

PALMGREN®

10" LEFT TILT TABLE SAW



Read carefully and follow all safety rules and operating instructions before first use of this product.

GETTING STARTED

STRUCTURAL REQUIREMENTS

Make sure all supporting structures and load attaching devices are strong enough to hold your intended loads. If in doubt, consult a qualified structural engineer.

ELECTRICAL REQUIREMENTS

Refer to Specifications on page 3 for the tools electrical requirements. The standard allowable voltage variation is plus or minus 10%.

TOOLS NEEDED

Standard mechanic's hand tool set.

UNPACKING

Do not discard packing materials until after machine has been inspected for damage and completeness. Locate loose parts and set aside.

INSPECT

After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.

- All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.
- Be sure that the voltage labeled on the unit matches your power supply. Remove box and wood crating completely from around saw. Check for shipping damage. Report any damage immediately to your distributor and shipping agent. Do not discard any shipping material until the Table Saw is assembled and running properly.

Compare the contents of your container with the parts lists in the next two pages to make sure all parts are intact. Missing parts, if any, should be reported to your distributor. Read the instruction manual thoroughly for assembly, maintenance and safety instructions.

1. Unbolt the saw from the skid.
2. Carefully slide the saw from the pallet onto the floor.

⚠ WARNING Do not connect the table saw to the power source until all assembly has been completed! Failure to comply may cause serious injury!

The table saw should be placed in an area with a sturdy level floor, good ventilation and sufficient lighting. Leave enough space around the machine for mounting extension wings and rail assemblies, and loading and off-loading stock and general maintenance work.

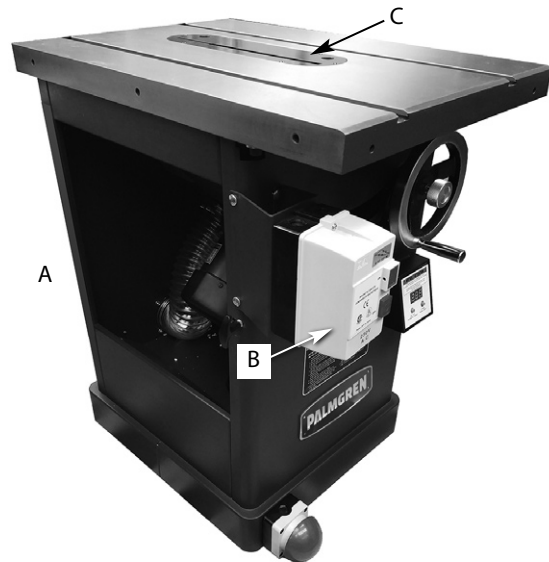
CLEANING

Exposed metal surfaces, such as the table top and extension wings, have been given a protective coating at the factory. This should be removed with a soft cloth moistened with kerosene. Do not use acetone, gasoline, or lacquer thinner for this purpose. Do not use solvents on plastic parts, and do not use an abrasive pad because it may scratch the surfaces.

CONTENTS OF THE SHIPPING CONTAINER

MAIN SAW CONTAINER

- A Table Saw (1)
- B Switch (1)
- C Table Insert (1)
- Owner's Manual (1)
- Inspection Record (1)



Main saw container.

SMALL BOX

- E Blade Guard (1)
- F Handwheel and Swivel Handle (1)
- G Lock Knob (1)
- H Large Hook for Us Rip Fence (2)
- J Small Hook for Miter Gauge (1)
- K Push Stick (1)
- L Miter Gauge Assembly (1)
- M 27mm Arbor Wrench (1)

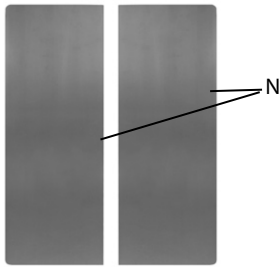


Small box contents.

UNPACKING (CONTINUED)

EXTENSION TABLE BOXES

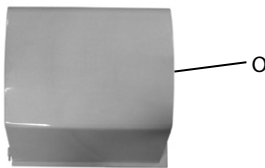
N Two extension tables are packaged in individual boxes.
One extension table with sliding table



Extension tables.

SIDE COVER BOX

O Side Cover is packaged in its own box.



Side cover.

SPECIFICATIONS

Model 802G27, 10" Left Tilt Table Saw

HP	3 HP
RPM	3450 RPM
PH	Single
Voltage	230 V
Amperage	14.5 A
Blade Diameter	10"
Arbor Diameter	5/8"
Max Depth Of Cut	3"
Max Thickness at 45° Cut	2-1/8"
Table in front of saw blade at max cut	10"
Max Width Of Dado	13/16"
Max Diameter Of Dado	8"
Dust Port Diameter	4"
Table Height	33 3/4"
Table Size (Without Extension)	29" x 42" (29" x 20")
Max Cut Length on Right of Blade, w/ Rip Fence	50"
Max Cut Length on Left of Blade, w/ Rip Fence	14"
Rip Fence Dimensions L x W x H	39 3/4" x 15 3/4" x 5 1/2"
Rail Lengths - Front (Back)	84" (72")
Cabinet Dimensions L x W	23" x 21"
Fully Assembled Dimension	84" x 45" x 39"
Arbor Speed	4300 RPM
Motor	3 HP, 1 PH, 230 V, 14.5 A
Net Weight	588 lbs

SAFETY RULES

▲ WARNING For your own safety, read operating instructions manual before operating tool.



PROPOSITION 65 WARNING: Some dust created by using power tools contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

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

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals; work in a well ventilated area and work with approved safety equipment. Always wear **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

- Read and understand the entire owner's manual before attempting assembly or operation.
- Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
- Replace the warning labels if they become obscured or removed.
- This table saw is designed and intended for use by properly trained, experienced personnel and sales agent only. If you are not familiar with the proper and safe operation of a table saw, do not use until proper training and knowledge have been obtained.
- Do not use this table saw for other than its intended use. If used for other purposes, Manufacturer disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- Always wear approved safety glasses/face shields while using this table saw. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
- Before operating this table saw, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **NOT** wear gloves.
- Wear ear protectors (plugs or muffs) during extended periods of operation.
- Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
- Make certain the machine is properly grounded.
- Make all machine adjustments or maintenance with the machine unplugged from the power source. A machine under repair should be **RED TAGGED** to show it must not be used until maintenance is complete.
- Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
- Check the alignment of the riving knife, fence and miter slot to the blade. A caution decal is installed on each guard to remind the operator of the dangers of improper machine operation.

SAFETY RULES (CONTINUED)

- Check damaged parts. Before further use of the machine, 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 should be properly repaired or replaced.
- Provide for adequate space surrounding work area and non-glare, overhead lighting.
- Keep the floor around the machine clean and free of scrap material, oil and grease.
- Keep visitors a safe distance from the work area. Keep children away.
- Make your workshop child proof with padlocks, master switches or by removing safety keys.
- Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
- Maintain a balanced stance at all times so that you do not fall or lean against the blade or other moving parts. Do not overreach or use excessive force to perform any machine operation.
- Use the right tool at the correct speed and feed rate. Do not force a tool or attachment to do a job for which it was not designed. The right tool will do the job better and safer.
- Use recommended accessories; improper accessories may be hazardous.
- Maintain tools with care. Keep blade sharp and clean for the best and safest performance. Follow instructions for lubricating and changing accessories.
- Check the saw blade for cracks or missing teeth. Do not use a cracked or dull blade or one with missing teeth or improper set. Make sure the blade is securely locked on the arbor.
- Keep hands clear of the blade area. Do not reach past the blade to clear parts or scrap with the saw blade running. Never saw freehand. Avoid awkward operations and hand positions where a sudden slip could cause your hand to contact the blade.
- Do not attempt to saw boards with loose knots or with nails or other foreign material, on its surface.
- Do not attempt to saw twisted, warped, bowed or "in wind" stock unless one edge has been jointed for guiding purposes prior to sawing.
- Do not attempt to saw long or wide boards unsupported where spring or weight could cause the board to shift position.
- Always use the riving knife, blade guard, push stick and other safety devices for all operations where they can be used. On operations such as dadoing or molding where the blade guard cannot be used, use feather boards, fixtures and other safety devices and use extreme caution. Reinstall the riving knife and blade guard immediately after completing the operation that required their removal.
- Be sure the saw blade rotates clockwise when viewed from the motor side (Left side) of the machine.
- Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris — do not use your hands.
- Do not stand on the machine. Serious injury could occur if the machine tips over.
- Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.

- Remove loose items and unnecessary work pieces from the area before starting the machine.

Familiarize yourself with the following safety notices used in this manual:

CAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

WARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

ASSEMBLY

FRONT AND REAR RAIL ASSEMBLY

NOTE: The fence will not work without an extension table installed. Use one designed and built by the operator is mandatory. If you are planning to build a table, see Figure 1 for the dimensions.

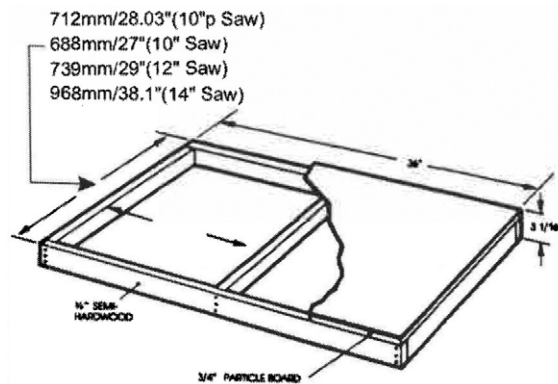


Figure 1

1. Bolt the front rail to the table (not to the extension wings at this time) with two 1/4"-20 x 1-1/4" screws, two 1/4" hex nuts, two 1/4" flat washers, and two 1/4" lock washers. Tighten just enough to hold the rail next to the table but keep loose enough to allow height adjustment.
2. Set the combination square at 9/16".
3. Place the combination square on the table and adjust the rail to be 9/16" below the table surface. Refer to Figure 2.

NOTE: It is more important to have the front rail parallel to the table top than exactly 9/16" below the table top. Try and adjust the rail between 1/2" and 5/8".

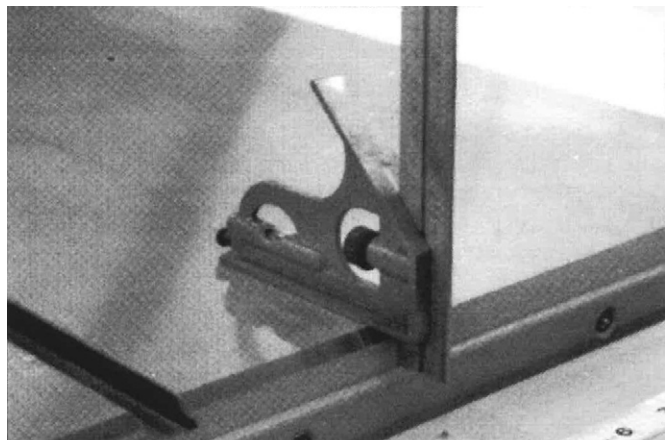


Figure 2

4. Tighten both flat head machine screws firmly.

ASSEMBLY (CONTINUED)

5. Bolt the front rail to the right extension wing with one 1/4"-20 x 1-1/4" screw, one 1/4" flat washer, one 1/4" lock washer, and one 1/4" hex nut
6. Insert a 1/4"-20 x 1-1/4" screw through the guide rail, through the extension wing, and through the switch bracket.
7. Place a 1/4" flat washer and 1/4" lock washer on the screw and hold in place with a 1/4" hex nut.
8. Bolt the rear rail to the table (not to the extension wings at this time) with two 5/16" x 1/2" screws.

