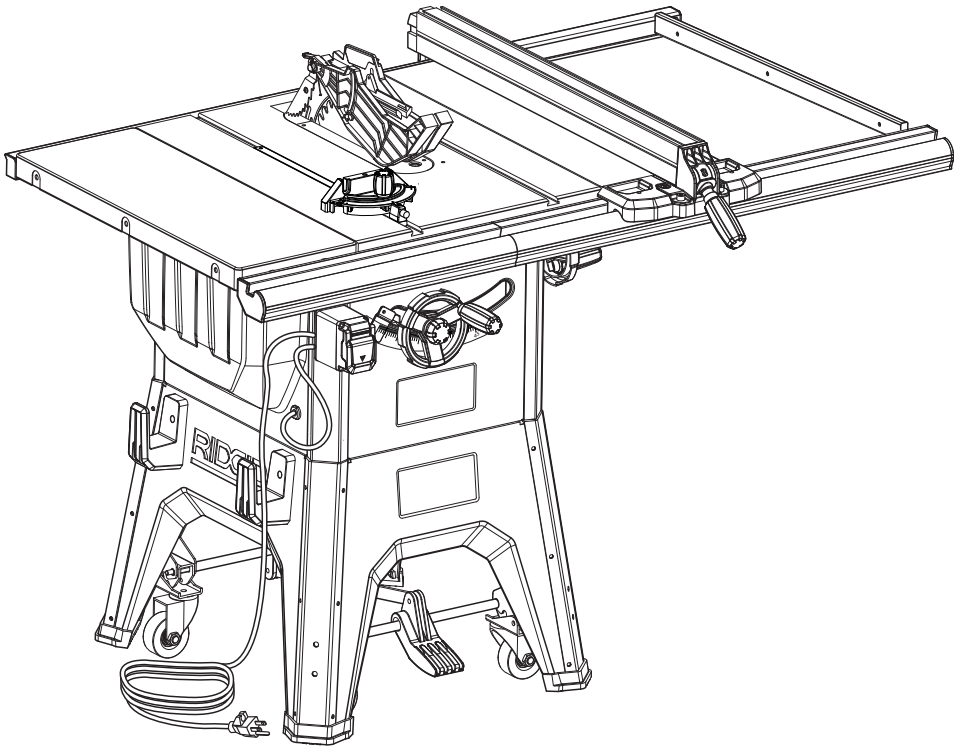
OPERATOR'S MANUAL

10 in. TABLE SAW
R4512



Your table saw has been engineered and manufactured to our high standards for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

⚠ WARNING:
To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

Thank you for buying a RIDGID® product.

SAVE THIS MANUAL FOR FUTURE REFERENCE

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INTRODUCTION

This tool has many features for making the use of this product more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

GENERAL SAFETY RULES

⚠ WARNING:
Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

READ ALL INSTRUCTIONS

- **KNOW YOUR POWER TOOL.** Read the operator's manual carefully. Learn the saw's applications and limitations as well as the specific potential hazards related to this tool.
- **GUARD AGAINST ELECTRICAL SHOCK BY PREVENTING BODY CONTACT WITH GROUNDED SURFACES.** For example, pipes, radiators, ranges, refrigerator enclosures.
- **KEEP GUARDS IN PLACE** and in good working order.
- **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents. **DO NOT** leave tools or pieces of wood on the saw while it is in operation.
- **DO NOT USE IN DANGEROUS ENVIRONMENTS.** Do not use power tools in damp or wet locations or expose to rain. Keep the work area well lit.
- **KEEP CHILDREN AND VISITORS AWAY.** All visitors should wear safety glasses and be kept a safe distance from work area. Do not let visitors contact tool or extension cord while operating.
- **MAKE WORKSHOP CHILDPROOF** with padlocks and master switches, or by removing starter keys.
- **DON'T FORCE TOOL.** It will do the job better and safer at the feed rate for which it was designed.
- **USE RIGHT TOOL.** Don't force the tool or attachment to do a job it was not designed for. Don't use it for a purpose not intended.
- **USE THE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. Use only a cord heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. A wire gauge size (A.W.G.) of at least **14** is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- **DRESS PROPERLY.** Do not wear loose clothing, gloves, neckties, or jewelry. They can get caught and draw you into moving parts. Rubber gloves and nonskid footwear are recommended when working outdoors. Also wear protective hair covering to contain long hair.
- **ALWAYS WEAR SAFETY GLASSES WITH SIDE SHIELDS.** Everyday eyeglasses have only impact-resistant lenses, they are **NOT** safety glasses.
- **SECURE WORK.** Use a featherboard to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
- **DON'T OVERREACH.** Keep proper footing and balance at all times.
- **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories.
- **DISCONNECT TOOLS.** When not in use, before servicing, or when changing attachments, blades, bits, cutters, etc., all tools should be disconnected.
- **AVOID ACCIDENTAL STARTING.** Be sure switch is off when plugging in any tool.
- **USE RECOMMENDED ACCESSORIES.** Consult the operator's manual for recommended accessories. The use of improper accessories may risk injury.
- **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
- **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged must be properly repaired or replaced by an authorized service center to avoid risk of personal injury.
- **USE THE RIGHT DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of blade or cutter only.
- **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave tool until it comes to a complete stop.
- **PROTECT YOUR LUNGS.** Wear a face or dust mask if the cutting operation is dusty.
- **PROTECT YOUR HEARING.** Wear hearing protection during extended periods of operation.
- **DO NOT ABUSE CORD.** Never yank cord to disconnect from receptacle. Keep cord away from heat, oil, and sharp edges.
- **WHEN OPERATING A POWER TOOL OUTSIDE, USE AN OUTDOOR EXTENSION CORD MARKED "W-A" OR "W".** These cords are rated for outdoor use and reduce the risk of electric shock.
- **ALWAYS KEEP THE BLADE GUARD AND SPREADER (SPLITTER) IN PLACE** and in working order.
- **KEEP BLADES CLEAN, SHARP, AND WITH SUFFICIENT SET.** Sharp blades minimize stalling and kickback.

GENERAL SAFETY RULES

- **KEEP HANDS AWAY FROM CUTTING AREA.** Keep hands away from blades. Do not reach underneath work or around or over the blade while blade is rotating. Do not attempt to remove cut material when blade is moving.
- **BLADE COASTS AFTER BEING TURNED OFF.**
- **NEVER USE IN AN EXPLOSIVE ATMOSPHERE.** Normal sparking of the motor could ignite fumes.
- **INSPECT TOOL CORDS PERIODICALLY.** If damaged, have repaired by a qualified service technician at an authorized service facility. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal. Repair or replace a damaged or worn cord immediately. Stay constantly aware of cord location and keep it well away from the rotating blade.
- **INSPECT EXTENSION CORDS PERIODICALLY** and replace if damaged.
- **GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle.
- **CHECK WITH A QUALIFIED ELECTRICIAN** or service personnel if the grounding instructions are not completely understood or if in doubt as to whether the tool is properly grounded.
- **USE ONLY CORRECT ELECTRICAL DEVICES:** 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug.
- **DO NOT MODIFY** the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.
- **KEEP TOOL DRY, CLEAN, AND FREE FROM OIL AND GREASE.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean tool.
- **STAY ALERT AND EXERCISE CONTROL.** Watch what you are doing and use common sense. Do not operate tool when you are tired. Do not rush.
- **DO NOT USE TOOL IF SWITCH DOES NOT TURN IT ON AND OFF.** Have defective switches replaced by an authorized service center.
- **USE ONLY CORRECT BLADES. Do not** use blades with incorrect size holes. Never use blade washers or blade bolts that are defective or incorrect. The maximum blade capacity of your saw is 10 in. (254 mm).
- **BEFORE MAKING A CUT, BE SURE ALL ADJUSTMENTS ARE SECURE.**
- **BE SURE BLADE PATH IS FREE OF NAILS.** Inspect for and remove all nails from lumber before cutting.
- **NEVER TOUCH BLADE** or other moving parts during use.
- **NEVER START A TOOL WHEN ANY ROTATING COMPONENT IS IN CONTACT WITH THE WORKPIECE.**
- **DO NOT OPERATE A TOOL WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR ANY MEDICATION.**
- **WHEN SERVICING** use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.
- **USE ONLY RECOMMENDED ACCESSORIES** listed in this manual or addendums. Use of accessories that are not listed may cause the risk of personal injury. Instructions for safe use of accessories are included with the accessory.
- **DOUBLE CHECK ALL SETUPS.** Make sure blade is tight and not making contact with saw or workpiece before connecting to power supply.

SPECIFIC SAFETY RULES

- **FIRMLY BOLT THE SAW TO A WORK BENCH OR LEG STAND** at approximately waist height.
- **NEVER OPERATE THE SAW ON THE FLOOR.**
- **GUARD AGAINST KICKBACK.** Kickback occurs when the blade stalls rapidly and workpiece is driven back towards the operator. It can pull your hand into the blade resulting in serious personal injury. Stay out of blade path and turn switch off immediately if blade binds or stalls.
- **USE RIP FENCE.** Always use a fence or straight edge guide when ripping.
- **SUPPORT LARGE PANELS.** To minimize risk of blade pinching and kickback, always support large panels.
- **REMOVE ALL FENCES AND AUXILIARY TABLES** before transporting saw. Failure to do so can result in an accident causing possible serious personal injury.
- **ALWAYS USE BLADE GUARD, SPREADER, AND ANTI-KICKBACK PAWLS** on all “through-sawing” operations. Through-sawing operations are those in which the blade cuts completely through the workpiece as in ripping or cross cutting. Keep the blade guard down, the anti-kickback pawls down, and the spreader in place over the blade.
- **ALWAYS SECURE WORK** firmly against the rip fence or miter gauge.
- **ALWAYS USE A PUSH STICK FOR RIPPING NARROW STOCK.** A push stick is a device used to push a workpiece through the blade instead of using your hands. Size and shape can vary but the push stick must always be narrower than the workpiece to prevent the push stick from contacting the saw blade. When ripping narrow stock, always use a push stick, so your hand does not come close to the saw blade. Use a featherboard and push blocks for non-through cuts.

SPECIFIC SAFETY RULES

- **NEVER** perform any operation "freehand" which means using only your hands to support or guide the workpiece. Always use either the rip fence or miter fence to position and guide the work.
- **NEVER** stand or have any part of your body in line with the path of the saw blade.
- **NEVER** reach behind, over, or within three inches of the blade or cutter with either hand for any reason.
- **MOVE THE RIP FENCE** out of the way when cross cutting.
- **NEVER** use rip fence as cutoff gauge when cross cutting.
- **NEVER** attempt to free a stalled saw blade without first turning the saw **OFF** and disconnecting the saw from the power source.
- **PROVIDE ADEQUATE SUPPORT** to the rear and sides of the saw table for wide or long work pieces.
- **AVOID KICKBACKS** (work thrown back toward you) by:
  a) Keeping blade sharp.
  b) Keeping rip fence parallel to the saw blade.
  c) Keeping spreader, anti-kickback pawls, and blade guard in place and operating.
  d) Not releasing the work before it is pushed all the way past the saw blade using a push stick.
  e) Not ripping work that is twisted or warped or does not have a straight edge to guide along the fence.
- **IF THE POWER SUPPLY CORD IS DAMAGED,** it must be replaced only by the manufacturer or by an authorized service center to avoid risk.
- **AVOID AWKWARD OPERATIONS AND HAND POSITIONS** where a sudden slip could cause your hand to move into the cutting tool.
- **USE ONLY RECOMMENDED ACCESSORIES** listed in this manual or addendums. Use of accessories that are not listed may cause the risk of personal injury. Instructions for safe use of accessories are included with the accessory.
- **MAKE SURE THE WORK AREA HAS AMPLE LIGHTING** to see the work and that no obstructions will interfere with safe operation **BEFORE** performing any work using the table saw.
- **ALWAYS TURN OFF SAW** before disconnecting it, to avoid accidental starting when reconnecting to power supply.
- **ONLY USE BLADES** within the thickness range stamped on the spreader/riving knife.
- **THIS TOOL** should have the following markings:
  a) Wear eye protection.
  b) Use saw blade guard and spreader/riving knife for every operation for which it can be used, including all through sawing.
  c) Keep hands out of the line of saw blade.
  d) Use a push stick when required.
  e) Pay particular attention to instructions on reducing risk of kickback.
  f) Do not perform any operation freehand.
  g) Never reach around or over the saw blade.
- **SAVE THESE INSTRUCTIONS.** Refer to them frequently and use to instruct other users. If you loan someone this tool, loan them these instructions too.

⚠ WARNING:

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

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

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.

SYMBOLS

Some of the following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

	Safety Alert	Indicates a potential personal injury hazard.
	Read Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear eye protection marked to comply with ANSI Z87.1.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
⎓	Direct Current	Type or a characteristic of current
n_0	No Load Speed	Rotational speed, at no load
⧈	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute

SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
⚠	**DANGER:**	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
⚠	**WARNING:**	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
⚠	**CAUTION:**	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	CAUTION:	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.

⚠ WARNING:

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call RIDGID® customer service for assistance.

⚠ WARNING:

The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

SAVE THESE INSTRUCTIONS

ELECTRICAL

EXTENSION CORDS

Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. When using a power tool at a considerable distance from the power source, use an extension cord heavy enough to carry the current that the tool will draw. An undersized extension cord will cause a drop in line voltage, resulting in a loss of power and causing the motor to overheat. Use the chart provided below to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

**Ampere rating (on tool faceplate)	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
Cord Length	**Wire Size (A.W.G.)**					
25'	16	16	16	16	14	14
50'	16	16	16	14	14	12
100'	16	16	14	12	10	—

***Used on 12 gauge - 20 amp circuit.*
NOTE: AWG = American Wire Gauge

When working with the tool outdoors, use an extension cord that is designed for outside use. This is indicated by the letters “W-A” or “W” on the cord’s jacket.

Before using an extension cord, inspect it for loose or exposed wires and cut or worn insulation.

WARNING:
Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.

WARNING:
Check extension cords before each use. If damaged replace immediately. Never use product with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.

ELECTRICAL CONNECTION

This product is powered by a precision built electric motor. It should be connected to a **supply circuit protected by a circuit breaker or time-delay fuse that is 120 V, AC only (normal household current), 60 Hz.** Do not operate this product on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If the saw does not operate when plugged into an outlet, double check the power supply.

SPEED AND WIRING

The no-load speed of this tool is approximately 3,450 rpm. This speed is not constant and decreases under a load or with lower voltage. For voltage, the wiring in a shop is as important as the motor’s horsepower rating. A line intended only for lights cannot properly carry a power tool motor. Wire that is heavy enough for a short distance will be too light for a greater distance. A line that can support one power tool may not be able to support two or three tools.

GROUNDING INSTRUCTIONS

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

Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

WARNING:
Improper installation of the grounding plug can result in a risk of electric shock. When repair or replacement of the cord is required, do not connect the grounding wire to either flat blade terminal. The wire with insulation having an outer surface that is green with or without yellow stripes is the grounding wire.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded.

Repair or replace a damaged or worn cord immediately.

This product is for use on a nominal 120 volt circuit and has a grounding plug similar to the plug illustrated in figure 1. Only connect the product to an outlet having the same configuration as the plug. Do not use an adapter with this product.

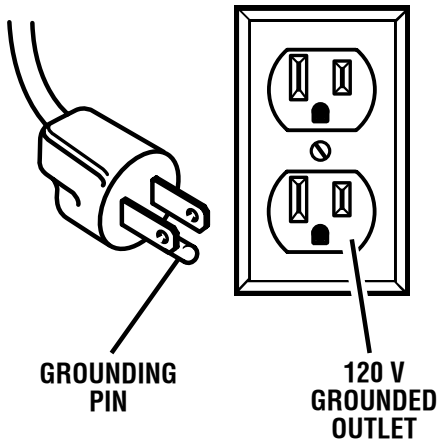


Fig. 1

ASSEMBLY

WARNING:
To prevent possible electrical hazards, have a qualified electrician check the line if you are not certain that it is properly wired.

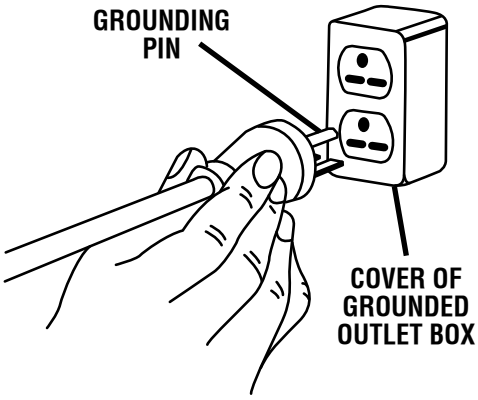
CHANGING MOTOR VOLTAGE

See Figures 2 - 4.

WARNING:
Electric shock can kill. To reduce the risk of serious personal injury, never connect plug to power source until all assembly steps are completed.

NOTE: The table saw is prewired at the factory for 120 V, 60 Hz. Use the following procedures to change motor voltage from 120 V to 240 V. This is an optional procedure to be completed after the saw has been fully assembled.

- Unplug the saw.
- Remove the 6 screws that secure the rear panel of the saw. Remove the panel.
- Lower the motor to its lowest point.
- Located on the top of the motor is the junction box. Remove the phillips screw at the back of the junction box then lift off the cover.
- Remove and discard the electrical tape from the wire connectors. Remove wire connectors.
- Reconnect the leads.
- Reinstall the wire connectors and wrap each wire with two layers of new UL listed electrical tape.
- Recheck your wiring with the wiring diagrams.
- Reinstall the junction box cover using the phillips screw.
- Cut off the 120 volt power cord plug and replace it with a 3-prong 240 volt, 15 amp. UL listed plug.
- Connect the power cord white and black leads, respectively, to the "hot" plug blade terminals. Connect the power cord green grounding wire to the plug ground prong terminal.
- Reinstall the rear panel.
- Plug your table saw into a 220-240 V, 15 amp., 3-prong receptacle. Make certain the receptacle is connected to a 240 V, AC power supply through a 240 V branch circuit having at least a 15 amp capacity and protected by a 15 amp time-delay fuse or circuit breaker.



FOR USE WITH 220-240 VOLT

Fig. 2

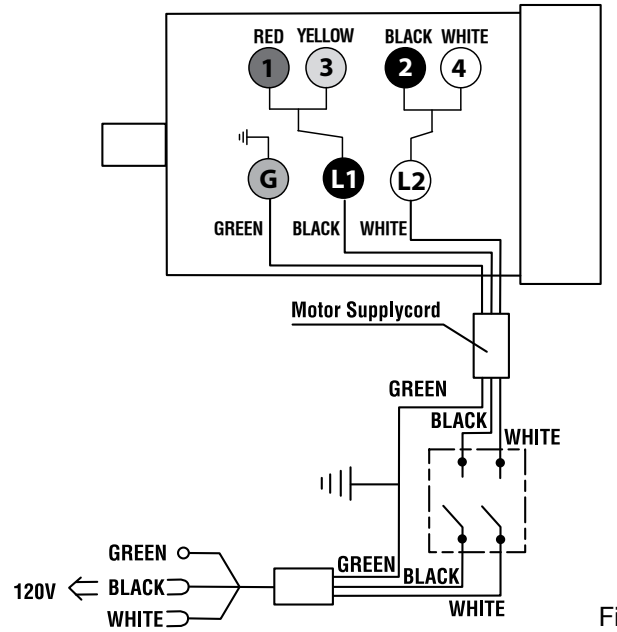


Fig. 3

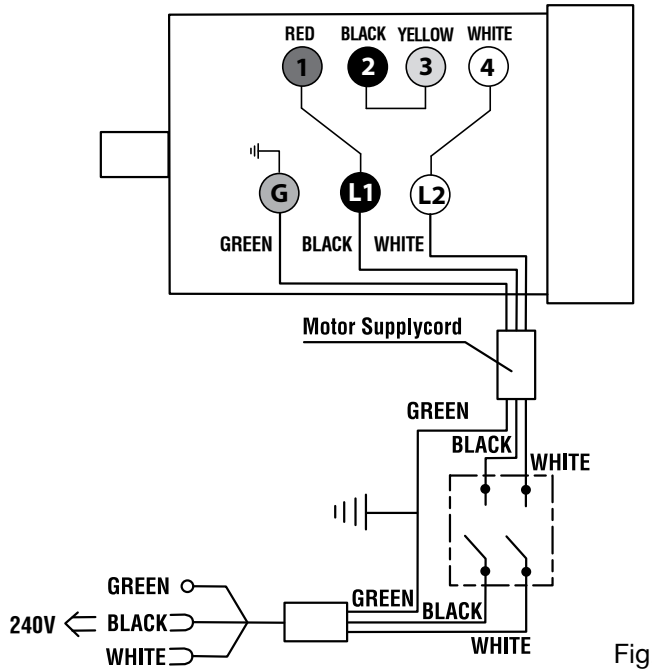


Fig. 4

GLOSSARY OF TERMS

Anti-Kickback Pawls (radial arm and table saws)
A device which, when properly installed and maintained, is designed to stop the workpiece from being kicked back toward the front of the saw during a ripping operation.

Arbor
The shaft on which a blade or cutting tool is mounted.

Bevel Cut
A cutting operation made with the blade at any angle other than 90° to the table surface.

Chamfer
A cut removing a wedge from a block so the end (or part of the end) is angled rather than at 90°.

Compound Cut
A cross cut made with both a miter and a bevel angle.

Cross Cut
A cutting or shaping operation made across the grain or the width of the workpiece.

Cutter Head (planers and jointer planers)
A rotating cutterhead with adjustable blades or knives. The blades or knives remove material from the workpiece.

Dado Cut
A non-through cut which produces a square-sided notch or trough in the workpiece (requires a special blade).

Featherboard
A device used to help control the workpiece by guiding it securely against the table or fence during any ripping operation.

FPM or SPM
Feet per minute (or strokes per minute), used in reference to blade movement.

Freehand
Performing a cut without the workpiece being guided by a fence, miter gauge, or other aids.

Gum
A sticky, sap-based residue from wood products.

Heel
Alignment of the blade to the fence.

Kerf
The material removed by the blade in a through cut or the slot produced by the blade in a non-through or partial cut.

Kickback
A hazard that can occur when the blade binds or stalls, throwing the workpiece back toward operator.

Leading End
The end of the workpiece pushed into the tool first.

Miter Cut
A cutting operation made with the workpiece at any angle to the blade other than 90°.

Non-Through Cuts
Any cutting operation where the blade does not extend completely through the thickness of the workpiece.

Pilot Hole (drill presses)
A small hole drilled in a workpiece that serves as a guide for drilling large holes accurately.

Push Blocks (for jointer planers)
Device used to feed the workpiece over the jointer planer cutterhead during any operation. This aid helps keep the operator's hands well away from the cutterhead.

Push Blocks and Push Sticks (for table saws)
Devices used to feed the workpiece through the saw blade during cutting operations. A push stick (not a push block) should be used for narrow ripping operations. These aids help keep the operator's hands well away from the blade.

Resaw
A cutting operation to reduce the thickness of the workpiece to make thinner pieces.

Resin
A sticky, sap-based substance that has hardened.

Revolutions Per Minute (RPM)
The number of turns completed by a spinning object in one minute.

Ripping or Rip Cut
A cutting operation along the length of the workpiece.

Riving Knife/Spreader/Splitter (table saws)
A metal piece, slightly thinner than the kerf, which helps keep the kerf open and also helps to prevent kickback.

Saw Blade Path
The area over, under, behind, or in front of the blade. As it applies to the workpiece, that area which will be or has been cut by the blade.

Set
The distance that the tip of the saw blade tooth is bent (or set) outward from the face of the blade.

Snipe (planers)
Depression made at either end of a workpiece by cutter blades when the workpiece is not properly supported.

Through Sawing
Any cutting operation where the blade extends completely through the thickness of the workpiece.

Throw-Back
The throwing back of a workpiece usually caused by the workpiece being dropped into the blade or being placed inadvertently in contact with the blade.

Workpiece or Material
The item on which the operation is being done.

Worktable
Surface where the workpiece rests while performing a cutting, drilling, planing, or sanding operation.

FEATURES

PRODUCT SPECIFICATIONS

Blade Arbor	5/8 in.
Blade Diameter	10 in.
Blade Tilt	0˚ - 45˚
Rating	120 V∿, 13 Amps, 60 Hz
No Load Speed	3,450 r/min. (RPM)
Cutting Depth at 0º:	3-1/4 in.
Cutting Depth at 45º:	2-1/4 in.

