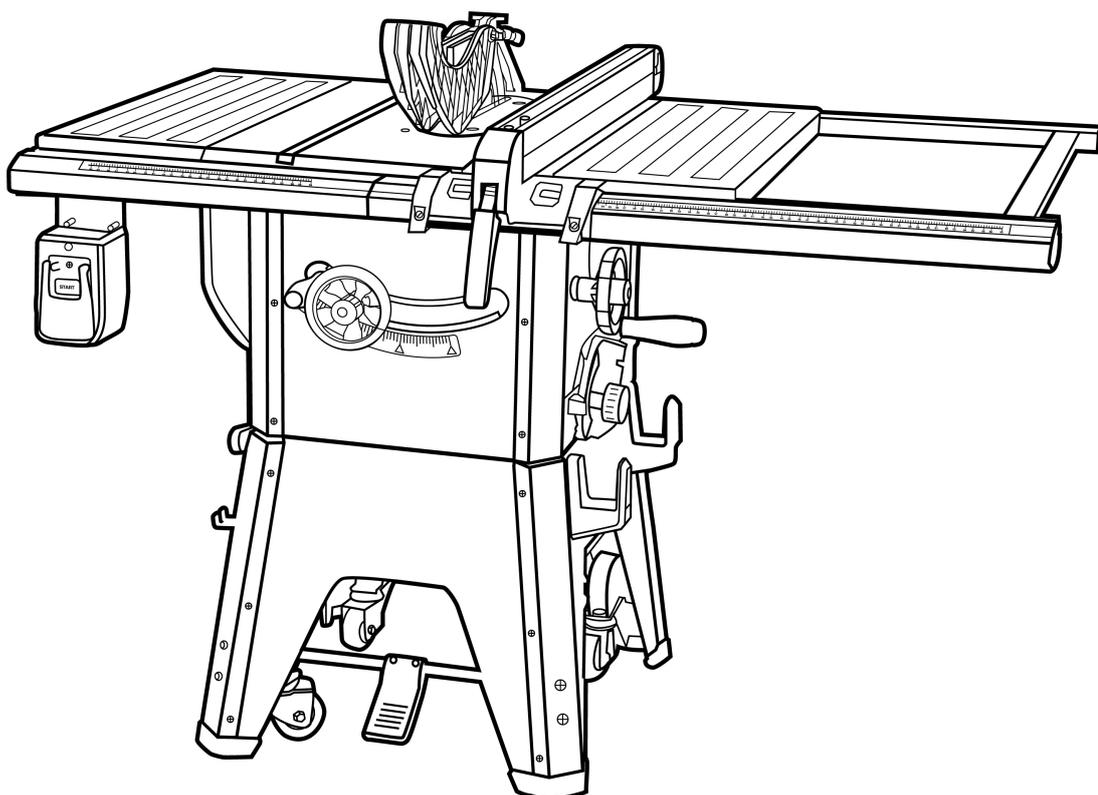


TABLE SAW

Ⓞ OWNER'S OPERATING MANUAL



SAFETY RULES

WARNING: For your own safety, read all of the instructions and precautions before operating tool.

CAUTION: Always follow proper operating procedures as defined in this manual — even if you are familiar with use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.

BE PREPARED FOR JOB

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

PREPARE WORK AREA FOR JOB

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.
- Keep power cords from coming in contact with sharp objects, oil, grease and hot surfaces.

TOOL SHOULD BE MAINTAINED

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for safest operation.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
- Keep all parts in working order. Check to determine that the guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect a tool's operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order replacement parts.)
- Maintain proper adjustment of rip fence and blade guard.
- Never adjust saw while running. Disconnect power to avoid accidental start-up.
- Have damaged or worn power cords replaced immediately.
- Keep blade sharp for efficient and safest operation.

KNOW HOW TO USE TOOL

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing blade.
- Avoid accidental start-up. Make sure that the tool is in the “off” position before plugging in, turning on safety disconnect or activating breakers.
- Do not force tool. It will work most efficiently at the rate for which it was designed.
- Keep hands away from blade and moving parts and cutting surfaces.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- Never stand on tool. Serious injury could occur if tool is tipped or if blade is unintentionally contacted.

- Know your tool. Learn the tool's operation, application and specific limitations.
- Handle workpiece correctly. Press firmly against table. Protect hands from possible injury.
- Turn machine off if it jams. Blade jams when it digs too deeply into workpiece. (Motor force keeps it stuck in the work.)
- Feed work into the blade only as recommended in “Operation.”

WARNING: For your own safety, do not operate your saw until it is completely assembled and installed according to instructions.

STABILITY OF SAW

If there is any tendency for the saw to tip over or move during certain cutting operations, such as cutting extremely heavy panels or long heavy boards, the saw should be bolted down. If you attach any kind of extensions over 600 mm wide to either end of the saw, make sure you either bolt the saw to the floor, as appropriate, or support the outer end of the extension from the bench or floor, as appropriate.

LOCATION

The saw should be positioned so neither the operator nor a casual observer is forced to stand in line with the saw blade.

KICKBACKS

A kickback occurs during a rip-type operation when a part or all of workpiece is thrown back violently toward operator.

Keep your face and body to one side of the saw blade, out of line with a possible kickback.

Kickbacks and possible injury from them can usually be avoided by:

- Maintaining rip fence parallel to saw blade.
- Keeping saw blade sharp. Replace or sharpen anti-kickback pawls when points become dull.
- Keeping saw blade guard, spreader, and anti-kickback pawls in place and operating properly. The spreader must be in alignment with the saw blade and the pawls must stop a kickback once it has started. Check their action before ripping.
- Not ripping work that is twisted or warped or does not have a straight edge to guide along the rip fence.
- Not releasing work until you have pushed it all the way past the saw blade.
- Using a push stick for ripping widths less than 150 mm.
- Not confining the cutoff piece when ripping or crosscutting.

PROTECTION: EYES, HANDS, FACE, BODY, EARS

- If any part of your saw is missing, malfunctioning, or has been damaged or broken (such as the motor switch, electronic controls, other operating control, a safety device or power cord), cease operating immediately until the particular part is properly repaired or replaced.
- Wear safety goggles and a face shield or dust mask if operation is dusty. Wear ear plugs or muffs during extended periods of operation.
- Small loose pieces of wood or other objects that contact the rear of the revolving blade can be thrown back at the operator at excessive speed. This can usually be avoided by keeping the guard and spreader in place for all thru-sawing operations (sawing entirely thru work) and by removing all loose pieces from the table with a long stick of wood immediately after they are cut off.
- Use extra caution when the guard assembly is removed for resawing, dadoing, or rabbeting—replace guard as soon as that operation is completed.
- Never turn the saw ON before clearing the table of all tools, wood scraps, etc., except the workpiece and related feed or support devices for the operation planned.
- Never place your face or body in line with the cutting tool.
- Never place your fingers or hands in path of saw blade or other cutting tool.
- For rip or rip-type cuts, the following end of a workpiece to which a push stick or push board is applied must be square (perpendicular to the fence) in order that feed pressure applied to the workpiece by the push stick or block does not cause the workpiece to come away from the fence, and possibly cause a kickback.
- During rip and rip-type cuts, workpiece must be held down on table and against fence with a push stick, push block, or featherboards, as applicable (see Figures 1a and 1b, pages 3 and 4).

Push Stick: A safety device used to push the workpiece through a cutting operation. Used most often when rip cutting thin workpieces.

The push stick and push block examples shown below are useful for keeping hands and fingers away from saw blade during ripping, rabbeting and dadoing. Apply downward pressure and push workpiece through the cut and past the blades. Several other configurations may be suitable for safe operation.

Featherboards are used to keep the work in contact with the rip fence or table during the cutting operation. Use of featherboards can help to prevent kickbacks and binding. Featherboards should be used for all "non thru-sawing" operations.

- Never reach in back of the cutting tool with either hand to hold down or support the workpiece, remove wood scraps, or for any other reason. Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into a saw blade or other cutting tool.
- Do not perform layout, assembly, or setup work on the table while the cutting tool is rotating.
- Do not perform any operation freehand—always use either rip fence or miter gauge to position and guide the work.
- Never use the rip fence when cross-cutting or the miter gauge when ripping. Do not use rip fence as a length stop. Never hold onto or touch free-end of workpiece or a free-piece that is cut off, while power is ON and/or saw blade is rotating.
- Shut the saw OFF and disconnect power source when removing the table insert, changing the cutting tool, removing or replacing the blade guard, or making adjustments.
- Provide adequate support to the rear and sides of the saw table for wide or long workpieces.
- Plastic and composition materials (like hardboard) may be cut on your saw. However, since these are usually quite hard and slippery, the anti-kickback pawls may not stop a kickback. Therefore, be especially attentive to following proper setup and cutting procedures for ripping. Do not stand, or permit anyone else to stand, in line with a potential kickback.
- If you stall or jam the saw blade in the workpiece, turn saw OFF and remove the workpiece from the saw blade. Check to see if the saw blade is parallel to the miter gauge grooves and if the spreader is in proper alignment with the saw blade. If ripping at the time, check to see if the rip fence is parallel with the saw blade. Readjust as required.
- Do not remove small pieces of cutoff material that may become trapped inside the blade guard while the saw is running. This could endanger your hands or cause kickback. Turn saw OFF and wait until blade stops.
- Use extra care when ripping wood with twisted grain or wood that is twisted or bowed—it may rock on table and pinch saw blade.

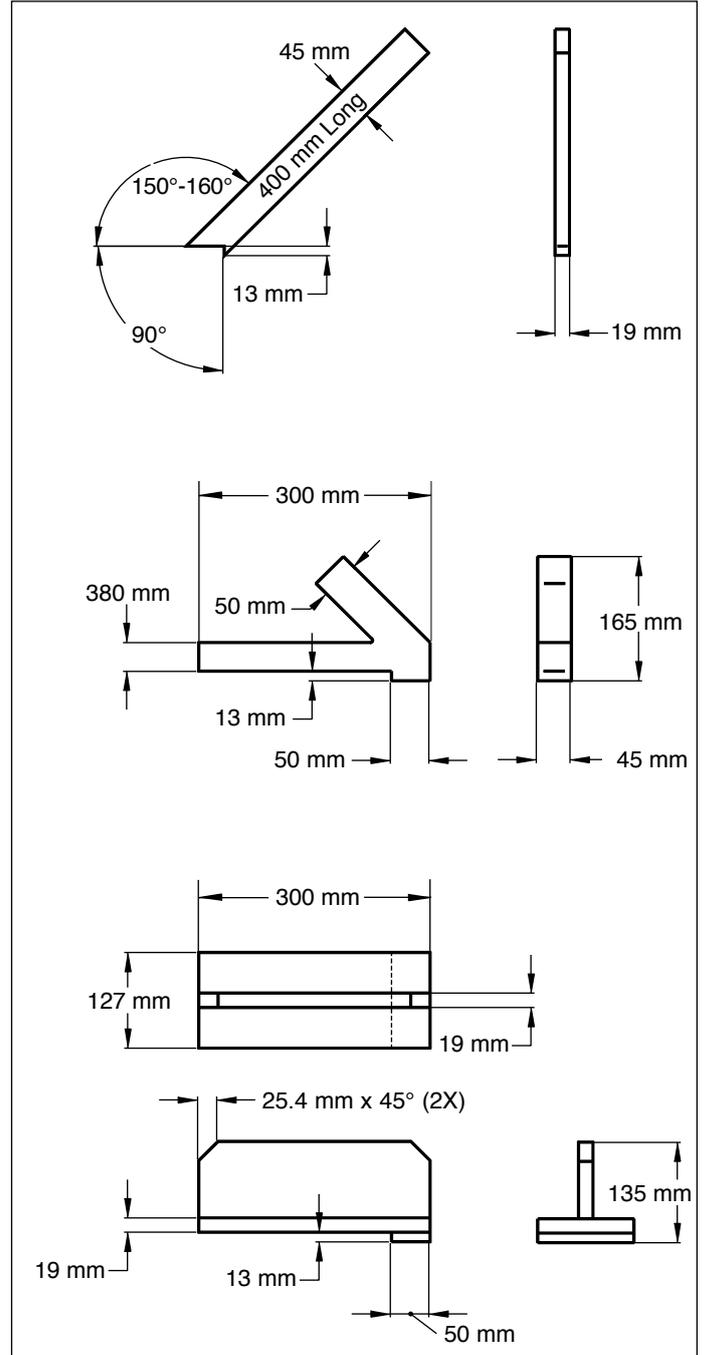


Figure 1a - Example: Push Sticks and Push Blocks

KNOW YOUR CUTTING TOOLS

- Dull, gummy, improperly sharpened or set cutting tools can cause material to stick, jam, stall saw, or kickback at operator. Minimize potential injury by proper care and machine maintenance.

WARNING: Never attempt to free a stalled saw blade without first turning saw OFF.

- Never use grinding wheels, abrasive cutoff wheels, friction wheels (metal slitting blades), wire wheels or buffing wheels.

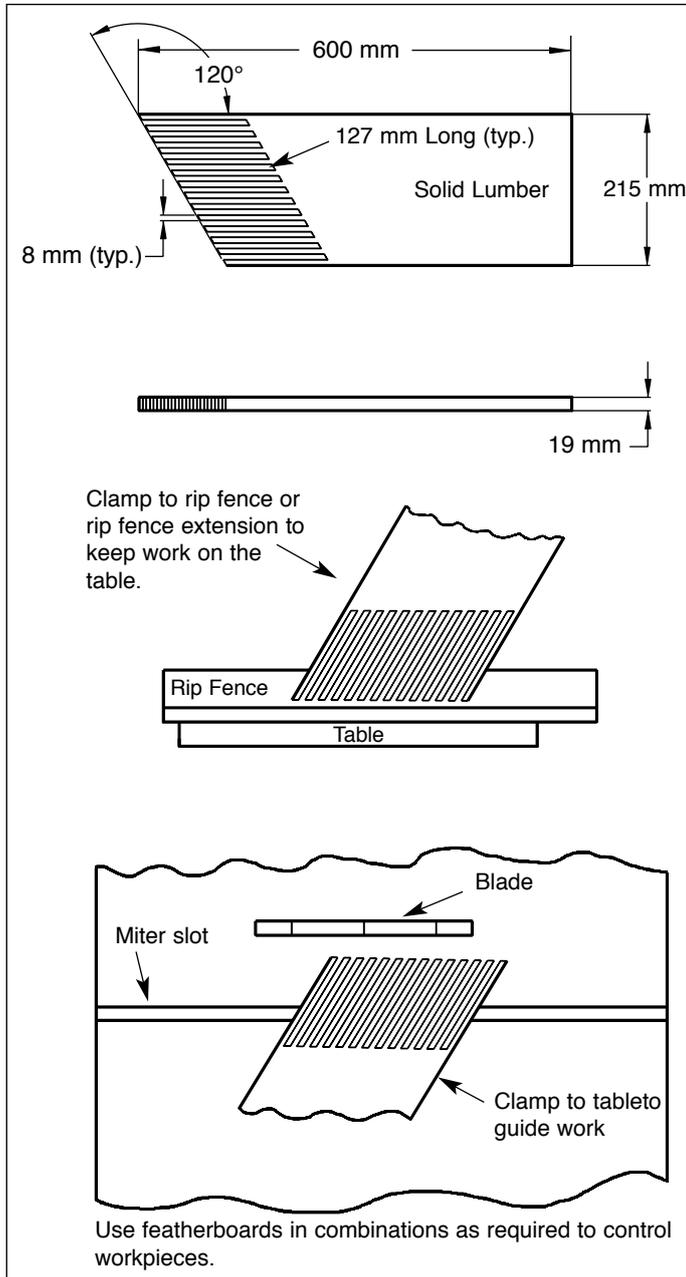


Figure 1b - Featherboards

USE ONLY ACCESSORIES DESIGNED FOR SAW

- Crosscutting operations are worked more conveniently and with greater safety if an auxiliary wood facing is attached to miter gauge using holes provided. However, facing must not interfere with proper functioning of saw blade guard.
- Make sure the top of the arbor or cutting tool rotates toward you when standing in normal operating position. Also make sure the cutting tool, blade flange and arbor nut are installed properly. Keep the cutting tool as low as possible for the operation being performed. Keep all guards in place whenever possible.

- Do not use any blade or other cutting tool marked for operating speed less than 3800 RPM. Never use a cutting tool larger in diameter than diameter for which saw was designed. For greatest safety and efficiency when ripping, use maximum diameter blade for which saw is designed, since under these conditions spreader is nearest the blade.
- Adjust table inserts flush with table top. Never operate saw unless proper insert is installed.
- Never feed material into the cutting tool from the rear of the saw. An accident and serious injury could result.

THINK SAFETY

Safety is a combination of operator common sense and alertness at all times when the saw is being used.