NOTE: These are larger in diameter than the other screws in the hardware package.

NOTE: It is not critical for the rear rail to be absolutely level. It is, however, important for the rear rail to clear the miter slots and be level as possible.

9. Bolt the rear rail to each table extension with two 1/4"-20 x 1-1/4" screws, two 1/4" flat washers, two 1/4" lock washers, and two 1/4" hex nuts.
10. Tighten nuts firmly.

NOTE: Mount the extension table between the front and rear rails before mounting the front guide rail.

EXTENSION TABLE ASSEMBLY

1. Place the extension table upside down on top of the table saw.
2. Place a leg bracket into the outboard end of the table.
3. Mark all holes to be drilled.
4. Pre-drill all marked holes with a 3/16" drill bit approximately 1/2" deep. Do not drill through the table top or table frame!
5. Attach both legs with enclosed wood screws. Refer to Figures 3a and 3b.

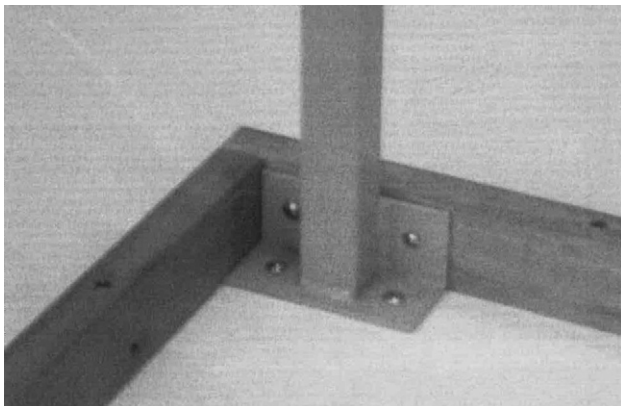


Figure 3a

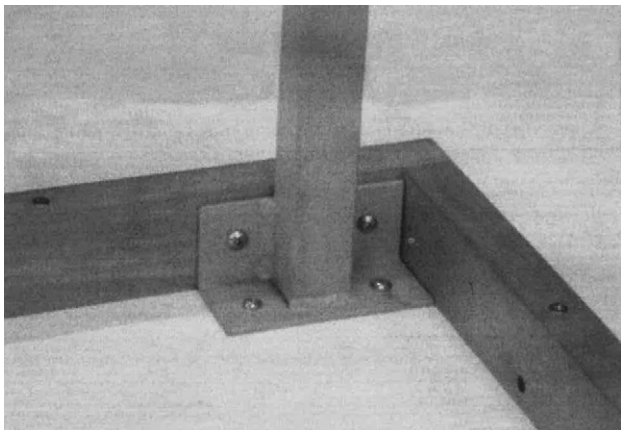


Figure 3b

6. Carefully turn the table over and place in-between the front and rear rail.
7. Use two c-clamps to hold the table in place.
8. Place a straight edge on the saw table and level the extension table to the saw table. Raise or lower the adjustable feet on the extension table legs until the extension table is level with the saw table. Tighten the c-clamps to hold in place.
9. Using the existing holes in the front and rear rail as a guide (two front and two rear), drill through the table frame using a 1/4" drill bit.
10. Attach extension table to the front and rear rail with four 1/4"-20 x 1-1/4" screws, four 1/4" flat washers, four 1/4" lock washers, and four 1/4" hex nuts. This hardware is supplied with the optional extension table.

GUIDE RAIL ASSEMBLY

1. Bolt the guide rail to the front rail with seven hex cap bolts and seven lock washers.

MOUNTING THE FRONT RAIL

The following instruction must be followed precisely or the ruler scale on the front guide rail will not accurately display the distance between the saw blade and the fence. Read all the instructions before starting to make sure you understand them completely.

1. Disconnect the table saw from the power source.
2. Remove the blade guard assembly from the tabletop.
3. Raise the saw blade fully.
4. Place an accurate straight edge along the right side of the blade. Make sure the straight edge is parallel to the blade and rests evenly on the blade front and rear.
5. Measure to the left eight inches and place a mark on the table lip. This is the horizontal location for the first mounting hole. Refer to Figure 4.

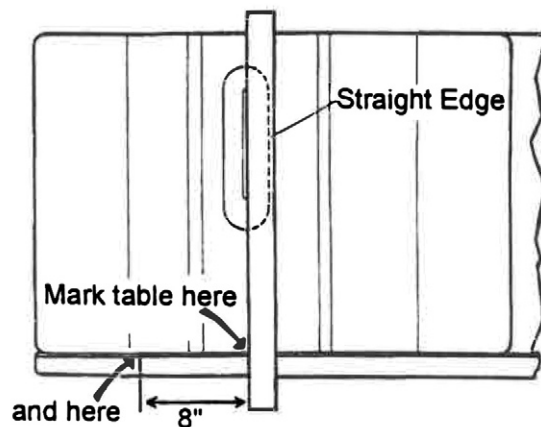


Figure 4

6. Measure from the left-hand mark down from the tabletop 1-1/8" (29mm) and mark. See Fig. 5.

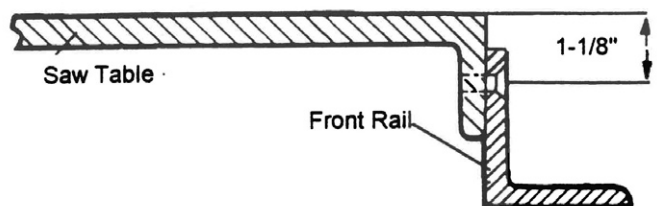


Figure 5

ASSEMBLY (CONTINUED)

7. Use a punch before drilling a 5/16" hole.
8. Mount the front rail (has holes in both surfaces) using hole #1. See Figure 6.

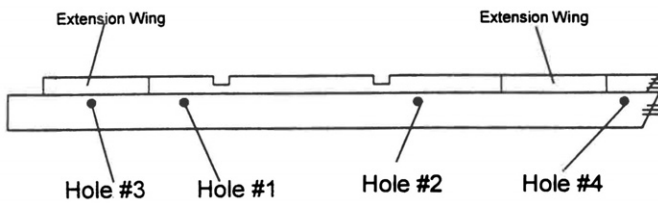


Figure 6

9. Level the angle bracket to the tabletop and hold in place with a C-clamp.
10. Using hole #2 as a guide, punch and drill the second mounting hole in the table saw. See Figure 6.
11. Fasten the rail to the table with hole #2.
12. Check for level and then use holes #3 and #4 as a guide for drilling these two holes.

NOTE: Hole #3 is drilled into the left extension wing. Hole #4 is drilled into the extension table.

13. Make sure the front rail is level before tightening the hardware.

MOUNTING THE REAR RAIL

NOTE: It is not critical for the rear rail to be absolutely level. It is, however, important for the rear rail to be below the miter slots and be level as possible.

1. Punch and drill holes in the rear table lip that allows the rear rail to be mounted below the miter slots and mounted as level as possible.
2. Attach the rear rail (1-1/4" x 1-1/4" angle stock) to the saw table and the extension table.

MOUNTING THE GUIDE RAIL

1. Bolt the guide rail to the front rail with seven hex cap bolts and seven flat washers.

MOTOR COVER

Refer to Figures 7, 8, and 11.

Tools: 17mm wrench, 12mm wrench

1. Remove foam block (A) securing the motor (C) to table. Refer to Figure 7.

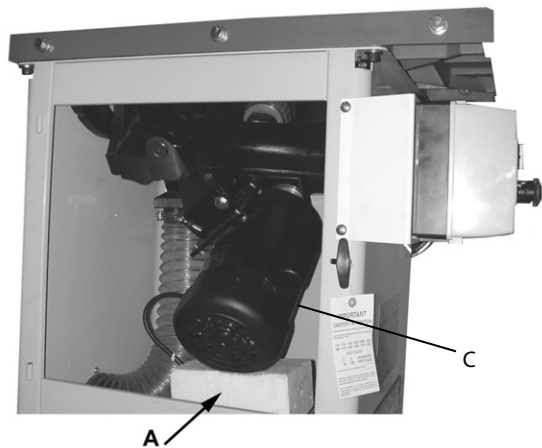


Figure 7

2. Remove the remaining hex cap screw, lock washer, and flat washer in the table edge. Refer to Figure 11.

3. Install motor cover (G) by aligning the pins (H) on the cover with brackets on the cabinet. Refer to Figure 8.
4. Fasten cover by pulling out the latch (J), closing the door, and releasing the latch. Refer to Figure 8.

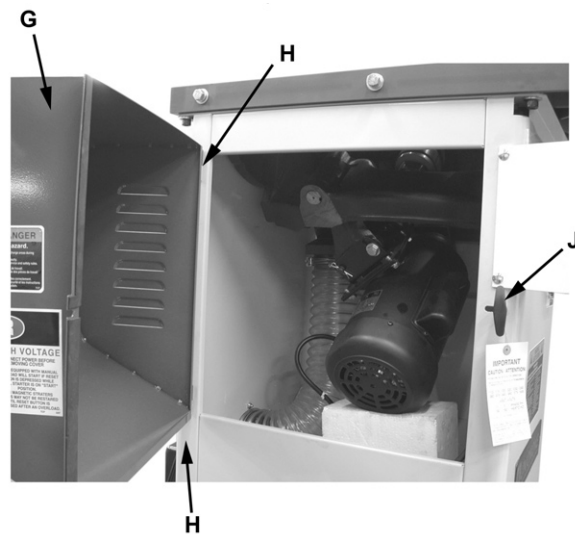


Figure 8

HANDWHEEL ASSEMBLY

Refer to Figure 9

Hardware: (2) Handle & Handwheel (C), (2) Lock Knob (D), (2) Shaft Key (A)

Tools: 3mm hex wrench

The front handwheel (E) is installed at the factory. Install the side handwheel (C) as follows:

1. Line up the key (A) (taped to shaft) on the shaft (B) key way in the handwheel (C) and slide the handwheel onto the shaft.
2. Tighten the set screw on the handwheel hub (3mm hex wrench) securely to hold in place.
3. Install the center lock knob (D) by inserting into center hole in the shaft and threading in a clockwise direction.
4. Install the remaining handwheel assembly (E) in the same manner.