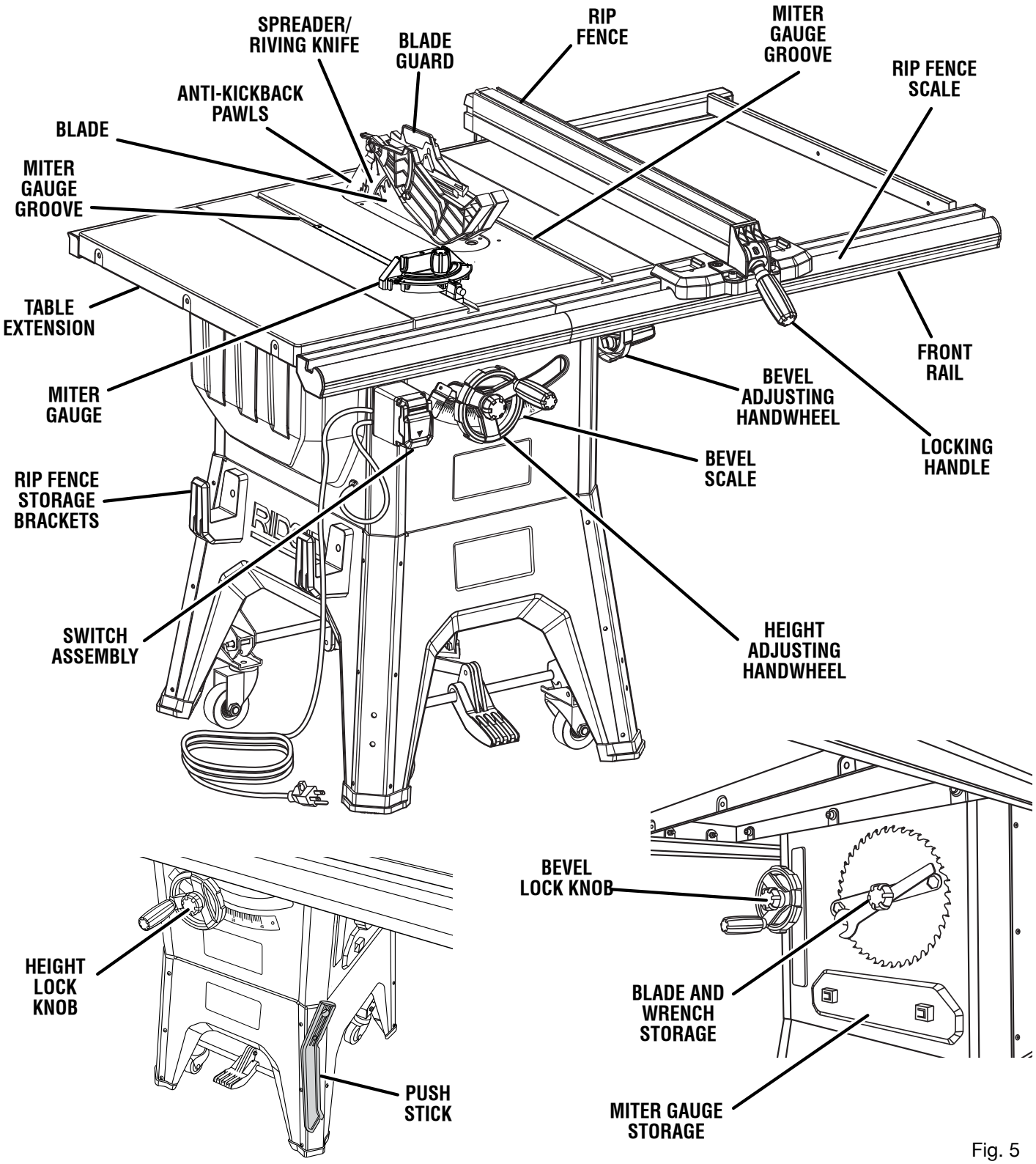


Fig. 5

FEATURES

KNOW YOUR TABLE SAW

See Figure 5.

The safe use of this product requires an understanding of the information on the tool and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

ANTI-KICKBACK PAWLS - Kickback is a hazard in which the workpiece is thrown back toward the operator. The teeth on the removable anti-kickback pawls point away from the workpiece. If the workpiece should be pulled back toward the operator, the teeth dig into the wood to help prevent or reduce the possibility of kickback.

BEVEL ADJUSTING HANDWHEEL/BEVEL LOCK KNOB - The bevel adjusting handwheel, located on the side of the cabinet, is used to adjust the bevel angle of the blade.The bevel lock knob locks the angle setting of the blade.

BEVEL SCALE - The easy-to-read scale on the front of the cabinet shows the exact blade angle.

BLADE - This saw is provided with a 36-tooth, 10 in. carbide-tooth blade.

⚠ WARNING:
Do not use blades rated less than the speed of this tool. Failure to heed this warning could result in personal injury.

BLADE GUARD - Always keep the removable blade guard down over the saw blade for through-sawing cuts.

HEIGHT ADJUSTING HANDWHEEL/ HEIGHT LOCK KNOB - The height adusting handwheel, located on the front of the cabinet, is used to lower and raise the blade for height adjustments or blade replacement. The height lock knob locks the height setting of the blade.

MITER GAUGE - The miter gauge aligns the wood for a cross cut. The easy-to-read indicator shows the exact angle for a miter cut, with adjustable stops at 90° and 45°.

MITER GAUGE GROOVES - The miter gauge rides in the grooves on the saw table.

RIP FENCE - A sturdy metal fence guides the workpiece and is secured with the locking handle. Grooves run along the top and sides of the rip fence for use with optional clamps and accessories.

RIP SCALE - Located on the front rail, the easy-to-read rip scale provides precise measurements for rip cuts.

SPREADER / RIVING KNIFE - A removable metal piece of the blade guard assembly, slightly thinner than the saw blade, which helps keep the kerf open and prevent kickback. When in the through sawing, or "up" position, it is higher than the saw blade and becomes a spreader. When in the non-through sawing, or "down" position, it is below the saw blade teeth and becomes a riving knife.

SWITCH ASSEMBLY - This saw has an easy access power switch located below the front rail.

To lock the switch in the **OFF** position, remove the switch key from the switch. Place the key in a location that is inaccessible to children and others not qualified to use the tool.

TABLE EXTENSION - Located on each side of the saw table, the table extensions give the operator additional support when cutting wide workpieces.

FEATURES

OPERATING COMPONENTS

The upper portion of the blade projects up through the table and is surrounded by an insert called the throat plate. The height of the blade is set with a handwheel on the front of the cabinet. Detailed instructions are provided in the **Operation** section of this manual for the basic cuts: cross cuts, miter cuts, bevel cuts, and compound cuts.

The rip fence is used to position work for lengthwise cuts. A scale on the front rail shows the distance between the rip fence and the blade.

It is very important to use the blade guard assembly for all through-sawing operations. The blade guard assembly includes: riving knife/spreader/splitter, anti-kickback pawls, and blade guard.

POWER SWITCH

See Figure 6.

This saw is equipped with a power switch that has a built-in locking feature. This feature is intended to prevent unauthorized and possible hazardous use by children and others.

TO TURN YOUR SAW ON:

- With the switch key inserted into the switch, lift the switch button to turn on **(I)**.

TO TURN YOUR SAW OFF:

- Press the switch button down to turn off **(O)**.

TO LOCK YOUR SAW:

- Press the switch button down.
- Remove the switch key from the switch and store in a safe, secure location.

WARNING:

Always remove the switch key when the tool is not in use and keep it in a safe place. In the event of a power failure, turn the switch off **(O)** and remove the key. This action will prevent the tool from accidentally starting when power returns.

WARNING:

ALWAYS make sure your workpiece is not in contact with the blade before operating the switch to start the tool. Failure to heed this warning may cause the workpiece to be kicked back toward the operator and result in serious personal injury.

WARNING:

To reduce the risk of accidental starting, Always make sure the switch is in the off **(O)** position before plugging tool into the power source.

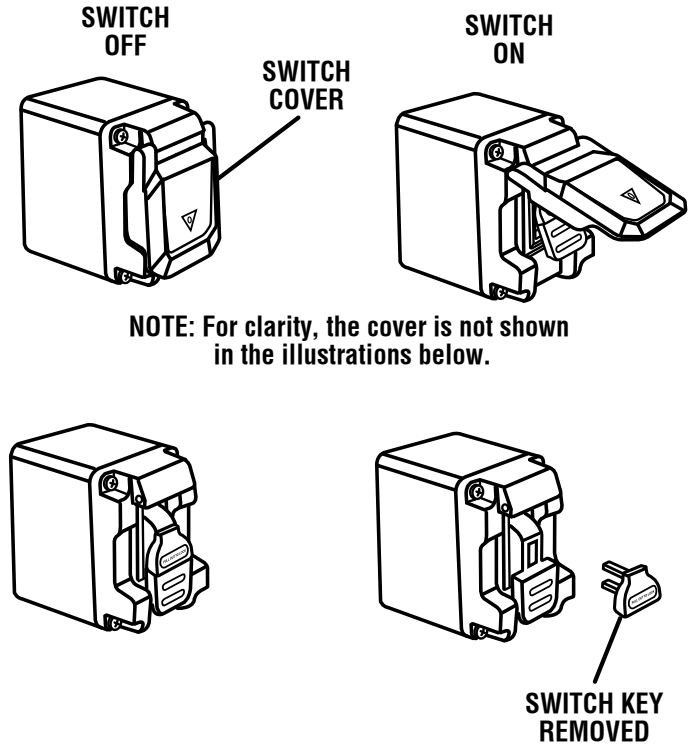


Fig. 6

TOOLS NEEDED

The following tools (not included or drawn to scale) are needed for assembly and alignment:

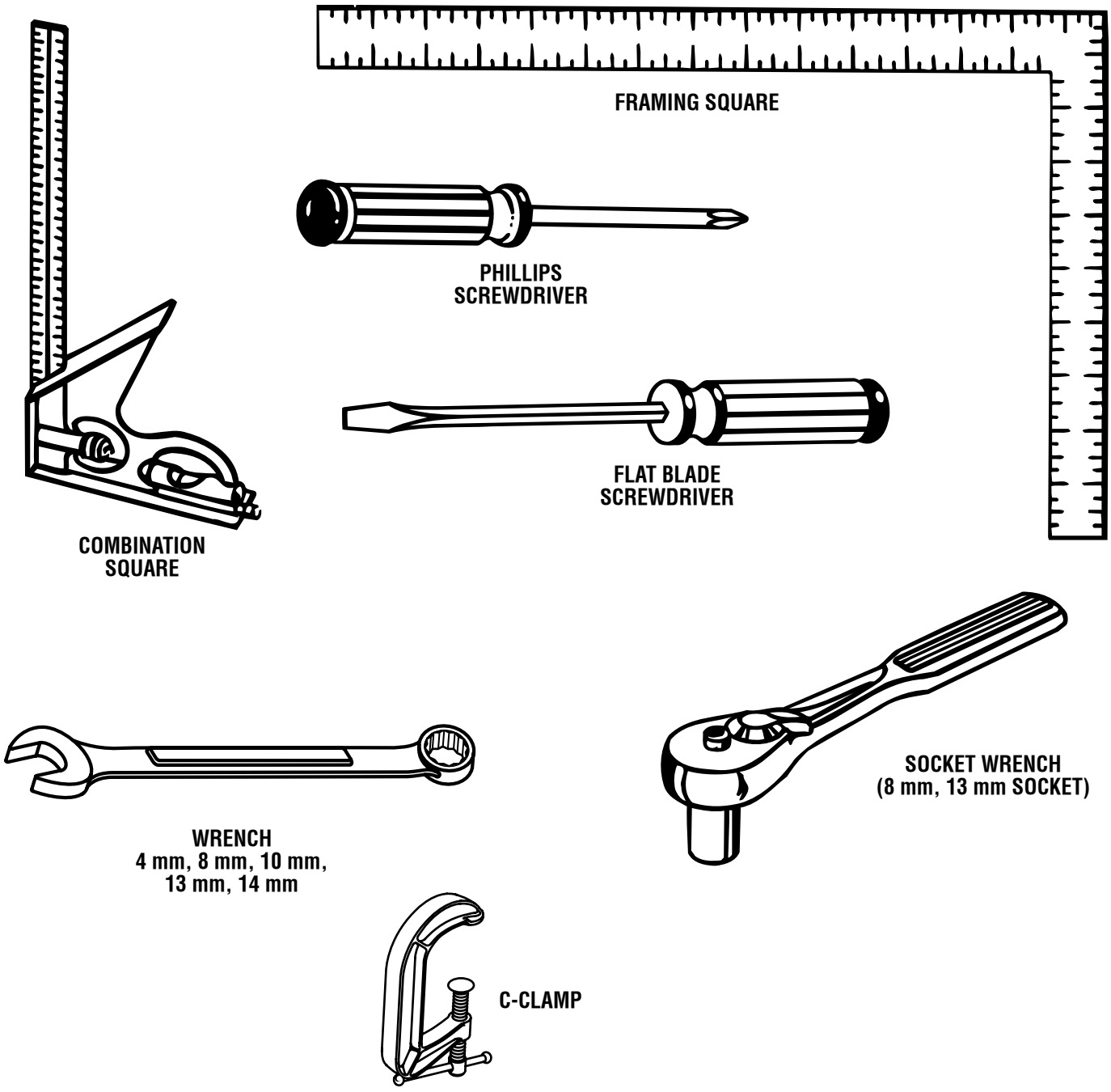


Fig. 7

LOOSE PARTS

The following items are included with the table saw:

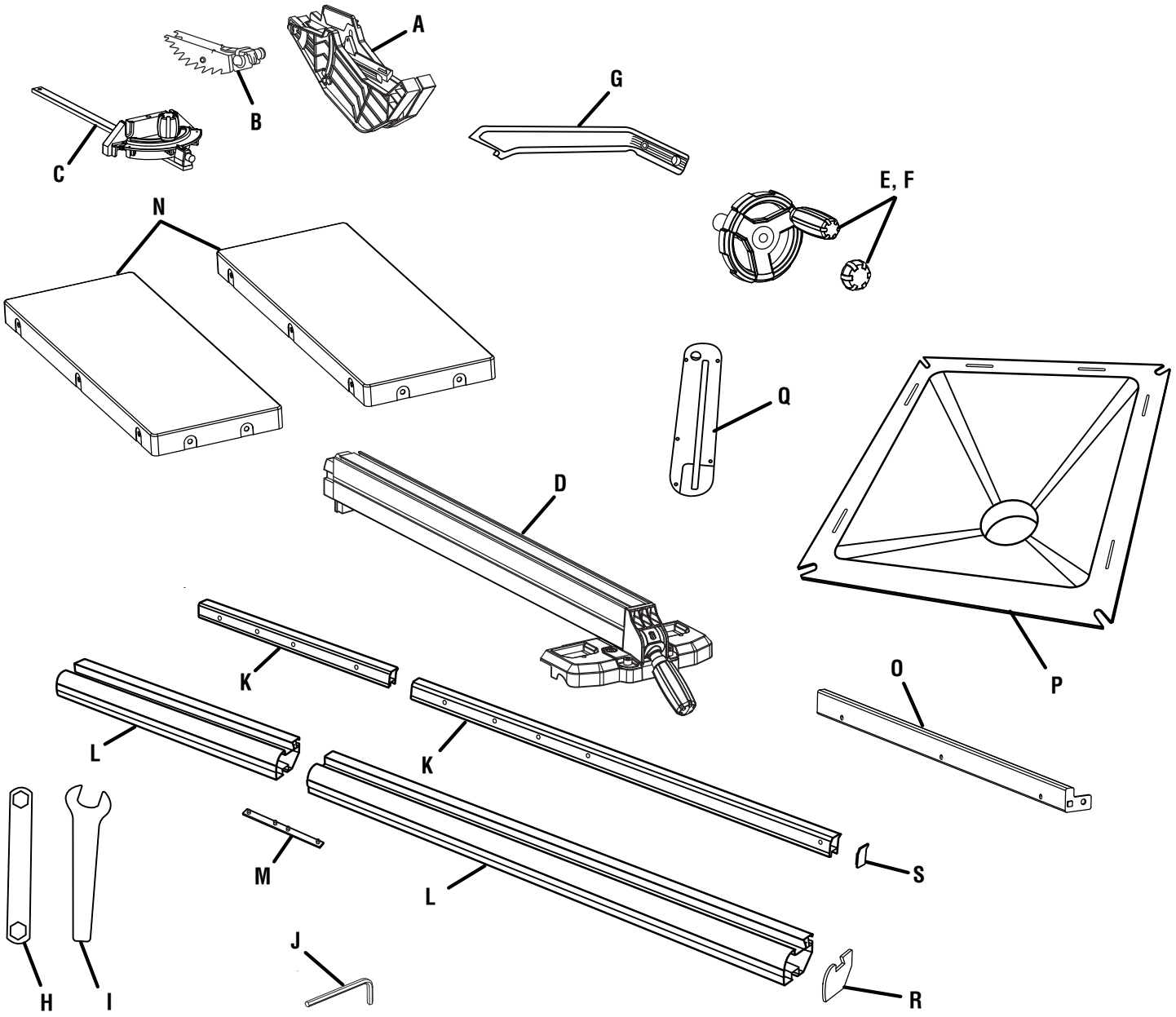


Fig. 8

A. Blade Guard 1
B. Anti-Kickback Pawls 1
C. Miter Gauge..... 1
D. Rip Fence 1
E. Height Adjusting Handwheel, Washer, and Knob 1
F. Bevel Adjusting Handwheel, Washer, and Knob..... 1
G. Push Stick 1
H. Blade Wrench, open end..... 1
I. Blade Wrench, closed end 1
J. Hex Keys (3 mm, 4 mm, 5 mm, 6 mm, 8 mm) 1
K. Rear Rail..... 2
L. Front Rail..... 2
M. Rail Connector Bar..... 3
N. Table Extensions 2
O. Spreader Bar 1
P. Dust Chute 1
Q. Throat Plate..... 1
R. Front End Cap (left and right)..... 2
S. Back End Cap (left and right) 2

Not shown:

T. Fastener Pack - Large (contents noted on pack) 1
S. Fastener Pack - Small (contents noted on pack) 1

LOOSE PARTS

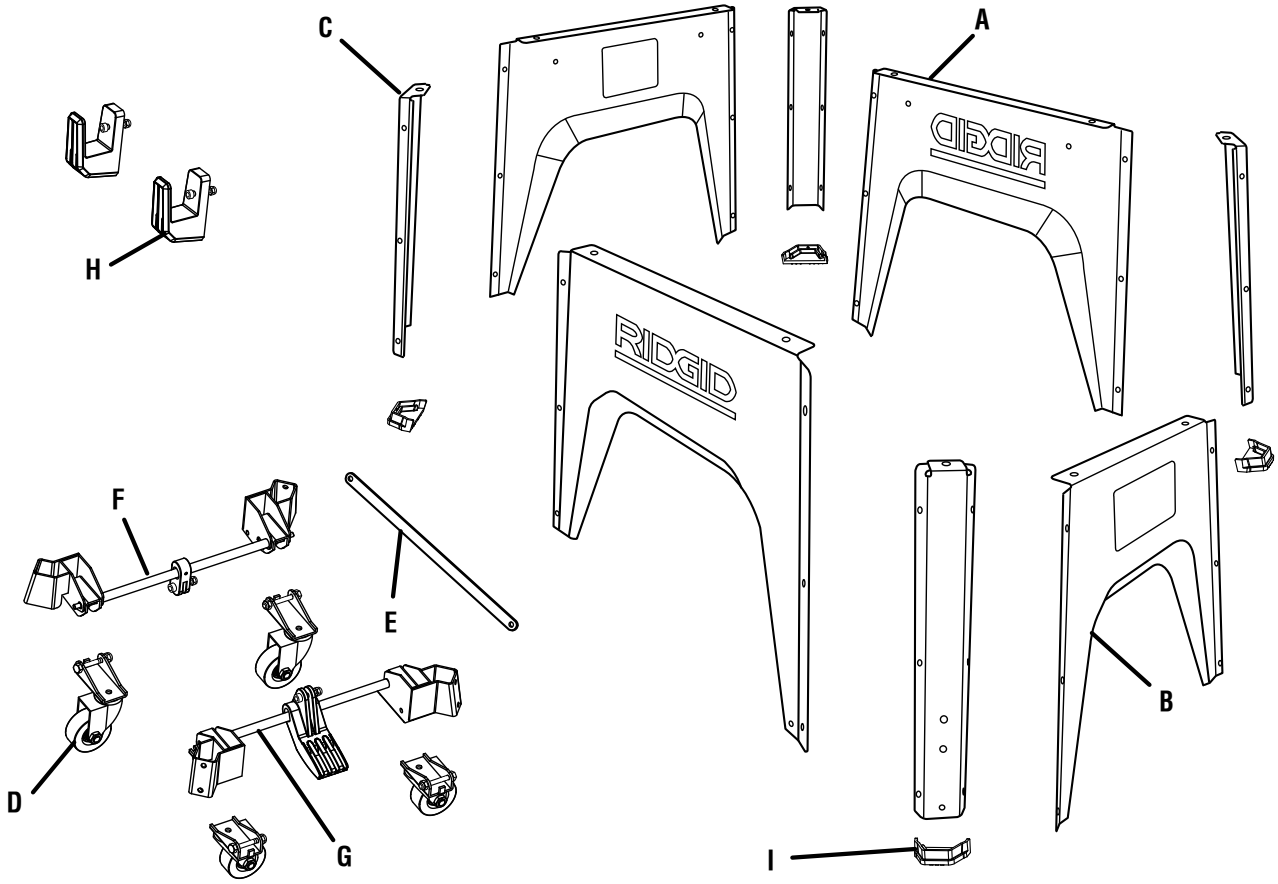


Fig. 9

A. Leg Stand Side Sections 2
B. Leg Stand Front and Back 2
C. Outer Corners 4
D. Caster Assembly 4
E. Center Support 1
F. Rear Axle 1
G. Front Axle 1
H. Rip Fence Storage Brackets 2
I. Foot 4

ASSEMBLY

UNPACKING

This product requires assembly.

- Carefully lift the saw from the carton and place it on a level work surface.

NOTE: This tool is heavy. To avoid back injury, keep your knees bent and lift with your legs, not your back, and get help when needed.

WARNING:
Do not use this product if any parts on the Loose Parts List are already assembled to your product when you unpack it. Parts on this list are not assembled to the product by the manufacturer and require customer installation. Use of a product that may have been improperly assembled could result in serious personal injury.

- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
  NOTE: Remove the foam block from between the saw's housing and the motor.
- The saw is factory set for accurate cutting. After assembling it, check for accuracy. If shipping has influenced the settings, refer to specific procedures explained in this manual.
- If any parts are damaged or missing, please call 1-866-539-1710 for assistance.

WARNING:
If any parts are damaged or missing do not operate this tool until the parts are replaced. Use of this product with damaged or missing parts could result in serious personal injury.

WARNING:
Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious personal injury.

WARNING:
Do not connect to power supply until assembly is complete. Failure to comply could result in accidental starting and possible serious personal injury.

WARNING:
Never stand directly in line with the blade or allow hands to come closer than 3 in. to the blade. Do not reach over or across the blade. Failure to heed this warning can result in serious personal injury.

WARNING:
To avoid serious personal injury, never operate the saw if it is not mounted to the supplied leg stand.

ASSEMBLY

INSTALLING THE TABLE EXTENSIONS

See Figures 10 - 11.

NOTE: It is helpful to place two inch-thick boards on the floor before lifting the saw table and motor housing from the box. This will make it easier to assemble parts, and to move the saw and set it upright.

- Lift the saw table and motor housing from the box and position it on the boards as shown.
- Loosen the plastic wrap from the table and lift each side to remove the wrapping.
- From the large fastener pack, locate the following parts:

  6 Bolts (M10 x 25)
  6 Lock washers (M10)
  6 Flat washers (M10)
- With the table saw in the upside down position, place a table extension against the table top, on the same side as the power cord. The larger holes in the extension should be aligned with the holes in the saw table.
- Make sure the edges of the table extensions are aligned with the edges of the table.
- Insert a lock washer and flat washer over a bolt. Thread the bolt into the holes in the table extension and saw table. Repeat for the two remaining holes.
- Repeat above step on the other table extension.
- Using an 8 mm socket, tighten the socket head bolts. Do not tighten completely.

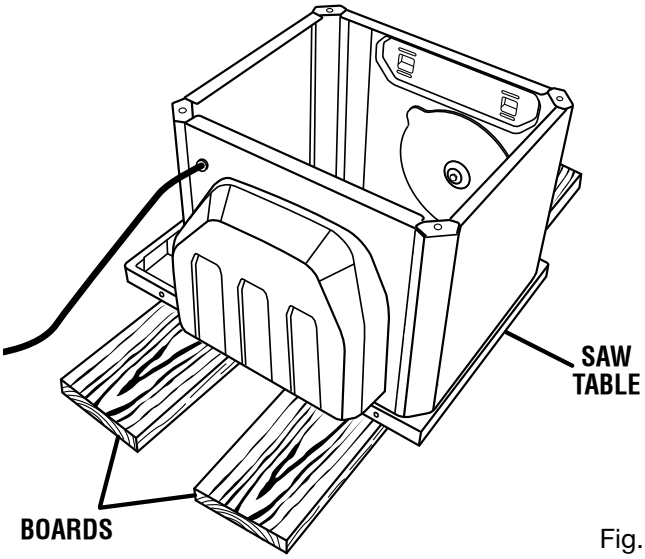


Fig. 10

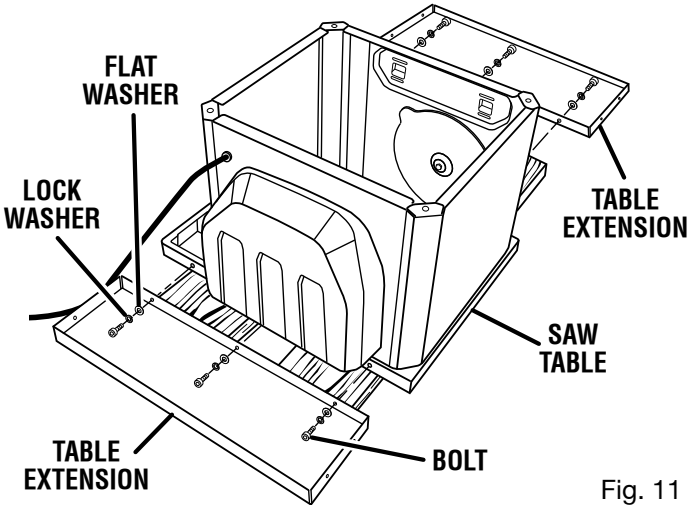


Fig. 11

ASSEMBLING THE LEG STAND

See Figure 12.