Never use another person as a substitute for a table extension, or as additional support for a workpiece that is longer or wider than basic saw table, or to assist in feeding, supporting or pulling the workpiece.

Do not pull the workpiece through the saw blade—position your body at the infeed side of the guard; start and complete the cut from that same side. This will require added table support for long or wide workpieces that extend beyond the length or width of the saw table.

CAUTION: Follow safety instructions that appear on the front of your saw.

UNPACKING

Refer to Figure 2.

- Open shipping box. Remove all parts, except saw body, from both styrofoam packing bases and set parts and top base safely aside.
- Use utility knife to cut down the four corners of the shipping box, fully exposing the bottom packing base.
- Cut away enough styrofoam from motor cover side of packing base so that, with the aid of an assistant, you can slide the saw body from the base.

CAUTION: Do not attempt assembly if parts are missing.

Use this manual to order replacement parts.

Check for shipping damage or missing parts. If any parts are damaged or missing, contact your dealer or RYOBI Service Center.

The table saw body comes assembled as one unit. Additional parts which need to be fastened to the saw should be located and accounted for before assembling:

- A Extension Table (2)
- B Dust Chute
- C Front Rail (2)
- D Rear Rail (2)
- E Miter Gauge Assembly
- F Blade Guard Assembly
- G Dado Insert
- H Table Insert
- I Handwheel Assembly with Knob (2)
- J Rip Fence Assembly
- K Rubber Foot (4)
- L Anti-kickback Pawl Assembly
- M Line Cord Hooks (2)
- N Brace
- O Rip Fence Storage Hooks (2)
- P Blade Guard Storage Hooks (2)
- Q Push Stick Storage Hooks (2)
- R Push Stick
- S Base Panel (4)
- T Corner Support (4)
- U Caster Set (2)

Hardware Bag #1

- M10 x 25 Socket Head Bolt (6)
- M10 Lock Washer (6)
- M10 Flat Washer (6)

Hardware Bag #2

- M8 x 28 Hex Head Bolt (8)
- M8 x 25 Hex Head Bolt (8)
- M8 x 20 Hex Head Bolt (4)
- M8 Lock Washer (20)
- M8 Flat Washer (20)
- M8 Hex Nut (16)
- M8 Acorn Hex Nut (4)

Hardware Bag #3

- M6 x 16 Hex Head Screw (2)
- M6 Flat Washer (2)
- M6 Hex Nut (2)
- M6 Lock Washer (2)

Hardware Bag #4

- M10 x 25 Socket Head Bolt (4)
- M8 x 16 Socket Pan Head Screw (8)
- M6 x 12 Socket Pan Head Screw (24)
- M6 x 16 Socket Head Bolt (2)
- M5 x 12 Socket Head Bolt (4)
- M3 x 10 Pan Head Screw (4)
- M10 Lock Washer (4)
- M6 Hex Nut (2)
- M5 Lock Washer (4)
- M3 Lock Washer (4)
- M10 Flat Washer (4)
- M6 Flat Washer (2)
- M5 Flat Washer (4)
- M3 Flat Washer (4)

Hardware Bag #5

- 10/13 mm Open End Wrench
- 4 mm Hex Wrench
- 5 mm Hex Wrench
- 8 mm Hex Wrench

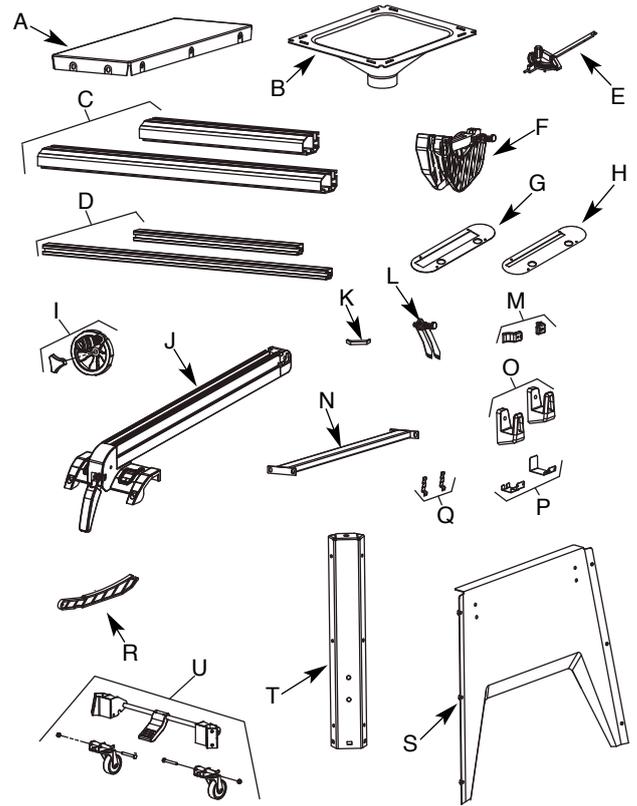


Figure 2 - Unpacking

IMPORTANT: Table is coated with a protectant. To ensure proper fit and operation, remove coating. Coating is easily removed with mild solvents, such as mineral spirits, and a soft cloth. Avoid getting solution on paint or any of the rubber or plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil. Paste wax is recommended for table top.

WARNING: Never use highly volatile solvents. Non flammable solvents are recommended to avoid possible fire hazard.

ASSEMBLY

Refer to Figures 3-34.

CAUTION: Do not attempt assembly if parts are missing. Use this manual to order replacement parts.

Be certain all parts are clean and free of shipping preservative. Also, completely remove all parts of packing. Saw cabinet should be directly on the floor.

SAW INSTALLATION

Positioning the saw on a level surface will improve stability and accuracy and prevent warpage and failure of cast components and welds.

WARNING: Make certain that the saw is disconnected from the power source.

INSTALL HANDWHEELS

Refer to Figure 3.

- Remove saw cabinet and place upside down on cardboard box or cardboard on floor.
- Place one of the handwheels onto the blade raise/lower shaft located on the front of the cabinet. Align the groove in the back of the handwheel with the pin.
- Thread the washer and locking knob onto the threaded end of the shaft.
- Repeat the steps above to assemble the remaining hand-wheel and locking knob onto the blade tilt shaft located on the side of the cabinet.

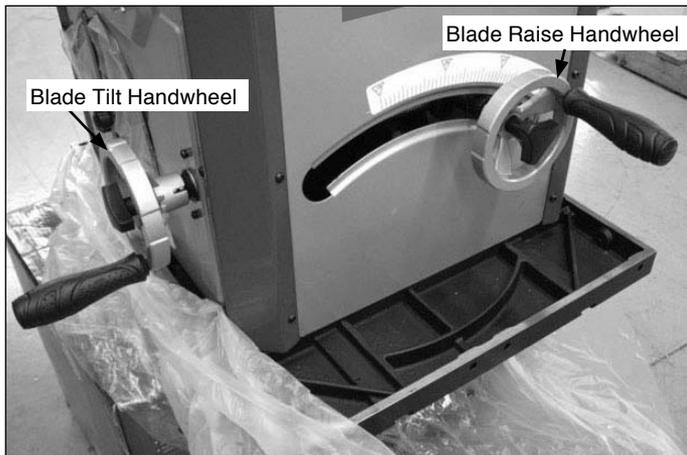


Figure 3

REMOVE PACKING MATERIAL

Refer to Figure 4.

- Use the blade tilt handwheel to tilt the motor completely to 45°.
- Remove the packing material from behind the motor.
- Return motor to the 0° position.

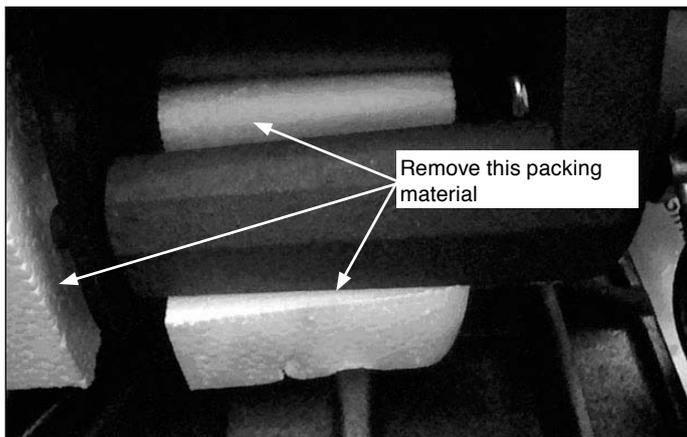


Figure 4

ASSEMBLE MOBILE BASE PANELS

Refer to Figures 5 and 6.

Tools Required: 4 mm Hex Wrench

Hardware Required: Twenty-four M6 x 12 socket pan head bolts (Hardware bag #4).

- Attach the front panel between two corner supports using six M6 x 12 socket pan head screws.
- NOTE:** Place the panel edges INSIDE the corner support surfaces
- NOTE:** Front panel and rear panel are both stamped 'A'. Front panel has warning label.
- Repeat above step for the rear panel.

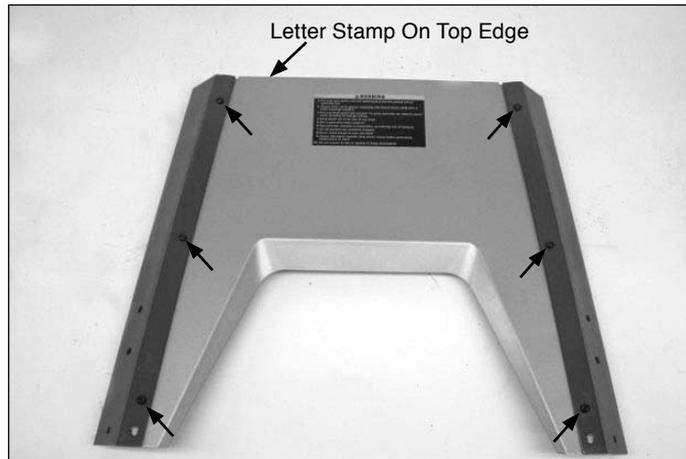


Figure 5

- Turn all panels upside down to perform base assembly.
- Attach one corner of left panel (stamped 'B') to front panel A.
- Attach the other corner of left panel B to rear panel A.
- Repeat above two steps for attachment of right panel (stamped 'C').

Below is completed base assembly.

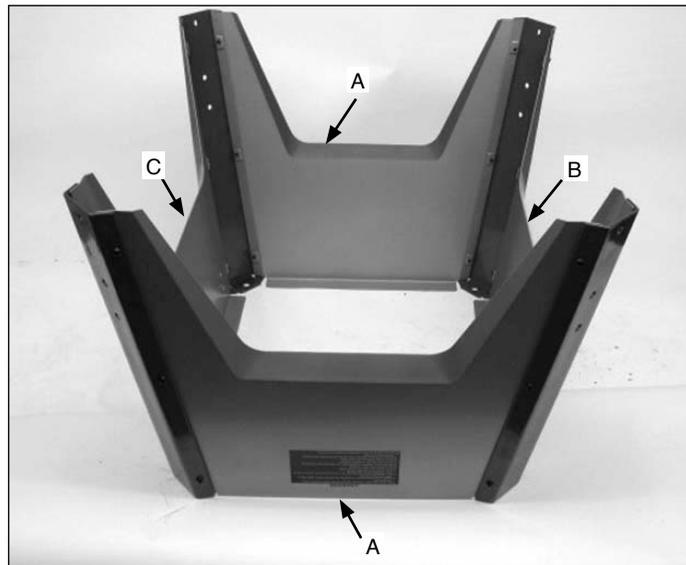


Figure 6

ASSEMBLE CASTER SETS

Refer to Figures 7-11.

Tools Required: Two 13 mm Open End Wrenches

- Refer to Figure 7; remove casters (4) and supports (2) from carton.

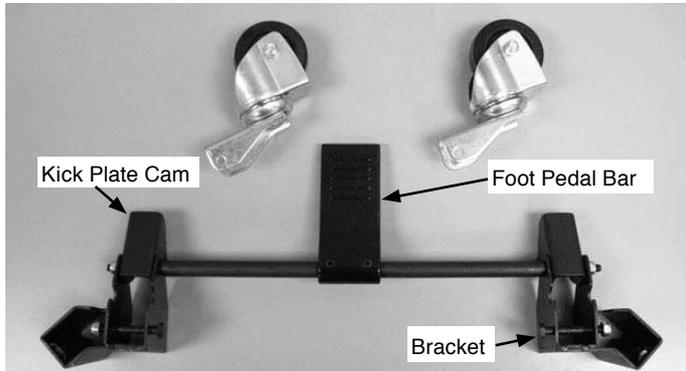


Figure 7

- Loosen and remove the bolt and hex nut from the bracket (see Figure 8)

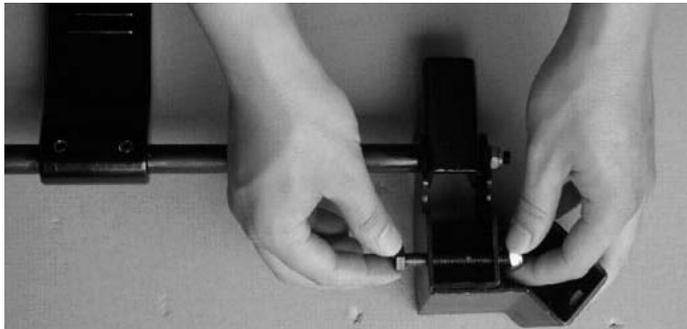


Figure 8

- Rotate foot pedal bar so that kick plate cam is inside bracket (see Figure 9).

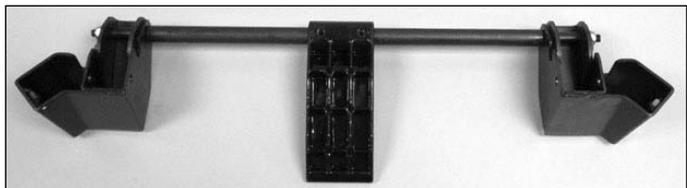


Figure 9 - Kick Plate Cams Inside the Brackets

- The kick plate cam must be underneath the caster to function properly (see Figure 10).



Figure 10

- Refer to Figures 10 and 11; place caster onto the bracket and secure in position with bolt and hex nut.
- Repeat above steps for the second caster set.

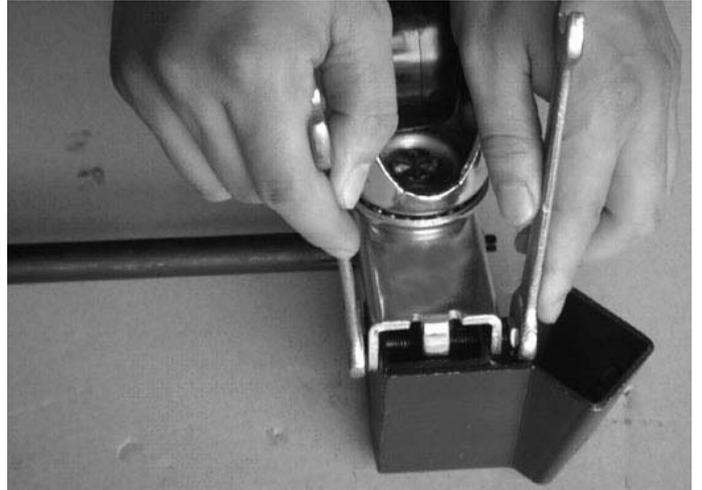


Figure 11

ATTACH CASTER SETS TO BASE

Refer to Figure 12.

Tools Required: 5 mm Hex Wrench

Hardware Required: Eight M8 x 16 socket pan head screws (Hardware bag #4).

- Attach one caster set to the two front corner supports using four M8 x 16 socket pan head screws.
- Attach the remaining caster set to the two rear corner supports.



Figure 12

ATTACH CORD WRAP HOOKS

Refer to Figure 13.

Tools Required: 4 mm Hex Wrench

Hardware Required: Two M6 x 16 socket pan head bolts, two M6 flat washers and two M6 hex nuts (Hardware bag #4).

- Insert a bolt into a cord wrap hook and place against the holes on the left side of the saw cabinet.
- Secure hook in position using flat washer and hex nut.
- Repeat for other hook.