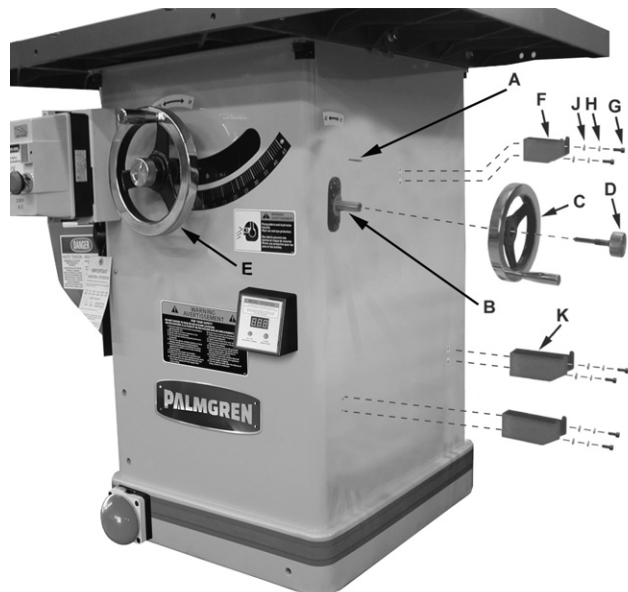


Figure 9

ASSEMBLY (CONTINUED)

MITER GAUGE AND FENCE STORAGE HOOKS

Refer to Figure 9.

Hardware: (1) Small Hook (F), (2) Large Hook (K), (6) 1/4" Flat Washer (J), (6) 1/4" Lock Washers (H), (6) 1/4" x 5/8" Socket Head Cap Screws (G)

Tools: 5mm hex wrench

1. Mount the small hook (F) and two large hooks (K) to the side of the saw cabinet with six each 1/4" x 5/8" socket head cap screws (G), 1/4" lock washers (H) and 1/4" flat washers (J). Tighten with hex wrench.

EXTENSION WING

Refer to Figures 10 and 11:

Hardware: (6) 7/16" x 1-1/2" Hex Cap Bolts, (6) 7/16" Lock Washers, (6) 7/16" Flat Washers & (2) Extension Wings

Tools: 17mm Wrench, Straight Edge

1. Attach the left extension wing (A) to the table (B) with three each hex cap screws (E), lock washers (F) and flat washers (G). Snug so the extension wing can still be manually adjusted but do not tighten.
2. Adjust the extension wing horizontally so the front edge is flush with the front edge of the saw table (C). Then, using the straightedge as reference, adjust vertically so the tops of the extension wing and saw table are flush.
3. Tighten the three extension wing mounting screws.
4. Remove the mounting hardware (Fig. 11) from the table on the right side; then attach the right extension wing in the same manner.

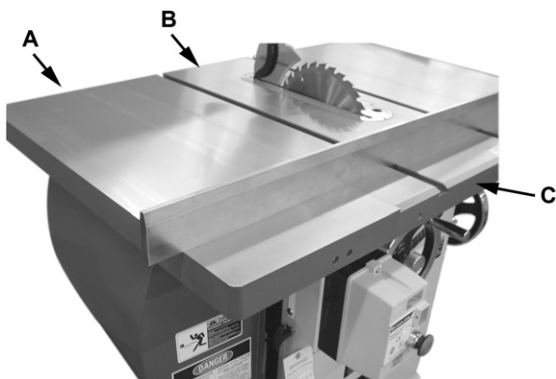


Figure 10

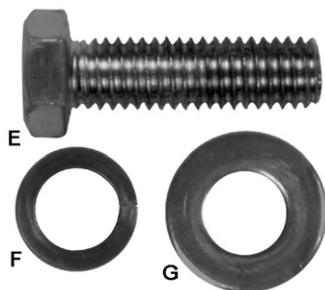


Figure 11

BLADE INSTALLATION/REPLACEMENT

Refer to Figure 12.

CAUTION Use care when working with or around sharp saw blade to prevent injury!

Tools: 27mm Wrench

1. Disconnect machine from power source.
2. Raise the blade height all the way up and set the blade tilt to 0° (refer to Handwheel Adjustments on page 10).
3. Remove the table insert.
4. Rotate the arbor to line up the slot (C) with the arbor lock (D).
5. Press the arbor lock (D) in the direction shown by the arrow to engage it into the slot (C) in the arbor. At the same time remove the arbor nut (A), loosening with a 27mm wrench if necessary.
6. Remove the collar (B).
7. Install the blade, making sure the cutting teeth at the top of the blade point toward the front of the saw. If unsure, refer to Figure 8 for the proper blade orientation.
8. Replace the collar (B) and arbor nut (A).
9. Engage the arbor lock (D) and tighten the nut (A) with a 27mm wrench.
10. Lower the blade below the table.

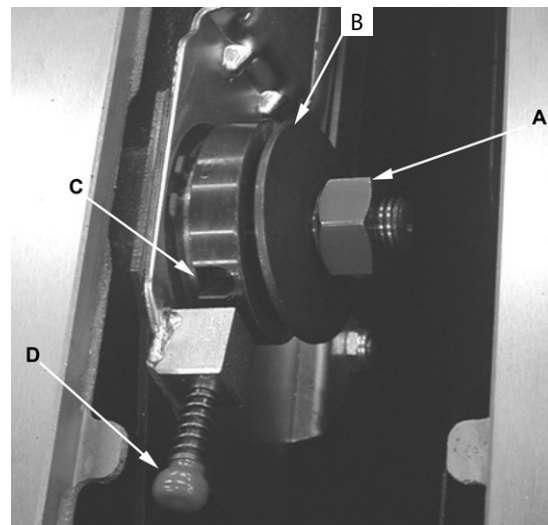


Figure 12

ASSEMBLY (CONTINUED)

RIVING KNIFE AND GUARD INSTALLATION

Refer to Figures 13 and 14

The guard and pawl are shown in Figure 13.



Figure 13

Consult Figure 14, for installation.

1. Set the saw blade to the 90 degree position and raise it all the way (refer to Handwheel Adjustments on page 10).
2. Remove the table insert (J).
3. Located inside the table and accessible through the insert opening, place the quick-release clamp lock handle (K) in the unlock position.
4. The floating clamp block (L) is spring loaded and will move away (O) from the fixed block (M), leaving a gap.
5. Insert the bottom of the riving knife (N1, N2) all the way into the gap between the clamp blocks (L, M); then lock the handle (K).

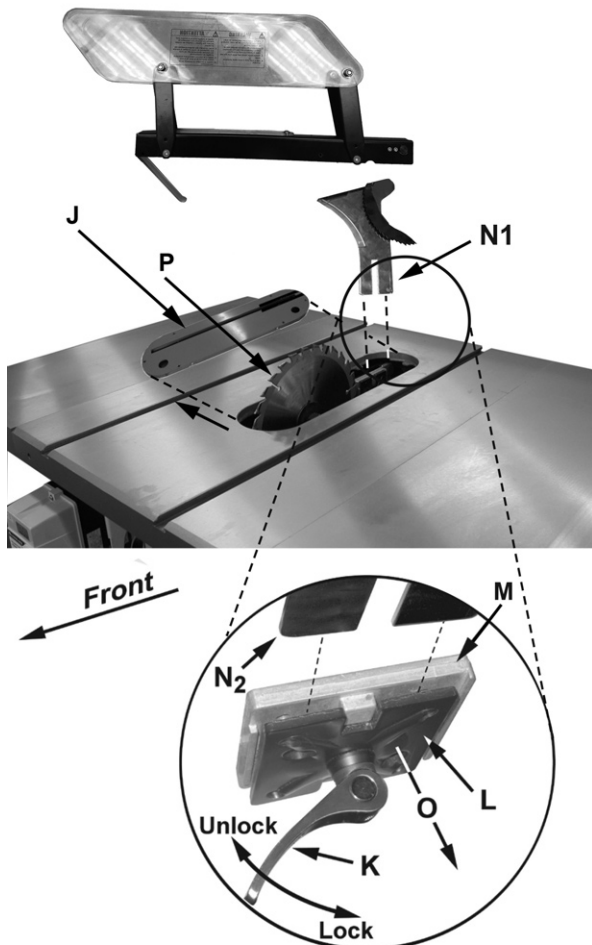


Figure 14

6. Replace the insert (J) back on the table. The saw blade and riving knife should protrude through the slot in the insert.

You should feel a snap as each piece locks in position. Attempt to lift as a test to make sure that they are securely locked in place.

The clamping blocks (L, M) are adjusted at the factory and no further adjustment of the blade guard and riving knife assembly should be necessary. However, proper alignment is very important. Before operating the table saw, read Riving Knife Adjustment (page 11) to verify and follow the adjustment procedure if necessary.

MOUNTING RAILS & EXTENSION TABLE

With the extension wings properly aligned, the rail and fence assembly can now be mounted to the saw. Refer to the Rip Fence Installation for mounting instructions rails, fence and optional wooden extension table.

SWITCH INSTALLATION

Refer to Figure 15.

Tool: 10mm Wrench

Attaching the Switch Bracket Assembly

1. Loosen hex Nut and Lock Washer from the Switch Plate Carriage Bolt.
2. Place switch bracket assembly into cabinet front left side.
3. Align the switch and tighten all hardware.



Figure 15

INSTALLATION

ELECTRICAL CONNECTIONS

⚠ WARNING A qualified electrician must complete all electrical connections! Failure to comply may result in serious injury!

⚠ WARNING The machine must be properly grounded while in use to protect the operator from electric shock! Failure to comply may result in serious injury!

If a plug is provided with your machine, do not modify the plug. If it will not fit your electrical receptacle, have a qualified electrician install the proper connections to meet all electrical codes.

1. Disconnect the machine from the power source, (unplug).
2. Open the saw cabinet door.
3. Remove the cover from the motor junction box.
4. Change wires following the diagram on the inside of the cover.
5. Replace the cover and close the cabinet door.

Confirm power at the site is the same as the saw before making any electrical connections. Review the electrical schematics on page 15.

INSTALLATION (CONTINUED)

The on and off switch is thermally protected. If the saw motor is overloaded, or a momentary interruption of electrical current is sensed, the saw will shut off. Allow a few minutes for the saw to cool down and reset by pushing the off button.

Using extension cords can cause a loss in power to your machine. It is best if the saw is plugged directly into an outlet on a dedicated circuit.

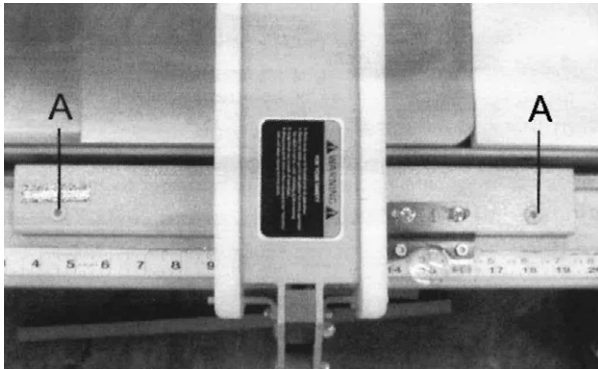
OPERATION**FENCE ADJUSTMENTS**

NOTE: Fence adjustments should be performed in the order given.