- Locate the following parts:

  4 Leg stand sections
  4 Outer corners
- From the small fastener pack, locate the following parts:

  24 Bolts (M6 x 10)
- Place an outer corner outside a leg stand section.

  NOTE: The top of the outer corner has a bent tab and hole for assembly to the saw cabinet.
- Insert a bolt into each of the three holes and finger tighten.
- Repeat with remaining corners and leg stand sections.
- Using a 4 mm hex key, tighten all bolts securely.

  NOTE: The front of the stand is the section with the English **WARNING** label attached.

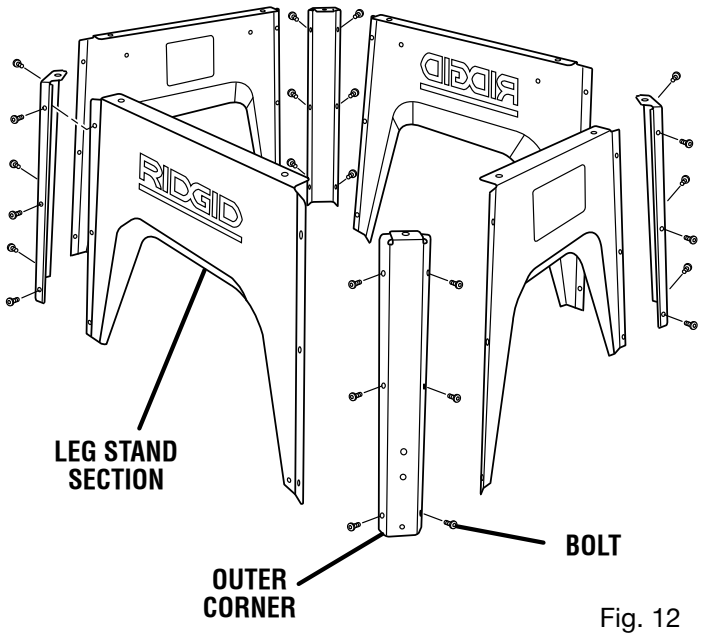


Fig. 12

ASSEMBLY

ASSEMBLING THE LEG STAND ONTO THE SAW CABINET

See Figures 13 - 14.

⚠ WARNING:

Only install the dust chute when using a four inch dust collection system. Failure to heed this warning could result in serious personal injury or death. Clean saw dust from the cabinet regularly.

NOTE: Make sure the foam block has been removed before installing the dust chute.

- Place the dust chute on top of the saw cabinet. The word "FRONT" and the arrow should align with front panel of the saw and the registration ridges should align with the grooves.
- Place the assembled leg stand over the dust chute as shown.
- Locate the following from the small fastener pack:

  4 Flat washers
  4 Lock washers
  4 Bolts
- Slide a lock washer and a flat washer over each bolt.
- Thread a bolt into each of the 4 holes at the corners of the leg stand.
- Using a 6mm hex key, securely tighten the bolts.

ASSEMBLING THE CASTER SET

See Figures 15 - 16.

Remove the bolts and nuts from the 4 casters.

NOTE: Use a 13 mm wrench and a 14 mm wrench for the nuts and the bolts.

- Attach the casters to the axles by sliding the bolts through the holes and placing the nut over the bolt. Securely tighten each nut.
- Remove the center bolt and nut from the rear and front axle assemblies.

  NOTE: Use a 6 mm hex wrench to hold the bolt and a 13 mm wrench to loosen the nut.
- Position the front and rear axles as shown.
- Attach the center support to the front axle assembly. Slide the bolt through the hole in the axle center piece and thread the nut over the bolt. Tighten the nut.
- Attach the center support to the rear axle.

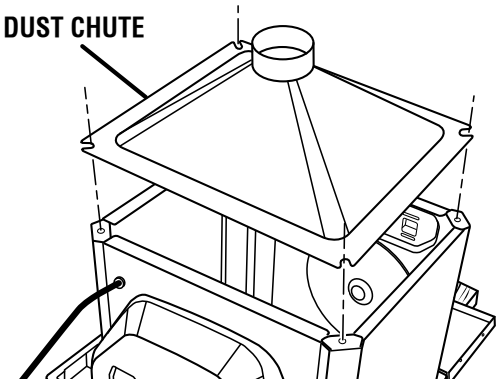


Fig. 13

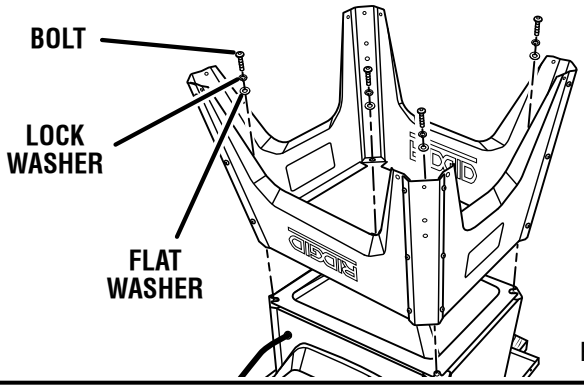


Fig. 14

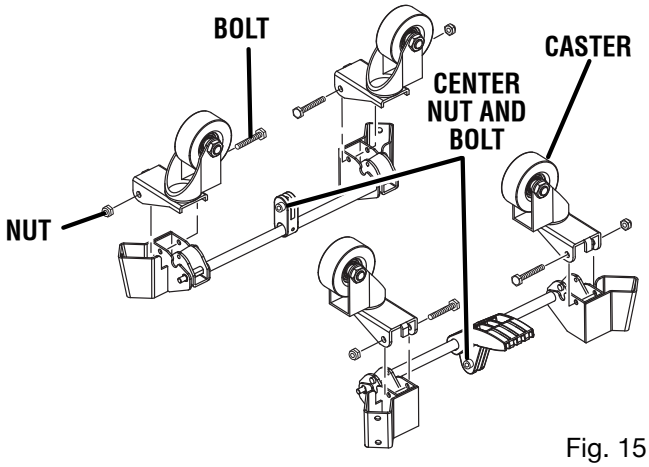


Fig. 15

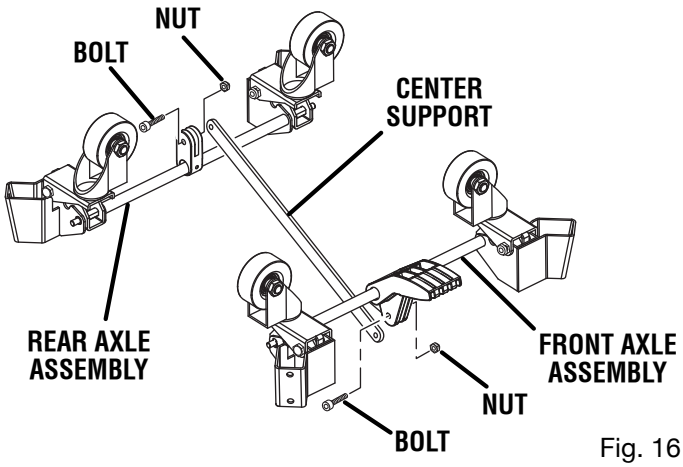


Fig. 16

ASSEMBLY

INSTALLING THE CASTER SET TO THE LEG STAND

See Figure 17.

- Slide the caster set into the leg stand, aligning the holes in the caster assembly with the holes in the leg stand.
- **NOTE:** Position the pedal as shown, so that it will be in the front of the saw when the saw is upright.
- Locate the following from the small fastener pack:

  8 Bolts (M8 x 16)
- Insert the bolts into the holes in the leg stand and through the holes in each caster.
- Using a 5 mm hex key, securely tighten the bolts.
- Position the feet on the stand by pressing them into place.

INSTALLING RIP FENCE STORAGE BRACKETS

See Figure 18.

- Remove the pre-installed bolt and nut from each bracket.
- Insert a bolt through the hole in each bracket, aligning it as shown with the hole in the stand.
- Thread the nut over the bolt. Using a 5 mm hex key, securely tighten each bolt.

SETTING THE SAW UPRIGHT

See Figure 19.

NOTE: The saw is heavy and requires several people for this procedure.

- Tilt the saw until it rests on the back side of the cabinet.
- Raise saw carefully until it sits upright.
- To raise the saw table, step down on the pedal until it locks.
- Roll the table saw to the desired location making sure the surface is firm and level.
- Pull up on the pedal to slowly lower the table saw.

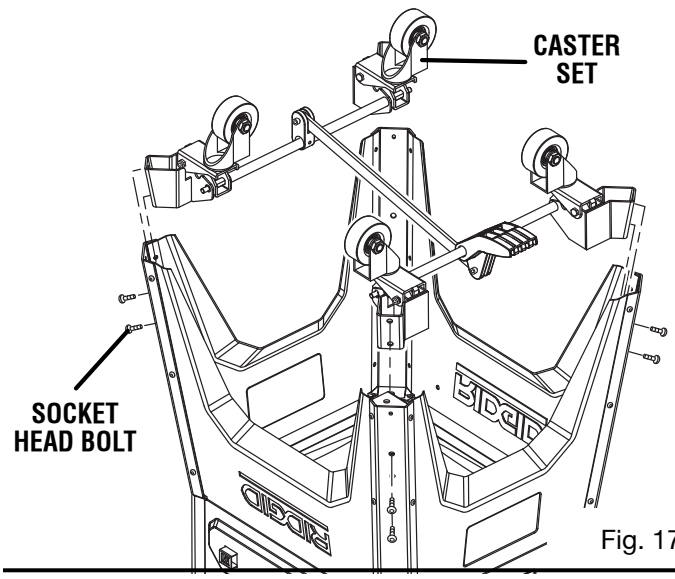


Fig. 17

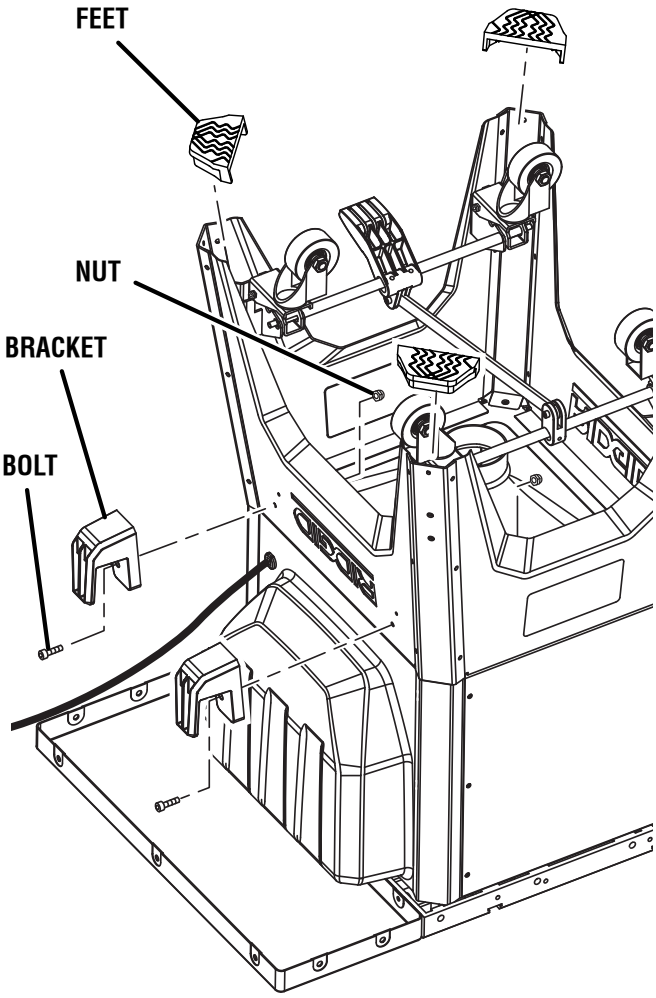


Fig. 18

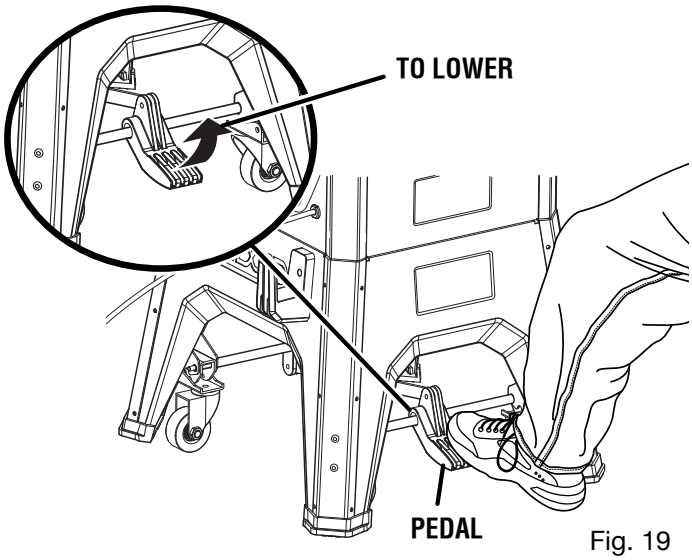


Fig. 19

ASSEMBLY

INSTALLING THE HEIGHT ADJUSTING HANDWHEEL

See Figure 20.

NOTE: The height adjusting handwheel knob and the bevel adjusting handwheel knob act as locks. To lock the wheel for operation, turn the knob clockwise until it is securely tightened.

- Slide the handwheel over the bolt above the bevel adjustment scale on the front of the saw.
- Slide the washer over the bolt.
- Screw the knob securely onto the bolt.

INSTALLING THE BEVEL ADJUSTING HANDWHEEL

See Figure 21.

- Slide the bevel adjusting handwheel over the bolt on the side of the saw.
- Slide the washer over the bolt.
- Screw the knob securely onto the bolt.

ACCESSORY STORAGE

See Figure 22.

Storage for the blade, blade wrench and miter gauge is located on the side of the saw. The miter gauge may be stored by sliding it into the slots.

The push stick contains a magnet. When not in use, the push stick may be stored at a convenient location on the saw.

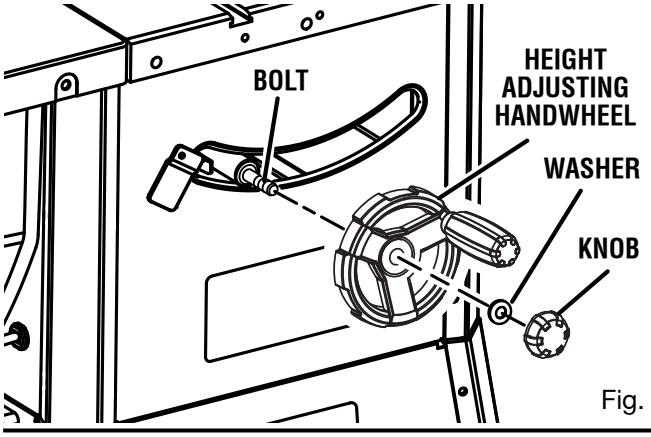


Fig. 20

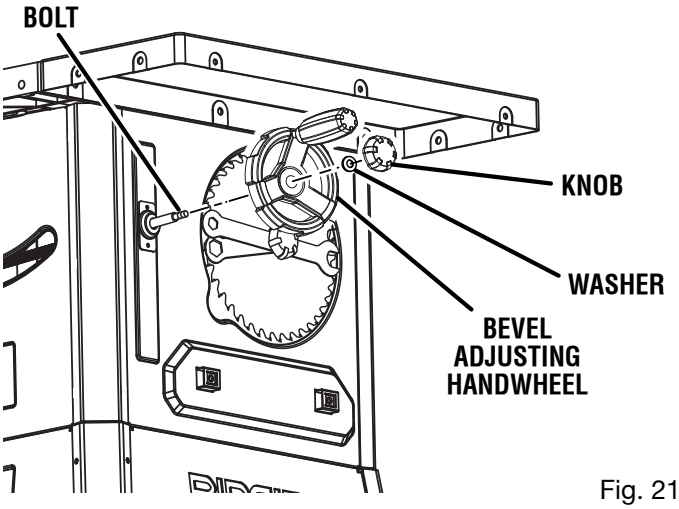


Fig. 21

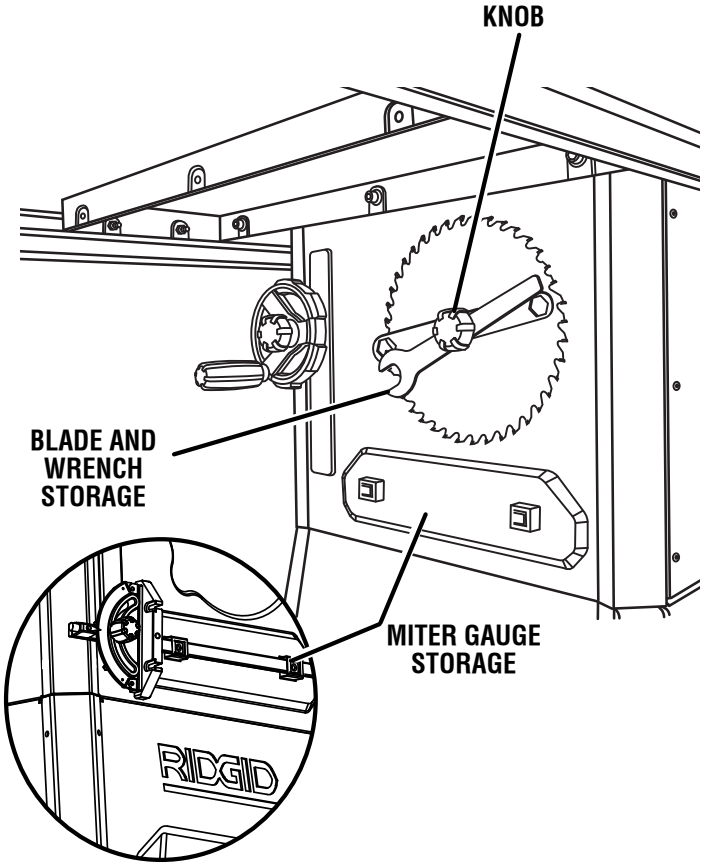


Fig. 22

INSTALLING THE BLADE

See Figure 23 - 24.

The blade and blade wrenches are located on the side of the saw in the storage area. Twist the knob counterclockwise to remove it.

- Remove the blade and two blade wrenches.
- Loosen the height adjusting handwheel lock knob and turn the handwheel clockwise to raise the blade arbor.
- Place the new blade on the arbor shaft (blade teeth must point down toward the front of the saw to work properly).
- Place the blade washer and the blade nut over the arbor shaft. Be sure the dome side of the blade washer faces out from the blade and that all items are snug against the arbor housing. Make sure the blade nut is securely tightened. Do not overtighten.
- Using the open end blade wrench, place the flat open end into the flats on the arbor shaft.
- Insert the closed end of the other blade wrench over the hex nut. Holding both wrenches firmly, push the closed end wrench to the back of the machine. Make sure the blade nut is securely tightened. Do not overtighten.
- Rotate the blade by hand to make sure it turns freely.
- Lower the saw blade and install the throat plate.

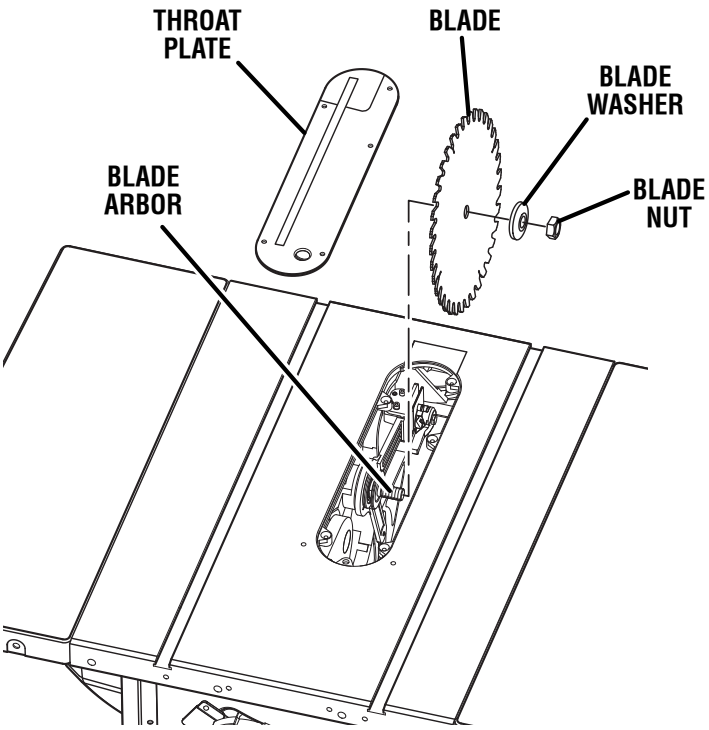


Fig. 23

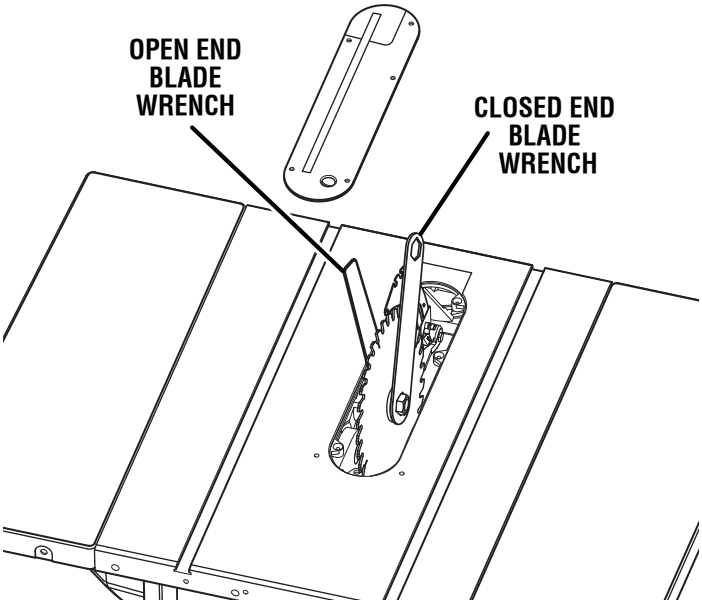


Fig. 24

ASSEMBLY

INSTALLING/REMOVING THE THROAT PLATE

See Figure 25.

- To install the throat plate, slip the tab underneath the saw table at the back of the saw and push down to secure in place.
- To remove the throat plate, place your index finger in the hole and lift the front end, pulling the throat plate out toward the front of the saw.

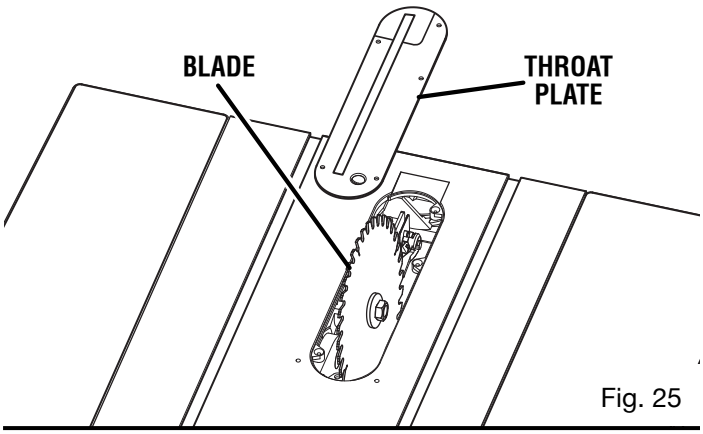


Fig. 25

ASSEMBLING THE RAILS

See Figures 26 - 28.

To assemble the front rail:

NOTE: Do not completely tighten set screws until all front rail pieces are assembled and you have made sure the rail will lie flat and level.

NOTE: Front rail sections have a rip scale printed on them. In the illustrations, rail connector bars are inserted into the long rail section first.

- Insert half of each rail connector bar into the grooves in the rail sections.
- Using a 3 mm hex key, attach the connector bar to the rail by partially tightening the set screws.
- Attach a second rail connector bar in the same way as the first one.

NOTE: The left side rail section is shorter than the right side.

- Slide the second front rail section onto the first, over the attached rail connector bars. Partially tighten set screws.
- Place the assembled rail sections on a flat surface and make sure the rail lies flat and level. There should be no gaps between the two sections.
- Securely tighten all set screws.

To assemble the rear rail:

- Slide the remaining rail connector bar into the slot in the a rear rail section.
- Assemble the rear rail sections in the same way as the front rail. Make sure the rail lies flat and level and there are no gaps between the two sections.
- Securely tighten all set screws.