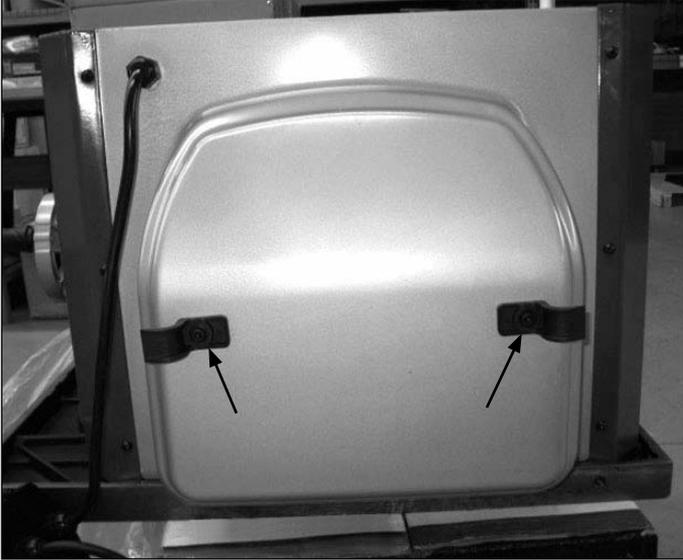


Figure 13

ATTACH BASE TO CABINET

Refer to Figures 14 and 15.

Tools Required: 8 mm Hex Wrench

Hardware Required: Four M10 x 25 socket head bolts, four M10 lock washers and four M10 flat washers (Hardware bag #4).

- Place dust chute over the cabinet as shown. Make sure the holes in the corners are aligned with the slots in the dust chute.



Figure 14

- Place the base assembly over the dust chute and secure the base assembly to the cabinet using the flat washers, lock washers and bolts.
- Secure all fasteners in the base assembly fully tight.

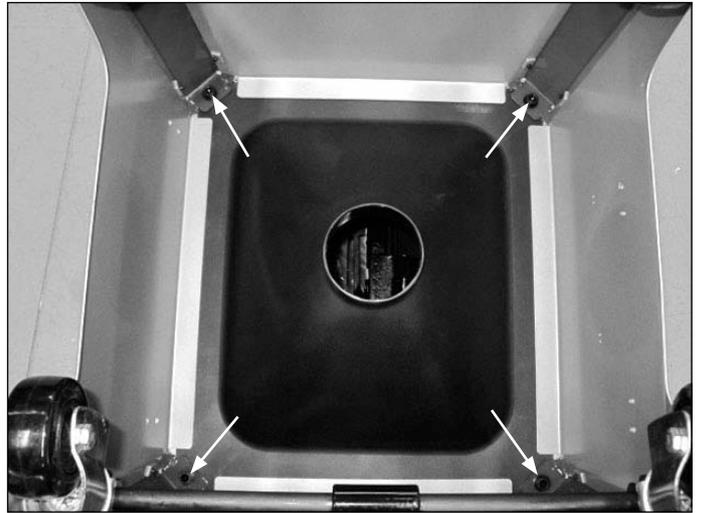


Figure 15

ATTACH RIP FENCE BRACKETS

Refer to Figure 16.

Tools Required: 5 mm Hex Wrench

Hardware Required: Two M6 x 16 socket head bolts, two M6 flat washers and two M6 hex nuts (Hardware bag #4).

- Install the rip fence storage brackets to the right side panel of the base using two bolts, flat washers and hex nuts.



Figure 16

BLADE GUARD AND PUSH STICK STORAGE BRACKETS

Refer to Figure 17.

Tools Required: Phillips screwdriver and 4 mm hex wrench
Hardware Required: Four M3 x 10 pan head screws, four M3 lock washers, four M3 flat washers, four M5 x 12 socket head bolts, four M5 lock washers and four M5 flat washers (Hardware bag #4).

- Install the push stick storage brackets to the left side panel of the base using four screws, lock washers and flat washers.
- Install the blade guard storage brackets to the left side panel of the base using four screws, lock washers and flat washers.

NOTE: Attach the slotted bracket to the front side of the saw.

- Press the four rubber feet to the base legs.
- With the aid of an assistant turn the saw upright.

WARNING: To avoid injury, Do Not attempt to turn saw upright by yourself.

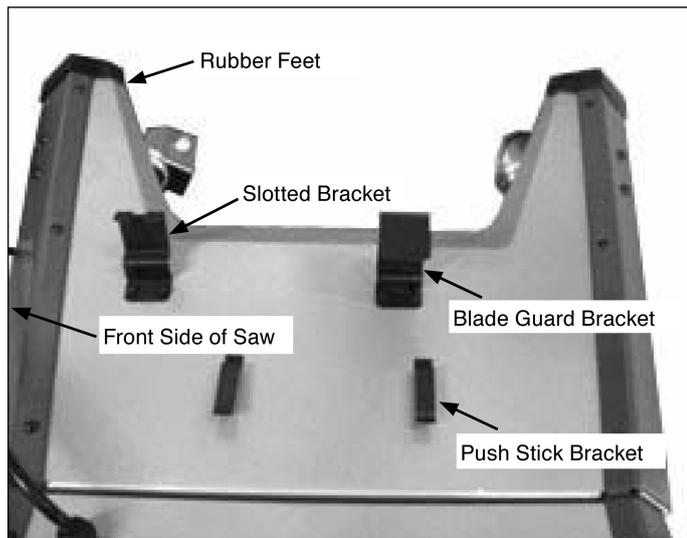


Figure 17

ATTACH EXTENSION TABLES

Refer to Figure 18.

Tools Required: 8 mm Hex Wrench and Straight Edge

Hardware Required: Six M10 x 25 socket head bolts, six M10 lock washers and six M10 flat washers (Hardware bag #1).

- Assemble extension table to the table using socket head bolts, lock washers and flat washers.
- Wipe surface clean.
- Hand tighten only. Do not tighten completely until tables are level. Use a straightedge to level tables.
- Repeat above procedure for the other extension table.
- Use a straight edge to check level and flatness between main and extension tables.
- After tables are adjusted level and flat, secure the extension tables by tightening the bolts completely.

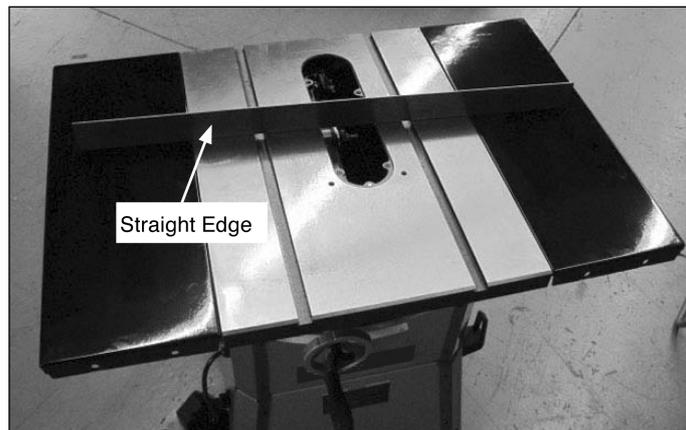


Figure 18

INSTALL BLADE

Refer to Figures 19 and 20.

Tools Required: 13 mm Open end Wrench

- Loosen knob on right side of cabinet.
- Remove blade and wrench. Replace knob.
- Raise blade assembly all the way up.
- Depress arbor lock and use wrench to loosen flange nut. Remove flange and nut from arbor.

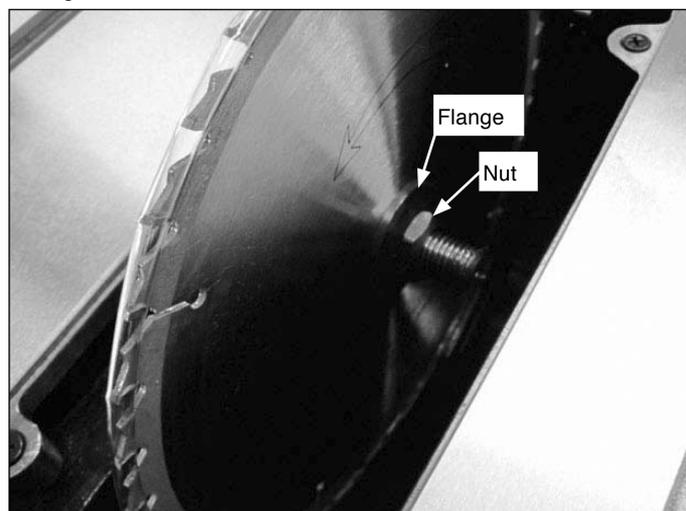


Figure 19

- Place blade on arbor. Make sure arrow on blade and teeth point toward front of saw.
- Replace flange and nut on arbor and securely snug blade in position.

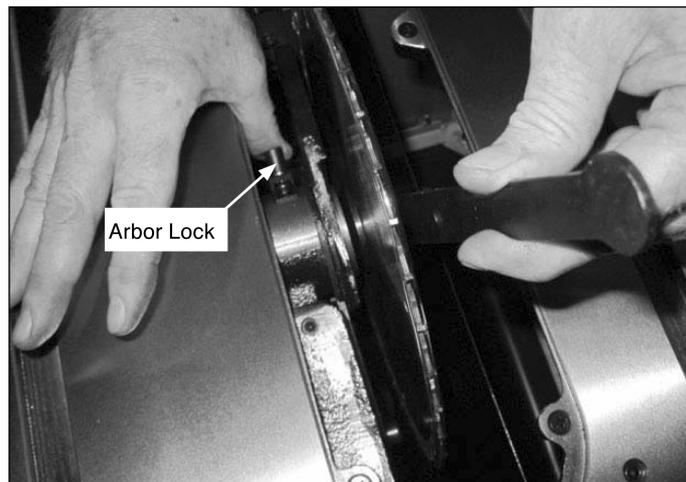


Figure 20

CHECK TABLE ALIGNMENT

Refer to Figures 21, 22 and 23.

- Saws are shipped from the factory with the table adjusted so the miter gauge slots are parallel to the saw blade. However, in order to obtain the best results from the saw, it is suggested this adjustment be checked before operating.
- A simple method of checking alignment is as follows: Bolt or clamp a dowel rod or similar object to miter gauge (a combination square can be substituted). Pick out a tooth on front of blade and set the dowel to it so it is just touching. Move same tooth to back of blade.
- Gauge this tooth with the dowel rod. If the tooth is in the same position, relative to the miter gauge slot, the table is parallel with the blade. In short, the miter gauge slots must be parallel with the blade. This means that when measuring distance between blade and miter gauge slot at the front and rear of the blade, the distances will be equal (see Figure 21).

NOTE: Be sure to measure the distance or make the test on the same tooth of the saw blade in both front and rear positions.

- If an adjustment is necessary, proceed as follows: Loosen and remove the six socket pan head screws and the rear panel (see Figure 22). Loosen the three hex head bolts on the trunnion (see Figure 23) and shift trunnions until a position is found where the saw blade is parallel to the miter gauge slots.

NOTE: Saw blade should also be centered within its table insert opening.

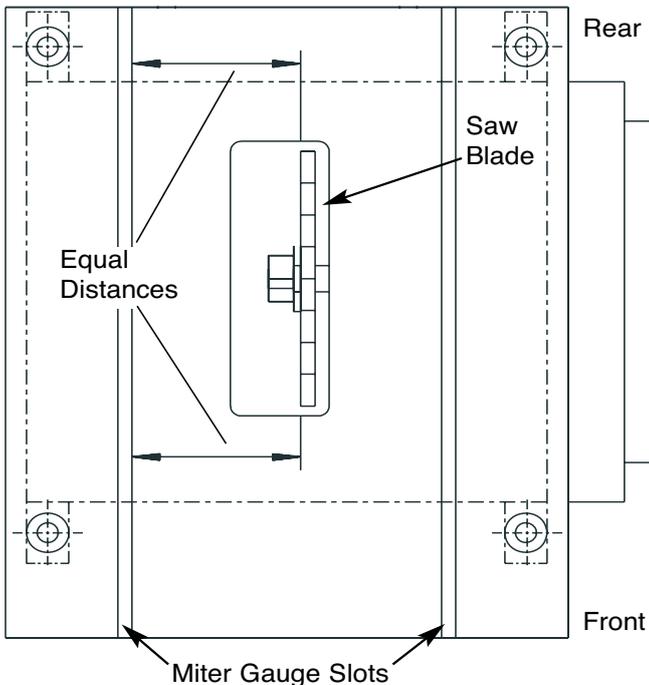


Figure 21 - Aligning Miter Slots to Blade

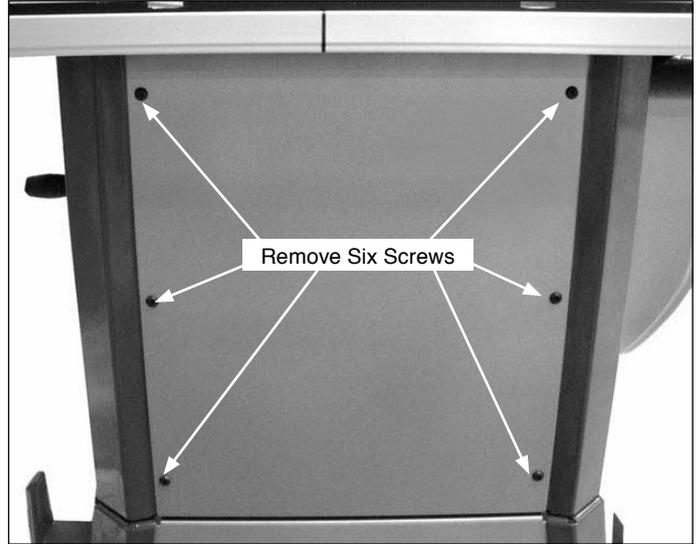


Figure 22 - Remove Rear Panel

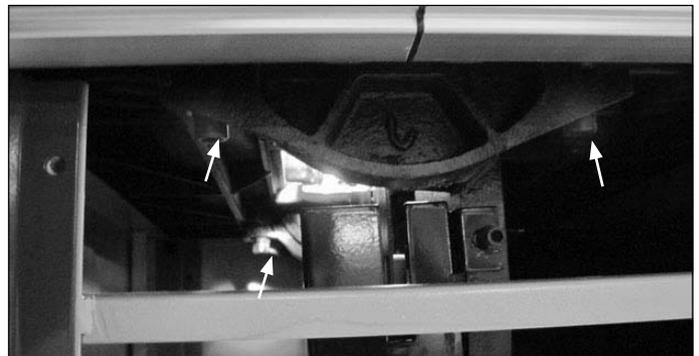


Figure 23 - Adjust Trunnions to Align Blade and Miter Slot

- Tighten the hex head bolts and lock washers very securely. This procedure will set the table and blade in parallel position and prevent the trunnion from shifting.

NOTE: If you perform this adjustment, leave the back panel off to perform rear rail assembly as described in the next section.

RAIL ASSEMBLY

Refer to Figures 24-29.

Tools Required: 13 mm Open end Wrench

Hardware Required: Eight M8 x 28 hex head bolts, eight M8 x 25 hex head bolts, four M8 x 20 hex head bolts, twenty M8 lock washers, twenty M8 flat washers, sixteen M8 hex nuts and four M8 acorn nuts. (Hardware bag #2).

- Insert two M8 x 28 hex head bolts and two M8 x 25 hex head bolts into the T-slot of the right front guide rail. (The two longer bolts will attach to the table; the two shorter bolts attach to the table extension.)
- Attach right front rail to the table and right table extension using flat washers, lock washers and hex nuts.

NOTE: Hand tighten all hardware during rail assembly. Do not completely tighten hardware until all rails are mounted.

- Attach left front rail in the same manner. (The two longer bolts attach to the table; the two shorter bolts attach to table extension.)

NOTE: You may have to shift right rail as far right as it will go to attach left rail.

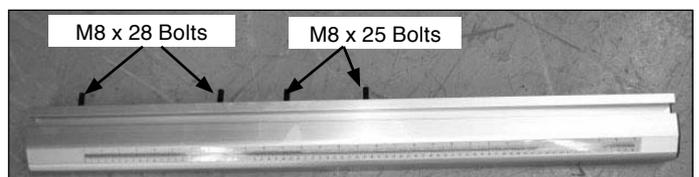


Figure 24 - Right Front Rail

- Position rails so that rails are butted together and the joint between rails is aligned with right side of the blade. You may need a mallet to lightly tap rails together. Make sure rails are completely butted together at the joint.
- Use a straight edge as shown to check level and flatness between right and left rail. Use a combination square as shown to make certain that both front rails are parallel to the table surface.
- After front rails are adjusted level and flat, tighten the screws completely.
- Secure all hardware completely.



Figure 25 - Use Straight Edge to Align Rail Joint to Blade



Figure 26 - Check parallelism of rails to table with combination square. Check at several locations along rail.

- Loosen and remove six socket pan head screws and the back panel. This will allow easier attachment of the rear rails.



Figure 27

- Install the rear rails in the same manner as the front rails and align the rail joint to the blade.
- Replace back panel of the cabinet.



Figure 28

- Insert M8 x 20 hex bolts through holes in bracket at each end of brace. Attach brace to the far right end of the rails by sliding hex bolts into the rail T-slots. Secure bolts in position with flat washers, lock washers and nuts.