LEVEL WITH THE SAW TABLE

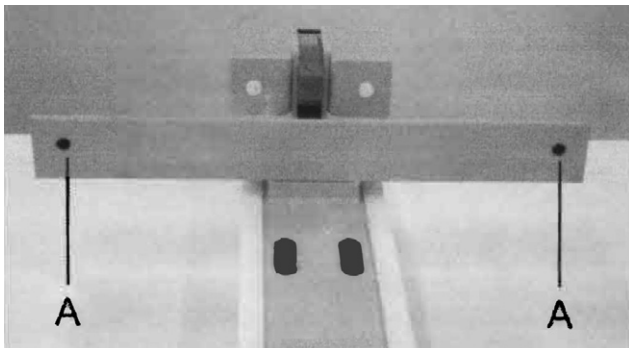
1. Place the fence on the table and lock it.
2. View the fence from the left side of the saw. Look for the space between the table and the fence bottom to be equal along the entire length of the fence.
3. If adjustment is necessary, unlock the fence.
4. Raise or lower two nylon adjustment screws the same number of turns until the space between the bottom of the fence and the table is the same. Refer to Figure 16.

Care must be taken to raise or lower the fence on each side equally or the fence may not be 90° to the table after the height adjustment is performed.

**Figure 16****CLAMPING PRESSURE**

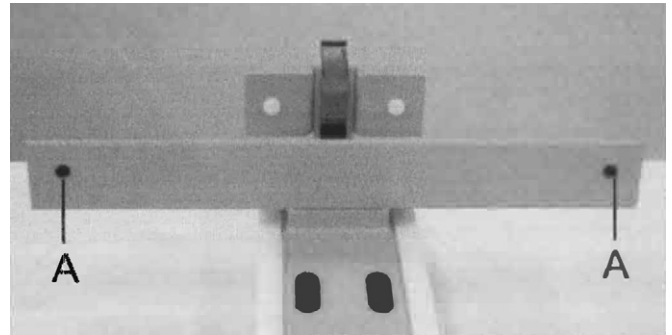
The fence has been adjusted at the factory to lock securely when the lock handle is pushed down. If adjustment is needed:

1. Unlock the fence.
2. Remove the fence from the guide rail.
3. Turn the fence over.
4. Adjust the two set screws until the fence is held securely when the lock handle is pushed down. Refer to Figure 17.

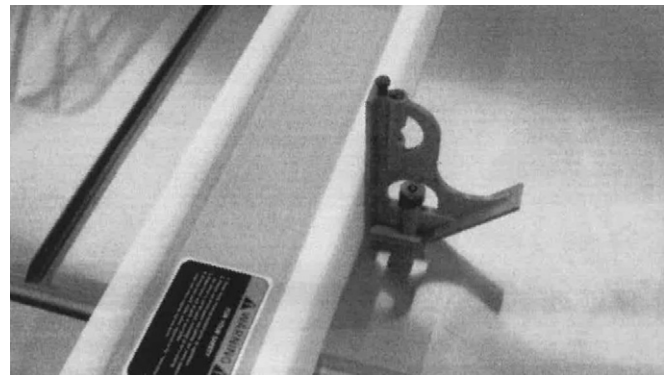
**Figure 17****PARALLEL TO THE MITER SLOT**

1. Place the fence next to the outside edge of the right miter slot and lock it.
2. The fence should be even with the miter slot from front to back.
3. If the fence is not even along the length of the miter slot, unlock the fence, remove it and turn upside down.
4. Adjust one of the two set screws until the fence is even with the miter slot edge along its entire length when locked. Refer to Figure 18.

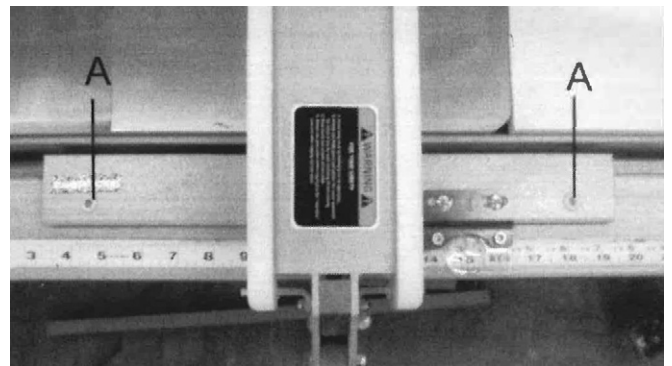
NOTE: You may need to re-adjust the clamping pressure after aligning the fence.

**Figure 18****90° TO THE TABLE**

1. Place the fence on the saw table and lock it.
2. Place a square on the table next to the fence. The fence should be 90° to the table. Refer to Figure 19.

**Figure 19**

3. If adjustment is necessary, unlock the fence, and turn one of the two nylon adjustment screws until the fence is 90° to the table. Refer to Figure 20.

**Figure 20**

4. Lock the fence and check the adjustment again.

OPERATION (CONTINUED)

CURSOR ADJUSTMENT

1. Disconnect the table saw from the power source.
2. Raise the saw blade above the tabletop.
3. Unlock the fence and slide it to approximately four inches from the saw blade.
4. Lock the fence.
5. Measure the distance between the saw blade and the inside of the fence.
6. Adjust the cursor to read the distance just measured and tighten the cursor assembly to the fence.
7. Take a test cut and confirm the adjustment is correct.

NOTE: This adjustment must be checked whenever a different blade is installed.

RAIL GUIDE ADJUSTMENT

1. Adjust one of the two nylon adjustment screws, until it lightly touches the front rail. Do not make adjustments when moving the fence.

NOTE: This adjustment must be made when the fence is on the saw table and the handle is pushed up.

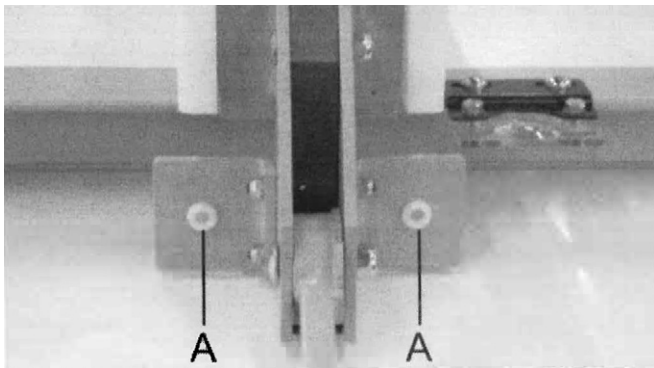


Figure 21

HANDWHEEL ADJUSTMENTS

Refer to Figure 10.

The front handwheel (B) controls the raising and lowering of the blade (blade height).

The side handwheel (D) controls the blade tilt. The blade can be adjusted for a tilt between 90° (vertical or a setting of 0° on the scale) and 45° left tilt (D).

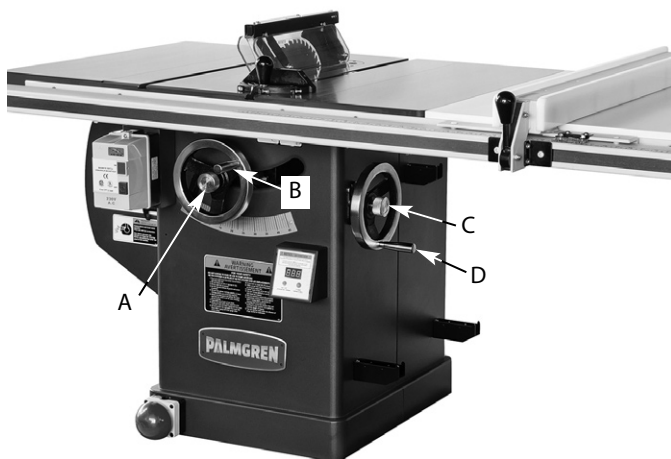


Figure 22

BLADE HEIGHT

1. Loosen the lock knob (A) on the front handwheel (B).
2. Turn the handwheel (B) clockwise to raise and counterclockwise to lower the blade.
3. Tighten the lock knob (A).

BLADE TILT ADJUSTMENT

1. Loosen the lock knob (C) on the side handwheel (D).
2. Turn the handwheel (D) counterclockwise to adjust the saw blade down to 45° left tilt. Turn clockwise to adjust the saw blade to maximum of 90°.
3. After selecting the position, tighten the lock knob (C),

INSERT ADJUSTMENT

Adjust the setscrews in the insert with a 3mm hex wrench (Figure 23) to ensure that the insert is stable and flush with the table top.

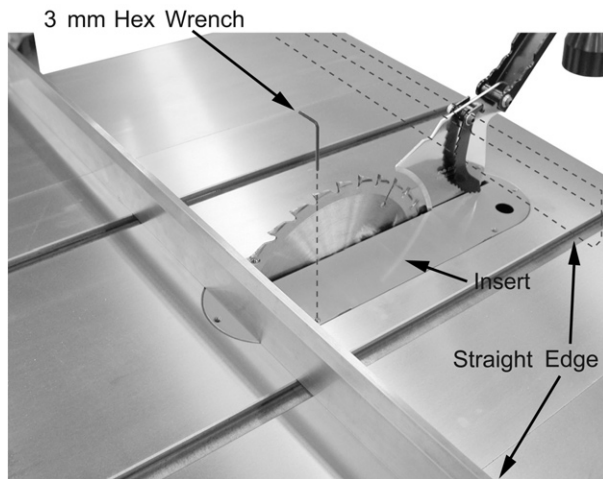


Figure 23

MITER GAUGE

Refer to Figure 24.

1. Operate miter gauge by loosening the lock knob (A) and turning the miter body (B) to the desired angle. To move gauge beyond index stops of 45 and 90, flip down the stop (C).
2. Adjust index stops by turning one of three adjustment screws (D).

NOTE: Always make test cuts. Do not rely solely on miter gauge indicator marks. There are holes in the miter gauge body that will allow you to mount a wooden extension fence.

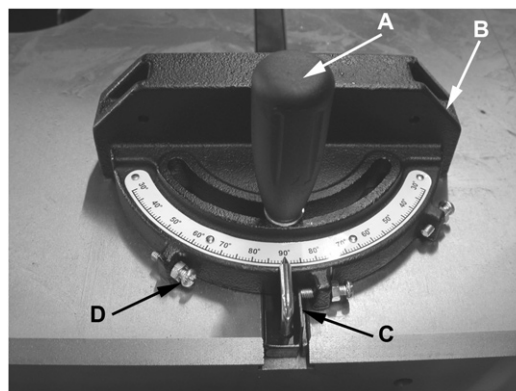


Figure 24

OPERATION (CONTINUED)

RIVING KNIFE ADJUSTMENT

LATERAL ALIGNMENT

The saw blade and riving knife must be in line as close as possible with each other (lateral alignment) for the prevention of kickback. Upon initial blade guard and riving knife installation no further adjustment should be necessary. Alignment should be checked and adjusted, if required, after each blade change.