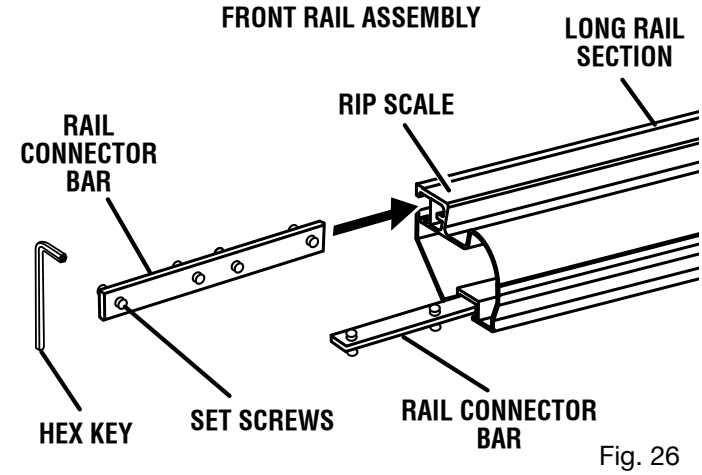


Fig. 26

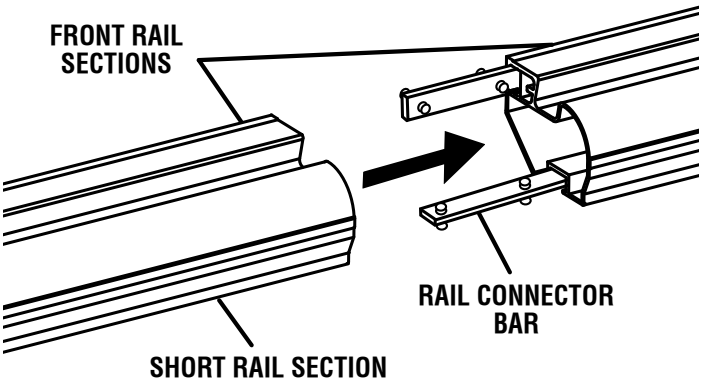


Fig. 27

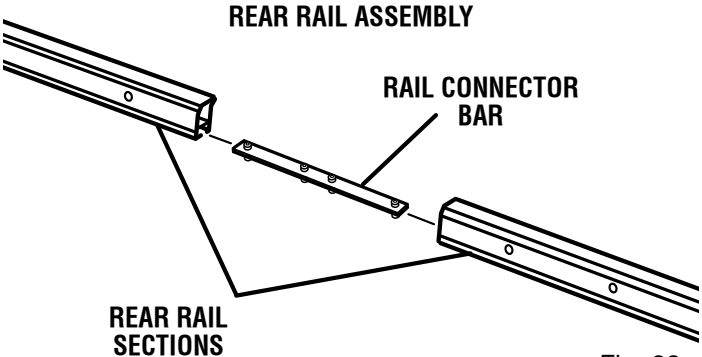


Fig. 28

INSTALLING THE RAILS ONTO THE SAW TABLE

See Figures 29 - 32.

- Take the following from the large fastener pack:
  9 Hex head bolts (M8 x 30 for the front rail)
  9 Bolts (M8 x 20 for the rear rail)
  16 Nuts (M8: 10 for the front rail, 6 for the rear rail)
  NOTE: One M8 x 30 bolt, one M8 x 20 bolt, and four of the nuts will be needed to secure the spreader bar to the front and rear rails.

To install the front rail:

- Slide eight hex head bolts into the groove on the back of the assembled front rail.
- Align the bolts with and insert the bolts into the holes on the front of the saw table and table extensions.
- Using a 13 mm wrench, tighten the four center nuts. Do not tighten completely.
- Tighten the four outer nuts. Do not tighten completely.

To install the rear rail:

- Insert eight bolts into the holes on the back of the saw table and table extensions.
  NOTE: Position the rear rail with the slotted side on the bottom and the lip on the top and facing out.
- Using a 6 mm hex key, tighten the four center bolts. Do not tighten completely.
- Tighten the four outer nuts. Do not tighten completely.

To check the table and rail position:

- Turn the height adjusting handwheel clockwise to raise the blade.
- Gently place the rip fence against the blade as shown. The mark on the right side indicator should be at zero on the rip scale.
  NOTE: Do not lock the rip fence handle at this point.
- If the rip fence indicator is not at zero, slightly loosen the bolts and nudge the rails until the mark is at zero.
- Carefully tighten the four center nuts for the rail.
- With the rip fence lying on top of the saw table, check to see that the rip fence slides freely across the table and table extension and will not catch or drag at any point.
- There should be an equal gap between the saw table and the bottom of the rip fence from the front to back of the rip fence, on both sides of the blade.

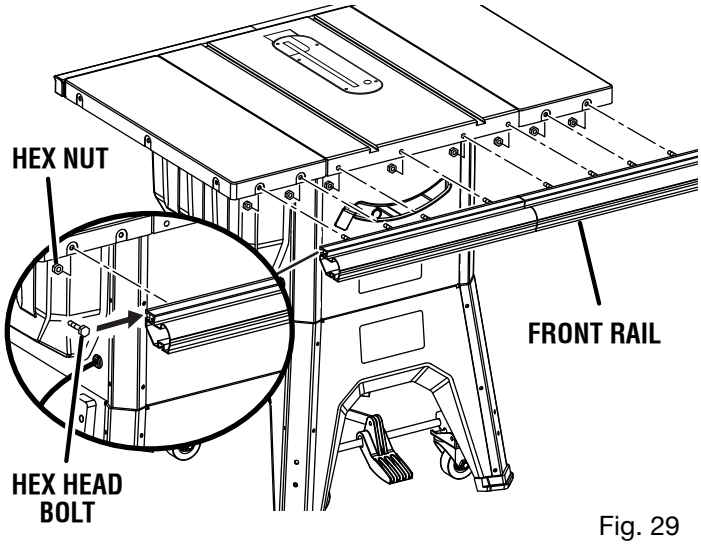


Fig. 29

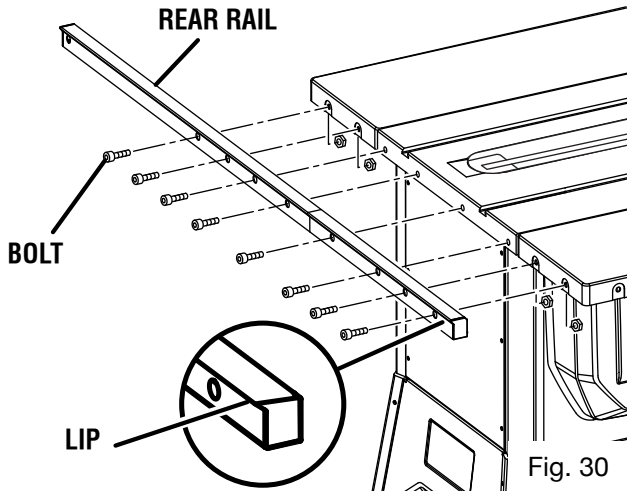


Fig. 30

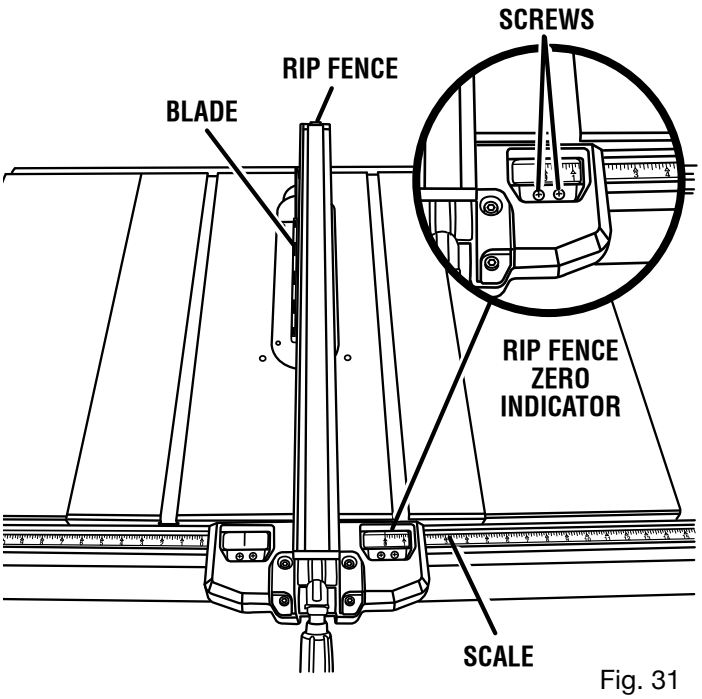


Fig. 31

- Lay a framing square on each side of the table top as shown to make sure the table extensions are level with the top.
- If the table extensions and rails are flat and level, securely tighten the four center nuts on the front rail and the four center bolts on the rear rail.
- Securely tighten the four outer nuts and bolts on each rail.
- Check the table and extensions to make sure all assembled parts are flush and level.
- If the table extensions, rip fence, and rails are not level, make adjustments by slightly loosening and retightening the bolts and nuts, and repositioning the rails until they are level and flush with the table top.

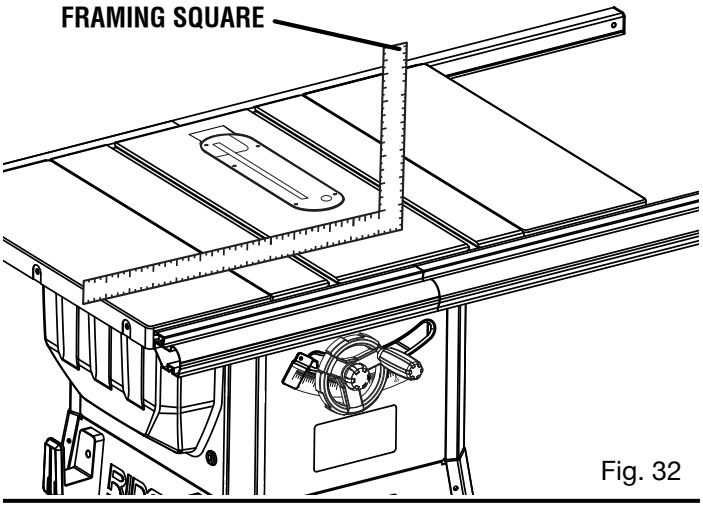


Fig. 32

INSTALLING THE SPREADER BAR

See Figure 33.

The bolts and nuts for the spreader bar were removed from the large fastener pack during installation of the rails.

- Position the spreader bar at the end of the rails with the tabs facing away from the saw table.
- Slide a hex head bolt into the groove on the front rail and insert the bolt through the tab in the spreader bar. Thread two hex nuts over the bolt and finger tighten.
- Insert a bolt through the holes in the rear rail and spreader bar tab.
- Thread two hex nuts onto the bolt.
- Using a 13 mm wrench, securely tighten all bolts.

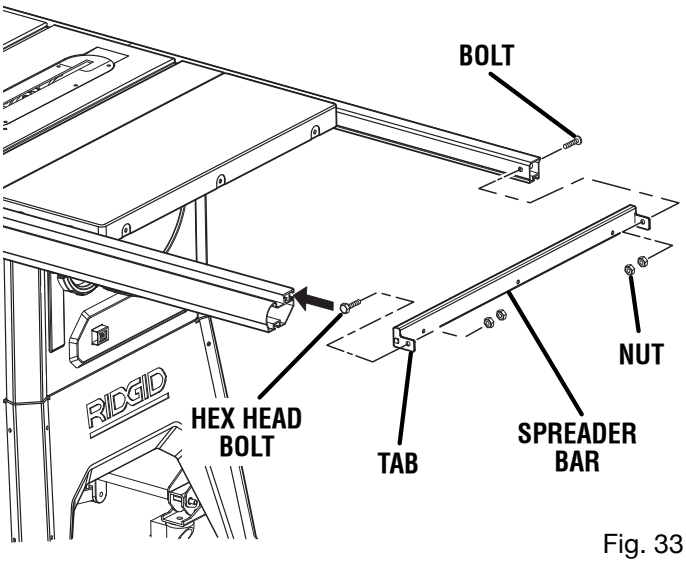


Fig. 33

MOUNTING THE SWITCH ASSEMBLY

See Figure 34.

- Take the following from the large fastener pack:
  - 2 hex head bolts (6 x 14 mm)
  - 2 lock washers (6 mm)
  - 2 hex nuts (6 mm)
- Slide two hex head bolts into the middle groove in the front rail.
- Insert the bolts through the holes in the switch assembly mounting plate.
- Thread a lock washer and nut over each of the bolts.
- Securely tighten the hex nuts using a 10 mm wrench.

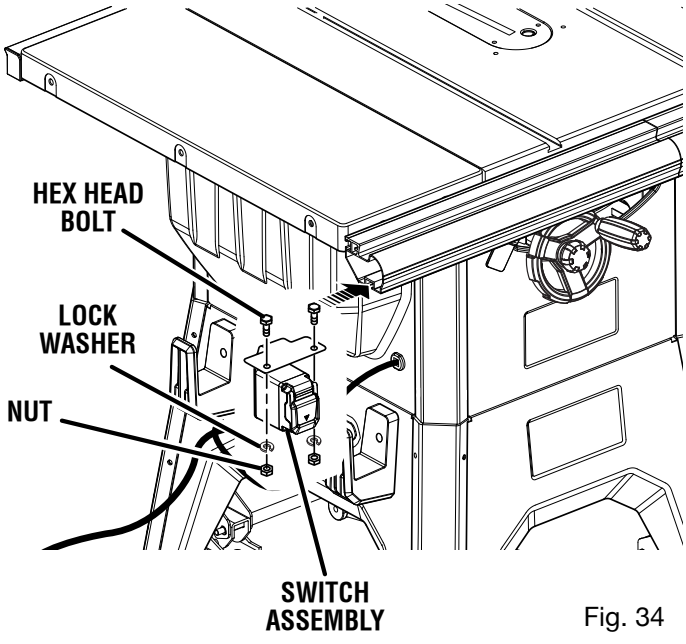


Fig. 34

INSTALLING END CAPS

See Figure 35.

- Align the end caps of the front rail to the end of the rail.
- Secure using self-tapping pan head screw (M4) in each hole using a Phillips screwdriver.
- Push rear rail end caps into position at each end of the rail.

TO CHANGE BETWEEN A SPREADER AND A RIVING KNIFE

See Figure 36.

This saw is shipped with the spreader/riving knife placed in the non-through cutting or "down" position (riving knife position).

NOTE: The spreader/riving knife must be placed in the through cutting, or "up" position (spreader position), for all other cutting operations.

- Unplug the saw.

To place in spreader position (or "up" position for all through cutting):

- Remove the throat plate.
- Raise the saw blade by turning the height adjusting handwheel clockwise.
- Unlock the release lever by pulling it up.
- Grasp the spreader and pull it towards the right side of the saw to release the spreader from the spring-loaded riving clamp.
- Pull the spreader up until the internal pins are engaged and the spreader is above the saw blade.
- Lock the release lever by pushing the lever down.
- Reinstall the throat plate.

To place in riving knife position (or "down" position for all non-through cutting):

- Remove the throat plate.
- Raise the saw blade by turning the height adjusting handwheel clockwise.
- Unlock the release lever by pulling it up.
- Push the riving knife down until it is below the saw blade.
- Lock the release lever by pushing the lever down.
- Reinstall the throat plate.

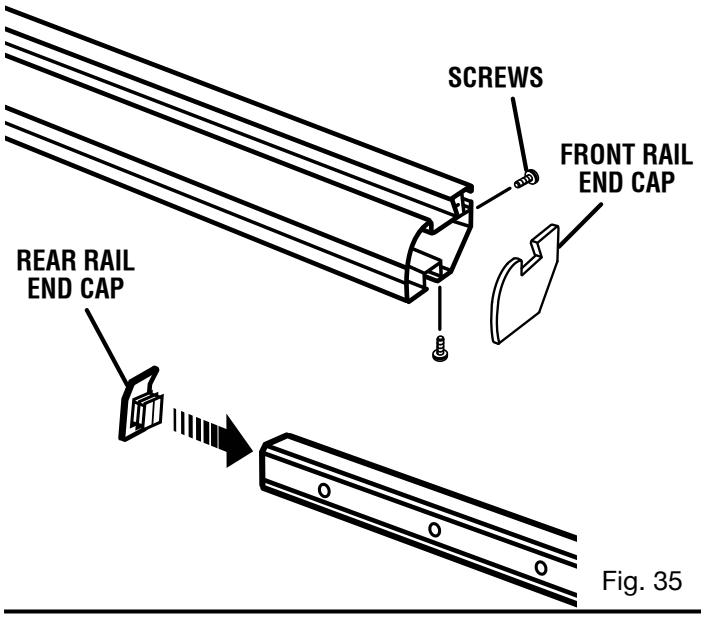
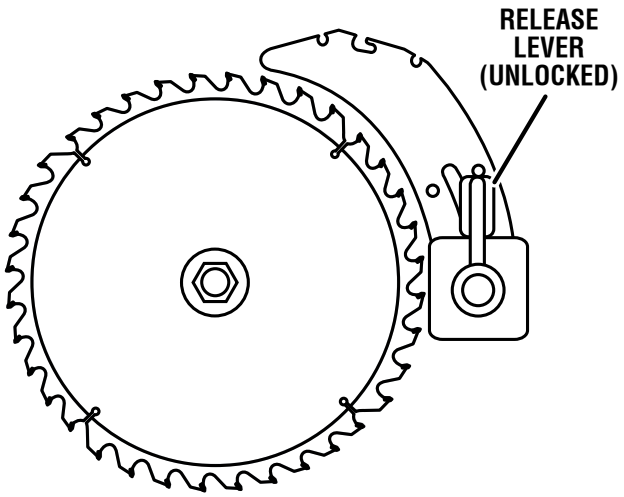
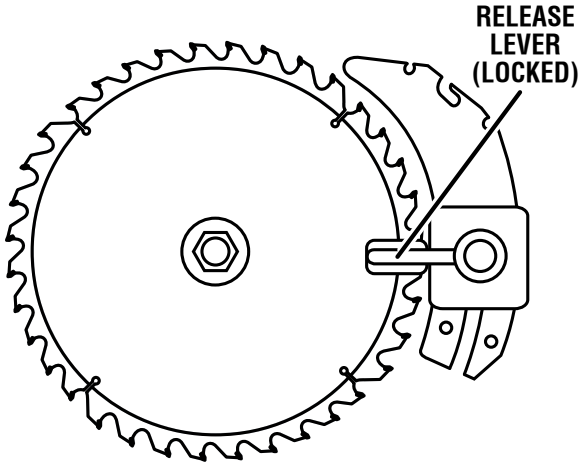


Fig. 35



IN "UP" POSITION FOR THROUGH CUTTING



IN "DOWN" POSITION FOR NON-THROUGH CUTTING

Fig. 36

TO INSTALL THE ANTI-KICKBACK PAWLS AND BLADE GUARD

See Figures 37 - 39.

⚠ WARNING:
Replace dull or damaged anti-kickback pawls. Dull or damaged pawls may not stop a kickback increasing the risk of serious personal injury.

NOTE: Anti-kickback pawls should only be installed for through cuts.

- Unplug the saw.
- Raise the saw blade.
- Place spreader/riving knife in "up" position.

To install anti-kickback pawls:

- Press and hold the button on the right side of the anti-kickback pawls.
- Align the slot in the pawls over the rear slot in the spreader/riving knife.
- Push the pawl handle down snapping them into place and release the button.

  NOTE: Pull on the handle to make sure pawls are securely locked.

To install blade guard:

- With the front of the blade guard raised and the guard lever unlocked, lower the back of the guard into the middle slot of the spreader/riving knife. Push the front of the guard down **until it is parallel to the table**.
- Lock the guard in place by pushing the guard lever down.

NOTE: Blade alignment with the spreader can be adjusted for different blade widths. Refer to: **To Check and Align the Spreader/Riving Knife and Saw Blade**. Check the blade guard assembly for clearances and free movement.

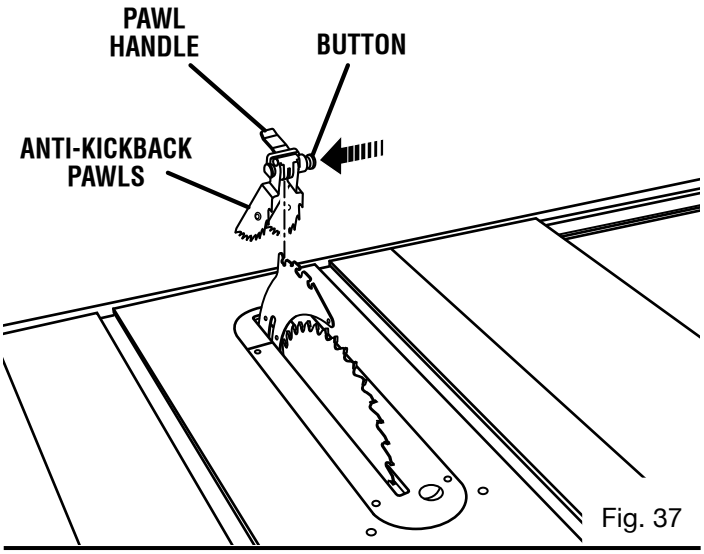


Fig. 37

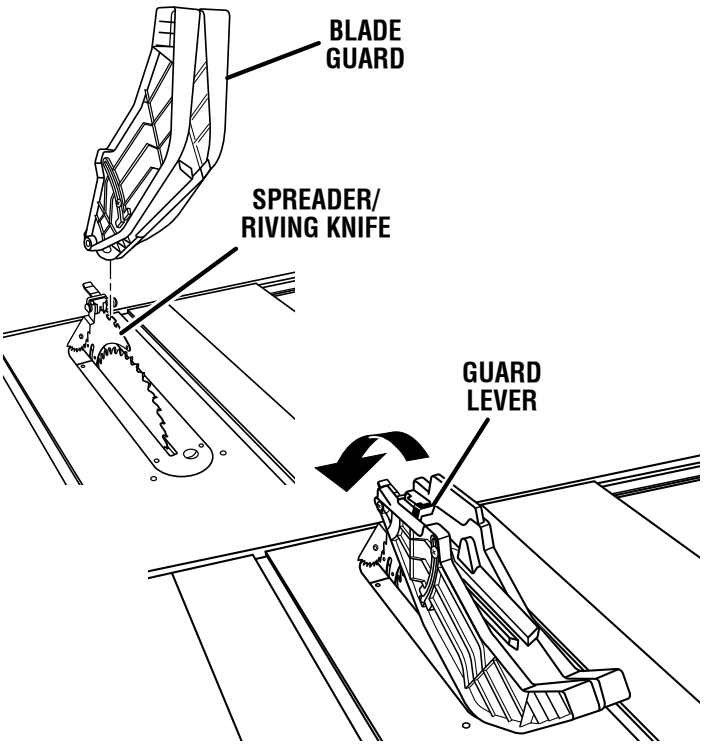


Fig. 38

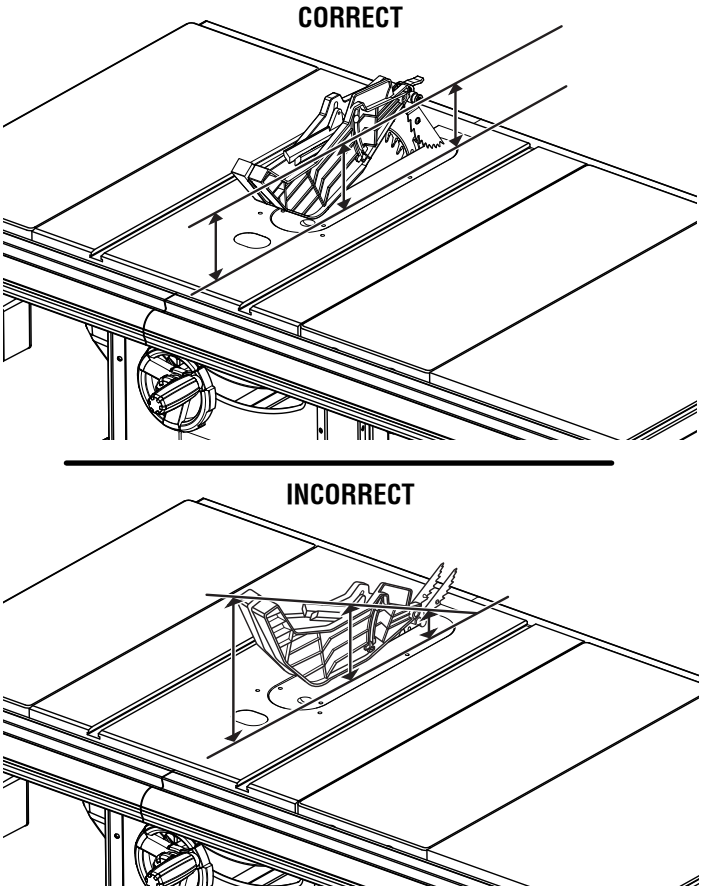


Fig. 39

TO CHECK AND ALIGN THE SPREADER/ RIVING KNIFE AND SAW BLADE

See Figure 40.

To check alignment of the spreader/riving knife:

- Unplug the saw.
- Raise the saw blade by turning the height/bevel adjusting handwheel clockwise.
- Remove the anti-kickback pawls and blade guard assembly. Place a framing square or straight edge against both the saw blade and the spreader.