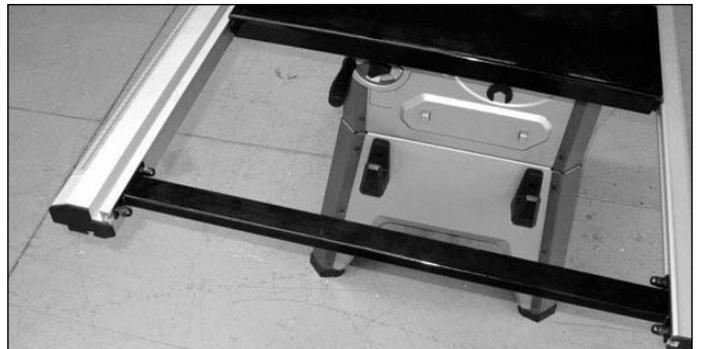


Figure 29

ATTACH SWITCH ASSEMBLY

Refer to Figure 30.

Tools Required: 10 mm Open end Wrench

Hardware Required: Two M6 x 16 hex head bolts, two M6 flat washers, two M6 lock washers and two M6 hex nuts. (Hardware bag #3).

- From above switch assembly bracket, insert two bolts through bracket holes.
- Loosely attach flat washer, lock washer and nut to bolts.
- Insert bolt heads into T-slot on bottom of left front rail.
- Slide switch assembly 150mm to 200mm from left end of rail as shown in Figure 30.
- Fully tighten flat washers, lock washers and hex nuts to secure switch assembly in place.

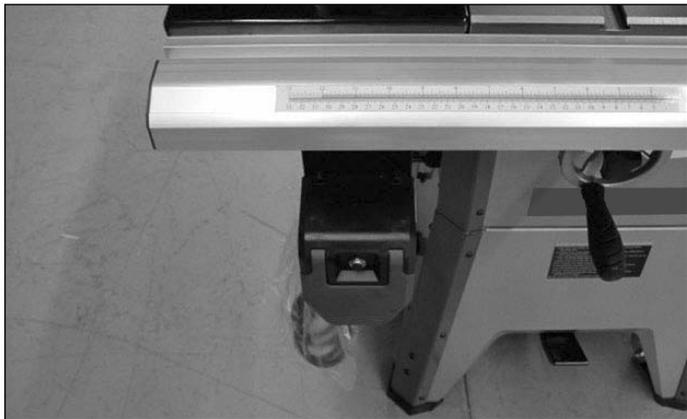


Figure 30

POSITION AND ADJUST RIVING KNIFE

Refer to Figure 31.

- Riving knife is installed on the saw. Raise the blade completely to access the riving knife.
- Loosen the locking knob and raise the riving knife to its highest position. Riving knife has three holes for three positions. The highest position is for all thru cuts. The middle position is for rabbets and other non-thru cuts, (with guard and pawls removed). The lowest position is for dado cuts.

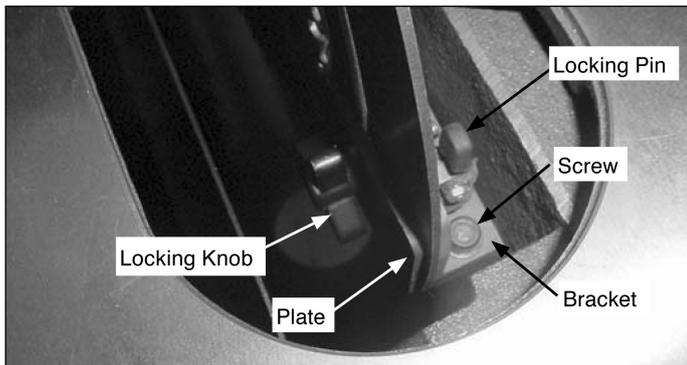


Figure 31 - Riving Knife

- Make sure locking pin is aligned with riving knife hole and secure in position by tightening locking knob.
- Riving knife must be in line with blade. Make sure riving knife sits flat against mounting bracket and lock plate.

RIVING KNIFE TO BLADE ADJUSTMENT

- Riving knife to blade clearance: the gap between the riving knife and the saw blade should be an even distance across the entire radius.
- The riving knife should also be in line with the saw blade. If adjustment is necessary:
 1. Locate the riving knife bracket.
 2. Loosen the two socket head cap screws slightly enough to move the bracket, bringing the riving knife in line with the saw blade. Make sure the gap between the blade and knife is even

and from 6 mm to 8 mm in distance.

3. Once the riving knife is aligned with the blade, tighten the socket head cap screws.

INSTALL TABLE INSERT

Refer to Figure 32.

- Make sure that the riving knife is raised to its highest position.
- Place table insert into throat of table.
- Insert is held in position by magnet in table.
- To adjust insert level with table, adjust leveling screws up or down.

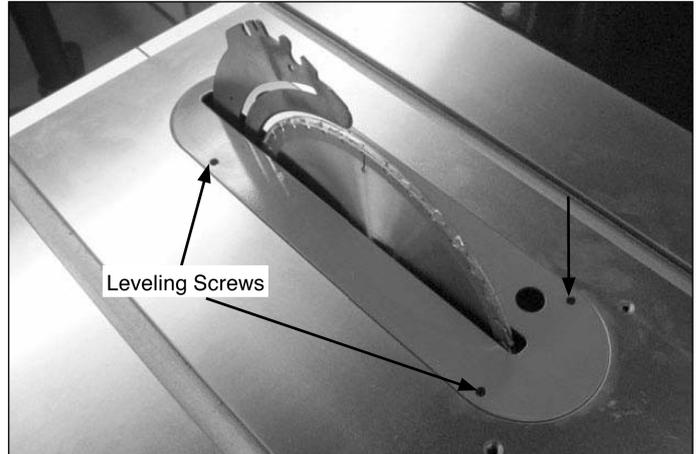


Figure 32

ATTACH BLADE GUARD AND ANTI-KICKBACK PAWLS

Refer to Figures 33-36, pages 12 and 13.

- Place the slot of blade guard body over the riving knife. Slot of bushing is placed in the notch indicated in Figures 33 and 34.
- The bushings have a beveled edge and must be located in the center of the notch to lock properly.
- Position guard completely down on riving knife and press latch to lock in position.
- Blade guard body should be parallel to the table. If not, adjust the 2 mm set screws as necessary.
- Place anti-kickback pawl set onto riving knife at notches indicated. The spring pin is placed in the front notch and bolt is placed in the rear notch.
- Press pawl set completely down and press latch to secure in position.

NOTE: The teeth of anti-kickback pawls should touch table surface. Use set screws to adjust if needed.

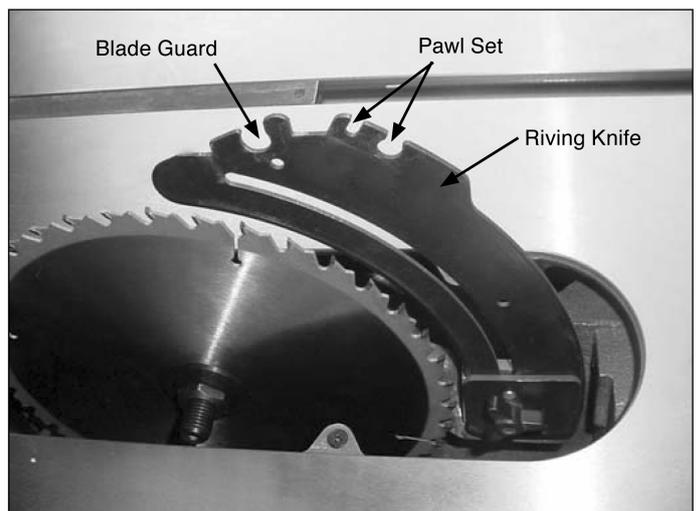


Figure 33 - Blade Guard and Pawl Attachment

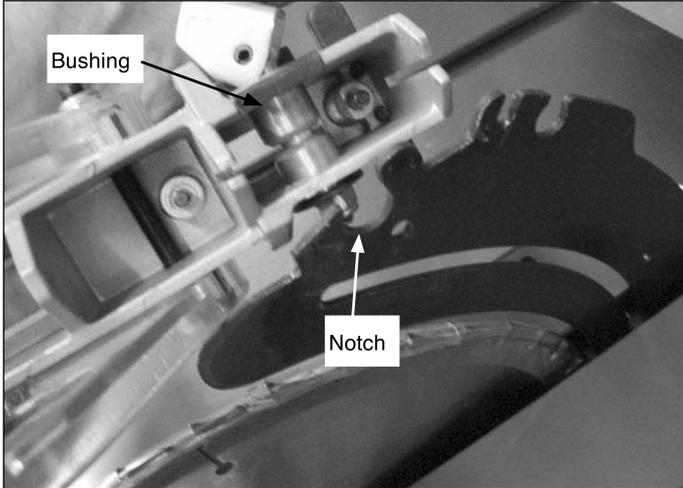


Figure 34

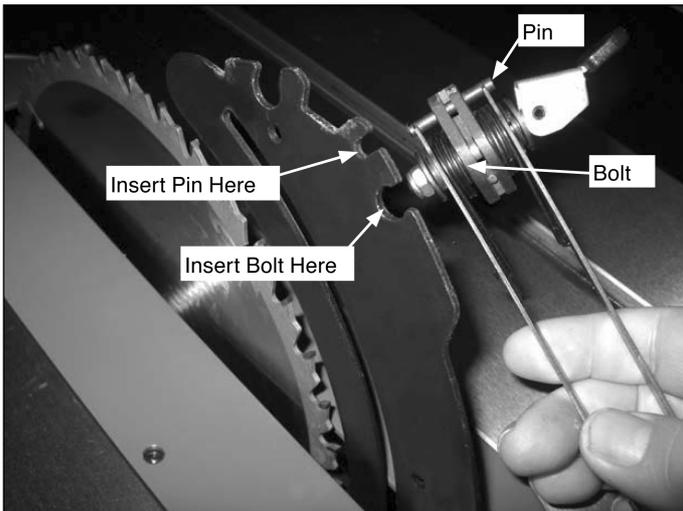


Figure 35 - Attach Pawl Assembly

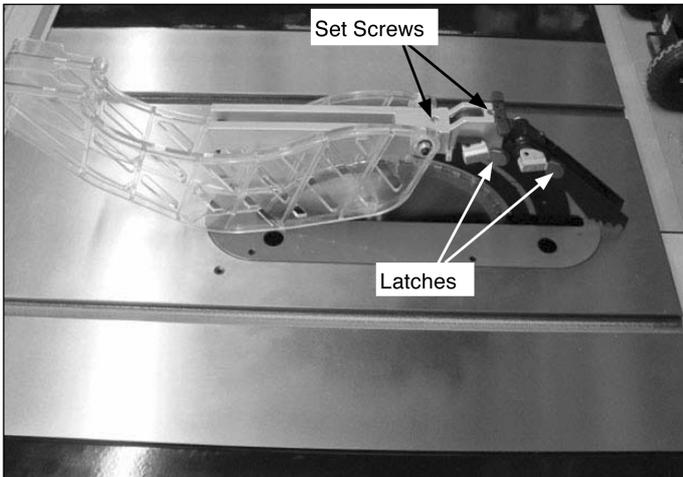


Figure 36 - Latches Lock and Unlock Blade Guard and Pawls to Riving knife

INSTALL MITER GAUGE

Refer to Figure 37.

- The miter gauge comes preassembled. Unpack the miter gauge and clean thoroughly. Insert into storage slots on right side of cabinet.



Figure 37

INSTALL PUSH STICK

Refer to Figure 38.

- Insert the push stick into brackets on left side of base.



Figure 38

INSTALL RIP FENCE

Refer to Figure 39.

- Position rip fence assembly at end of saw. Be certain locking lever is in UP unlocked position.
- Place rip fence assembly onto rails, positioning clamp over rear rail and then placing rip fence onto front guide rail.
- Rip fence should now ride freely on rip fence rails. Once rip fence is completely installed, it should be parallel with the miter gauge and perpendicular to the table. If not, refer to "Rip Fence Adjustment" in the Operation section of this manual.



Figure 39

INSTALLATION

PLUG IN

WARNING: Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Plug must be plugged into matching outlet that is properly installed and grounded in accordance with all local codes and ordinances. Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician.
- Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility.

EXTENSION CORDS

- The use of any extension cord will cause some drop in voltage and loss of power.
- Wires of the extension cord must be of sufficient size to carry the current and maintain adequate voltage.
- Use the table to determine the minimum wire size (A.W.G.) extension cord.
- Use only 3-wire extension cords having 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug.
- If the extension cord is worn, cut, or damaged in any way, replace it immediately.

Extension Cord Length

	Wire Size A.W.G.
Up to 15 m	18
15 to 30 m	16
30 to 60 m	14
60 to 90 m	12

NOTE: Using extension cords over 90 m long is not recommended.

OPERATION

Refer to Figures 40-49, pages 15 -17.

DESCRIPTION

The TCS-1065 contractor saw offers precise cutting performance for all woods up to 80 mm thick. The saw is designed for the professional user and is ruggedly constructed for continuous service. This contract saw is recommended for use with a 254 mm blade.

The saw features an extra large cast iron table. Saw body has on board storage for push stick, miter gauge, rip fence and saw blades. Saw is equipped with a riving knife and a clear acrylic blade guard with anti-kickback feature. Cabinet is constructed of heavy gauge welded steel, totally enclosed and is ported for a 100 mm vacuum hose.

Rip Fence Assembly features a heavy-duty precision rip fence that is designed for simple and one-hand maneuverability. Front rail is calibrated in inches and millimeters with a magnified window for close tolerances.

SPECIFICATIONS

Capacity with 254 mm Blade:

Depth of cut at 90°	80 mm
Maximum tilt angle of arbor (left)	45°
Depth of cut at 45°	57 mm
Max. cut right of blade with rip fence	760 mm
Max. cut left of blade with rip fence	330 mm

Saw Dimensions:

Table height	950 mm
Cabinet depth	560 mm
Cabinet width	500 mm
Table area	670 x 510 mm
Front of table to blade	300 mm

Rip Fence Dimensions:

Rip fence	790 mm
Rip fence rails (front and rear)	1435 mm
Blade capacity maximum	254 mm
Blade arbor	16 mm
Dado blade capacity maximum	20 mm

Saw Constructions:

Cabinet	Totally enclosed steel panel
Table	Cast iron
Rip fence	Aluminum tube
Drive system	V-belt
Exhaust port	100 mm Male
Miter gauge	Cast iron with T-slot roller guide
Blade guard	Acrylic with anti-kickback pawls
Switch	Locking paddle switch with overload
Arbor R.P.M.	3450 min ⁻¹ approx.
Motor:	240 W, 50 Hz, 1500 W capacitor start, capacitor run, single-phase
Gross weight with motor	150 kgs

WARNING: Disconnect power before attempting any of the following procedures. Be certain switch is in OFF position and safety disconnect (or breaker) is in OFF or open position. Saw blade must not be moving. Saw blade will rotate freely after motor is turned off. Allow blade to come to a complete stop before attempting any of the following procedures.

WARNING: The operation of any power tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles before commencing power tool operation.

STARTING AND STOPPING THE SAW

Refer to Figure 40.

WARNING: Never operate saw without blade guards in place. Be sure blade is not in contact with workpiece when motor is started. Start motor and allow saw to come to full speed.

WARNING: Make sure the electrical characteristics of motor nameplate and power source are the same.

- The ON/OFF switch is located under the front rail of the table saw at the left side.
- To turn saw on, stand to either side of the blade—never in line with it. Raise large red OFF paddle and pull up ON/OFF switch. Always allow saw blade to come up to full speed before cutting.
- Do not turn motor switch ON and OFF rapidly. This action overheats the motor and may cause saw blade to loosen.
- Never leave saw while the power is on.

- To turn the table saw off, press the large red OFF paddle. Never leave saw until cutting tool has come to a complete stop. The saw can be locked from unauthorized use by locking the switch. To lock the switch:

- Turn the switch to OFF position and disconnect saw from power source.
- Pull the key out. The switch cannot be turned on with the key removed.

NOTE: Should the key be removed from the switch at the ON position, the switch can be turned off but cannot be turned on again.

- To replace key, slide key into the slot on switch until it snaps.

WARNING: For your own safety, lower blade or cutting tool below table surface. If blade is tilted, return it to vertical position. Turn off safety disconnect or circuit breaker when saw is not in use.