Check the alignment as follows:

1. Remove the blade guard (not shown) and pawl (C) Fig. 25.
2. Place a straightedge (A, Fig. 25) on the table so it rests against the blade (B, Fig 25) and riving knife (C, Fig. 25). Rotate the blade so the top of the blade tooth touches the straightedge.

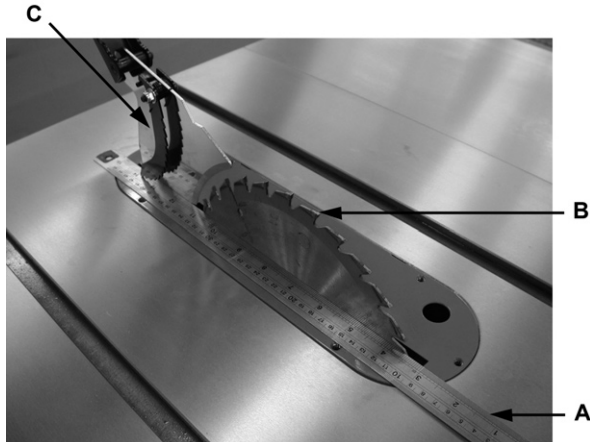


Figure 25

The saw blade and riving knife must be in line. If adjustment is required:

3. Remove the table insert.
4. Loosen the lock handle (A, Fig. 26) and remove the riving knife, making a note as to which direction the riving knife needs to be moved to align it with the saw blade.
5. Using a 3mm hex wrench, make adjustments to four set screws (D, Fig. 27) accessible through openings located in the corners of the floating clamp block (B, Fig. 27).
6. If necessary, repeat the above procedure.



Figure 26

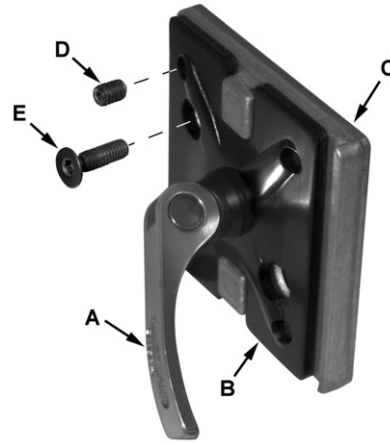


Figure 27

BLADE PROXIMITY ALIGNMENT

Refer to Figures 27 and 28.

The gap between the saw blade and riving knife must be between 3 and 8mm (Fig. 28) to reduce the possibility of kickback. If adjustment is needed, note whether the blade to knife gap needs to be increased or decreased. Then adjust as follows:

1. Remove the blade guard, pawl, table insert and riving knife.
2. With a 4mm hex wrench, loosen two socket head flat screws (E).

NOTE: These screws are accessible through openings on the floating clamp block (B) located diagonally on either side of the lock handle (A). They secure the fixed clamp block (C) to the riving knife extension plate (F).

Loosening these screws (E) will allow the fixed clamp block (C) to slide back and forth on the extension plate (F).

3. Slide the fixed clamp block (F) toward or away from the saw blade as required.
4. Tighten the socket head flat screws (E).
5. Reinsert the riving knife; tighten the lock handle (A, Fig. 14) and check that the saw blade/knife gap is between 3 - 8mm.

NOTE: Attempt to make the gaps as even as possible.

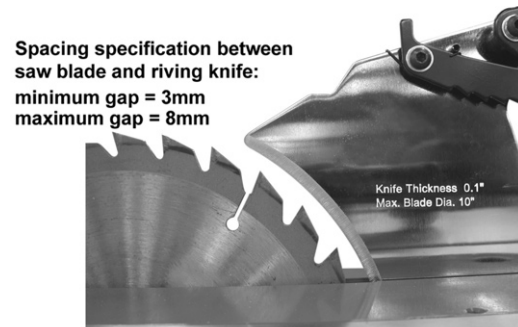


Figure 28

OPERATION (CONTINUED)**BLADE ALIGNMENT**

Refer to Figures 29 and 30.

Tools: 8mm hex wrench, combination square, marker

Blade alignment with the table is adjusted at the factory. After a period of use, or, after moving the saw to another location, the blade may no longer be aligned with the table. To check and align the blade:

1. Disconnect the saw from the power source.
2. Raise the blade guard up a way from the blade.
3. Choose a tooth on the far side of the blade (towards the rear) and position the tooth slightly above the table insert. Mark the tooth with a marker. Measure the distance from the side of the blade to the right T-slot edge using a combination square. Make sure to measure between the teeth not on the tooth (Fig. 29).

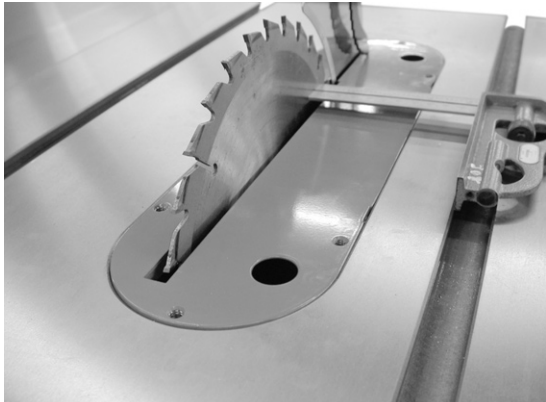


Figure 29

4. Rotate the blade toward the front so that the marked tooth is just above the insert. Measure the distance from the side of the blade to the right T-slot edge. The two measurements should be the same.
5. If they are not the same, loosen four hex socket cap screws (A, Fig. 30) that hold the table to the base. Two are shown in Figure 30.

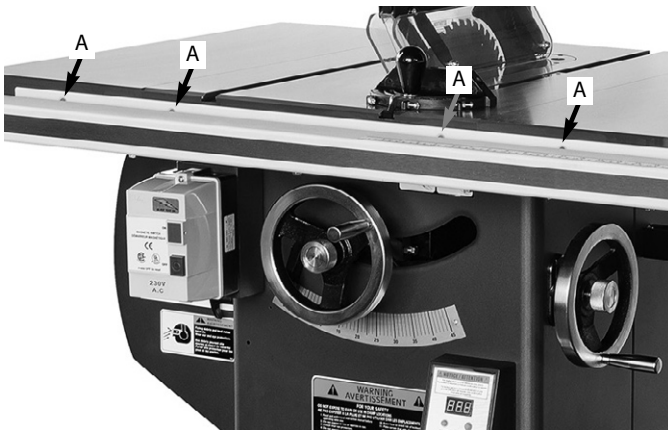


Figure 30

6. Make the needed adjustments and tighten the four hex socket cap screws firmly.
7. Check the alignment once again after tightening hardware.

ADJUSTING 45° AND 90° POSITIVE STOPS

The stops have been adjusted at the factory. After a period of use, or, after moving the saw to another location, the stops may no longer be set properly. To check and adjust the stops:

Tools: 12mm wrench, combination square

1. Disconnect saw from power source.
2. Raise the saw blade to its maximum height using the handwheel.
3. Set the blade at 90 degrees to the table by turning the blade tilting handwheel clockwise as far as it will go.
4. Place a combination square on the table against the blade and check to see that the blade is at a 90° angle to the table, Figure 31. Make sure square is not touching a blade tooth.



Figure 31

5. If blade is not at 90 degrees, open the motor cover door, loosen lock nut (A, Fig. 32) and turn adjusting stop screw (B, Fig. 32) on the front trunnion in, or out. The adjusting stop screw should stop against the front trunnion bracket when the blade is 90° to the table.

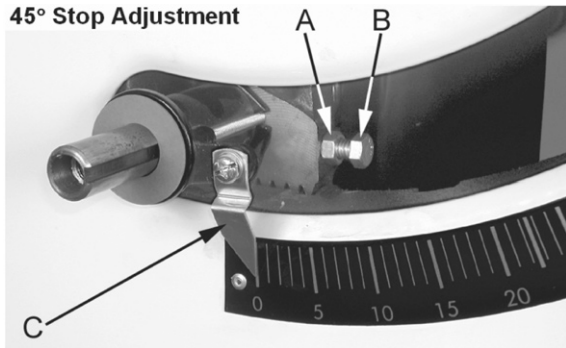


Figure 32

6. Tighten the lock nut (A, Fig. 32).
7. Set the blade at 45 degrees to the table by turning the blade tilting handwheel counterclockwise as far as it will go. Place a combination square on the table against the blade. Make sure square is not touching a blade tooth.

OPERATION (CONTINUED)

- If the blade is not 45 degrees, remove the raising and lowering handle. Loosen lock nut (A, Fig. 33) and turn adjusting stop screw (B, Fig. 33) on the front trunnion in, or out. The adjusting stop screw should stop against the front trunnion bracket when the blade is 45° to the table.

45° Stop Adjustment**Figure 33**

- Check the accuracy of the pointer (C, Fig. 33) on the angle scale and adjust, if necessary.

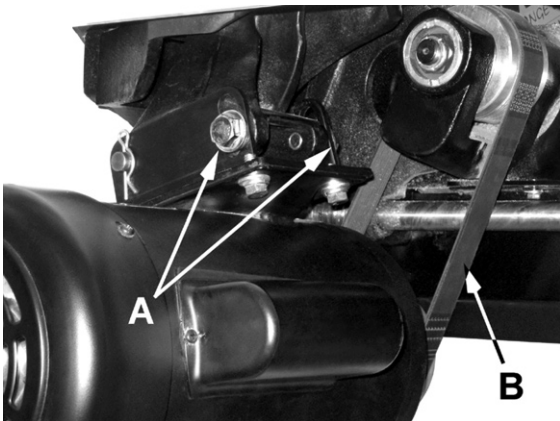
Assembly and adjustment of the saw are now complete. Make sure all fasteners are tight. The saw may now be placed into operation.

CHANGING THE BELT

Refer to Figure 34.

⚠ WARNING Make all machine adjustments or maintenance with the machine unplugged from the power source. Failure to comply may cause serious injury!

- Disconnect the machine from the power source, unplug.
- Lower the blade to its lowest point.
- Loosen two hex cap bolts (A).
- Take the tension off of the belt (B) by lifting up on the motor.
- Remove the belt from the arbor and motor pulleys.
- Replace and tension the belt. The weight of the motor should apply enough tension to the belt. Tighten the hex cap bolts (A).
- Check the belt tension after the saw has been used for a few hours. Adjust as necessary.

**Figure 34****MAINTENANCE**

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

CLEANING

NOTE: The following maintenance schedule assumes the saw is being used every day.

DAILY:

- Wipe down the table surface and grooves with a rust preventive.
- Clean pitch and resin from the saw blade.

WEEKLY:

- Table surface must be kept clean and free of rust for best results. Apply a coat of paste wax to the surface to facilitate this. An alternative is to apply white talcum powder, rubbed in vigorously once a week with a blackboard eraser; this will fill casting pores and form a moisture barrier. This method provides a table top that is slick and allows rust rings to be easily wiped from the surface. Important also is the fact that talcum powder will not stain wood or mar finishes as wax pickup does.
- Clean motor housing with compressed air.
- Wipe down the fence rails with a dry silicon lubricant.