  NOTE: Place framing square between carbide teeth and measure from blade. This step will insure framing square is square against blade from the front to back of blade.
- The saw blade and spreader/riving knife are aligned when the framing square contacts both the blade and spreader/ riving knife evenly with no gaps.

If the spreader/riving knife is out of alignment with the saw blade, adjustment is needed. The spreader/riving knife must be in alignment front to back (horizontally) and top to bottom (vertically).

To adjust (horizontally):

- Remove the anti-kickback pawls and blade guard assembly.
- Using a 4 mm hex key, loosen the screws holding the mounting bracket.
- Reposition the spreader/riving knife left or right as needed to align the spreader/riving knife with the saw blade.
- Once properly aligned, securely retighten all screws.

To adjust (vertically):

- Using a 2.5 mm hex key, loosen the set screws and screws holding the mounting bracket.
- Slowly turn the set screws until the riving knife is aligned with the blade.
- Once properly aligned, securely retighten all screws.

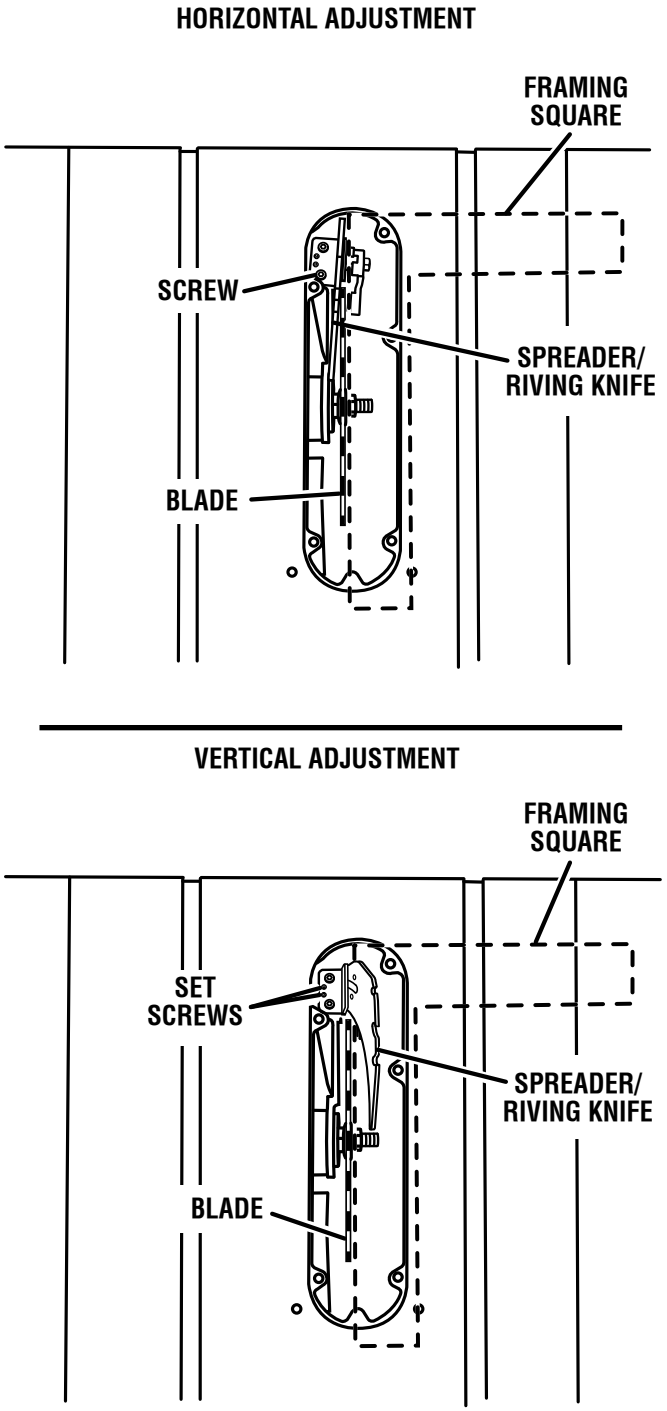


Fig. 40

OPERATION

WARNING:

Do not allow familiarity with tools to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

WARNING:

Always wear eye protection with side shields marked to comply with ANSI Z87.1. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

WARNING:

Do not use any attachments or accessories not recommended by the manufacturer of this tool. The use of attachments or accessories not recommended can result in serious personal injury.

WARNING:

Although many of the illustrations in this manual are shown with the blade guard removed for clarity, do not operate the saw without the blade guard unless specifically instructed to do so.

APPLICATIONS

You may use this tool for the purposes listed below:

- Straight line cutting operations such as cross cutting, ripping, mitering, beveling, and compound cutting
- Dado cuts with optional accessories
- Cabinet making and woodworking

NOTE: This table saw is designed to cut wood and wood composition products only.

BASIC OPERATION OF THE TABLE SAW

The 3-prong plug must be plugged into a matching outlet that is properly installed and grounded according to all local codes and ordinances. Improper connection of the equipment can result in electric shock. Do not modify the plug if it will not fit the outlet. Have the correct outlet installed by a qualified electrician. Refer to the *Electrical* section in this manual.

CAUSES OF KICKBACK

Kickback can occur when the blade stalls or binds, kicking the workpiece back toward you with great force and speed. If your hands are near the saw blade, they may be jerked loose from the workpiece and may contact the blade. Kickback can cause serious injury. Use precautions to avoid the risks.

Kickback can be caused by any action that pinches the blade in the wood such as:

- Making a cut with incorrect blade depth
- Sawing into knots or nails in the workpiece
- Twisting the wood while making a cut
- Failing to support work
- Forcing a cut
- Cutting warped or wet lumber
- Using the wrong blade for the type of cut
- Not following correct operating procedures
- Misusing the saw
- Failing to use the anti-kickback pawls
- Cutting with a dull, gummed-up, or improperly set blade

AVOIDING KICKBACK

- Always use the correct blade depth setting. The top of the blade teeth should clear the workpiece by 1/8 in. to 1/4 in.
- Inspect the work for knots or nails before beginning a cut. Knock out any loose knots with a hammer. Never saw into a loose knot or nail.
- Always use the rip fence when rip cutting and the miter gauge when cross cutting. This helps prevent twisting the wood in the cut.
- Always use clean, sharp, and properly-set blades. Never make cuts with dull blades.
- To avoid pinching the blade, support the work properly before beginning a cut.
- When making a cut, use steady, even pressure. Never force cuts.
- Do not cut wet or warped lumber.
- Always hold your workpiece firmly with both hands or with push sticks. Keep your body in a balanced position to be ready to resist kickback should it occur. Never stand directly in line with the blade.
- Use the right type of blade for the cut being made.

OPERATION

CUTTING AIDS

See Figure 41.

Push sticks are devices used for safely pushing a workpiece through the blade. They can be made in various sizes and shapes from scrap wood to use in a specific project. The stick must be narrower than the workpiece, with a 90° notch in one end and shaping for a grip on the other end.

A push block has a handle fastened by recessed screws from the underside. Be sure the screw is recessed. Use it on non-through cuts.

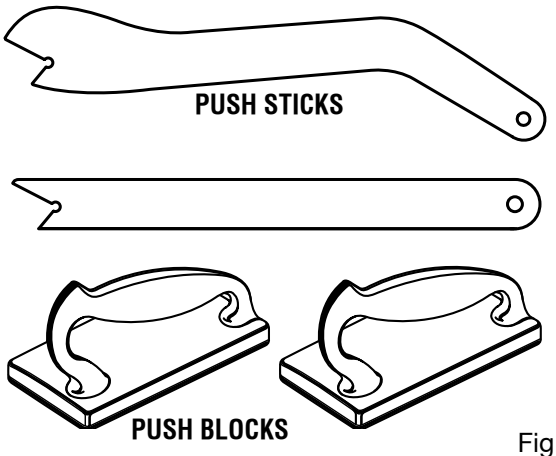


Fig. 41

AUXILIARY FENCE

An auxiliary fence is a device used to close the gap between the rip fence and the saw table. Always make and use an auxiliary fence when ripping material 1/8 in. or thinner.

HOW TO MAKE AND ATTACH AN AUXILIARY FENCE (FOR RIP CUTTING THIN WORKPIECE)

See Figure 42.

An auxiliary fence may be made for the saw by cutting a piece of wood to 3/4 in. thick, 3-1/2 in. wide, and 31 in. long.

To attach the auxiliary fence to the rip fence:

- Drill two countersunk holes in the locations shown.

⚠ WARNING:

When mounting an auxiliary fence face, position mounting hardware beyond arrows at right and left. Keep fasteners away from blade.

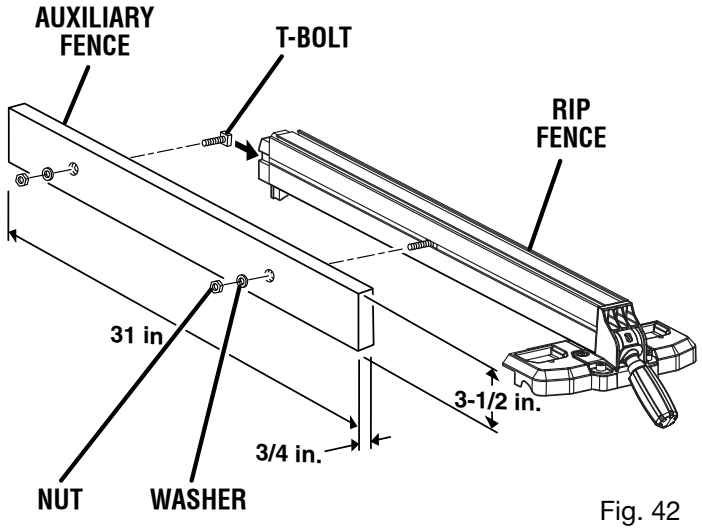


Fig. 42

- Slide two T-bolts (not included) into the rip fence groove beyond the arrows at right and left of the label on the rip fence.
- Match the T-bolts to the holes in the auxiliary fence and secure it to the rip fence with a washer and nut.
- Ensure that the auxiliary fence is securely attached before use.

HOW TO MAKE A JIG (FOR RIP CUTTING NARROW WORKPIECE)

See Figure 43.

If ripping a narrow workpiece places the hands too close to the blade, it will be necessary to make and use a jig.

To make a jig:

- Attach a handle to a long, straight piece of wood and secure from the underside using recessed screws.
- Cut an L-shaped stop in the side of the jig.

To use a jig:

- Position the workpiece flat on the table with the edge flush against the jig and against the stop.
- Holding the jig handle and using a push block, make the rip cut as described later in this section.

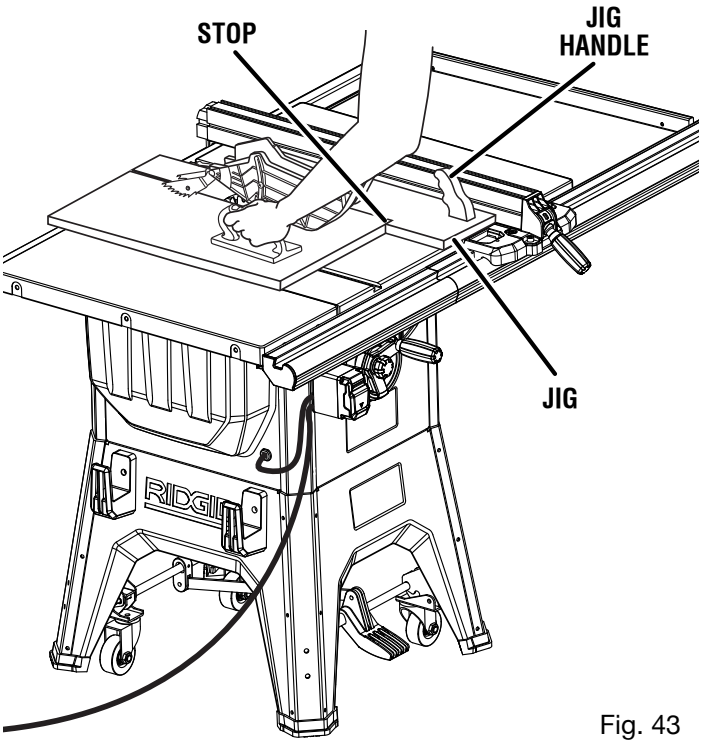


Fig. 43

OPERATION

FEATHERBOARD

A featherboard is a device used to help control the workpiece by guiding it securely against the table or fence. Featherboards are especially useful when ripping small workpieces and for completing non-through cuts. The end is angled with a number of short kerfs to give a friction hold on the workpiece and locked in place on the table with a C-clamp. Test that it can resist kickback.

WARNING:

Place the featherboard against the uncut portion of the workpiece to avoid kickback that could cause serious personal injury.

HOW TO MAKE A FEATHERBOARD

See Figure 44.

The featherboard is an excellent project for your saw. Select a solid piece of lumber approximately 3/4 in. thick, 3-5/8 in. wide and 18 in. long. Mark the center of the width on one end of the stock. Miter one-half of the width to 30° and miter the other half of the same end to 45°. Mark the board from the point at 6 in., 8 in., 10 in. and 12 in. Drill a 3/8 in. hole at the 8 in., 10 in., and 12 in. marks.

Prepare the saw for ripping. Set the rip fence to allow approximately a 1/4 in. "finger" to be cut in the stock. Feed the stock only to the mark previously made at 6 in. Turn the saw **OFF** and allow the blade to completely stop rotating before removing the stock. Reset the rip fence and cut spaced rips into the workpiece to allow approximately 1/4 in. fingers and 1/8 in. spaces between the fingers.

HOW TO MOUNT A FEATHERBOARD

See Figure 45.

Completely lower the saw blade. Position the rip fence to the desired adjustment for the cut to be performed and lock the rip fence. Place the workpiece against the fence and over the saw blade area. Adjust the featherboard to apply resistance to the workpiece just forward of the blade. Attach C-clamps to secure the featherboard to the edge of the saw table.

WARNING:

The featherboard must be installed in front of the blade. **Do not** locate the featherboard to the rear of the blade. Kickback can result from the featherboard pinching the workpiece and binding the blade in the saw kerf if positioned improperly. Failure to heed this warning can result in serious personal injury.

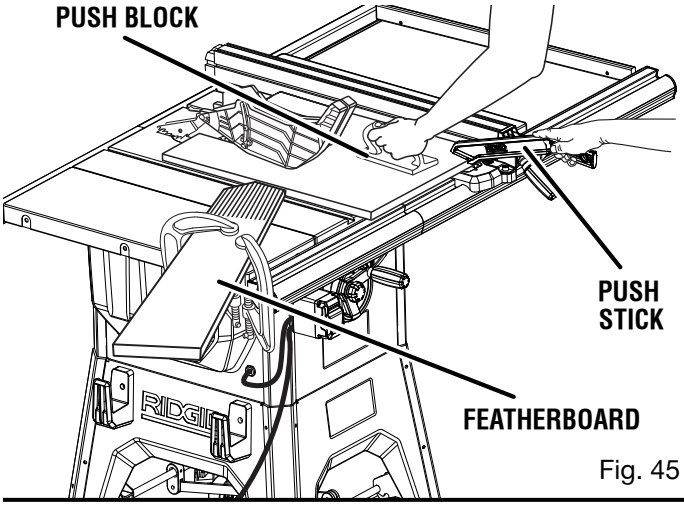


Fig. 45

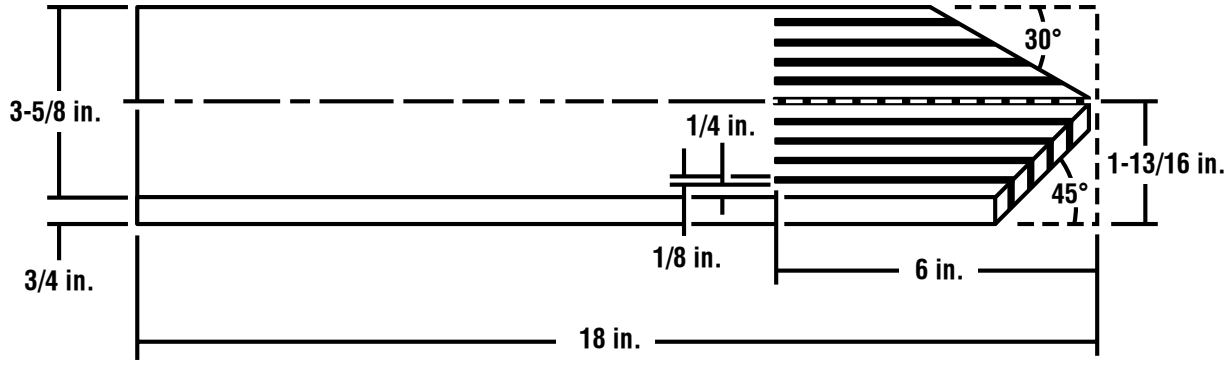


Fig. 44

OPERATION

TYPES OF CUTS

See Figure 46.

There are six basic cuts: 1) the cross cut, 2) the rip cut, 3) the miter cut, 4) the bevel cross cut, 5) the bevel rip cut, and 6) the compound (bevel) miter cut. All other cuts are combinations of these basic six. Operating procedures for making each kind of cut are given later in this section.

WARNING:

Always make sure the blade guard and anti-kickback pawls are in place and working properly when making these cuts to avoid possible injury.

Cross cuts are straight 90° cuts made across the grain of the workpiece. The wood is fed into the cut at a 90° angle to the blade, and the blade is vertical.

Rip cuts are made with the grain of the wood. To avoid kickback while making a rip cut, make sure one side of the wood rides firmly against the rip fence.

Miter cuts are made with the wood at any angle to the blade other than 90°. The blade is vertical. Miter cuts tend to "creep" during cutting. This can be controlled by holding the workpiece securely against the miter gauge.

WARNING:

Always use a push stick with small pieces of wood, and also to finish the cut when ripping a long narrow piece of wood, to prevent your hands from getting close to the blade.

Bevel cuts are made with an angled blade. Bevel cross cuts are across the wood grain, and bevel rip cuts are with the grain. The rip fence must always be on the right side of the blade for bevel rip cuts.

Compound (or bevel) miter cuts are made with an angled blade on wood that is angled to the blade. Be thoroughly familiar with making cross cuts, rip cuts, bevel cuts, and miter cuts before trying a compound miter cut.

CUTTING TIPS

Dado and rabbet cuts are non-through cuts which can be either rip cuts or cross cuts. Carefully read and understand all sections of this operator's manual before attempting any operation.

WARNING:

Do not use blades rated less than the speed of this tool. Failure to heed this warning could result in personal injury.

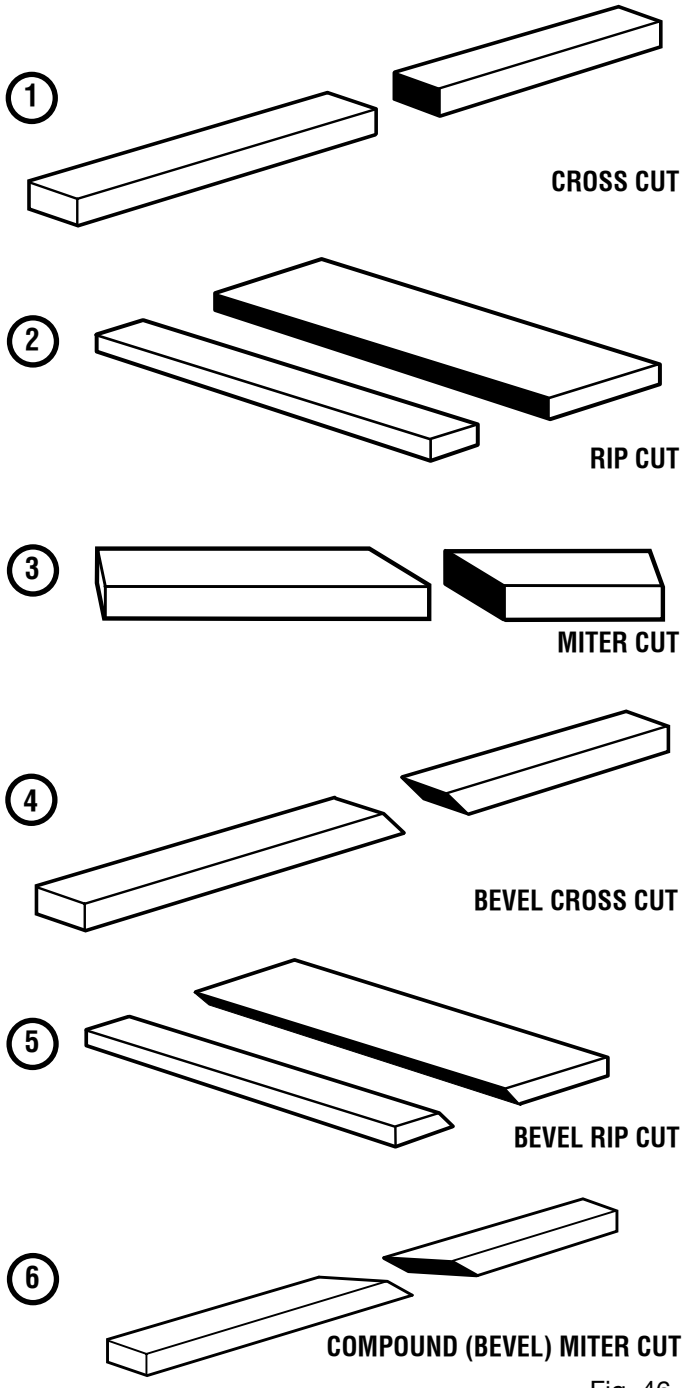


Fig. 46

- The kerf (the cut made by the blade in the wood) will be wider than the blade to avoid overheating or binding. Make allowance for the kerf when measuring wood.
- Make sure the kerf is made on the waste side of the measuring line.
- Cut the wood with the finish side up.
- Knock out any loose knots with a hammer before making the cut.
- Always provide proper support for the wood as it comes out of the saw.

HEIGHT ADJUSTING AND BEVEL ADJUSTING HANDWHEEL KNOBS

The height adjusting handwheel knob and bevel adjusting handwheel knobs act as locks. To unlock either knob before making an adjustment, turn the knob counterclockwise to loosen. After making a height or bevel adjustment, turn the knob clockwise to tighten.

TO CHANGE BLADE DEPTH

See Figures 47 - 48.

The blade depth should be set so the outer points of the blade are higher than the workpiece by approximately 1/8 in. to 1/4 in. but the lowest points (gullets) are below the top surface.

- Raise the blade by unlocking the height adjusting handwheel and turning it clockwise.
- Lower the blade by turning the handwheel counterclockwise.

TO CHANGE BLADE ANGLE

See Figure 49.

NOTE: A 90° cut has a 0° bevel and a 45° cut has a 45° bevel.

- Unplug the saw.
- Unlock the bevel adjusting handwheel by rotating the locking knob counterclockwise.
- Adjust the bevel angle by turning the bevel adjusting handwheel. Turning the handwheel clockwise will tilt the saw blade to the left.
- When the saw blade is tilted to the left as far as it will go, the blade should be at a 45° angle to the saw table and the bevel indicator should point to 45°.
- When the saw blade is tilted to the right as far as it will go, the blade should be at 90° to the saw table and the bevel indicator should point to 0°.

  NOTE: When the saw blade is 90° to the saw table, the saw blade should be square with the saw table. (See the *Adjustments* section of this manual to square the saw blade.)