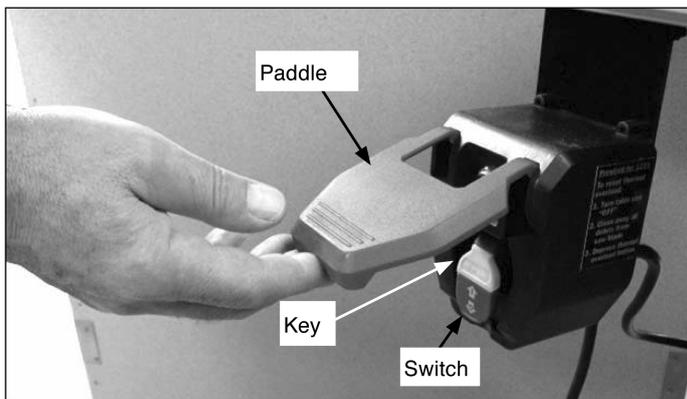


Figure 40 - ON/OFF Switch

BLADE HEIGHT ADJUSTMENT

Refer to Figure 41.

- Blade height is controlled by handwheel on the front of the saw.
- To adjust height, loosen locking hand knob. Rotate knob counterclockwise approximately three turns. Turn hand-wheel to desired blade height.

CAUTION: For safety, blade should be raised only 3mm above the surface of the material to be cut. However, if hollow ground blades are used, raise blade to its maximum height to allow for greater blade clearance.

- Lock blade height into position. Lock handwheel by tightening locking knob clockwise. Tighten only until snug.

IMPORTANT: Do not over tighten. Only a small amount of pressure is necessary to lock handwheel securely.

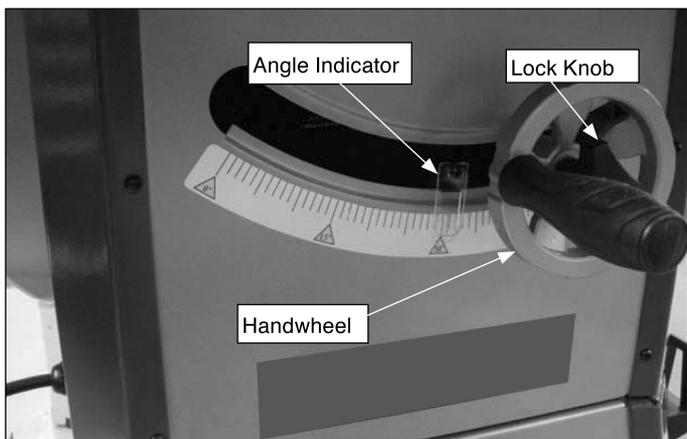


Figure 41 - Blade Height Adjustment

BLADE TILT ADJUSTMENT

Refer to Figures 41 and 42.

- The saw blade can be set at any angle between 90° and 45°. Blade tilt is controlled by the handwheel (Fig. 41) on the right side of the saw. The indicator (Fig. 42) on front of saw shows the tilt angle of the blade.
- To adjust tilt, loosen locking hand knob. Rotate knob counterclockwise at least three turns. Turn handwheel to desired blade angle. Lock blade angle into position.
- Lock handwheel by tightening locking hand knob clockwise. Tighten only until snug.
- The saw is equipped with positive stops at 90° and 45°. These positive stops allow operator to position saw blade at 90° and 45° quickly and accurately.

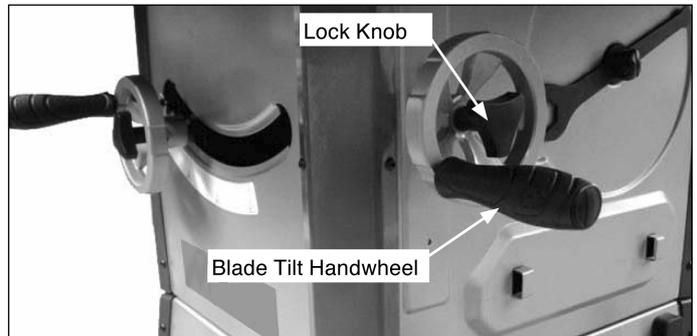


Figure 42 - Blade Tilt Handwheel

90° STOP ADJUSTMENT

Refer to Figures 41 and 43.

- Raise saw blade above table as far as possible. Set blade at 90° to table by turning the tilting handwheel. Place a square on table and check to see if blade is perpendicular to the table. When checking put square flush against saw blade. Do not put square on teeth of saw blade.
- If the blade will not tilt to 90°, turn (counterclockwise) the set screw at the left front of the table insert until the blade can be positioned to 90°.
- Once the blade has been tilted to 90° (confirm this using your square), tighten the bevel handwheel lock knob, located on the side of the cabinet. This will keep the blade from tilting further.
- Turn the set screw (clockwise) until it comes in contact with the positive stop.
- Check tilt indicator pointer. If necessary, adjust pointer so it points to 0° mark on scale. To adjust pointer, remove handwheel and loosen screw on pointer. Be sure to tighten screw securely after adjustment is completed.

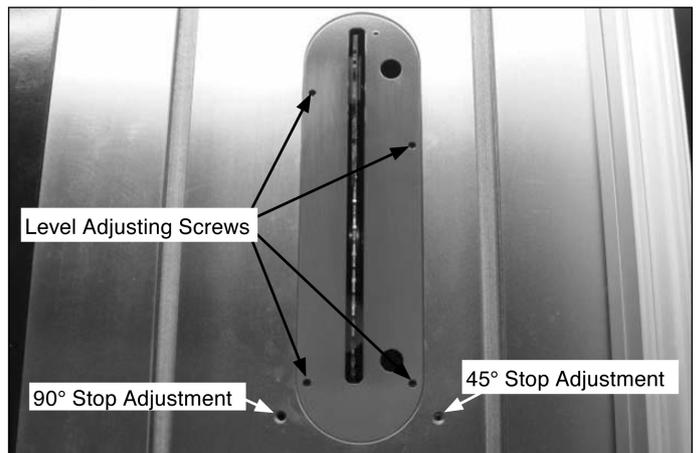


Figure 43 - Table Insert

45° STOP ADJUSTMENT

Refer to Figure 43, page 15.

- Tilt the saw blade to 45°. Using a combination square, check to see if blade is 45° to the table.
- If the blade will not tilt to 45°, turn (counterclockwise) the set screw located at the right of the table insert, until the blade can be positioned to 45°.
- With the blade at 45°, tighten the bevel handwheel lock knob to keep the blade from further tilting.
- Turn the set screw clockwise until it comes in contact with the positive stop.

TABLE INSERT ADJUSTMENT

Refer to Figure 43, page 15.

- The table insert must always be level with the saw table.
- Place a straight edge across the front and rear of the table insert. Check that the insert is perfectly level with the saw table.
- To level the table insert, turn one or more adjusting set screws as needed and recheck.
- The table insert is equipped with two finger holes for easy removal.

MITER GAUGE ADJUSTMENT

Refer to Figures 44 and 45.

- Miter gauge supplied with saw is equipped with individually adjustable index stops at 0° and 45°, right and left, and can be manually adjusted up to 60° right and left. Adjustment to index stops can be made by loosening locking nut and tightening or loosening three adjusting screws. Be sure to tighten locking nut after adjustment is made.
- Face of miter gauge has two holes for purpose of attaching auxiliary facing.
- Miter gauge is accurately constructed for precision work. Miter gauge is guided through T-slot with a roller guide mounted at front of guide bar. Roller guide adds to miter gauge's stability and prevents the guide bar from leaving T-slot.
- To operate miter gauge, simply loosen locking knob and move miter gauge to desired angle. The miter gauge will stop at 0° and 45°, both right and left. To position miter gauge past these points, simply pull out gauge stop. Position miter gauge at desired angle and tighten locking knob.
- Be positive the edge of workpiece next to face of miter gauge is straight and tight against miter gauge so that the workpiece does not rock or rotate. Always use both hands when operating the miter gauge.
- The miter gauge is used for cross-cutting, compound miter cutting, miter cutting, rabbeting, bevel cutting and dadoing.

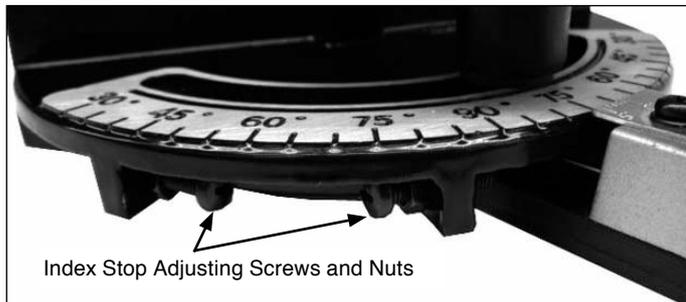


Figure 44 - Index Stops

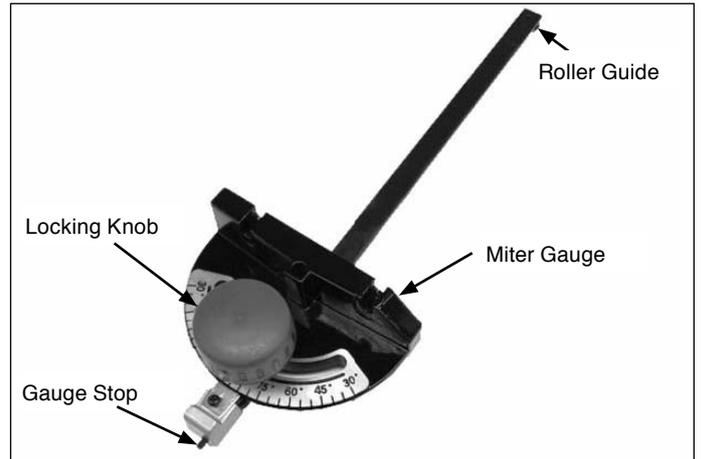


Figure 45 - Miter Gauge Assembly

RIP FENCE ADJUSTMENT

The saw's rip fence is precision manufactured, incorporating fine adjustments for accurate cuts. The saw is built to allow the operator to accurately adjust the rip fence without problems in a matter of seconds.

LEVELING THE FENCE TO THE TABLE

- Lift the lock handle to unlock the fence.
- Observe the space between the fence bottom and the table. The space should be equal along the entire length of the fence.
- If the space is not equal, the rails need to be adjusted so that rails are at the same vertical position with respect to the table. See Rail Assembly, pages 10-11.

SETTING CLAMPING PRESSURE

Refer to Figure 46.

Rip fence has been adjusted at the factory to lock securely when the lock handle is pushed down. To adjust:

- Unlock fence and remove it from the rails.
- Adjust the hex nut until the fence is held securely when the lock handle is pushed down,

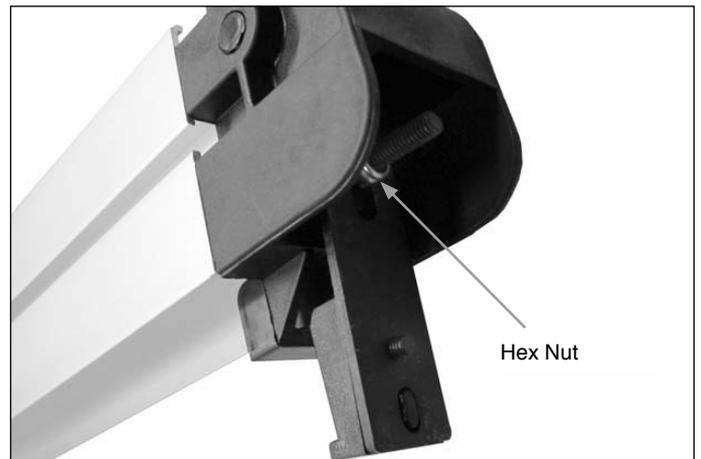


Figure 46 - Nut to Adjust Clamping Pressure

SETTING FENCE PERPENDICULAR AND PARALLEL

Refer to Figure 47.

PERPENDICULAR ADJUSTMENT

- Position fence anywhere on table and lock it down.
- Place a square on the table next to the fence and check to see that the fence is at 90° to the table.
- If an adjustment is necessary, unlock the fence and turn either of the two adjusting screws.

NOTE: This is for micro-adjustment only. If fence cannot be adjusted square, recheck rail adjustment.

- Lock fence in position and recheck. Continue this procedure until fence is square to the table.

PARALLEL ADJUSTMENT

- Position fence so that fence edge is aligned with slot edge.
- Slot and fence edge should be parallel.
- If an adjustment is necessary, unlock the fence and turn either of the two adjusting screws.
- Lock fence in position and recheck. Continue this procedure until fence is square to the table.

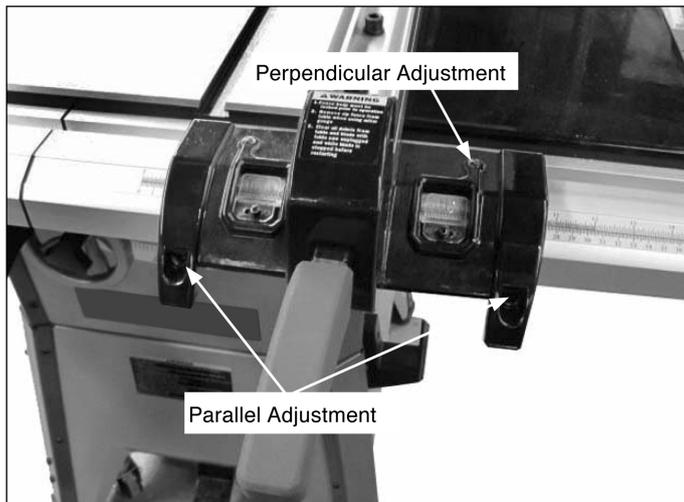


Figure 47

CURSOR ADJUSTMENT

Refer to Figure 48.

- Raise the saw blade above the table.
- Position the fence several inches to the right of the saw blade.
- Lock the fence down and measure the exact distance between the saw blade and the inside of the fence.
- Loosen the two screws on the lens and slide it left or right until the cursor (red line) equals the measurement obtained in the previous step.
- Retighten the screws and make a test cut. Measure the cut piece to verify that the cursor is set correctly.

NOTE: This adjustment should be checked whenever a new blade is installed.

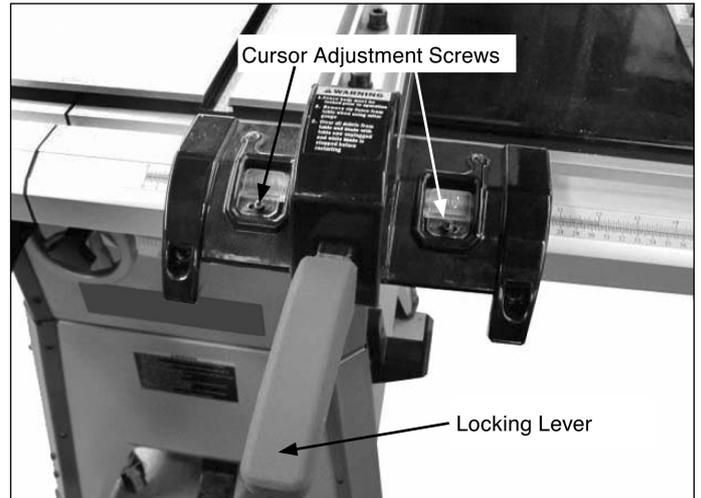


Figure 48

RIP FENCE OPERATION

Refer to Figure 48.

- Unlock the fence by lifting the locking lever. Using the scale for placement, position the rip fence. Lock the rip fence into position by placing the locking lever in the down position.
- The rip fence is used for the following operations: ripping, bevel ripping, ploughing, resawing, rabbeting and dadoing.

INSTALLING AND REMOVING THE RIVING KNIFE

Refer to Figure 49.

Install

- Line up the riving knife in the proper direction to the mounting bracket.
- Push the riving knife all the way down into the mounting bracket. Make sure the lock pin is locked in the hole of the riving knife. (The lock hole is on the button side of the riving knife).
- If the riving knife is not locked properly, hold the locking knob and pull the lock pin out; then re-insert the pin securely in the hole of the riving knife. While raising or lowering the knife, pin will snap in the hole of the knife when located at one of the three positions.
- Tighten the locking knob.

Remove

- Loosen the locking knob.
- Hold the knob and pull the locking pin out.
- Remove the riving knife out of the mounting bracket.

NOTE: Make sure blade is at the highest position before adding or removing the riving knife.

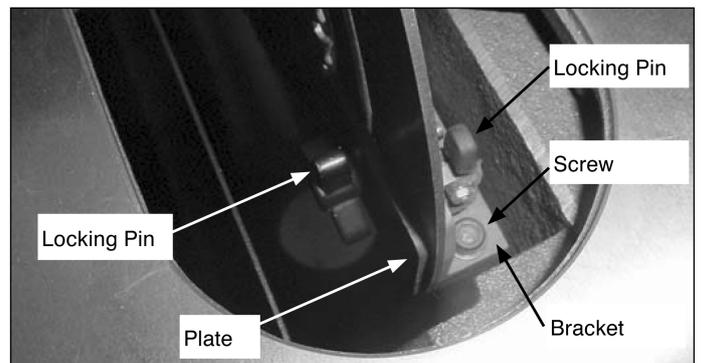


Figure 49 - Riving Knife

WARNING: For your own safety, always observe the following safety precautions.