PERIODIC:

- Keep the inside of the cabinet and trunnion area clean.
- Check for excessive play in the tilting and raising mechanism and in the saw arbor and re-adjust as required.
- Check for belt tension and wear. Readjust or replace belt as required.

LUBRICATION

- Grease the tilting worm gear, raising worm gear, castor system worm gear and the trunnion areas with a good grade nonhardening grease.
- Check all adjustments after lubricating.

MISCELLANEOUS

Routinely check condition of the following items:

- Mounting bolts
- Power switch
- Saw blade
- Blade guard 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. 	<ol style="list-style-type: none"> 1. Allow motor to cool and reset by pushing off switch 2. Check all plug connections. 3. Replace fuse or reset circuit breaker. 4. Replace cord.
Does not make accurate 45° or 90° cuts.	<ol style="list-style-type: none"> 1. Stops not adjusted correctly. 2. Angle pointer not set accurately. 3. Miter gauge out of adjustment. 	<ol style="list-style-type: none"> 1. Check blade with square and adjust stops. 2. Check blade with square and adjust pointer. 3. Adjust miter gauge.
Material binds blade when ripping.	<ol style="list-style-type: none"> 1. Fence not aligned with blade. 2. Warped wood. 3. Excessive feed rate. 4. Splitter not aligned with blade. 	<ol style="list-style-type: none"> 1. Check and adjust fence. 2. Select another piece of wood. 3. Reduce feed rate. 4. Align splitter with blade.
Saw makes unsatisfactory cuts.	<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
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.
Saw vibrates excessively.	<ol style="list-style-type: none"> 1. Stand on uneven floor. 2. Damaged saw blade Bad V-belts. 3. Bent pulley. 4. Improper motor mounting. 5. Loose hardware. 	<ol style="list-style-type: none"> 1. Reposition on flat, level surface. 2. Replace saw blade Replace V-belts. 3. Replace pulley. 4. Check and adjust motor. 5. Tighten hardware.
Rip fence binds on guide rails.	<ol style="list-style-type: none"> 1. Guide rails or extension wing not installed correctly. 2. Guide of rip fence not adjusted properly. 	<ol style="list-style-type: none"> 1. Reassemble guide rails, refer to Fence Adjustments. 2. Adjust guides, refer to Fence Adjustments.
Material kicked back from blade.	<ol style="list-style-type: none"> 1. Rip fence out of alignment. 2. Splitter not aligned with blade. 3. Feeding stock without rip fence. 4. Splitter not in place. 5. Dull blade. 6. Letting go of material before it is past blade. 7. Anti-kickback plates dull. 	<ol style="list-style-type: none"> 1. Align rip fence with miter slot. 2. Align splitter with blade. 3. Install and use rip fence. 4. Install and use splitter (with guard). 5. Replace blade. 6. Push material all the way past blade before releasing work. 7. Replace or sharpen anti-kickback plates.
Blade does not raise or tilt freely.	<ol style="list-style-type: none"> 1. Sawdust and debris in raising and tilting mechanisms. 	<ol style="list-style-type: none"> 1. Clean and regrease.

WIRING DIAGRAM

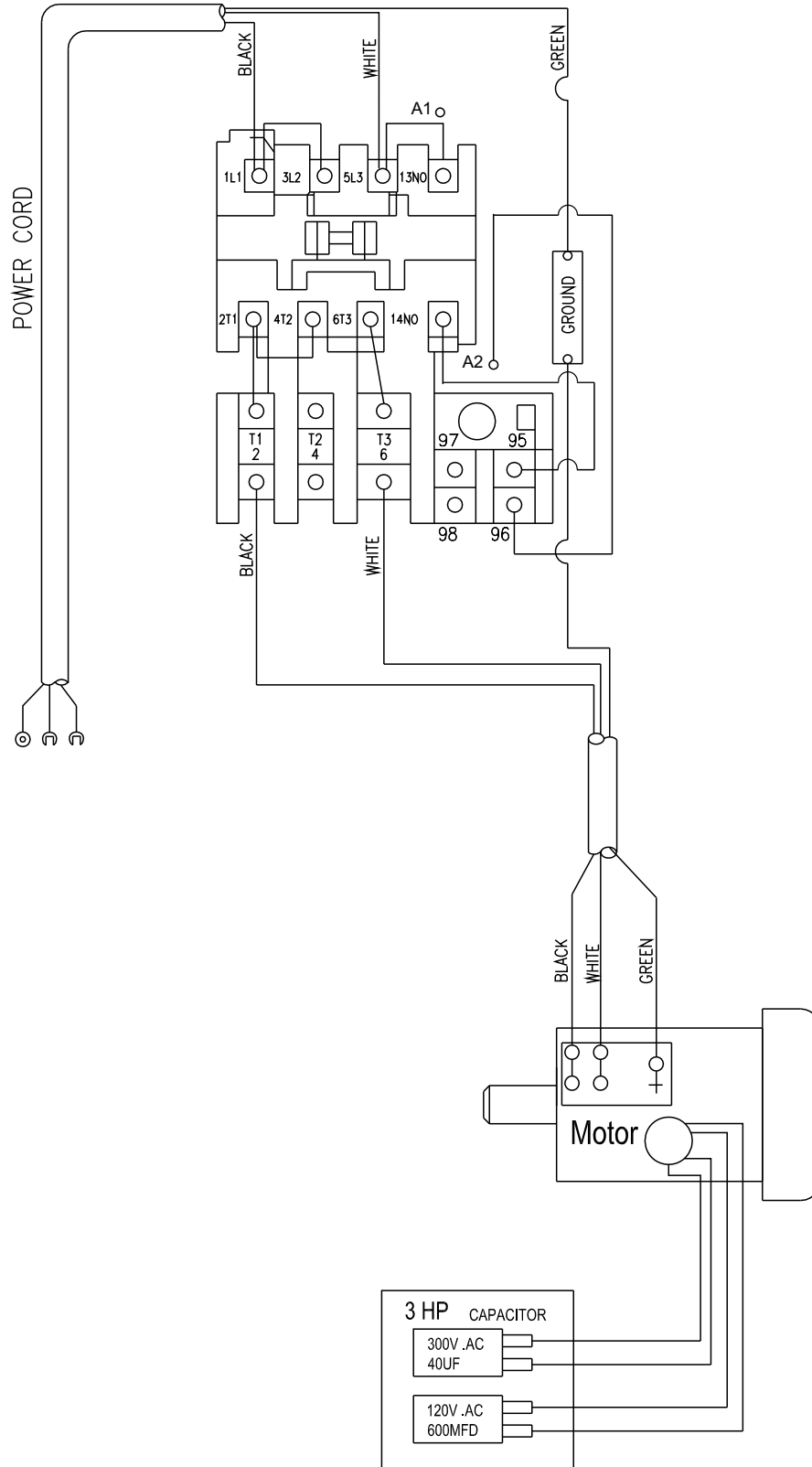


Figure 35 – Electrical wiring schematic, 3 HP, 230V, single phase.