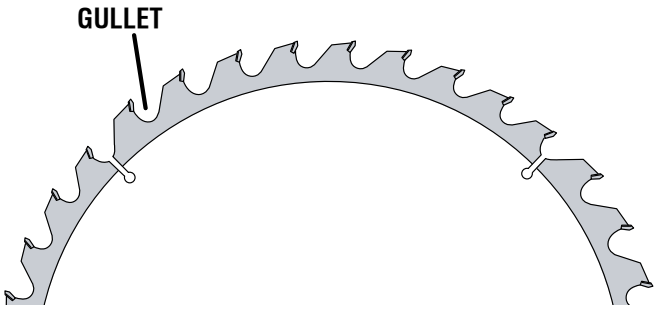


Fig. 47

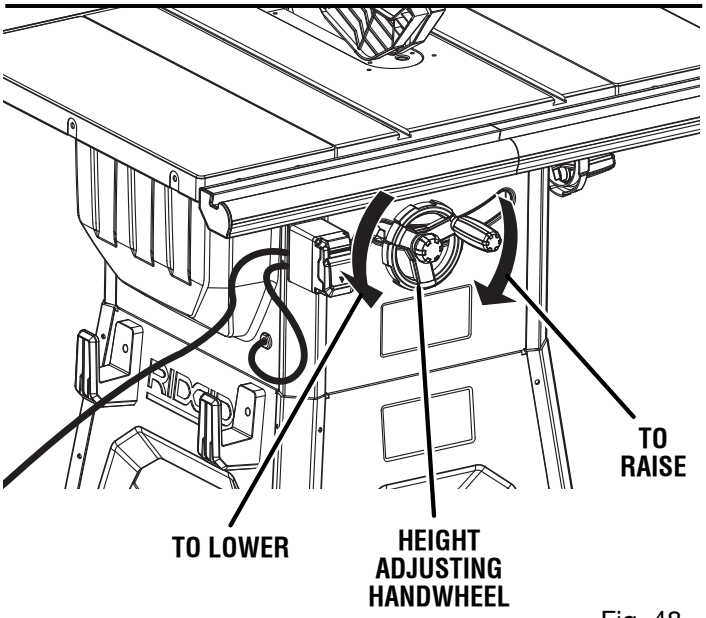


Fig. 48

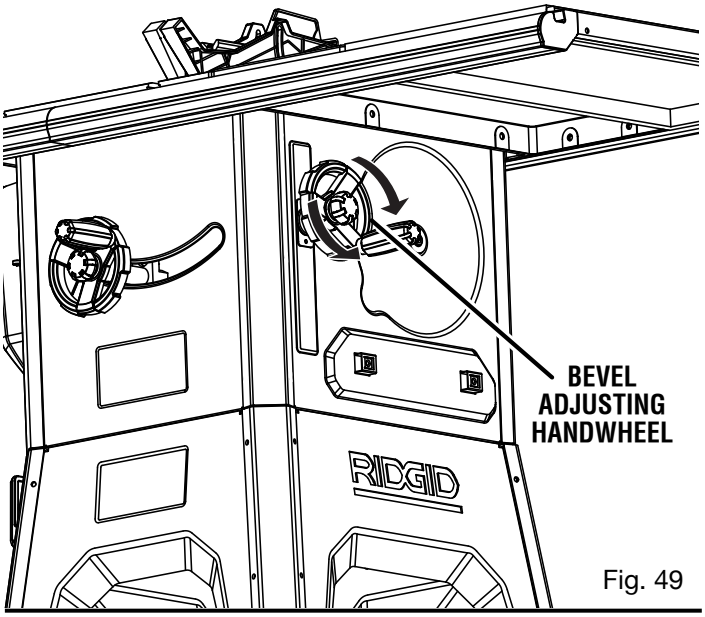


Fig. 49

TO ADJUST THE BEVEL INDICATOR

See Figure 50.

If the bevel indicator is not at zero when the saw blade is at 0°, adjust the indicator by loosening the screw and setting it at 0° on the bevel scale. Retighten the screw.

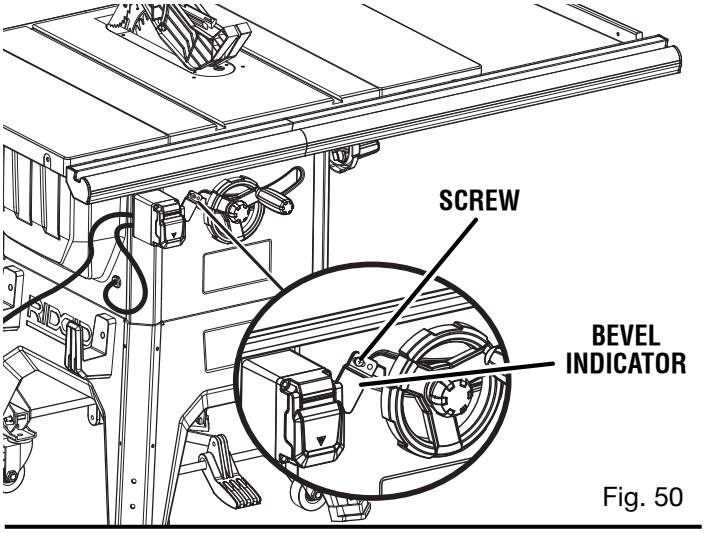


Fig. 50

⚠ WARNING:

To reduce the risk of injury, always make sure the rip fence is parallel to the blade before beginning any operation.

TO USE THE RIP FENCE

See Figure 51.

- Place the rear lip on the rear of the saw table and pull slightly toward the front of the unit.
- Lower the front end of the rip fence onto the guide surfaces on top of the front rail.
- With the rip fence flat on the saw table, push the fence towards the front rail to align the fence to the saw table.
- Push the locking handle down to secure the fence.
- Check for a smooth gliding action.

If adjustments are needed, see **To Check the Alignment of the Rip Fence to the Blade** in the *Adjustments* section of this manual.

- Make two or three test cuts on scrap wood. If the cuts are not true, repeat the process.

NOTE: The rip fence must be secure when the locking handle is engaged. To increase the grip of the rip fence on the rear lip of the table, tighten the clamp screw on the rear of the rip fence by turning it clockwise. Adjust if needed.

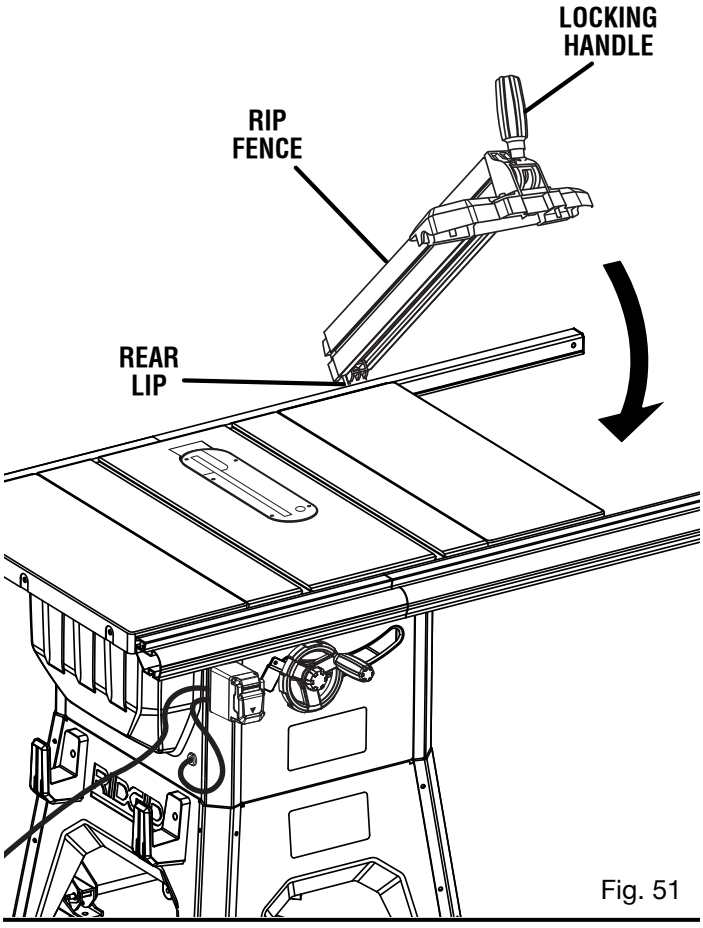


Fig. 51

OPERATION

TO SET THE RIP FENCE SCALE INDICATOR TO THE BLADE

See Figure 52.

Use the indicator on the rip fence to position the fence along the scale on the front rail.

NOTE: The anti-kickback pawls and blade guard assembly must be removed to perform this adjustment. Reinstall the blade guard assembly when the adjustment is complete.

Begin with the blade at a zero angle (straight up).

- Unplug the saw.
- Loosen the rip fence by lifting the locking handle.
- Set the rip fence gently against the blade tip edge.
- Loosen the screw on the scale indicator and align with the 0 mark as shown.
- Tighten the screw and check the dimension and the rip fence.
- Repeat this adjustment on the other side of the blade.

TO USE THE MITER GAUGE

See Figure 53.

The miter gauge provides greater accuracy in angled cuts. For very close tolerances, test cuts are recommended.

There are two miter gauge grooves, one on either side of the blade. When making a 90° cross cut, you can use either miter gauge groove. When making a beveled cross cut (the blade tilted in relation to the table) the miter gauge should be located in the slot on the right so that the blade is tilted away from the miter gauge and your hands.

The miter gauge can be turned 60° to the right or left.

- Loosen the lock knob.
- Pull out the stop pin and rotate the gauge until the desired angle is reached on the scale.
- Retighten the lock knob.

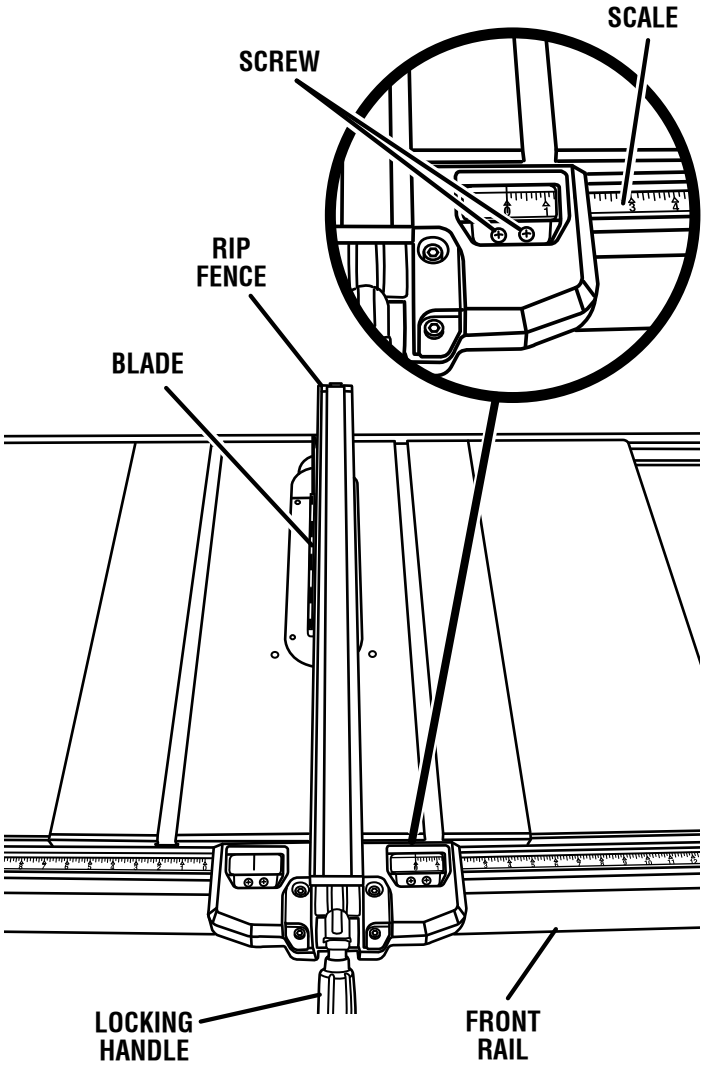


Fig. 52

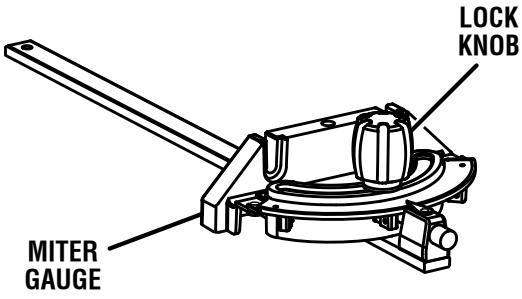


Fig. 53

HEELING (PARALLELING) THE BLADE TO THE MITER GAUGE GROOVE

See Figures 54 - 56.

WARNING:

The blade must be square so the wood does not bind resulting in kickback. Failure to do so could result in serious personal injury.

Do not loosen any bolts for this adjustment until you have checked with a square and made test cuts to be sure adjustments are necessary. Once the bolts are loosened, these items must be reset.

- Unplug the saw.
- With a 4 mm wrench, remove the 6 screws that secure the rear panel of the saw. Remove the panel.
- Remove the blade guard and anti-kickback pawls. Raise the blade by turning the height adjusting handwheel.
- Mark beside one of the blade teeth at the front of the blade. Place a combination square even with the front of the saw table and the side of the saw blade.
- Turn the blade so the marked tooth is at the back.
- Move the combination square to the rear and again measure the distance. If the distances are the same, the blade is square.

If the distances are different:

- Place spreader/riving knife in “down” position then lower the blade.
- Loosen the four adjusting bolts.

  NOTE: The adjusting bolts are located under the saw table.
- If the back of the blade was too far from the combination square, push or tap the blade left side of the blade until the blade is square. Retighten the bolts.
- If the back of the blade was too close to the combination square, push or tap the right side of the blade until the blade is square. Retighten the bolts.

WARNING:

To reduce the risk of injury from kickback, align the rip fence to the blade following any blade adjustments. Always make sure the rip fence is parallel to the blade before beginning any operation.

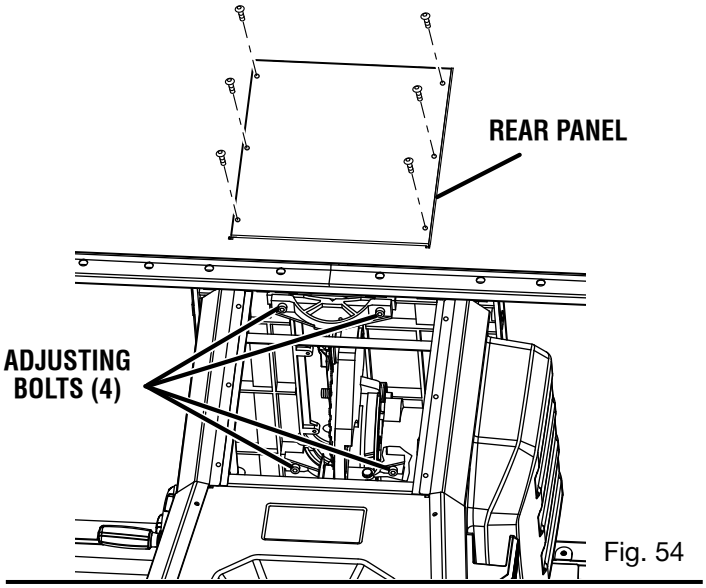


Fig. 54

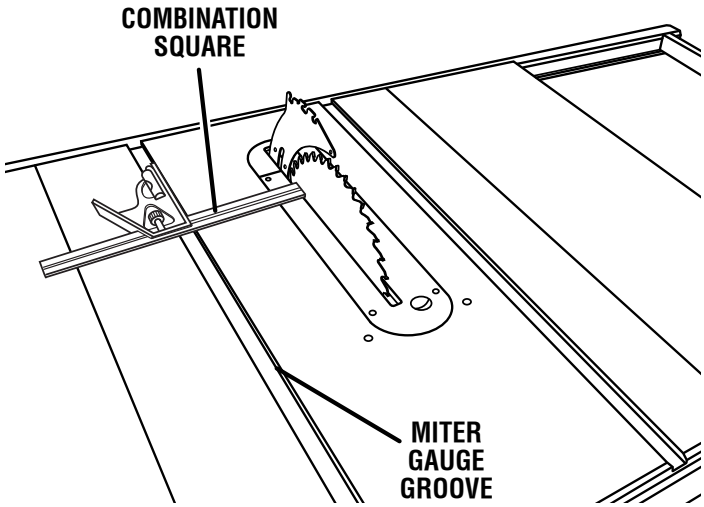


Fig. 55

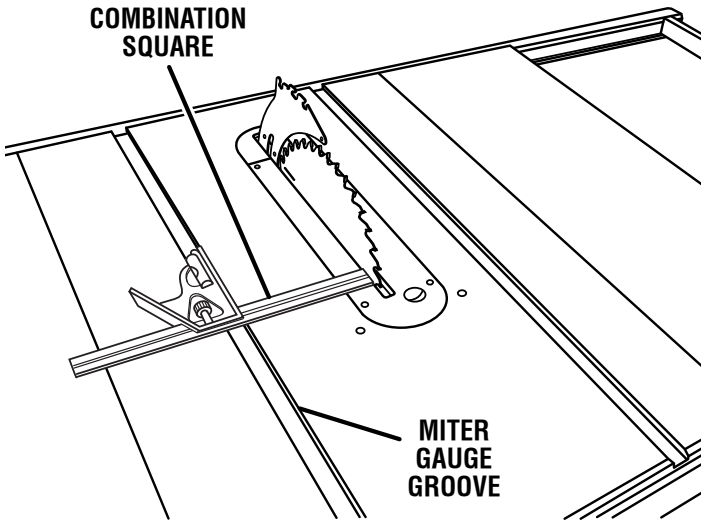


Fig. 56

MAKING CUTS

This table saw can perform a variety of cuts that are not all mentioned in this manual. DO NOT attempt to make any cuts not covered here unless you are thoroughly familiar with the proper procedures and necessary accessories. Your local library has many books on table saw usage and specialized woodworking procedures for your reference.

The blade provided with the saw is a high-quality combination blade suitable for ripping and cross cut operations. Carefully check all setups and rotate the blade one full revolution to assure proper clearance before connecting saw to power source. Stand slightly to the side of the blade path to reduce the chance of injury should kickback occur.

⚠ WARNING:

Do not use blades rated less than the speed of this tool. Failure to heed this warning could result in personal injury.

Use the miter gauge when making cross, miter, bevel, and compound miter cuts. To secure the angle, lock the miter gauge in place by twisting the lock knob clockwise. Always tighten the lock knob securely in place before use.

NOTE: It is recommended that you place the piece to be saved on the left side of the blade and that you make a test cut on scrap wood first.

TO MAKE A CROSS CUT

See Figures 57 - 58.

⚠ WARNING:

Make sure the blade guard assembly is installed and working properly to avoid serious possible injury.

⚠ WARNING:

Using the rip fence as a cutoff gauge when cross cutting will result in kickback which can cause serious personal injury.

- Remove the rip fence.
- Set the blade to the correct depth for the workpiece.
- Set the miter gauge to 0° and tighten the lock knob.
- Make sure the wood is clear of the blade before turning on the saw.
- Turn the saw on.
- Let the blade build up to full speed before moving the workpiece into the blade.

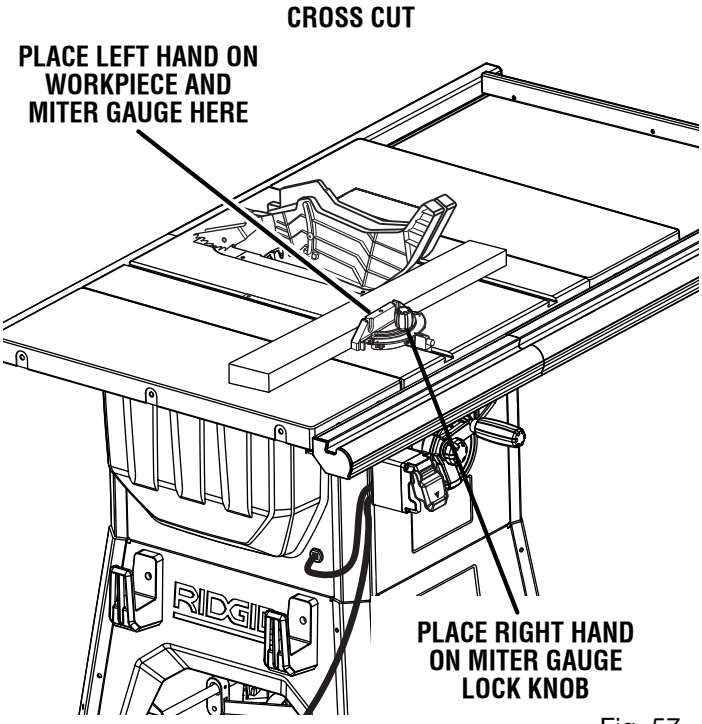


Fig. 57

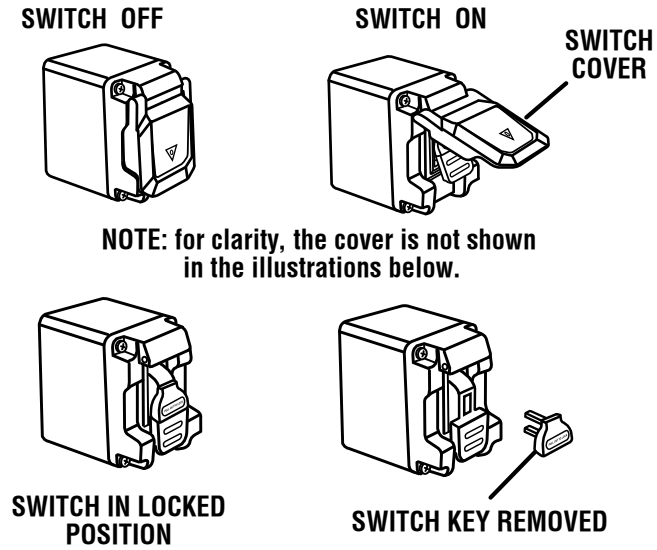


Fig. 58

- Hold the workpiece firmly with both hands on the miter gauge and feed the workpiece into the blade.

  NOTE: The hand closest to the blade should be placed on the miter gauge lock knob and the hand farthest from the blade should be placed on the workpiece.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

OPERATION

MAKING A RIP CUT

See Figure 59.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid serious possible injury.

- Set the blade to the correct depth for the workpiece.
- Position the rip fence the desired distance from the blade for the cut and securely lock the handle.
- When ripping a long workpiece, place a support the same height as the table surface behind the saw for the cut work.
- Make sure the wood is clear of the blade before turning on the saw.
- Turn the saw on.
- Position the workpiece flat on the table with the edge flush against the rip fence. Let the blade build up to full speed before feeding the workpiece into the blade.
- Once the blade has made contact with the workpiece, use the hand closest to the rip fence to guide it. Make sure the edge of the workpiece remains in solid contact with both the rip fence and the surface of the table. If ripping a narrow piece, use a push stick and/or push blocks to move the piece through the cut and past the blade.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

MAKING A MITER CUT

See Figure 60.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid possible serious injury.

- Remove the rip fence.
- Set the blade to the correct depth for the workpiece.
- Set the miter gauge to the desired angle and tighten the lock knob.
- Make sure the wood is clear of the blade before turning on the saw.
- Turn the saw on.
- Let the blade build up to full speed before moving the workpiece into the blade.

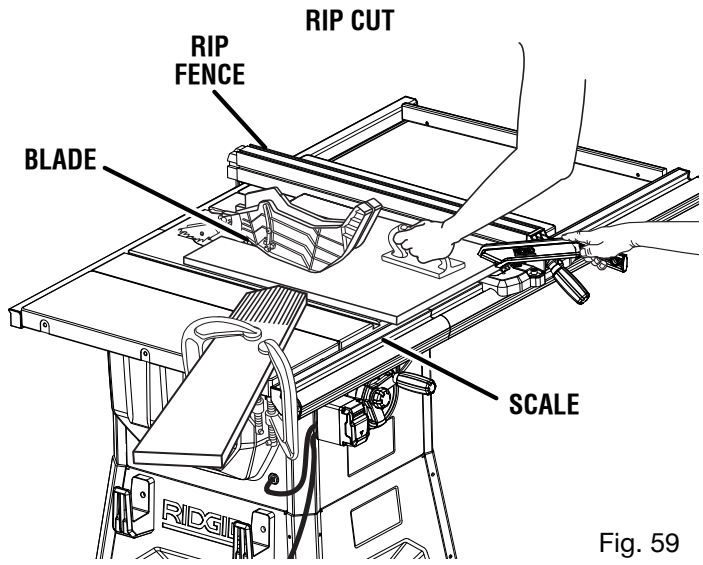


Fig. 59

MITER CUT

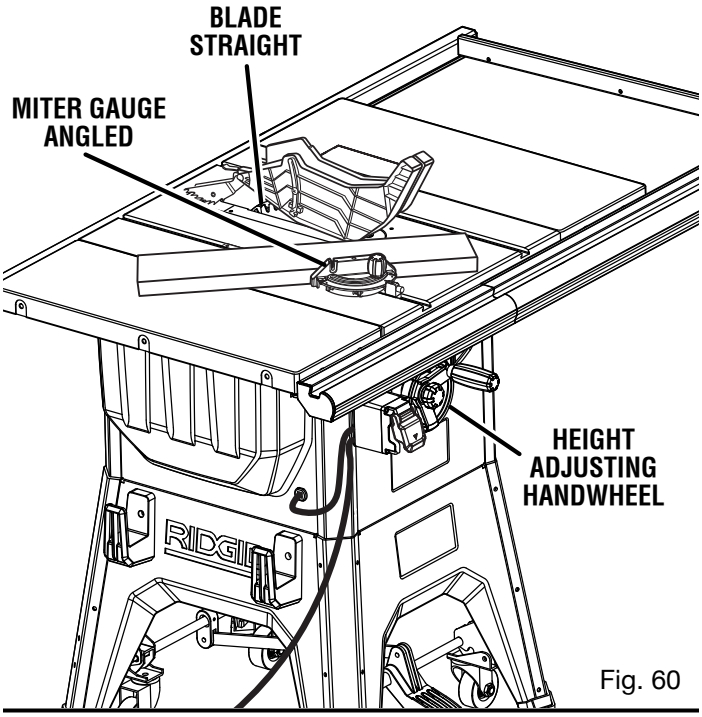


Fig. 60

- Hold the workpiece firmly with both hands on the miter gauge and feed the workpiece into the blade.

  NOTE: The hand closest to the blade should be placed on the miter gauge lock knob and the hand farthest from the blade should be placed on the workpiece.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

OPERATION

MAKING A BEVEL CROSS CUT

See Figures 61 - 62.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid possible serious injury.

WARNING:

The miter gauge must be on the right side of the blade to avoid trapping the wood and causing kickback and the risk of serious personal injury.