- Never make any cut freehand (without using miter gauge or rip fence). Blade can bind in the cut and cause a kickback.
- Always lock miter gauge or rip fence securely when in use.
- Remove rip fence from the table when miter gauge is in use.

- Remove miter gauge from table when rip fence is in use.
- Make sure blade guard is installed for all "through sawing" operations. Through sawing operations are those operations in which the saw blade cuts completely through the thickness of the wood. Replace guard immediately after completion of resawing, rabbeting and dadoing.
Frequently check action of anti-kickback pawls by passing the work-piece alongside the spreader while saw is off. Pull the workpiece toward you. If the pawls do not dig into the workpiece and hold it, the pawls must be sharpened. (See Maintenance section, page 19.)
- Have blade extend approximately 3 mm above top of work-piece. Additional blade exposure increases hazard potential.
- Do not stand directly in front of blade in case of a kickback. Stand to either side of the blade.
- Keep your hands clear of the blade and out of the path of the blade.
- If the blade stalls or stops while cutting, turn switch OFF and safety disconnect OFF before attempting to free the blade.
- Do not reach over or behind the blade to pull the work-piece through the cut, to support long or heavy work-pieces, to remove small cut-off pieces of material or for any other reason.
- Do not pick up small pieces of cut-off material from the table. Remove them by pushing them off table with a long stick. Otherwise they could be thrown back at you by the rear of the blade.
- Do not remove small pieces of cut-off material that may become trapped inside blade guard while saw is on. This could endanger your hands or cause a kickback. Turn saw off. After blade has stopped turning, lift guard and remove the piece.
- Always lower blade below the table level when machine is not in use.

TYPES OF CUTS/OPERATIONS

THROUGH CUTS

A through cut is a sawing operation in which the workpiece is completely sawn through. Examples of through cuts are rip cuts, cross cuts, miter cuts, and beveled cuts. The blade guard assembly **MUST** be used when performing through cuts.

CROSSCUTTING

WARNING: Use caution when starting the cut to prevent binding of the guard against the workpiece. This cut is performed with the miter gauge set at "0", and is used for cutting across the workpiece grain at 90° (blade square with both the edge and flat side of wood).

MITER CUTTING

WARNING: Miter angles greater than 45° may force the blade guard assembly into the saw blade causing damage to the blade guard assembly and personal injury. Before starting the motor, test the operation by feeding the workpiece into the blade guard assembly. If the blade guard assembly contacts the blade, place the workpiece under the blade guard assembly, not touching the blade, before starting the motor.

WARNING: Certain workpiece shapes, such as molding may not lift the blade guard assembly properly. With the power off, feed the workpiece slowly into the blade guard area and until the workpiece touches the blade. If the blade guard assembly contacts the blade, place the workpiece under the blade guard assembly, not touching the blade, before starting the motor.

This cut is performed with the miter gauge, and is used for cutting at an angle other than 90° square with the edge of the workpiece.

BEVEL CROSSCUTTING

WARNING: When possible, use the right miter gauge slot when bevel crosscutting so that the blade tilts away from the miter gauge and your hands.

WARNING: Use caution when starting the cut to prevent binding of the guard against the workpiece.

This cut is performed with the miter gauge, and is the same as cross-cutting, except that the workpiece is also cut at an angle other than 90° square to the flat side of the wood (blade is at an angle).

COMPOUND MITER CUTTING

This cut is performed with the miter gauge, and is a combination of miter cutting and bevel crosscutting. The cut is made at angle other than 90° to both the edge and flat side of wood.

RIPPING

WARNING: When bevel ripping and whenever possible, place the fence on the side of the blade so that the blade is tilted away from the fence and hands. Keep hands clear of the blade and use a push stick to feed the workpiece if there is less than 150 mm between the fence and the blade.

This cut is performed with the rip fence, and is used to cut the work-piece lengthwise with the grain. Position the fence to the desired width of rip and lock in place. When ripping long boards or large panels, always use a work support.

BEVEL RIPPING

WARNING: Before connecting the table saw to the power source or operating the saw, always inspect the blade guard assembly and riving knife for proper alignment and clearance with saw blade. Check alignment after each change of bevel angle.

WARNING: When possible, place the fence on the right side of the blade so that the blade is tilted away from the fence and hands. Keep your hands clear of the blade and use a pushstick to feed the work-piece if there is less than 150 mm between the fence and the blade.

This cut is performed with the rip fence, and is the same as ripping, except that the blade is set at an angle other than 90°.

RESAWING

This cut is performed with the rip fence, and is used to rip a workpiece through its thickness rather than across its flat width. Do not attempt to resaw bowed or warped material.

NOTE: It may be necessary to remove blade guard and use work supports as well as push blocks when performing this operation.

WARNING: Install blade guard immediately upon completion of resawing operation.

PLOUGHING

This cut is performed with the rip fence, and is used to make a groove lengthwise with the grain of the workpiece. Use proper hold downs and feed devices.

RABBETING

This cut is performed with either the miter gauge or rip fence. Rabbeting is used to cut out a section of the corner of a workpiece, across an end or along an edge. To make a rabbet requires cuts which do not go all the way through the material. Therefore, blade guard must be removed. Install blade guard immediately upon completion of rabbeting operation. Rabbet cuts can also be made using dado head.

DADOING

This cut is performed with either the miter gauge or rip fence. Dadoing is done with a set of blades (dado set) rather than standard saw blades. The dado set is used to groove wood similar to ploughing and rabbeting. However, the dado set allows operator to remove more material in one pass. The operator, with a dado set, can vary width of cut up to 20 mm.

Instructions for operating dado set are contained in owner's manual furnished with dado set. Dadoing requires cuts which do not go all the way through material. Therefore, blade guard must be removed. Dado sets have different characteristics than saw blades. As a result, saw must be fitted with special parts that are furnished with saw (Dado Insert).

When using a dado set, the following parts must be substituted dado table insert (not included).

IMPORTANT: Always use correct insert. When using the dado set, use caution. Use featherboards and push sticks as applicable.

WARNING: Always immediately replace the standard blade, blade guard and blade insert when you are finished dadoing.

FREEHAND

Freehand is a very dangerous operation of making a cut without using the miter gauge or rip fence. Freehand cuts must never be performed on a Table Saw.

CUTTING OVERSIZED WORKPIECES

When cutting long workpieces or large panels, always support workpiece that is not on table. Use adjustable roller stand or make simple support by clamping a piece of plywood to saw horse. Add facings to miter gauge or rip fence as needed.

IMPORTANT: Do not allow facings to interfere with operation of blade guard.

DUST COLLECTING

- Saw is fitted with a 100 mm male exhaust port.
- Before starting saw, see that all adjustments are properly made and guards in place. With power disconnected, turn pulley by hand to make sure everything is correct before connecting power and starting saw.

BLADE SELECTION

Blade selection is based on type of material being cut and how it will be cut. There are three general types of saw blades: rip saw blades cut with grain of wood, cut-off saw blades cut across grain, and combination saw blades cut with grain, across grain and any angle to grain.

Blades vary in many aspects. When selecting a blade, the following blade characteristics should match up with operation to be performed and type of material to be cut: type of steel; quality of steel; tooth style; tooth set; carbide tipped; grind; number of teeth and size. **IMPORTANT:** Your saw is only as accurate and efficient as blade or cutting tool used.

First, be certain to use the appropriate type of cutting tool for the operation to be performed. Second, it is strongly recommended that high-quality blades and cutting tools be used. Be certain blades and cutting tools are kept sharp and in good working order. Check blades periodically and replace or sharpen if necessary.

MAINTENANCE

WARNING: Do not attempt under any circumstances, to service, repair, dismantle, or disassemble any mechanical or electrical components without physically disconnecting all power sources.

CLEANING

- Clean off any preservative on bright (machined) parts with appropriate solvent (mineral spirits). Avoid getting cleaning fluid on any rubber parts as they tend to deteriorate rubber.
- Use soap and soft water on rubber and plastic parts.
- After cleaning, lubricate unpainted surfaces with a light application of medium consistency machine oil. This lubrication should be repeated at least once every six months.

NOTE: Instead of oil, a good quality paste wax can be applied to rip fence and table surface. Paste wax will enhance movement of workpieces. In addition to providing lubrication, paste wax will help prevent rusting.

- Keep your machine and your workshop clean. Do not allow sawdust to accumulate on saw or inside cabinet. Frequently vacuum or blow out any sawdust that may accumulate within cabinet.
- Be certain motor and internal mechanisms are clean and are frequently vacuumed or blown free of any dirt.

LUBRICATION

All bearings on the arbor are shielded ball bearings. These bearings are permanently lubricated at the factory.

- As needed, clean the grease off the rack and worm gears of height and tilt mechanism. Lubricate rack and gears with a medium viscosity machine oil.
- Be sure to lubricate trunnion ways and all bushings.
- Occasionally oil all other bearing points, including blade guard assembly, miter gauge and rip fence.

SERVICE

- Replace belts and worn parts as needed. If power cords are worn, cut, or damaged in any way, have them replaced immediately.
- Make sure teeth of anti-kickback pawls are always sharp.
- Sharpen dull teeth using a few light strokes of a smooth cut flat file.

CHANGING THE SAW BLADE

Refer to Figures 50 and 51.

WARNING: Turn the power switch “OFF” and unplug the power cord from its power source when changing the saw blade.

WARNING: When replacing blades, check the thickness stamped onto the riving knife. You must select a blade with a kerf width larger than the thickness of the riving knife. The kerf width should be marked on the blade or blade package. Thinner blades may cause the workpiece to bind during cutting.

WARNING: USE ONLY 254 mm diameter blades with 16 mm arbor holes, rated at or higher than 3800 R.P.M.

- Remove blade guard assembly and pawl assembly.
- Remove the table insert.
- Unlock the raise/lower handwheel lock and raise saw blade to maximum height.
- Depress locking pin (see Figure 50) and slowly rotate blade toward you until pin engages into arbor. Hold arbor in locked position.

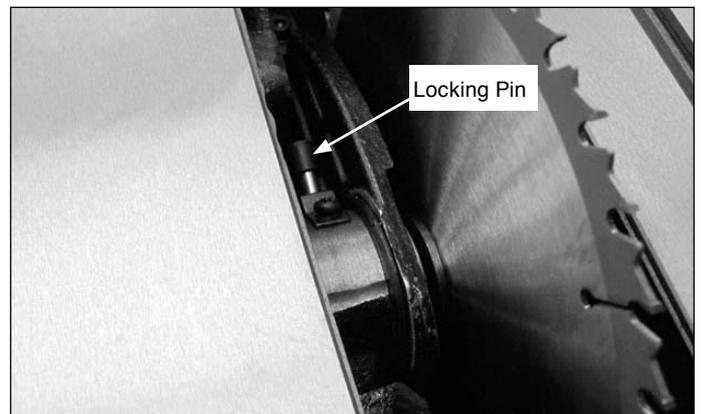


Figure 50 - Locking Pin Engages Arbor to Lock in Position

- Place supplied open-end wrench (A) on the arbor nut (B). Turn wrench counterclockwise to loosen nut. Remove arbor nut, blade flange (C) and saw blade (D).

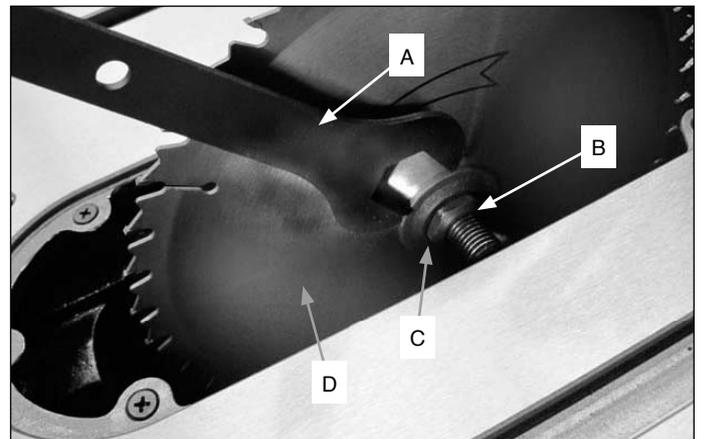


Figure 51

- Place new blade on arbor. Make sure saw blade teeth point down at the front side of saw table. Place flange and nut on arbor and securely snug blade in position.
- Replace table insert.
- Replace blade guard assembly and pawl assembly.

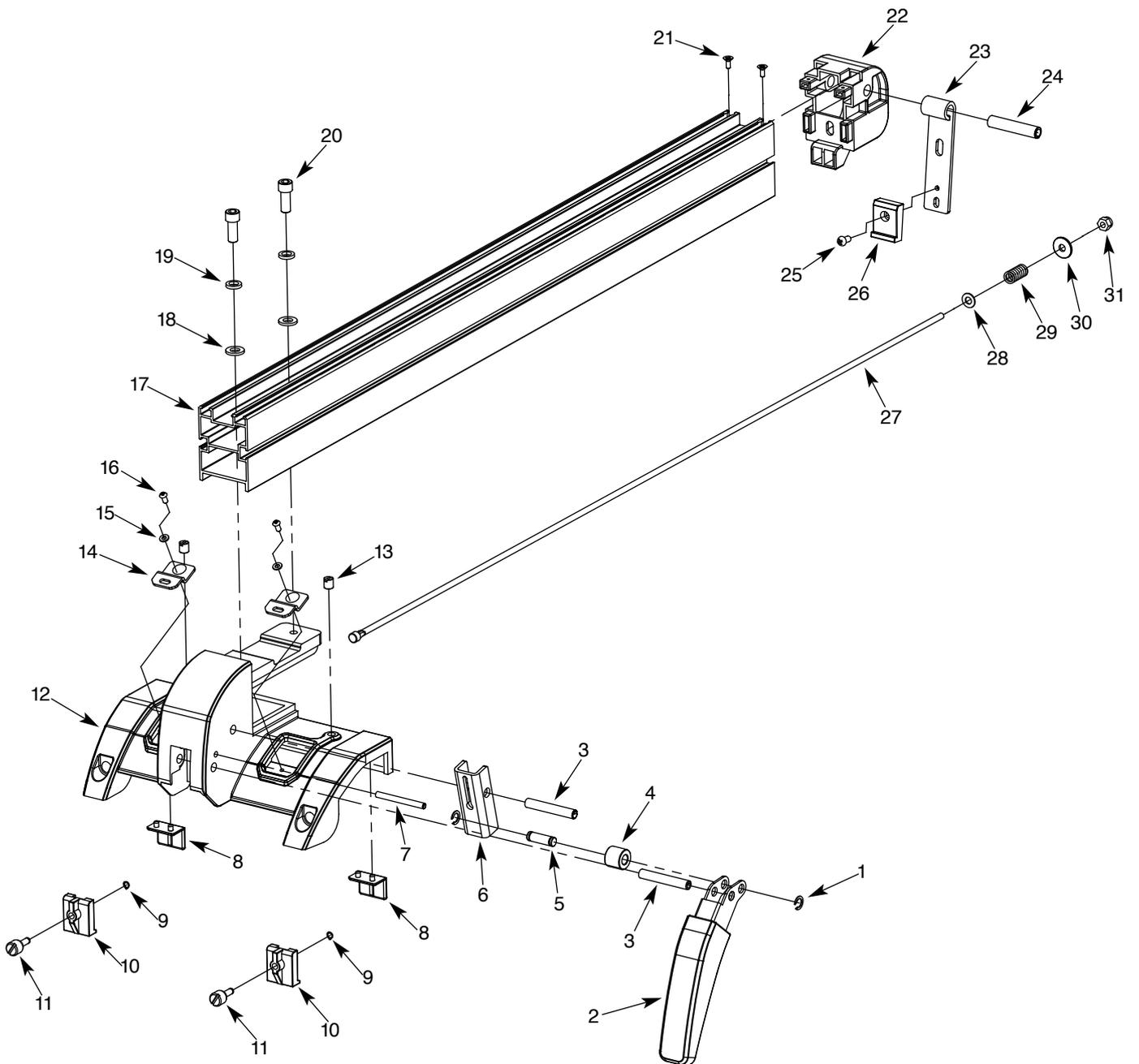
TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Saw stops or will not start	<ol style="list-style-type: none"> 1. Overload tripped 2. Saw unplugged from wall or motor 3. Fuse blown or circuit breaker tripped 4. Cord damaged 5. Defective capacitor 	<ol style="list-style-type: none"> 1. Allow motor to cool and reset by pushing reset switch 2. Check all plug connections 3. Replace fuse or reset circuit breaker 4. Replace cord 5. Replace capacitor
Excessive vibration	<ol style="list-style-type: none"> 1. Stand on uneven floor 2. Damaged saw blade 3. Bad drive V-belts 4. Bent pulley 5. Improper motor mounting 6. Loose hardware 7. Loose set screw in pulley 	<ol style="list-style-type: none"> 1. Reposition on flat, level surface 2. Replace saw blade 3. Replace drive V-belts 4. Replace pulley 5. Check and adjust motor 6. Tighten hardware 7. Tighten set screw
Cannot make square cut when crosscutting	Miter gauge not adjusted properly	Adjust miter gauge
Blade stalls (however, motor turns)	<ol style="list-style-type: none"> 1. Drive belts not tight 2. Drive belts worn 	<ol style="list-style-type: none"> 1. Adjust drive belt tension. Refer to Fig. 56, page 30. Loosen bolt (Key No. 1), push motor down with pry bar and tighten bolt to secure motor position. 2. Replace drive belts
Blade does not come up to speed	<ol style="list-style-type: none"> 1. Extension cord too light or too long 2. Low shop voltage 3. Motor not wired for correct voltage 	<ol style="list-style-type: none"> 1. Replace with adequate size cord 2. Contact your local electric company 3. Refer to motor junction box
Cut binds, burns or stalls when ripping	<ol style="list-style-type: none"> 1. Dull blade with improper tooth set 2. Blade is binding at one end of cut (heeling) 3. Warped board 4. Rip fence not parallel to blade 5. Riving knife out of alignment 6. Excessive feed rate 	<ol style="list-style-type: none"> 1. Sharpen or replace blade 2. Adjust table and rip fence parallel to blade 3. Make sure concave or hollow side is facing down; feed slowly 4. Adjust rip fence 5. Adjust riving knife to fall in line with blade 6. Reduce feed rate
Cut not true at 45 or 90° positions	Positive stops not properly adjusted	Adjust blade tilt
Tilt and elevating handwheel difficult to turn	<ol style="list-style-type: none"> 1. Sawdust on rack and worm gears 2. Bushings and bearing surfaces dirty 	<ol style="list-style-type: none"> 1. Clean and relubricate 2. Clean thoroughly and lubricate
Rip fence binds on guide tube	<ol style="list-style-type: none"> 1. Guide rails or extension wing not properly installed 2. Guide of rip fence not adjusted properly 	<ol style="list-style-type: none"> 1. Reassemble guide rails 2. Adjust guides
Frequent opening of fuses or circuit breakers	<ol style="list-style-type: none"> 1. Motor overloaded 2. Fuses or circuit breakers do not have sufficient capacity 	<ol style="list-style-type: none"> 1. Feed work slower into blade 2. Install proper size fuses or circuit breakers
Material kicked back from blade	<ol style="list-style-type: none"> 1. Rip fence out of alignment 2. Riving knife not aligned with blade 3. Feeding stock without rip fence 4. Riving knife not in place 5. Dull blade 6. Letting go of material before it is past blade 7. Anti-kickback fingers dull 	<ol style="list-style-type: none"> 1. Align rip fence with miter slot 2. Align riving knife with blade 3. Always use rip fence or miter gauge 4. Install riving knife 5. Replace blade 6. Push material all the way past blade before releasing work 7. Replace or sharpen anti-kickback fingers