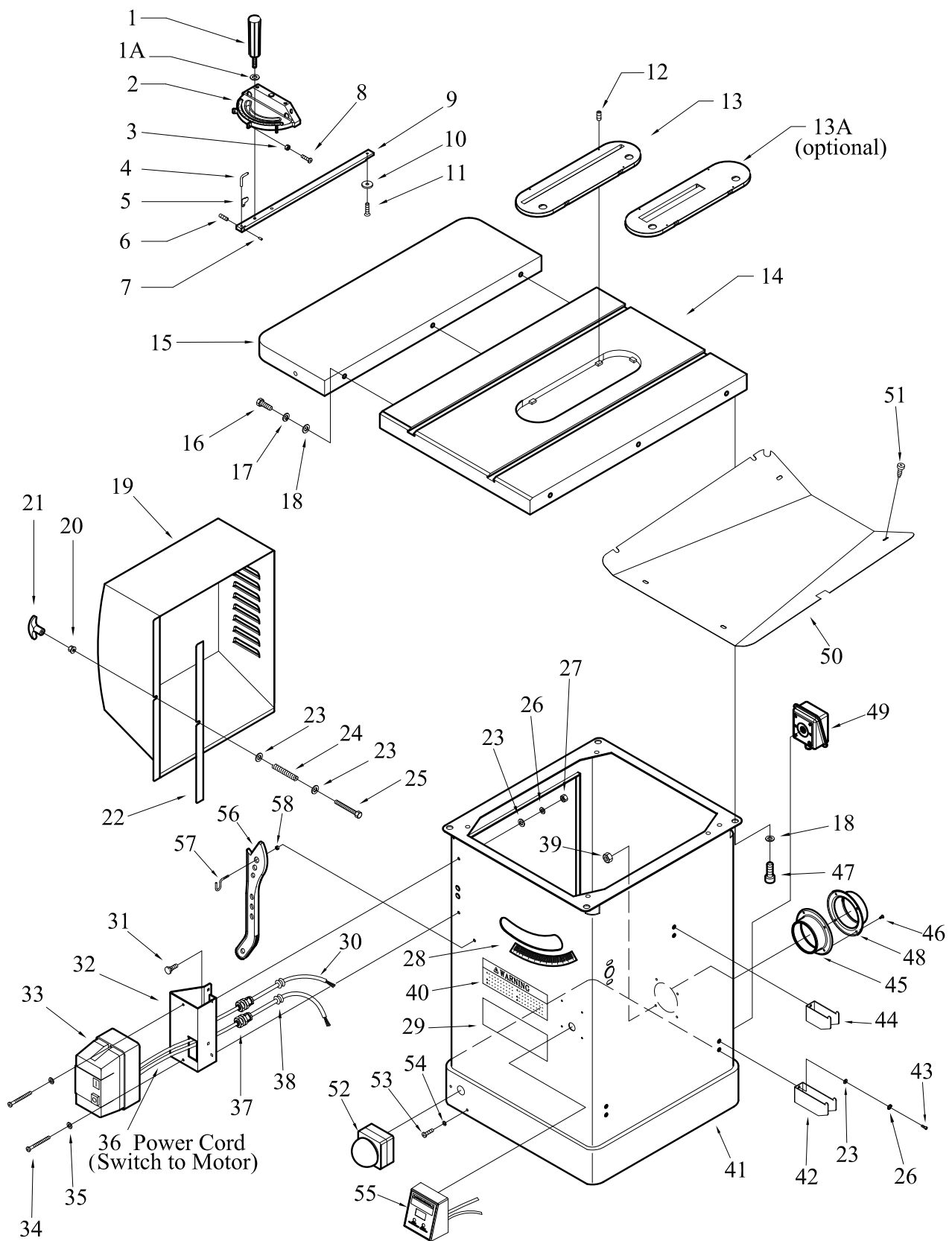


Figure 36 – Replacement Parts Illustration for Table and Cabinet Assembly

REPLACEMENT PARTS LIST FOR TABLE AND CABINET ASSEMBLY

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
1	Lock Knob	965027601	1	29	Logo Label	965029101	1
1A	Flat Washer 3/16"	*	1	30	Motor Cord	965029201	1
2	Miter Gauge Body	965027701	1	31	Carriage Blot 3/4"×3/4"	*	4
3	Hex Nut M5	*	3	32	Switch Base	965029301	1
4	Pointer	965027801	1	33	Magnetic Switch	965029401	1
5	Stop Link	965027901	1	34	Screw 3/16"×3/4"	*	2
6	Set Screw M5×5	*	1	35	Flat Washer 3/16"	*	2
7	Special Pin M3×6	*	1	36	Power Cord	965029501	1
8	Screw M5×20	*	3	37	Cable Gland	965029601	3
9	Guide Bar	965028001	1	38	Snap Bushing 1/2"	965029701	2
10	Guide Washer	965028101	1	39	Hex Nut M6	*	4
11	Flat Head Screw M6×8	*	1	40	Warning Label	965029801	1
12	Set Screw 1/4"×3/8"	*	6	41	Cabinet	965029901	1
13	Table Insert	965028201	1	42	Fence Hook	965030001	2
13A	Dado Insert	965028301	1	43	Hex Socket Head Screw M6×16	*	6
14	Table	965028401	1	44	Miter Gauge Hook	965030101	1
15	Extension Wing	965028501	2	45	Dust Hose Adapter	965030201	1
16	Hex Cap Screw 7/16"×1-1/2".	*	6	46	Screw M6×15	*	4
17	Lock Washer 7/16"	*	6	47	Hex Socket Head Screw 7/16"×1"	*	4
18	Flat Washer 7/16"	*	6	48	Dust Hose Adapter	965030301	1
19	Motor Cover	965028601	1	49	Cord Connector Box	965030401	1
20	Flange Nut M6	*	1	50	Lower Panel	965030501	1
21	Handle	965028701	1	51	Top Screw M5×10	*	4
22	Foam Strip	965028801	1	52	Foot Stop Switch	965030601	1
23	Flat Washer 1/4"	*	12	53	Round Head Screw M5×20	*	2
24	Spring	965028901	1	54	Flat Washer M6	*	2
25	Hex Cap Bolt M6×50	*	1	55	Digital Angle Indicator	965030701	1
26	Lock Washer 1/4"	*	14	56	Push Stick	965042201	1
27	Hex Nut 1/4"	*	4	57	Bracket (Push Stick)	965042301	1
28	Tilt Scale	965029001	1	58	Hex Nut M4	*	1

(*) Standard hardware item, available locally.

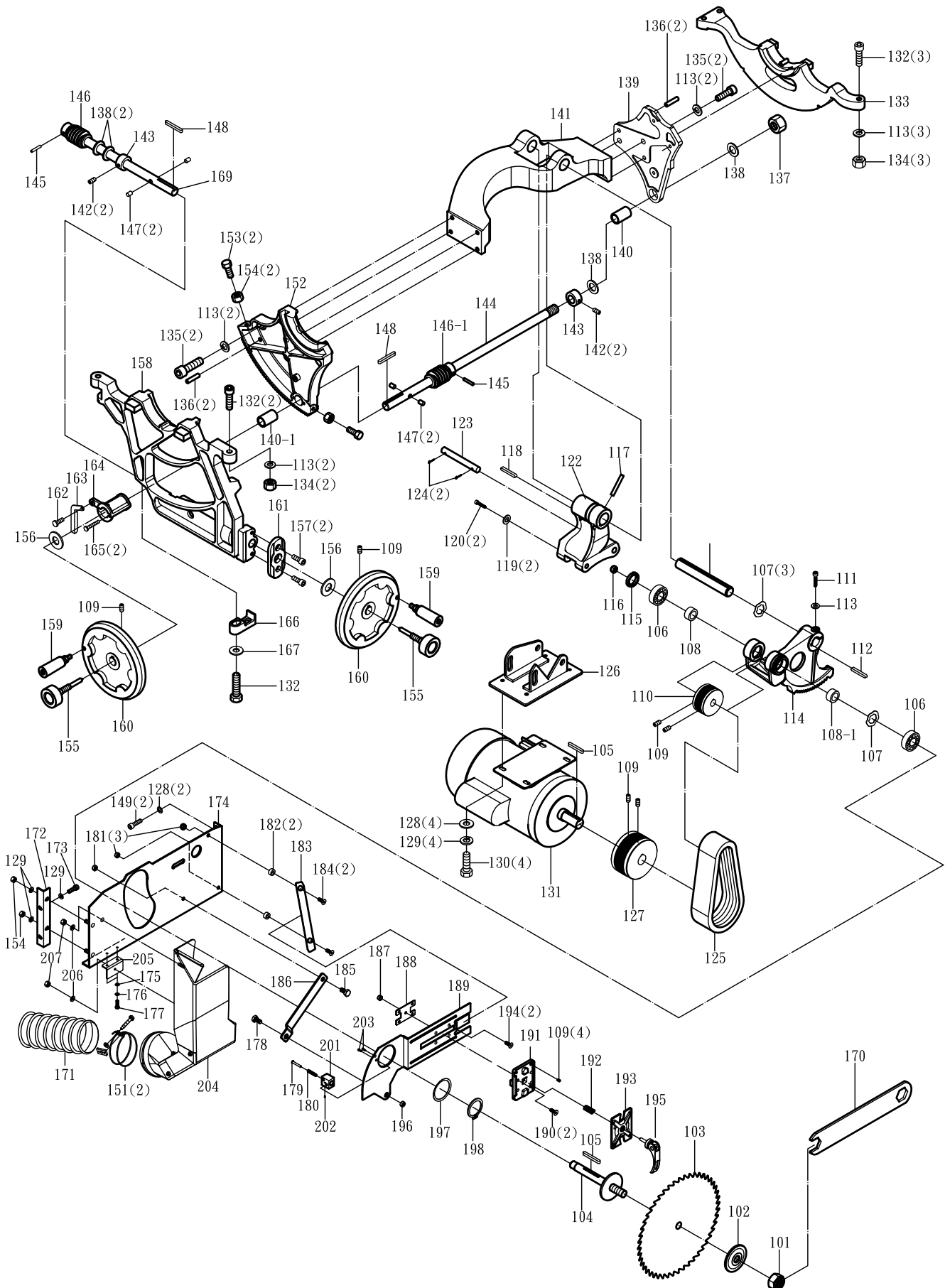


Figure 37 – Replacement Parts Illustration for Motor Trunnion Assembly

REPLACEMENT PARTS LIST FOR MOTOR TRUNNION ASSEMBLY

Ref. No.	Description	Part No.	Qty.	Ref. No.	Description	Part No.	Qty.
101	Arbor Nut	965030801	1	155	Lock Handle	965034501	2
102	Arbor Flange	965030901	1	156	Fiber Washer 3/4"	965034601	2
103	Saw Blade 10"(254mm)	965031001	1	157	Hex Socket Cap Screw 5/16"×1"	*	2
104	Arbor With Flange	965031101	1	158	Front Trunnion Bracket	965034701	1
105	Key M5×44	965031201	1	159	Hand Wheel Handle	965034801	2
106	Ball Bearing 6203zz	965031301	2	160	Hand Wheel	965034901	2
107	Bearing Load Spring	965031401	4	161	Shield Plate	965035001	1
108	Bearing Load Spacer	965031501	1	162	Round Head Screw 1/4"×3/8"	*	1
109	Set Screw 1/4"×3/8"	*	10	163	Pointer Assembly	965035101	1
110	Arbor Pulley	965031601	1	164	Pointer Bracket	965035201	1
111	Collar	965031701	1	165	Round Head Screw 3/16"×2"	*	2
112	Key 1/4"×1/4"×45	965031801	1	166	Guide Block	965035301	1
113	Lock Washer 3/8"	*	9	167	Flat Washer 3/8"	*	1
114	Arbor Bracket	965031901	1	168	Bushing	965035401	1
115	Spanner Nut	965032001	1	169	Tilt Shaft	965035501	1
116	Arbor Nut 5/8"	965032101	1	170	Wrench	965035601	1
117	Spring Pin M6×50	*	1	171	Hose	965035701	1
118	Key 1/4"×1/4"×75	965032201	1	172	Plate	965035801	1
119	Flat Washer 7/16"	*	2	173	Hex Socket Cap Screw 5/16"×3/4"	*	3
120	Hex Cap Screw 7/16"×1"	*	2	174	Chip Plate	965035901	2
121	Shaft	965032301	1	175	Flat Washer 3/16"	*	2
122	Motor Bracket	965032401	1	176	Lock Washer 3/16"	*	2
123	Pin	965032501	1	177	Hex Cap Bolt 3/16"×3/8"	*	1
124	Spring Clip	965032601	2	178	Special Screw	965036001	1
125	Poly V-Belt PJ260	965032701	1	179	Lock Pin	965036101	1
126	Motor Plate	965032801	1	180	Spring	965036201	3
127	Motor Pulley	965032901	1	181	Nylon Nut 1/4"	965036301	2
128	Flat Washer 5/16"	*	10	182	Spring	965036401	1
129	Lock Washer 5/16"	*	8	183	Guide Bracket	965036501	2
130	Hex Cap Screw 5/16"×3/4"	*	4	184	Flat Head Screw 1/4"×1"	*	1
131	Motor	965033001	1	185	Special Screw	965036601	1
132	Hex Socket Cap Screw 3/8"×1-1/2"	*	7	186	Pilot Link Plate	965036701	1
133	Rear Trunnion Bracket	965033101	1	187	Nylon Nut M6	965036801	1
134	Hex Nut 3/8"	*	5	188	Plate	965036901	1
135	Hex Socket Cap Screw 3/8"×1"	*	4	189	Riving Knife Carrier Plate	965037001	2
136	Spring Pin M8×25	*	4	190	Flat Head Socket Screw M5×12	*	1
137	Hex Nut 3/4"	*	1	191	Riving Knife Carrier	965037101	1
138	Fiber Washer 3/4"	965033201	4	192	Spring	965037201	1
139	Rear Trunnion	965033301	1	193	Pressure Plate	965037301	2
140	Bushing	965033401	1	194	Flat Head Socket Screw M6×20	*	1
141	Yoke	965033501	1	195	Crank Handle	965037401	1
142	Set Screw 5/16"×1/4"	*	2	196	Nylon Nut M8	965037501	1
143	Collar	965033601	2	197	Spring Shim Ring	965037601	1
144	Shaft	965033701	1	198	Snap Ring S52	*	4
145	Spring Pin M5×30.	965033801	2	199	Set Screw M5×12	*	1
146	Worm Gear	965033901	1	200	Guide Block	965037701	1
146-1	Worm Gear	965034001	1	201	Lock Pin Bracket	965037801	1
147	Lock Pin	965034101	4	202	Set Screw M4×8 1	*	1
148	Key M5×35	965034201	2	203	Hex Socket Cap Screw M5×20	*	2
151	Hose Clamp M100	965034301	2	204	Dust Deflector	965037901	1
152	Front Trunnion	965034401	1	205	Plate	965038001	1
153	Hex Cap Bolt 5/16"×5/8"	*	2	206	Lock Washer M5	*	2
154	Hex Nut 5/16"	*	4	207	Hex Nut M5	*	2

(* Standard hardware item, available locally.

