAT WASHER 1/2
87	P0506087	BRACKET SHAFT
88	PN06	HEX NUT 1/2-12
89	P0506089	TENSION HANDWHEEL

* Part not shown on breakdown drawing



G0506X/G0506X3 Parts List

REF	PART #	DESCRIPTION
90	PSS05	SET SCREW 5/16-18 X 1/4
91	P0506091	TABLE
92	P0506092	FENCE RAIL
93	PB18	HEX BOLT 3/8-16 X 1
94	PW02	FLAT WASHER 3/8
95	P0506095	FENCE
96	P0506096	FENCE KNOB 3/8-16 X 1 1/4
97	P0506097	TRUNNION
98	PSB19	CAP SCREW 3/8-16 X 1-1/4
99	PLW04	LOCK WASHER 3/8
100	PB42	HEX BOLT 1/2-12 X 2
101	PW01	FLAT WASHER 1/2
102	P0506102	TRUNNION BRACKET
103	PB53	HEX BOLT 1/2-12 X 1
104	PLW07	LOCK WASHER 1/2
105	P0506105	BLADE GUIDE FORK
106	PB07	HEX BOLT 5/16-18 X 3/4
107	PW07	FLAT WASHER 5/16
108	P0506108	SHAFT CUP
109	PB03	HEX BOLT 5/16-18 X 1
110	PLW01	LOCK WASHER 5/16
111	P0506111	LOCK KNOB 3/8-16 X 2-1/4
112	P0506112	GUIDE SHAFT
113	PR19M	EXT RETAINING RING 28MM
114	P0506114	ELEVATION GEAR SHAFT
115	P0506115	GEAR SHAFT BASE
116	PB07	HEX BOLT 5/16-18 X 3/4
117	PLW01	LOCK WASHER 5/16
118	P0506118	GUIDE POST HANDWHEEL
119	P0506119	SPRING KEY M4 X 40
120	P0506120	BLADE TRACKING KNOB 3/8-16 X 2-1/2
121	PN08	HEX NUT 3/8-16
122	P0506122	BLADE GUARD
123	P0506123	BLADE GUARD BRACKET
124	PB19	HEX BOLT 1/4-20 X 1/2
125	PLW02	LOCK WASHER 1/4
126	PW06	FLAT WASHER 1/4
127	P0506127	BLADE GUIDE HOLDER
128	PB03	HEX BOLT 5/16-18 X 1
129	PW07	FLAT WASHER 5/16
130	PB07	HEX BOLT 5/16-18 X 3/4
131	P0506131	ADJUSTMENT BRACKET
132	P0506132	BRACKET ARBOR
133	P0506X133	BLADE GUIDE BASE
136	P0506X136	GUIDE BEARING SHAFT

REF	PART #	DESCRIPTION
138	P6202	BALL BEARING 6202ZZ*
139	P0506139	SLIDING BASE*
140	P0506140A	COMPLETE MITER GAUGE
140-1	P0506140	MITER GAUGE BODY
141	P0506141	T-SLOT WASHER 13MM
142	PFH03	FLAT HD SCR 1/4-20 X 1/2
143	P0506143	MITER BAR
144	P0506X144	SPECIAL BOLT 1/4-20 X 5/8
145	P0506145	STOP PIN
146	P0506146	BLOCK
147	P0506147	INDICATOR
148	PS29	PHLP HD SCR 6-32 X 5/8
149	PS06	PHLP HD SCR 10-24 X 3/8
150	P0506150	HANDLE 5/16-18 X 1-1/2
151	PW07	FLAT WASHER 5/16
152	PN12	HEX NUT 6-32
160	G8589	GRIZZLY NAMEPLATE-LARGE
161	PHTEK10M	TAP SCREW M4 X 11
162	P0506X162	G0506X ID LABEL
162	P0506X3162	G0506X3 ID LABEL
163	PLABEL-14	ELECTRICITY LABEL
164	PLABEL-18	UNPLUG BANDSAW LABEL 2" X 3-5/16"H
165	PLABEL-19	HANDS/BS BLADE 2" X 3-5/16"H
166	PLABEL-20	DONT OPEN 2"W X 3-5/16"H
167	PLABEL-12	READ MANUAL 2" X 3-5/16"
168	PLABEL-11	SAFETY GLASSES 2" X 3-5/16"
169	PLABEL-21	BS MOVING/ADJUST 2 X 3-5/16"H
174	P0506174	THRUST BEARING SHAFT
175	P6202RS	BEARING RUBBER SHIELD 6202
176	PEC05M	E-CLIP 15MM
177	P0506177	CABLE CLIP
178	P0506178	CABLE NUT 6-32
179	PS37	PHLP HD SCR 6-32 X 5/16
180	PS06	PHLP HD SCR 10-24 X 3/8
181	P0506181	TERMINAL BLOCK
182	P0506182	STUD 10-24 X 2 1/2
183	PN07	HEX NUT 10-24
184	PW03	FLAT WASHER 10-24
185	PSW10	STRAIN RELIEF 3/4
186	P0506186	TERMINAL BOX
189	P0506189	POWER CORD
190	P0506X190	LIFTING RING 10MM
191	P0506X191	G0506X MODEL NUMBER LABEL
191	P0506X3191	G0506X3 MODEL NUMBER LABEL