TROUBLESHOOTING (CONTINUED)

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Saw makes unsatisfactory cut	<ol style="list-style-type: none"> 1. Dull blade 2. Blade mounted backwards 3. Gum or pitch on blade 4. Incorrect blade for cut 5. Gum or pitch on table 	<ol style="list-style-type: none"> 1. Sharpen or replace blade 2. Turn blade around 3. Remove blade and clean 4. Change blade to correct type 5. Clean table

Figure 52 - Replacement Parts Illustration for Rip Fence

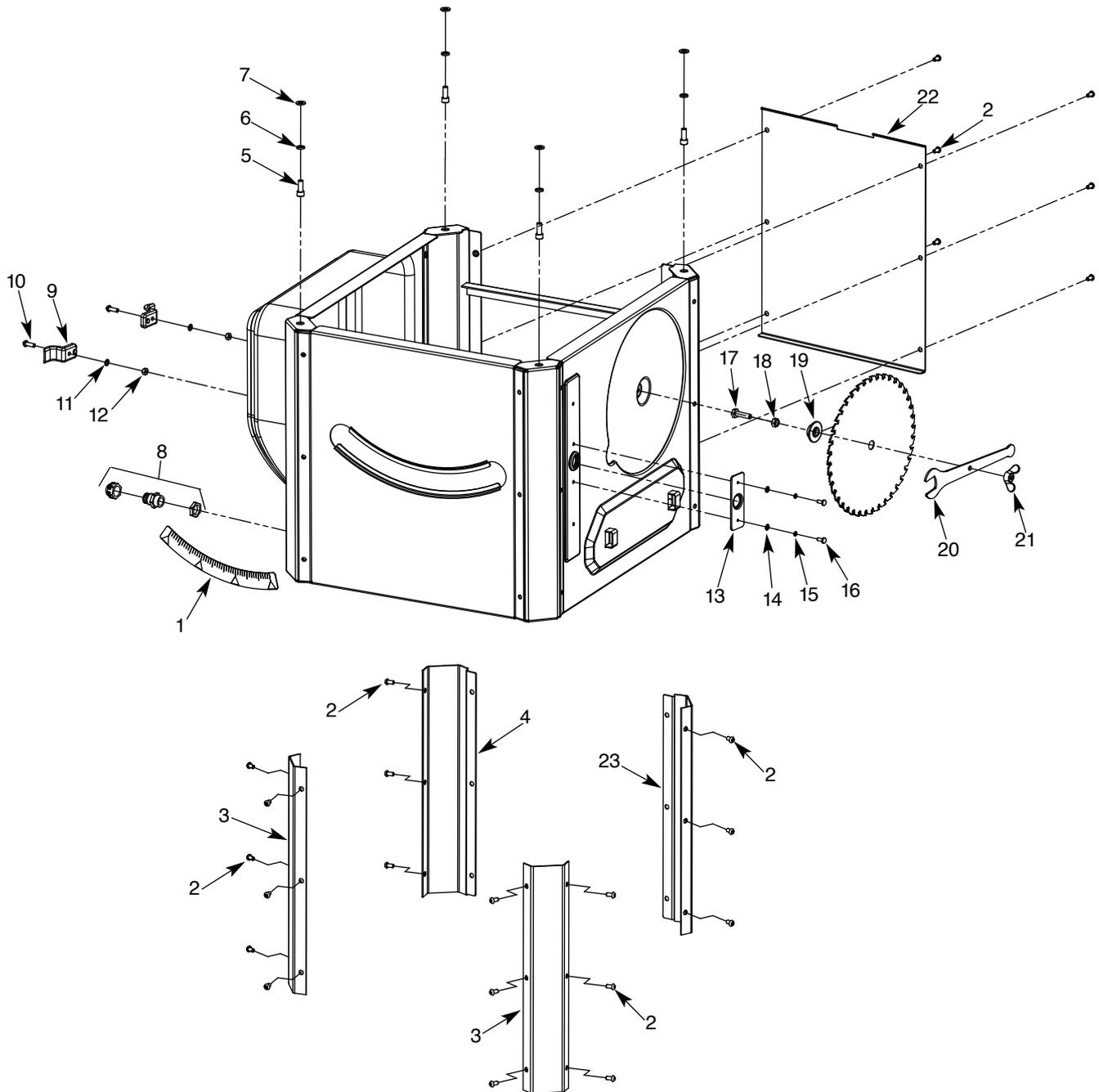


REPLACEMENT PARTS LIST FOR RIP FENCE

KEY NO.	DESCRIPTION	QTY.
1	3CMI-6 E-Ring	2
2	Locking Handle	1
3	8 x 50mm Spring Pin	2
4	Bushing	1
5	Shaft	1
6	Cam	1
7	5 x 30mm Spring Pin	1
8	Adjusting Plate	2
9	3CMI-5 E-Ring	2
10	Adjusting Plate	2
11	Adjusting Screw	2
12	Base	1
13	Nylon Screw	2
14	Lens	2
15	4mm Flat Washer*	2
16	4-0.7 x 8mm Flat Head Screw	2
17	Fence	1
18	8mm Flat Washer*	2
19	8mm Lock Washer*	2
20	8-1.25 x 20mm Socket Head Bolt*	2
21	3.5-1.3 x 10mm Threadforming Screw	2
22	Cap	1
23	Latch	1
24	10 x 50mm Spring Pin	1
25	5-0.8 x 10mm Pan Head Screw*	1
26	Clamp	1
27	Rod	1
28	6mm Flat Washer*	1
29	Spring	1
30	6mm Flat Washer (W)	1
31	6-1.0mm Hex Nut*	1

* Standard hardware item available locally.

Figure 53 - Replacement Parts Illustration for Cabinet



REPLACEMENT PARTS LIST FOR CABINET

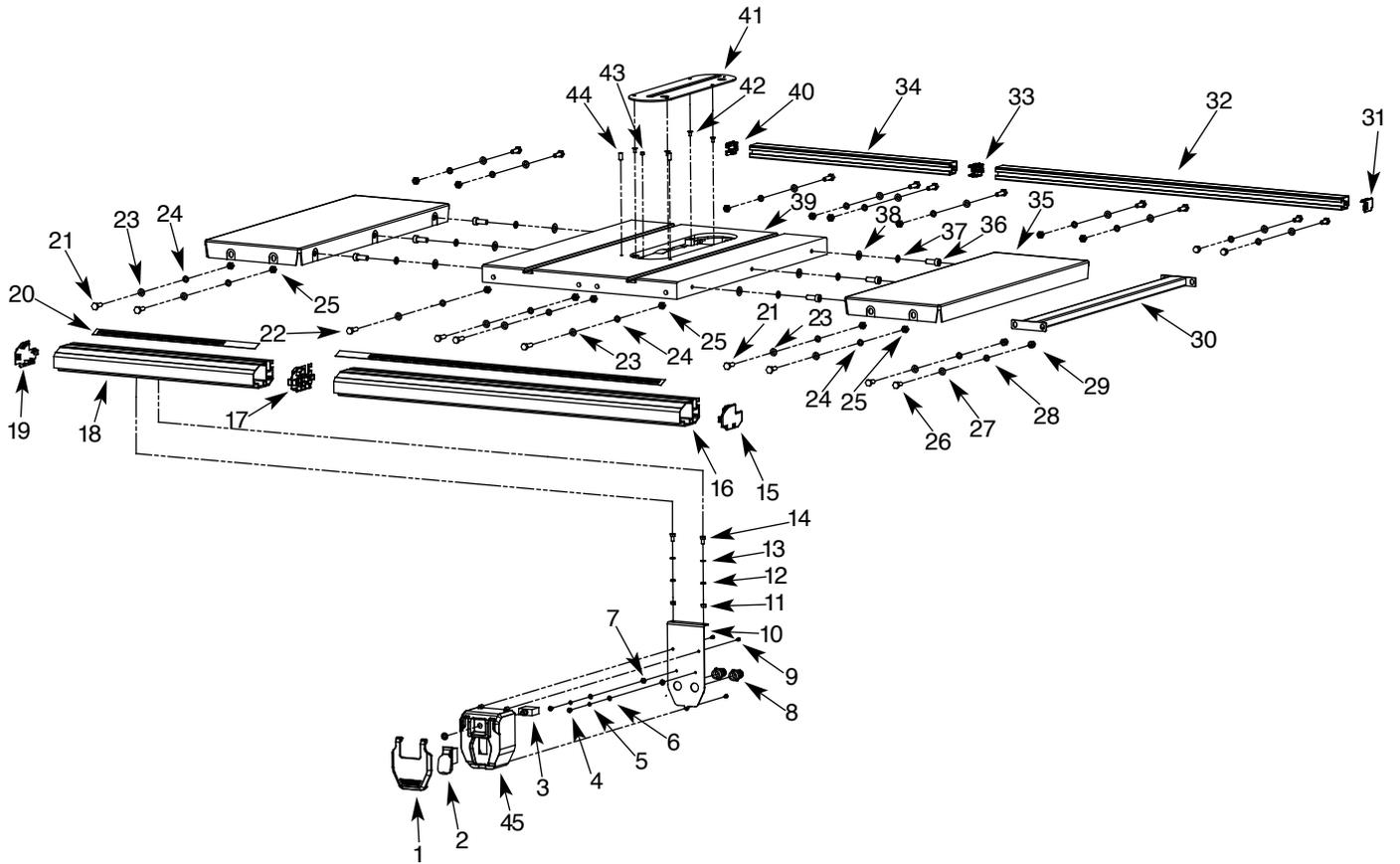
KEY NO.	DESCRIPTION	QTY.
1	Scale	1
2	6-1.0 x 12mm Socket Pan Head Screw	30
3	Front Corner Support	2
4	Left Rear Corner Support	1
5	8-1.25 x 20mm Socket Head Bolt*	4
6	8mm Lock Washer*	4
7	8mm Flat Washer*	4
8	Strain Relief	1
9	Line Cord Hook	2
10	6-1.0 x 16 Socket Pan Head Screw	2
11	6mm Flat Washer*	2
12	6-1.0mm Fiber Hex Nut*	2
13	Plate	1
14	4mm Flat Washer*	4
15	4mm Lock Washer*	4
16	4-0.7 x 10mm Pan Head Screw*	4
17	8-1.25 x 30mm Hex Head Bolt*	1
18	8-1.25mm Hex Nut*	1
19	Rubber Pad	1
20	Wrench	1
21	Knob	1
22	Rear Panel	1
23	Right Rear Corner Support	1

* Standard hardware item available locally.

RECOMMENDED ACCESSORY

· Zero-clearance Insert

Figure 54 - Replacement Parts Illustration for Rails



REPLACEMENT PARTS LIST FOR RAILS

KEY NO.	DESCRIPTION	QTY.
1	Paddle	1
2	Switch	1
3	Circuit Breaker, 15A	1
4	5-0.8 x 8mm Pan Head Screw*	2
5	5mm Lock Washer*	2
6	5mm Flat Washer*	2
7	5mm Serrated Washer	2
8	Strain Relief	2
9	Tapping Screw	3
10	Switch Plate	1
11	6-1.0mm Hex Nut*	2
12	6mm Flat Washer*	2
13	6mm Lock Washer*	2
14	6-1.0 x 16mm Hex Head Bolt*	2
15	Right Front Rail Cap	1
16	Right Front Rail	1
17	Front Partition	1
18	Left Front Rail	1
19	Left Front Rail Cap	1
20	Scale (2 piece)	1
21	8-1.25 x 25mm Hex Head Bolt*	8
22	8-1.25 x 28mm Hex Head Bolt	8
23	8mm Flat Washer*	16
24	8mm Lock Washer*	16
25	8-1.25mm Hex Nut*	16
26	8-1.25 x 20mm Hex Head Bolt*	4
27	8mm Flat Washer*	4
28	8mm Lock Washer*	4
29	8-1.25mm Cap Nut*	4
30	Brace	1
31	Right Rear Rail Cap	1
32	Right Rear Rail	1
33	Rear Partition	1
34	Left Rear Rail	1
35	Table Extension	2
36	10-1.25 x 25mm Hex Head Bolt*	6
37	10mm Lock Washer*	6
38	10mm Flat Washer*	6
39	Table	1
40	Left Rear Rail Cap	1
41	Table Insert	1
42	5-0.8 x 10mm Flat Head Screw	4
43	Magnet	1
44	8-1.25 x 16mm Set Screw	2
45	Switch Box	1
Δ	Dado Insert	1
Δ	Operator's Manual	1

* Standard hardware item available locally.

Δ Not shown.