- Remove the rip fence.
- Loosen the bevel lock knob.
- Adjust the bevel angle to the desired setting.
- Tighten the bevel lock knob.
- Set the blade to the correct depth for the workpiece.
- Set the miter gauge to 0° and tighten the lock knob.
- Make sure the wood is clear of the blade before turning on the saw.
- Turn the saw on.
- Let the blade build up to full speed before moving the workpiece into the blade.
- Hold the workpiece firmly with both hands on the miter gauge and feed the workpiece into the blade.

  NOTE: The hand closest to the blade should be placed on the miter gauge lock knob and the hand farthest from the blade should be placed on the workpiece.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

VIEWED FROM THE SIDE, BELOW THE TABLE SAW

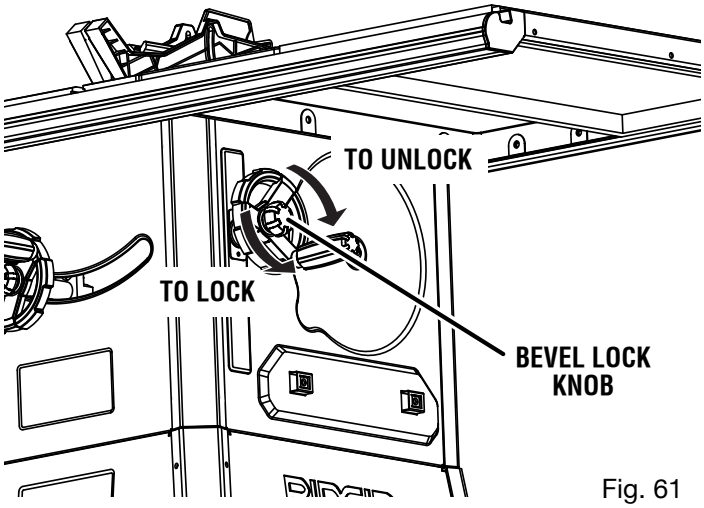


Fig. 61

BEVEL CROSS CUT

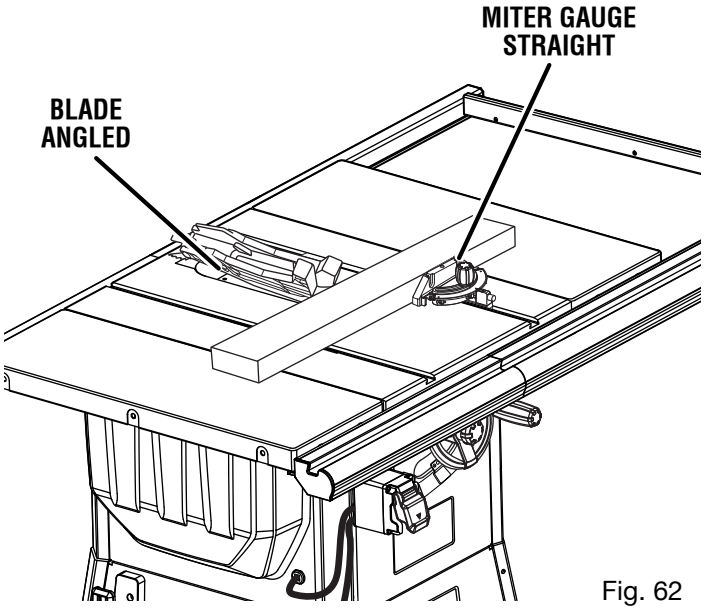


Fig. 62

MAKING A BEVEL RIP CUT

See Figure 63.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid serious personal injury.

WARNING:

The rip fence must be on the right side of the blade to avoid trapping the wood and causing kickback. Placement of the rip fence to the left of the blade will result in kickback and the risk of serious personal injury.

- Remove the miter gauge.
- Loosen the bevel lock knob.
- Adjust the bevel angle to the desired setting.
- Tighten the bevel lock knob.
- Set the blade to the correct depth for the workpiece.
- Position the rip fence the desired distance from the blade for the cut and securely lock the handle.
- Make sure the wood is clear of the blade before turning on the saw.
- When ripping a long workpiece, place a support the same height as the table surface behind the saw for the cut work.
- Turn the saw on.
- Position the workpiece flat on the table with the edge flush against the rip fence. Let the blade build up to full speed before feeding the workpiece into the blade.
- Once the blade has made contact with the workpiece, use the hand closest to the rip fence to guide it. Make sure the edge of the workpiece remains in solid contact with both the rip fence and the surface of the table. If ripping a narrow piece, use a push stick and/or push blocks to move the piece through the cut and past the blade.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

BEVEL RIP CUT

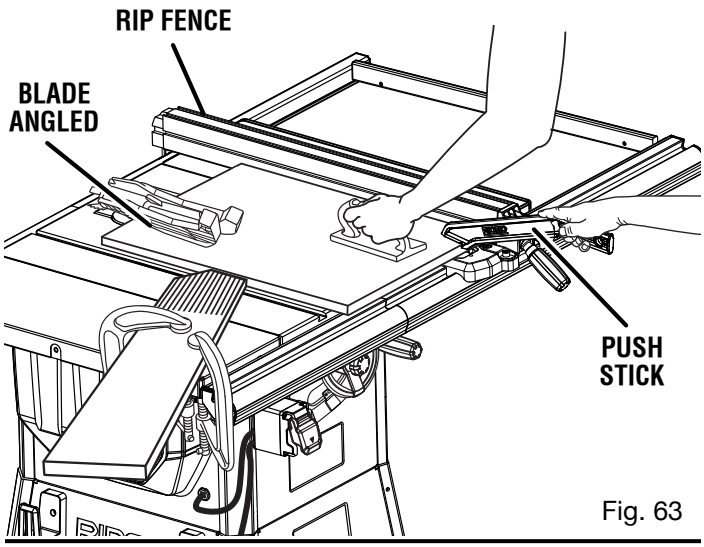


Fig. 63

MAKING A COMPOUND (BEVEL) MITER CUT

See Figure 64.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid possible serious injury.

WARNING:

The miter gauge must be on the right side of the blade to avoid trapping the wood and causing kickback and the risk of serious personal injury.

- Remove the rip fence.
- Loosen the bevel lock knob.
- Adjust the bevel angle to the desired setting.
- Tighten the bevel lock knob.
- Set the blade to the correct depth for the workpiece.
- Set the miter gauge to the desired angle and tighten the lock knob.
- Make sure the wood is clear of the blade before turning on the saw.
- Turn the saw on.
- Let the blade build up to full speed before moving the workpiece into the blade.
- Hold the workpiece firmly with both hands on the miter gauge and feed the workpiece into the blade.
  NOTE: The hand closest to the blade should be placed on the miter gauge lock knob and the hand farthest from the blade should be placed on the workpiece.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

MAKING A LARGE PANEL CUT

See Figure 65.

Make sure the saw is properly secured and the leg stand is lowered (feet on the floor) to avoid tipping from the weight of a large panel.

WARNING:

Make sure the blade guard assembly is installed and working properly to avoid possible serious injury.

WARNING:

Never make freehand cuts (cuts without the miter gauge or rip fence), which can result in serious injury.

COMPOUND (BEVEL) MITER CUT

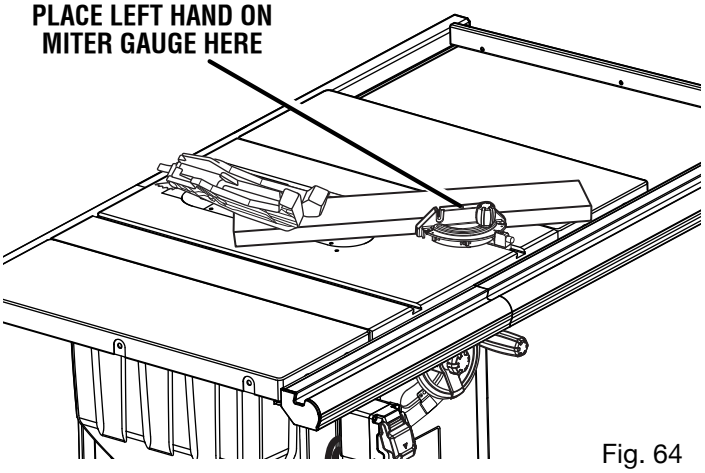


Fig. 64

LARGE PANEL CUT

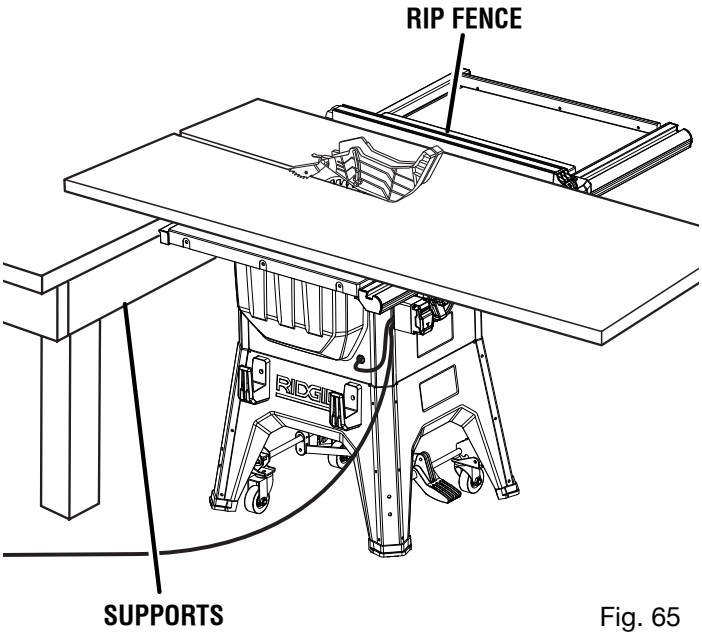


Fig. 65

- Place a support the same height as the top of the saw table behind the saw for the cut work. Add supports to the sides as needed.
- Depending on the shape of the panel, use the rip fence or miter gauge. If the panel is too large to use either the rip fence or the miter gauge, it is too large for this saw.
- Make sure the wood does not touch the blade before you turn on the saw.
- Turn the saw on.
- Position the workpiece flat on the table with the edge flush against the rip fence. Let the blade build up to full speed before feeding the workpiece into the blade.
- Use a push stick and/or push blocks to move the piece through the cut and past the blade.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

MAKING A NON-THROUGH CUT

See Figure 66.

Non-through cuts (made with a standard 10 in. blade) can be made with the grain (ripping) or across the grain (cross cut). The use of a non-through cut is essential to cutting grooves, rabbets, and dadoes.

This is the only type cut that is made without the blade guard assembly installed. Make sure the blade guard assembly is reinstalled upon completion of this type of cut.

Read the appropriate section which describes the type of cut in addition to this section on non-through or dado cuts. For example, if your non-through cut is a straight cross cut, read and understand the section on straight cross cuts before proceeding.

WARNING:

When making a non-through cut, the cutter is covered by the workpiece during most of the cut. Be alert to the exposed cutter at the start and finish of every cut to avoid the risk of personal injury.

WARNING:

Never feed wood with your hands when making any non-through cut such as rabbets or dadoes. To avoid personal injury, always use push blocks, push sticks, and featherboards.

- Unplug the saw.
- Remove the blade guard and anti-kickback pawls.
- Place spreader / riving knife in “down” position.
- Loosen the height lock knob.
- Adjust the bevel angle to the desired setting.
- Tighten the height lock knob.

NON-THROUGH CUT

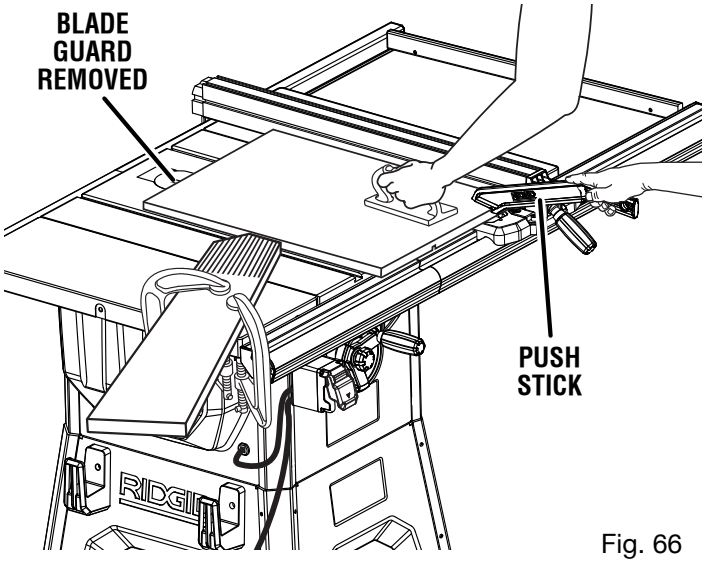


Fig. 66

- Set the blade to the correct depth for the workpiece.
- Depending on the shape and size of the wood, use either the rip fence or miter gauge.
- Plug the saw into the power source and turn the saw on.
- Let the blade build up to full speed before moving the workpiece into the blade.
- Always use push blocks, push sticks, and/or featherboards when making non-through cuts to avoid the risk of serious injury.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

Once all non-through cuts are completed:

- Unplug your saw.
- Reinstall the spreader/riving knife in the “up” position then install the blade guard and anti-kickback pawls.

MAKING A DADO CUT

See Figure 67.

An optional dado throat plate is required for this procedure. All blades and dado sets must not be rated less than the speed of this tool. This saw is designed for use with an up to 8 in. stack dado (up to width of 13/16 in., with a maximum depth of cut of 1-1/2 in.). Do not use an adjustable dado on this saw.

NOTE: Do not set beyond 1-1/2 in. Ensure that the release lever is not raising the throat plate.

You may purchase an optional dado throat plate (part number 080035003093).

WARNING:

Always put all blade washers in proper location when reinstalling standard blade. Failure to do so can result in possible injury and damage to the tool.

WARNING:

Always use push blocks, push sticks, or feather-boards when making dado cuts to avoid the risk of serious injury.

- Unplug your saw.
- Remove the blade guard, anti-kickback pawls, throat plate, and spreader/riving knife.
- Remove the blade nut, outer blade washer, saw blade, inner blade washer, and spacer.

  NOTE: Always store the blade washer and throat plate in a secure location.
- Reinstall the inner blade washer.
- Mount the dado blade, according to manufacturer instructions, using the blade and chippers appropriate for the desired width of cut.
- Reinstall the blade nut.

  NOTE: The blade washer may be used provided the arbor shaft extends slightly beyond the arbor nut.
- Make sure the blade nut is fully engaged and the arbor extends past a securely tightened blade nut.
- Place release lever in unlocked position.

DADO CUT

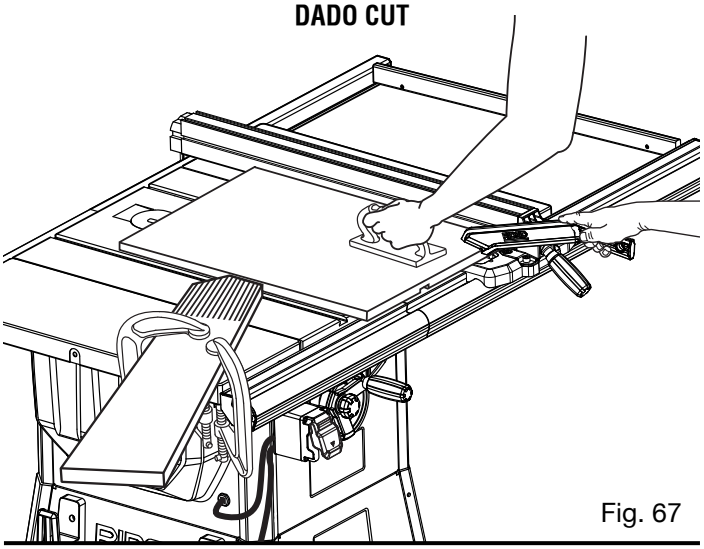


Fig. 67

- Install the dado throat plate and rotate the blade by hand to make sure it turns freely then lower the blade.
- Set the blade height.
- Depending on the shape and size of the wood, use either the rip fence or miter gauge.

  NOTE: If you cannot use either the rip fence or miter gauge, you cannot make a dado cut with this saw.
- Turn the saw on.

  NOTE: Make sure the wood does not touch the blade before you turn on the saw. Let the blade build up to full speed before feeding the workpiece into the blade.
- Position the workpiece flat on the table with the edge flush against the rip fence or miter gauge.
- Use a push block or push stick to move the wood through the cut past the blade. Never push a small piece of wood into the blade with your hand, always use a push stick. The use of push blocks, push sticks, and featherboards are necessary when making non-through cuts.
- When the cut is made, turn the saw off. Wait for the blade to come to a complete stop before removing the workpiece.

Once all dado cuts are completed:

- Unplug your saw.
- Reinstall a standard blade.
- Reinstall the spreader/riving knife in the “up” position then install the blade guard and anti-kickback pawls.

CONSTRUCTING A TABLE EXTENSION

See Figure 68.

You may construct a wood table extension to support larger workpieces.

- The finished height of the table extension should be 1-3/4 in. The finished length and width should be 27 in. x 14-5/8 in.
- Assemble the pieces as shown. The finished extension should fit snugly into the rails, and should be level with the saw table and extensions.

TO INSTALL THE TABLE EXTENSION ONTO THE RAILS

See Figure 69.

Make sure that when you install the table extension onto the rails, it is level with the rest of the saw table. To do this, use two 2 x 4 boards that are 55-1/2 in. in length. Securely clamp the boards to the end of the saw table, and to the spreader bar.

- Insert the table extension from underneath the rails and set it into position.
- Make sure the extension lies flat and is aligned with the rest of the saw table. There should be no space between the extension and the boards.
- There are holes in the spreader bar. Attach the extension to the saw with pan head phillips screws and supplied washers as shown.

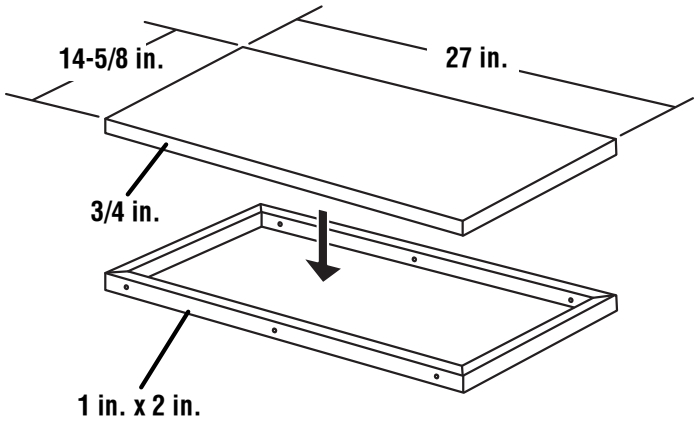


Fig. 68

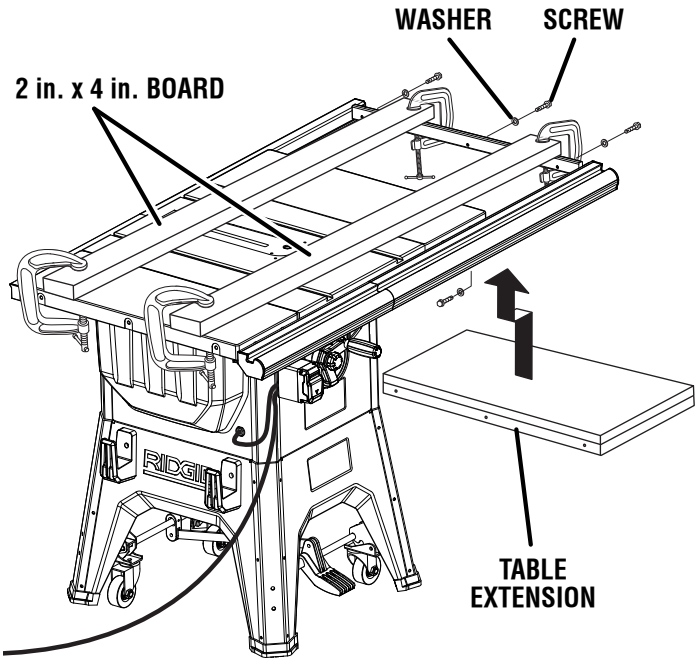


Fig. 69

ADJUSTMENTS

WARNING:

Before performing any adjustment, make sure the tool is unplugged from the power supply and the switch is in the OFF (O) position. Failure to heed this warning could result in serious personal injury.

To avoid unnecessary set-ups and adjustments, a good practice is to check your setups carefully with a framing square and make practice cuts in scrap wood before making finish cuts in good workpieces. Do not start any adjustments until you have checked with a square and made test cuts to be sure adjustments are needed.

TO REPLACE THE BLADE

See Figures 70 - 72.

NOTE: Arbor shaft has right-hand threads.

- Unplug the saw.
- Lower the saw blade and remove the throat plate.
- Raise the saw blade to full height then remove the blade guard and anti-kickback pawls.
- Make sure the bevel lock knob is tightened.
- Insert the open end wrench onto the flats on the arbor shaft.
- Insert the closed end wrench over the hex nut. Holding both wrenches firmly, pull the outside wrench (right side) forward while pushing the inside (left side) to the back of the saw.
- Unlock the release locking lever and remove the blade.

To install a standard blade:

- Place the new blade on the arbor shaft (blade teeth must point down toward the front of the saw to work properly).
- Place the blade washer and the blade nut over the arbor shaft. Be sure the dome side of the blade washer faces out from the blade and that all items are snug against the arbor housing. Make sure the blade nut is securely tightened. Do not overtighten.
- Lock the release lever.
- Rotate the blade by hand to make sure it turns freely.
- Lower the saw blade and reinstall the throat plate.

NOTE: To replace the blade with an accessory blade, follow the instructions provided with the accessory.

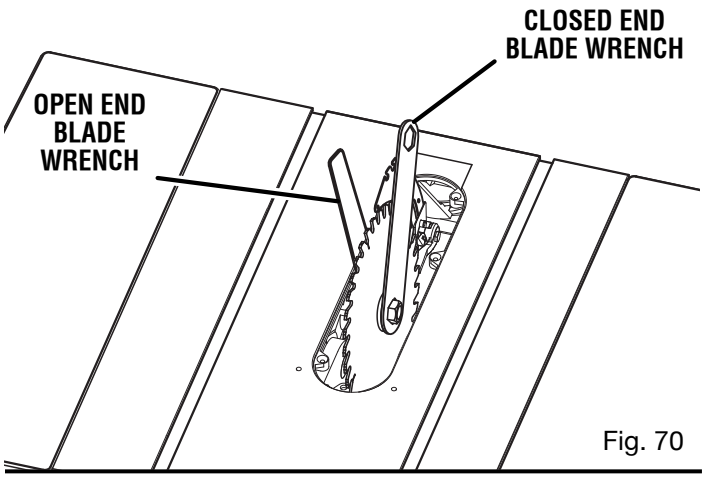


Fig. 70

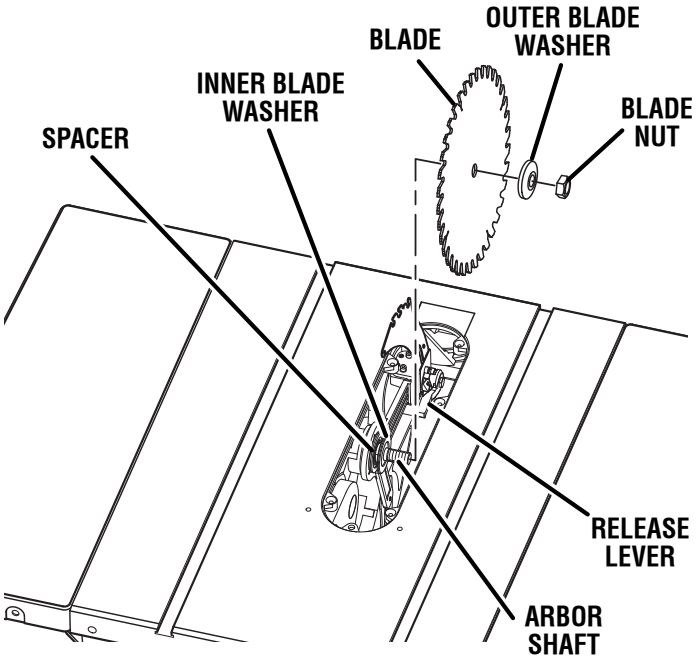


Fig. 71

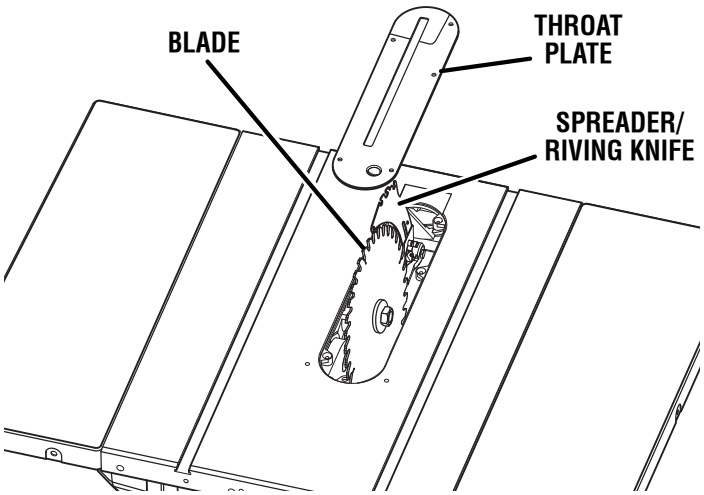


Fig. 72

ADJUSTMENTS

TO SET THE BLADE AT 0° AND 45°

See Figures 73 - 74.