* Part not shown on breakdown drawing

WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine **MUST** maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, **REPLACE** that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.



WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special, or consequential damages arising from the use of our products.

To take advantage of this warranty, contact us by mail or phone and give us all the details. We will then issue you a "Return Number," which must be clearly posted on the outside as well as the inside of the carton. We will not accept any item back without this number. Proof of purchase must accompany the merchandise.

The manufacturers reserve the right to change specifications at any time because they constantly strive to achieve better quality equipment. We make every effort to ensure that our products meet high quality and durability standards and we hope you never need to use this warranty.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.





WARRANTY CARD

Name _____

Street _____

City _____ State _____ Zip _____

Phone # _____ Email _____ Invoice # _____

Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

_____ Advertisement

_____ Friend

_____ Catalog

_____ Card Deck

_____ Website

_____ Other:

2. Which of the following magazines do you subscribe to?

_____ Cabinet Maker

_____ Popular Mechanics

_____ Today's Homeowner

_____ Family Handyman

_____ Popular Science

_____ Wood

_____ Hand Loader

_____ Popular Woodworking

_____ Wooden Boat

_____ Handy

_____ Practical Homeowner

_____ Woodshop News

_____ Home Shop Machinist

_____ Precision Shooter

_____ Woodsmith

_____ Journal of Light Cont.

_____ Projects in Metal

_____ Woodwork

_____ Live Steam

_____ RC Modeler

_____ Woodworker West

_____ Model Airplane News

_____ Rifle

_____ Woodworker's Journal

_____ Modeltec

_____ Shop Notes

_____ Other:

_____ Old House Journal

_____ Shotgun News

3. What is your annual household income?

_____ \$20,000-\$29,000

_____ \$30,000-\$39,000

_____ \$40,000-\$49,000

_____ \$50,000-\$59,000

_____ \$60,000-\$69,000

_____ \$70,000+

4. What is your age group?

_____ 20-29

_____ 30-39

_____ 40-49

_____ 50-59

_____ 60-69

_____ 70+

5. How long have you been a woodworker/metalworker?

_____ 0-2 Years

_____ 2-8 Years

_____ 8-20 Years

_____ 20+ Years

6. How many of your machines or tools are Grizzly?

_____ 0-2

_____ 3-5

_____ 6-9

_____ 10+

7. Do you think your machine represents a good value?

_____ Yes

_____ No

8. Would you recommend Grizzly Industrial to a friend?

_____ Yes

_____ No

9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times.

_____ Yes

_____ No

10. Comments: _____

FOLD ALONG DOTTED LINE



Place
Stamp
Here



GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name_____
Street_____
City_____State_____Zip_____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

grizzly.com

TOOL WEBSITE

Buy Direct and Save with Grizzly® – Trusted, Proven and a Great Value!

*Visit Our Website Today And Discover
Why Grizzly® Is The Industry Leader!*

- SECURE ORDERING
- ORDERS SHIPPED WITHIN 24 HOURS
- E-MAIL RESPONSE WITHIN ONE HOUR

-OR-

Call Today For A **FREE**
Full Color Catalog

1-800-523-4777