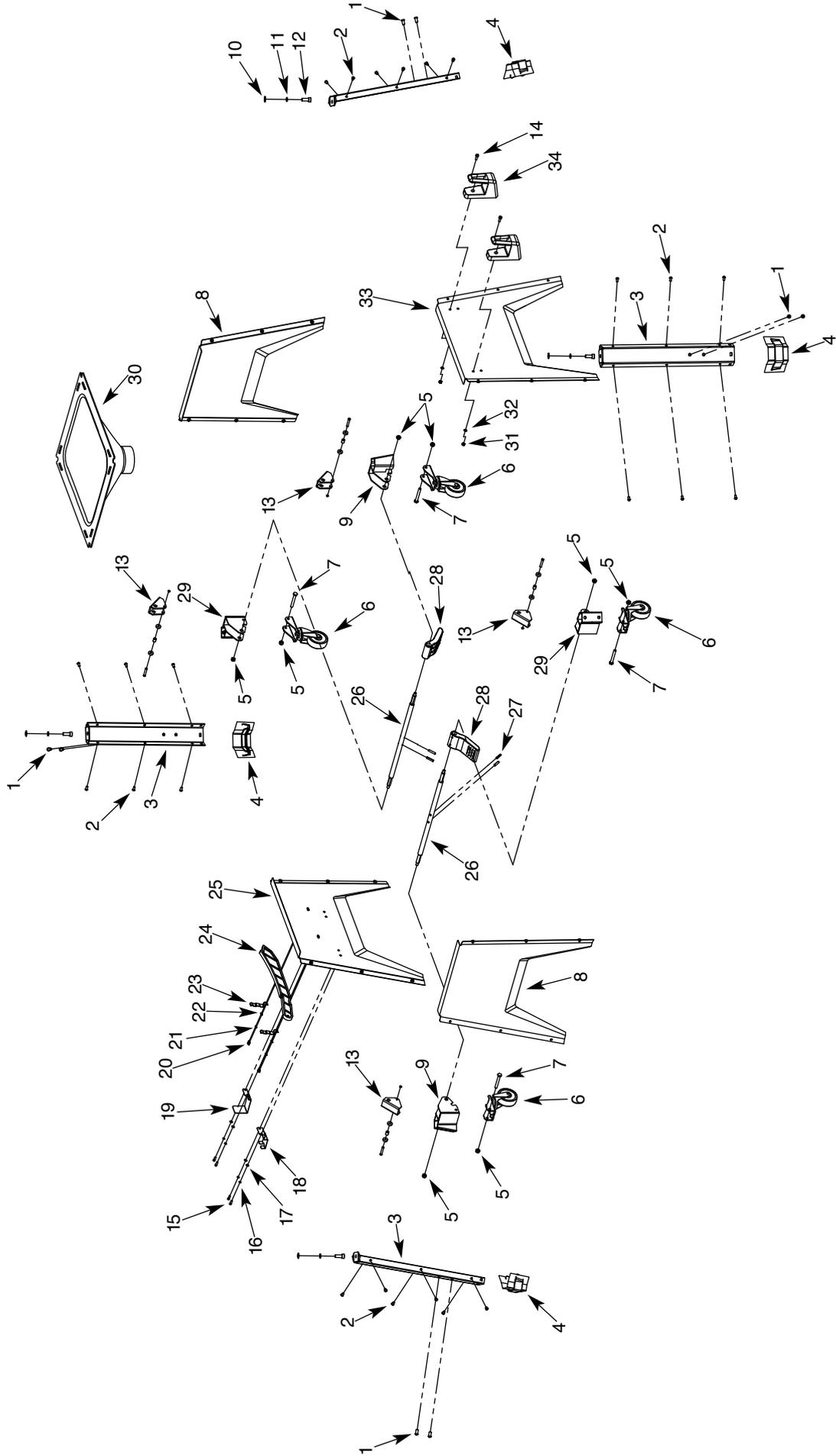


Figure 55 - Replacement Parts Illustration for Base

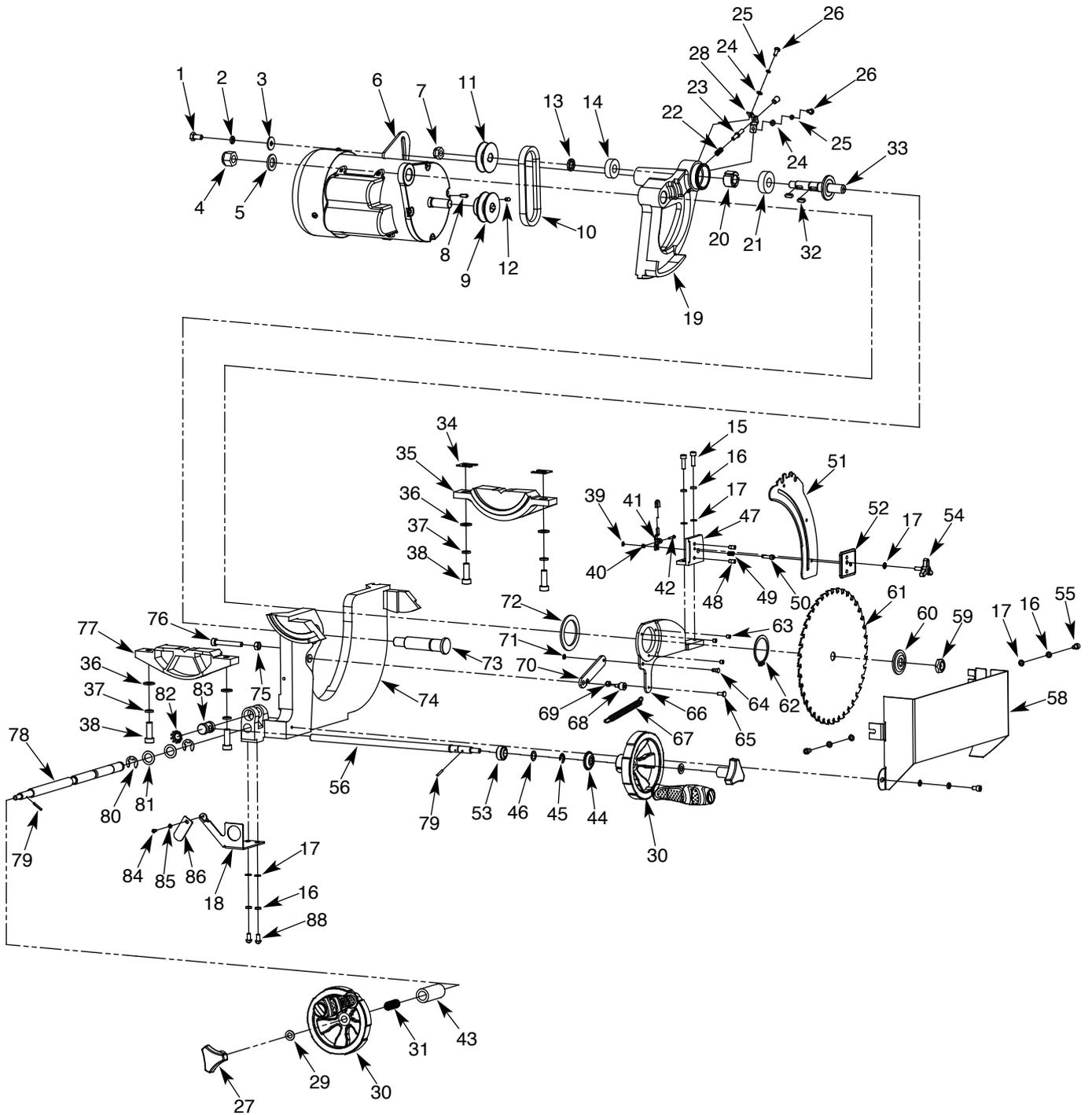
REPLACEMENT PARTS LIST FOR BASE

KEY NO.	DESCRIPTION	QTY.
1	8-1.25 x 16mm Socket Pan Head Scre	8
2	6-1.0 x 12mm Socket Pan Head Screw	24
3	Corner Support	4
4	Foot	4
5	8-1..25mm Fiber Hex Nut*	8
6	Caster Assembly	4
7	8-1.25 x 60mm Hex Head Bolt*	4
8	Front/Rear Base Panel	2
9	Caster Support	2
10	10mm Flat Washer*	4
11	10mm Lock Washer*	4
12	10-1.5 x 25mm Socket Head Bolt	4
13	Cam Plate Assembly	4
14	6-1.0 x 16mm Socket Head Bolt*	2
15	5-0.8 x 12mm Socket Head Bolt*	4
16	5mm Lock Washer*	4
17	5mm Flat Washer*	4

KEY NO.	DESCRIPTION	QTY.
18	Blade Guard Bracket, Front	1
19	Blade Guard Bracket, Rear	1
20	3-0.5 x 10mm Pan Head screw	4
21	3mm Lock Washer	4
22	3mm Flat Washer	4
23	Push Stick Bracket	1
24	Push Stick	1
25	Left Base Panel	1
26	Caster Shaft	2
27	6 x 25mm Spring Pin	4
28	Foot Pedal	2
29	Caster Support	2
30	Dust Chute	1
31	6-1.0mm Hex Nut*	2
32	6mm Flat Washer*	2
33	Right Base Panel	1
34	Rip Fence Bracket	2

* Standard hardware item available locally.

Figure 56 - Replacement Parts Illustration for Blade Drive



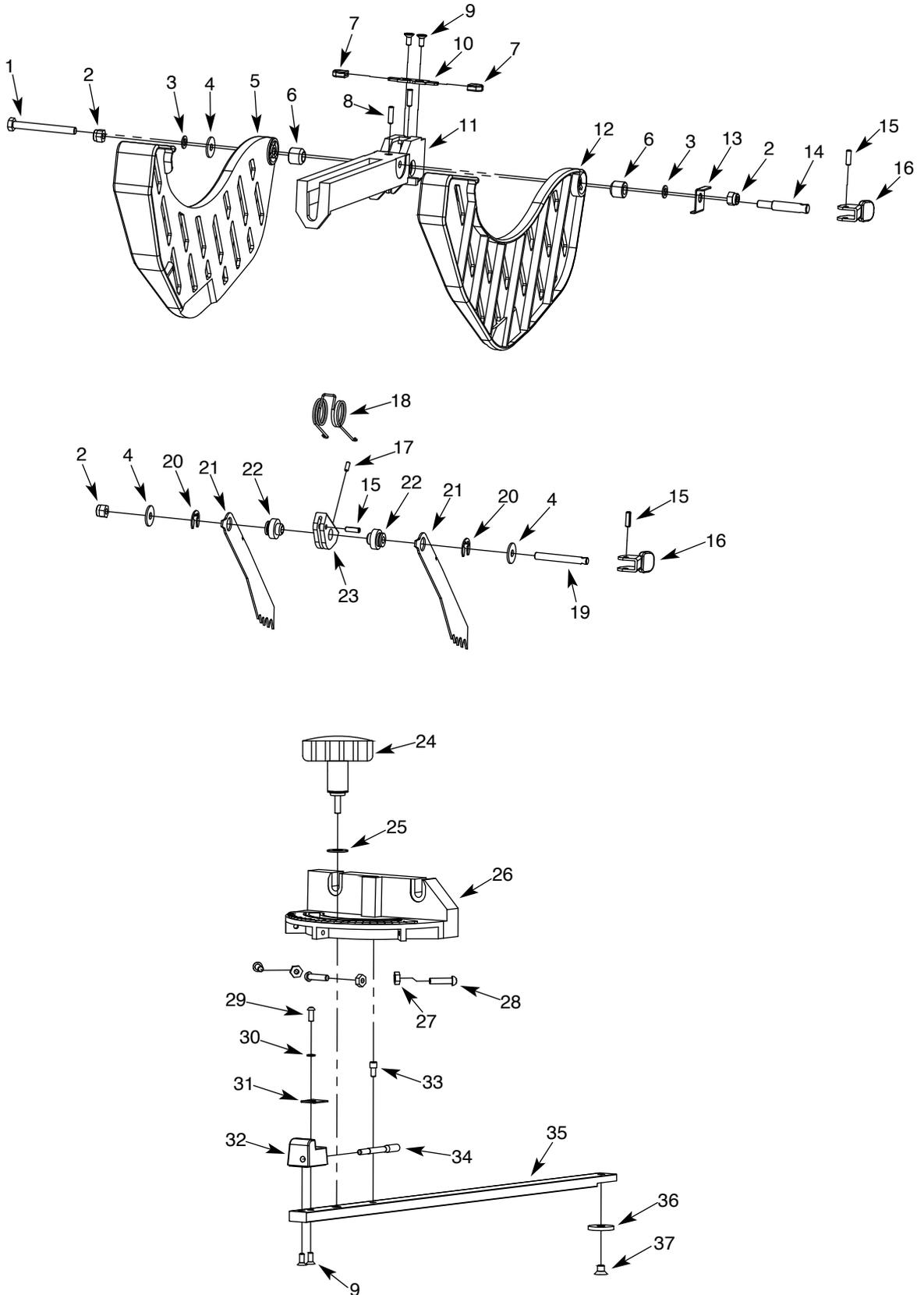
REPLACEMENT PARTS LIST FOR BLADE DRIVE

KEY NO.	DESCRIPTION	QTY.
1	8-1.25 x 16mm Hex Head Bolt*	1
2	8mm Lock Washer*	1
3	8mm Flat Washer (W)	1
4	16-2.0mm Fiber Hex Nut*	1
5	16mm Flat Washer*	1
6	Motor	1
7	12-1.75mm Fiber Hex Nut*	1
8	6 x 6 x 20mm Key	1
9	Motor Pulley	1
10	Drive Belt	1
11	Arbor Pulley	1
12	6-1.0 x 12 Set Screw	1
13	Bushing	1
14	6202LS Ball Bearing*	1
15	6-1.0 x 20mm Socket Head Bolt*	2
16	6mm Lock Washer*	5
17	6mm Flat Washer*	6
18	Pointer Base	1
19	Motor Bracket	1
20	Arbor Locking Bushing	1
21	6203LL Ball Bearing*	1
22	Spring	1
23	Locking Pin w/knob	1
24	5mm Flat Washer*	2
25	5mm Lock Washer*	
26	5-0.8 x 12mm Pan Head Screw*	2
27	Lock Knob	2
28	Bevel Stop Support	1
29	Spacer	2
30	Handle Assembly	2
31	Spring	1
32	5 x 5 x 15mm Key	2
33	Arbor	1
34	Shim	2
35	Rear Trunnion	1
36	10mm Flat Washer*	4
37	10mm Lock Washer*	4
38	10-1.25 x 30mm Hex Head Bolt*	4
39	3CMI-3.5 Retaining Ring	1
40	3-0.5mm Fiber Hex Nut*	1
41	Adjustment Latch	1
42	3-0.5 x 18mm Pan Head Screw	1
43	Bushing	1

KEY NO.	DESCRIPTION	QTY.
44	Bevel Plate	1
45	3CMI-9 Retaining Ring	1
46	Spacer	1
47	Bracket	1
48	Pin	2
49	Spring	1
50	Lock Pin	1
51	Riving Knife	1
52	Plate	1
53	Bearing	1
54	Locking Knob	1
55	6-1.0 x 10mm Socket Head Bolt*	2
56	Tilt Shaft	1
57	6-1.0 x 12mm Pan Head Screw*	2
58	Lower Blade Guard	1
59	Arbor Nut	1
60	Flange	1
61	Blade	1
62	3AMI-48 Retaining Ring	1
63	5-0.8 x 6mm Set Screw	3
64	Pin	1
65	5-0.8 x 12mm Hex Head Bolt	1
66	Mounting Plate	1
67	Spring	1
68	Screw	1
69	5-0.8mm Fiber Hex Nut*	1
70	Spring Plate	1
71	3CMI-4 Retaining Ring	1
72	Shim Washer	1
73	Shaft	1
74	Main Trunnion	1
75	10-1.5mm Hex Nut*	1
76	10-1.5 x 55mm Socket Head Bolt	1
77	Rear Trunnion	1
78	Elevation Shaft	1
79	3 x 20mm Spring Pin	2
80	3CMI-12 Retaining Ring	2
81	Spacer	2
82	Beveled Lock Washer	1
83	Shaft Base	1
84	4-0.8 x 8mm Pan Head Screw*	1
85	4mm Flat Washer*	1
86	Pointer	1

* Standard hardware item available locally

Figure 57 - Replacement Parts Illustration for Blade Guard



REPLACEMENT PARTS LIST FOR BLADE GUARD

KEY NO.	DESCRIPTION	QTY.
1	6-1.0 x 58mm Hex Head Bolt	1
2	6-1.0mm Hex Nut*	3
3	6mm Flat Washer*	2
4	Spacer	3
5	Left Blade Guard	1
6	Bushing	2
7	Cover	2
8	4-0.7 x 15mm Set Screw	2
9	4-0.7 x 10mm Flat Head Screw	4
10	Support	1
11	Body	1
12	Right Blade Guard	1
13	Bushing Plate	1
14	Pivot Pin	1
15	4 x 12mm Spring Pin	3
16	Latch	2
17	3-0.5 x 8mm Set Screw	1
18	Spring	1
19	Pivot Pin	1
20	3CMI-9 Retaining Ring	2
21	Pawl	2
22	Bushing	2
23	Support	1
24	Knob	1
25	Spacer	1
26	Miter Gauge	1
27	5-0.8mm Hex Nut*	3
28	5-0.8 x 20mm Pan Head Screw*	3
29	4-0.7 x 10mm Pan Head Screw*	1
30	4mm Flat Washer*	1
31	Pointer	1
32	Block	1
33	Pin	1
34	Stop Pin	1
35	Bar	1
36	Washer	1
37	6-1.0 x 8mm Flat Head Screw	1
Δ	Miter Gauge Assembly	1
Δ	Pawl Assembly	1
Δ	Blade Guard Assembly	1

* Standard hardware item available locally.

Δ Not shown.

N/A Not available as replacement part.

— NOTE —