The angle settings of your saw have been set at the factory and, unless damaged in shipping, should not require setting during assembly. After extensive use, it may need to be checked.

- Unplug the saw.
- Raise the blade.
- Remove the blade guard.

If the blade is not perfectly vertical (0°):

- Loosen the 0º adjustment screw and the bevel lock knob.
- Place a combination square beside the blade on the left. Lock the angle by tightening the bevel lock knob and retighten the adjustment bolt.

  NOTE: Make sure that the square contacts the flat part of the saw blade, not the blade teeth.
- Turn the bevel handle until the bevel indicator points to zero. If the bevel handle is turned as far as possible and doesn't indicate zero properly, you may need to adjust the bevel indicator.

If the blade is not an exact 45°:

- Loosen the adjustment screw and the bevel lock knob.

NOTE: Make sure that the square contacts the flat part of the saw blade, not the blade teeth.

- Place a combination square beside the blade on the left. Lock the angle by tightening the bevel lock knob and retighten the adjustment bolt.
- Turn the bevel handle until the bottom of the blade has moved completely to the left side of the slot. Lock the angle by tightening the bevel lock knob.
- If the blade is not an exact 45°, loosen the adjustment bolt and the bevel lock knob.
- Adjust the bevel indicator to 45°.
- Make a test cut.

The adjustment screws must be below the saw table surface so the workpiece doesn't catch on uneven edges. If unable to make this adjustment, take the product to an authorized service center.

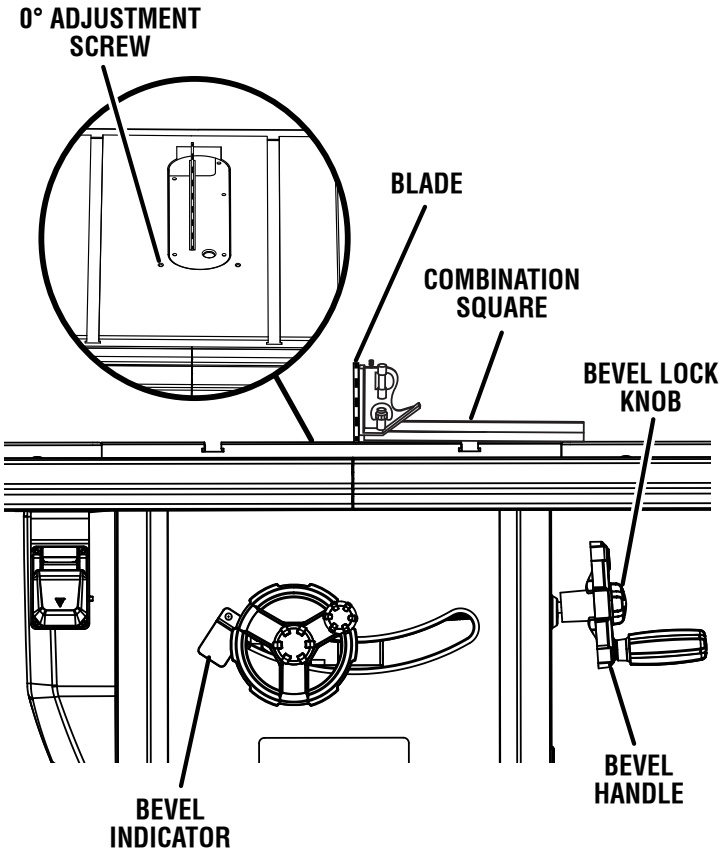


Fig. 73

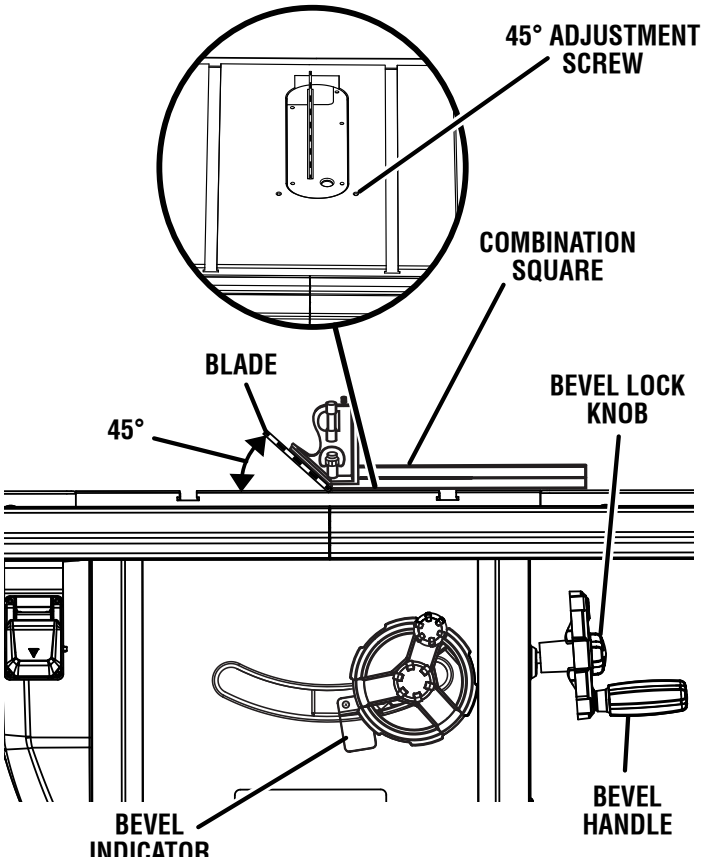


Fig. 74

ADJUSTMENTS

TO ADJUST THE MITER GAUGE

See Figure 75.

You can set the miter gauge at 0° and plus or minus 45° with the miter gauge stop pin and adjustable stop screws.

NOTE: The miter gauge provides close accuracy in angled cuts. For very close tolerances, test cuts are recommended.

- Loosen knob and pull out on stop pin to rotate miter gauge base past stop screws.
- Loosen the lock nut of the 0° stop screw at the stop pin with a 8 mm wrench.
- Place a 90° square against the miter gauge rod and the miter gauge base.
- If the rod is not square, loosen the knob, adjust the rod, and tighten the knob.
- Adjust the 0° stop screw until it rests against the stop pin.
- Adjust the plus and minus 45° stop screws using a 45° triangle and the steps above.

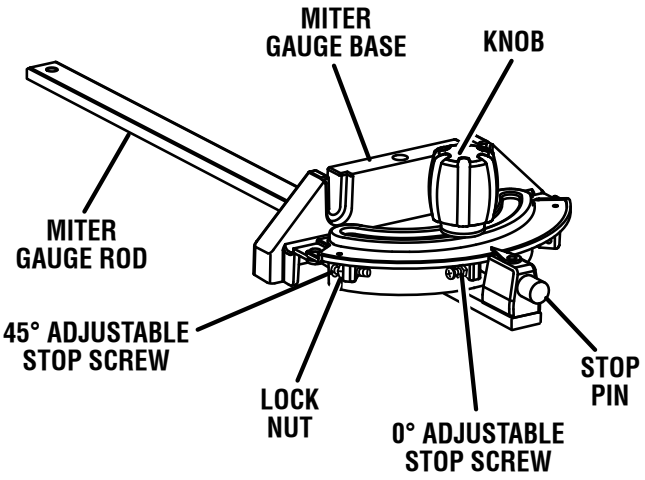


Fig. 75

TO CHECK THE ALIGNMENT OF THE RIP FENCE TO THE BLADE

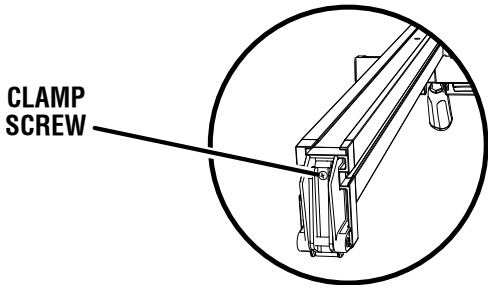
See Figure 76.

⚠ WARNING:

To reduce the risk of injury, always make sure the rip fence is parallel to the blade before beginning any operation.

- Unplug the saw.
- Raise the locking handle to permit the rip fence to be moved.
- Place a framing square beside the blade and move the rip fence up to the square. Take the dimension on the rip scale.
- Move the fence back and turn the framing square 180° to check the other side.
- If the two dimensions are not the same, loosen the 4 screws on the fence and align it.
- Retighten the 4 screws.
- Make two or three test cuts on scrap wood. If the cuts are not true, repeat the process.

NOTE: The rip fence must be secure when the locking handle is engaged. The clamp screw on the rear of the rip fence is tightened by turning clockwise to increase tightness of the rear of the rip fence. Adjust if needed.



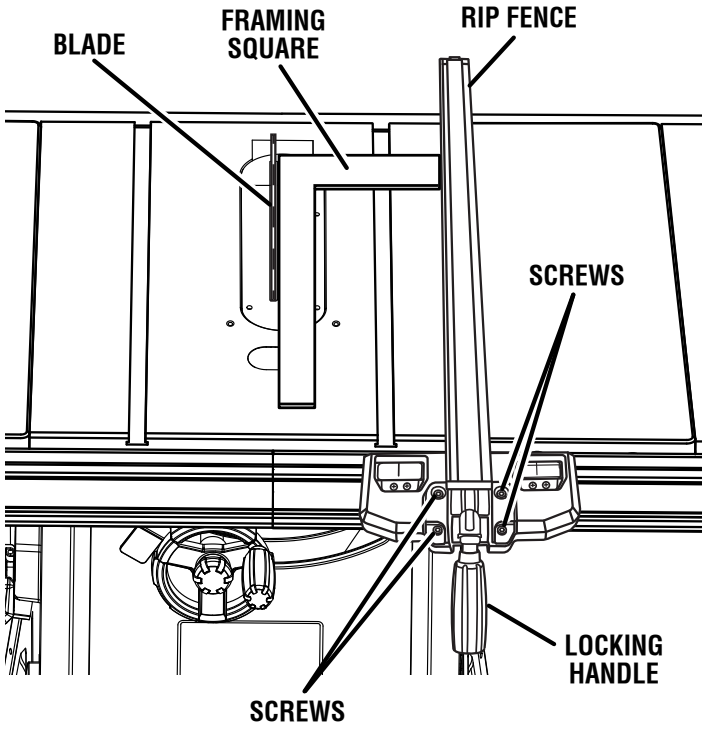


Fig. 76

ADJUSTMENTS

TO ADJUST THE RIP FENCE INDICATOR

See Figures 77 - 78.

The rip fence has two indicators: one for use when the rip fence is on the right side of the saw blade and one for use when the rip fence is on the left side of the saw blade.

NOTE: The blade guard assembly must be removed to perform this adjustment. Reinstall the blade guard assembly when the adjustment is complete.

- Unplug the saw.
- Place the rip fence on the saw table so that it lightly touches the right side of the saw blade. Lock the rip fence in place.
- Loosen pan head screw and adjust the right indicator so that the red line is located over the “zero” line on the right rip scale on the front rail. Retighten screw.
- Reposition the rip fence on the saw table so that it lightly touches the left side of the saw blade. Lock the rip fence in place.
- Loosen pan head screw and adjust the left indicator so that the red line is located over the “zero” line on the left rip scale on the front rail. Retighten screw.
- If the indicator cannot be set to zero after performing the adjustments described above, the position of the rail must be adjusted. See *Installing the Rails Onto the Saw Table* earlier in this manual.

The rip fence should sit at 90º to the top of the saw table. If an adjustment is needed:

- Set a framing square on the saw table next to the rip fence.
- Use a flat head screwdriver to loosen or tighten one of the angle adjustment screws.
- Adjust the screws until the angle measures 90º on each side of the rip fence.

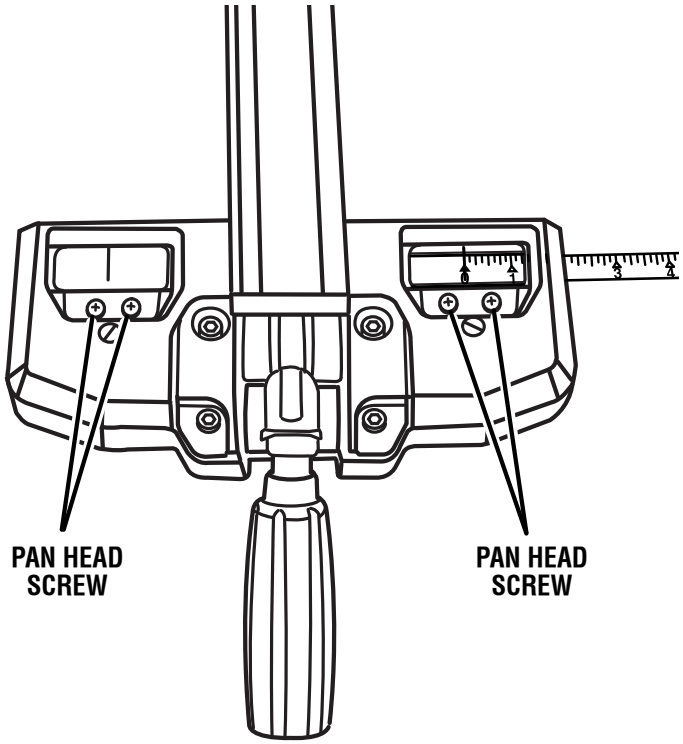


Fig. 77

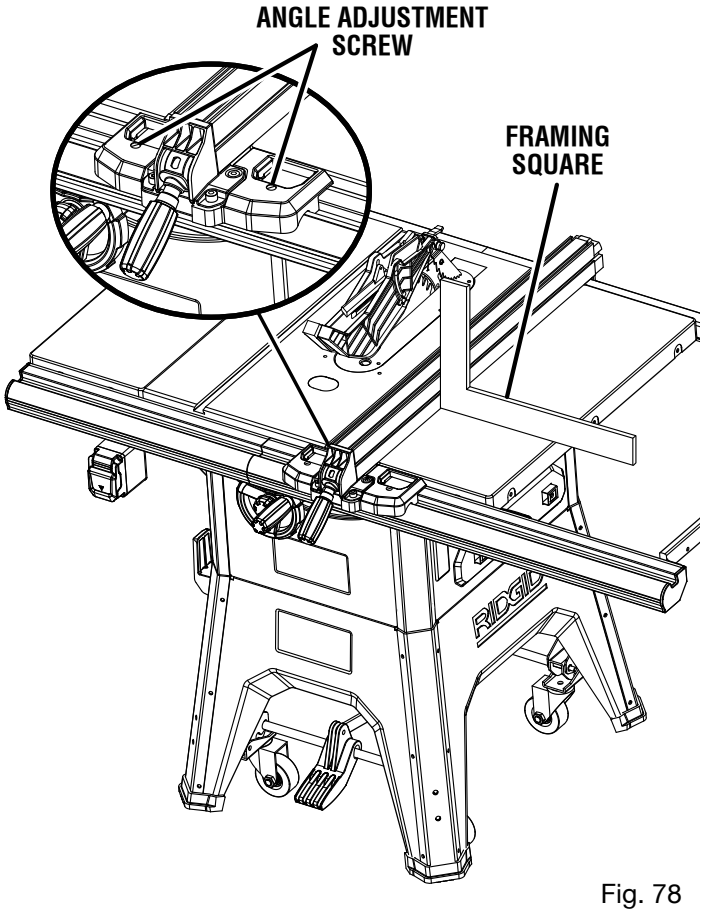


Fig. 78

MAINTENANCE

WARNING:

When servicing, use only identical RIDGID replacement parts. Use of any other parts may create a hazard or cause product damage.

WARNING:

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

WARNING:

Before performing any maintenance, make sure the tool is unplugged from the power supply and the switch is in the OFF (O) position. Failure to heed this warning could result in serious personal injury.

GENERAL MAINTENANCE

Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, dust, oil, grease, etc.

WARNING:

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., come in contact with plastic parts. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

- Periodically check all clamps, nuts, bolts, screws, and belts for tightness and condition. Make sure the throat plate is in good condition and in position.
- Check the blade guard assembly.
- To maintain the table surfaces, fence, and rails, periodically apply paste wax to them and buff to provide smooth functioning. To prevent work from slipping during cutting operation, **Do not** wax the working face of the miter gauge.
- Protect the blade by cleaning out saw dust from underneath the table and in the blade teeth. Use a resin solvent on the blade teeth.
- **Clean plastic parts only with a soft damp cloth. Do not** use any aerosol or petroleum solvents.

LUBRICATION

This saw's motor bearings have been packed at the factory with proper lubrication.

- Clean screw threads and nuts with a solvent recommended for gum and pitch removal.
- Lubricate screw threads, nuts, and bearing points (including those on the blade guard assembly and miter gauge).

MAINTENANCE

CLEANING THE DUST CHUTE

Clean the dust chute periodically to remove sawdust.

- Using a 4 mm hex key, remove the screws that secure the back panel.
- Inspect the dust chute and attached dust collection devices to clear away sawdust or other debris.
- Replace the back panel.

TO REMOVE AND CHANGE BELT

See Figure 79.

- Lower the saw blade.
- Using a 4 mm hex key, remove the screws that secure the back panel.
- With a 6 mm hex key, loosen the bolt above and to the right of the belt.
- Pull the belt off the pulleys.
- Insert a long flat blade screwdriver as shown.
- Holding the screwdriver in place, pull the new belt over both pulleys, making sure it is properly placed.
- Remove the screwdriver.
- Tighten the bolt.

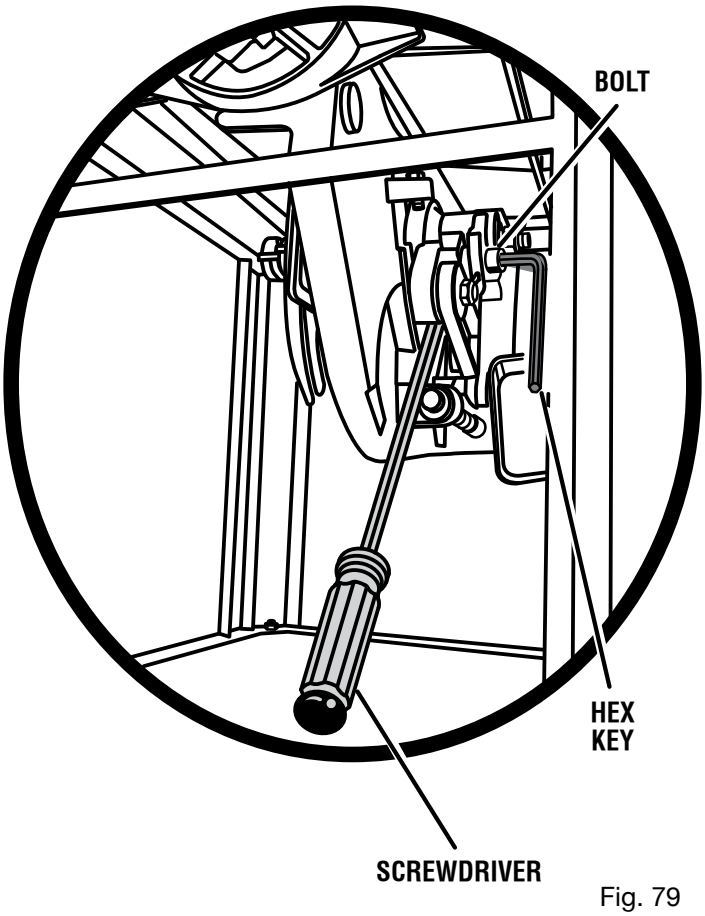


Fig. 79

TROUBLESHOOTING

Problem	Cause	Solution
Excess vibration.	Blade is out of balance.	Replace blade.
	Blade is damaged.	Replace blade.
	Saw is not mounted securely.	Tighten all hardware.
	Work surface is uneven.	Reposition on flat surface.
	Blade is warped.	Replace blade.
Rip fence does not move smoothly.	Rip fence not mounted correctly.	Remount the rip fence.
	Rails are dirty or sticky.	Clean and wax rails.
	Clamp screw is out of adjustment.	Adjust clamp screw.
Rip fence does not lock at rear.	Clamp screw is out of adjustment.	Adjust clamp screw.
Cutting binds or burns work.	Blade is dull.	Replace or sharpen blade.
	Blade is heeling.	See "Heeling (paralleling) the blade to the miter gauge groove" in the *Operation* section.
	Work is fed too fast.	Slow the feed rate.
	Rip fence is misaligned.	Align the rip fence.
	Spreader is out of alignment.	See “To check and align the spreader/riving knife and saw blade” in the *Assembly* section.
	Wood is warped.	Replace the wood. Always cut with convex side to table surface.
Wood edges away from rip fence when ripping.	Rip fence is misaligned.	Check and adjust the rip fence.

TROUBLESHOOTING

Problem	Cause	Solution
Saw does not make accurate 90˚ or 45˚ cuts.	Positive stops inside cabinet need adjusting (Bevel Cuts).	Adjust positive stops.
	Miter gauge is misaligned (Miter Cuts).	Adjust the miter gauge.
Height/bevel adjusting hand-wheel is hard to turn.	Gears or screw post inside cabinet are clogged with saw dust.	Clean the gears or screw post.
Saw does not start.	Motor cord or wall cord is not plugged in.	Plug in motor cord or wall cord.
	Circuit fuse is blown.	Replace circuit fuse.
	Circuit breaker is tripped.	Reset circuit breaker.
	Cord or switch is damaged.	Have the cord or switch replaced at your Sears Service Center.
Blade makes poor cuts.	Blade is dull or dirty.	Clean, sharpen, or replace blade.
	Blade is wrong type for cut being made.	Replace with correct type.
	Blade is mounted backwards.	Remount blade.
Blade does not lower when turning height/bevel adjusting handwheel.	Locking lever is not at full left position.	Move locking lever to left.
	Blade cover is dirty.	See cleaning instructions in the *Maintenance* section.
Motor labors in rip cut.	Blade not proper for rip cut.	Change blade; rip blade typically has fewer teeth.

WARRANTY

RIDGID® HAND HELD AND STATIONARY POWER TOOL 3 YEAR LIMITED SERVICE WARRANTY

Proof of purchase must be presented when requesting warranty service.

Limited to RIDGID® hand held and stationary power tools purchased 2/1/04 and after. This product is manufactured by One World Technologies, Inc. The trademark is licensed from RIDGID, Inc. All warranty communications should be directed to One World Technologies, Inc., attn: RIDGID Hand Held and Stationary Power Tool Technical Service at (toll free) 1-866-539-1710.

90-DAY SATISFACTION GUARANTEE POLICY

During the first 90 days after the date of purchase, if you are dissatisfied with the performance of this RIDGID® Hand Held and Stationary Power Tool for any reason you may return the tool to the dealer from which it was purchased for a full refund or exchange. To receive a replacement tool you must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the 3 YEAR service warranty period.

WHAT IS COVERED UNDER THE 3 YEAR LIMITED SERVICE WARRANTY

This warranty on RIDGID® Hand Held and Stationary Power Tools covers all defects in workmanship or materials and normal wear items such as brushes, chucks, motors, switches, cords, gears and even cordless batteries in this RIDGID® tool for three years following the purchase date of the tool. Warranties for other RIDGID® products may vary.

HOW TO OBTAIN SERVICE

To obtain service for this RIDGID® tool you must return it; freight prepaid, or take it in to an authorized service center for RIDGID® branded hand held and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-866-539-1710 or by logging on to the RIDGID® website at www.ridgid.com. When requesting warranty service, you must present the original dated sales receipt. The authorized service center will repair any faulty workmanship, and either repair or replace any part covered under the warranty, at our option, at no charge to you.

WHAT IS NOT COVERED

This warranty applies only to the original purchaser at retail and may not be transferred. This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defect resulting from misuse, abuse, neglect, alteration, modification or repair by other than an authorized service center for RIDGID® branded hand held and stationary power tools. Consumable accessories provided with the tool such as, but not limited to, blades, bits and sand paper are not covered.

RIDGID, INC. AND ONE WORLD TECHNOLOGIES, INC. MAKE NO WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY OR PERFORMANCE OF ITS POWER TOOLS OTHER THAN THOSE SPECIFICALLY STATED IN THIS WARRANTY.

ADDITIONAL LIMITATIONS

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, that cannot be disclaimed under state law are limited to three years from the date of purchase. One World Technologies, Inc. and RIDGID, Inc. are not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

One World Technologies, Inc.
P.O. Box 35, Hwy. 8
Pickens, SC 29671

OPERATOR'S MANUAL

10 in. TABLE SAW

R4512

CUSTOMER SERVICE INFORMATION

For parts or service, contact your nearest RIDGID authorized service center. Be sure to provide all relevant information when you call or visit. For the location of the authorized service center nearest you, please call 1-866-539-1710 or visit us online at www.ridgid.com.

The model number of this tool is found on a plate attached to the motor housing. Please record the serial number in the space provided below. When ordering repair parts, always give the following information:

Model No. R4512

Serial No. _____

987000-988
4-4-11 (REV:03)