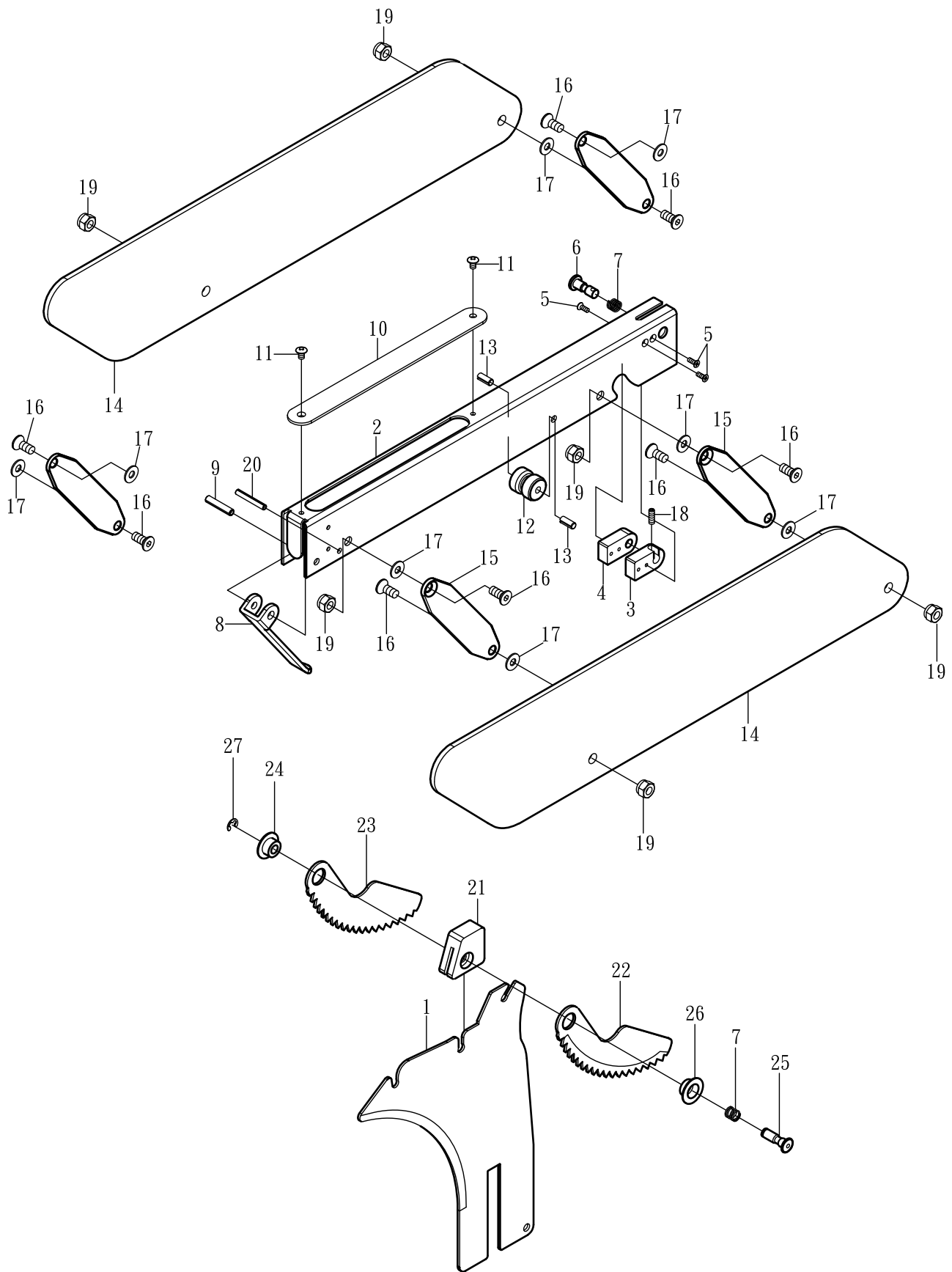


Figure 38 – Replacement Parts Illustration for Blade Guard Assembly

REPLACEMENT PARTS LIST FOR BLADE GUARD ASSEMBLY

Ref. No.	Description	Part Number	Qty.
1	Riving Knife	965038101	1
2	Blade Guard Body	965038201	1
3	Bushing (L)	965038301	1
4	Bushing (R)	965038401	1
5	Flat Head Screw M3 × 10	*	4
6	Lock Pin	965038501	1
7	Spring	965038601	2
8	Front Shield	965038701	1
9	Roll Pin M5 × 25	*	1
10	Top Sight Shield	965038801	1
11	Round Head Screw M4 × 8	*	2
12	Bushing	965038901	1
13	Roll Pin M5 × 8	*	2
14	Blade Guard Side Shield	965039001	2
15	Linking Plate	965039101	4
16	Flat Head Socket Screw M6 × 16	965039201	8
17	Flat Washer M6	*	8
18	Set Screw M4 × 10	*	1
19	Nylon Insert Lock Nut M6	*	8
20	Roll Pin M4 × 30	*	1
21	Pawl Base	965039301	1
22	Anti-Kickback Pawl (R)	965039401	1
23	Anti-Kickback Pawl (L)	965039501	1
24	Flange(L)	965039601	1
25	Lock Pin	965039701	1
26	Flange(R)	965039801	1
27	E-Clip E5	*	1
28	Riving Knife	965039901	1

(*) Standard hardware item, available locally.

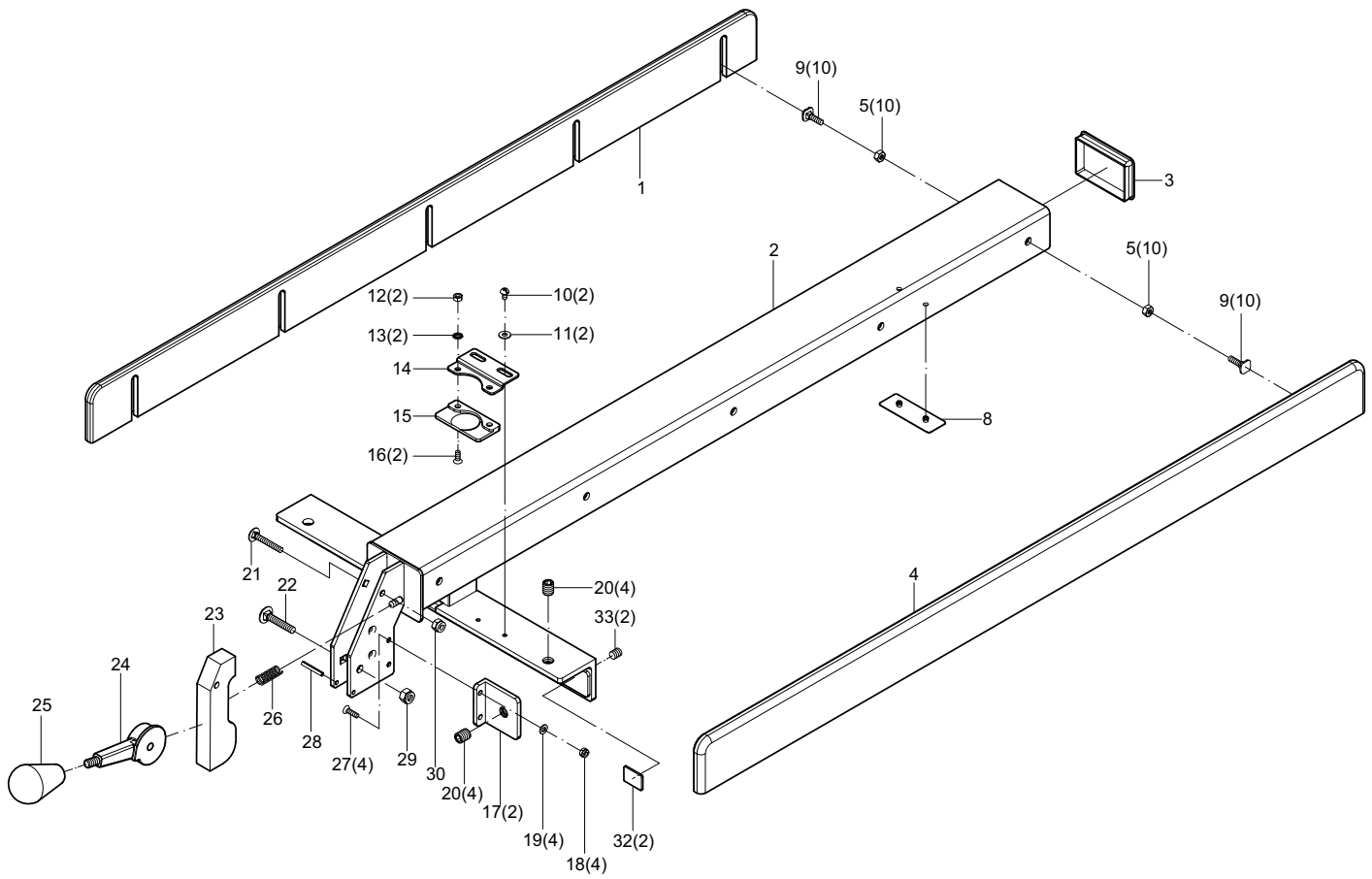


Figure 39 – Replacement Parts Illustration for Fence Assembly

REPLACEMENT PARTS LIST FOR FENCE ASSEMBLY

Ref. No.	Description	Part Number	Qty.
1	Left Side Plate	965040001	1
2	Fence Body Assembly	965040101	1
3	Tube Cover	965040201	1
4	Right Side Plate	965040301	1
5	Hex Nut 1/4"	*	10
8	Pad	965040401	1
9	Carriage Bolt 1/4" x 3/4"	*	10
10	Cross Point Pan Head Screw M5 x 8	*	2
11	Flat Washer M5	*	2
12	Hex Nut M5	*	2
13	Flat Washer M5	*	2
14	Cursor Bracket	965040501	1
15	Cursor	965040601	1
16	Flat Head Machine Screw M5 x 12	*	2
17	Bracket	965040701	1
18	Hex Nut M5	*	4
19	Flat Washer M5	*	4
20	Nylon Adjustment Screw	965040801	4
21	Craggie Bolt 1/4" x 1-1/2"	*	1
22	Craggie Bolt 5/16" x 1-1/2"	*	1
23	Lock Piece	965040901	1
24	Lock Handle w/Cam	965041001	1
25	Knob	965041101	1
26	Spring	965041201	1
27	Flat Head Machine Screw M5 x 16	*	4
28	Spring Pin M4 x 28	*	1
29	Hex Nut 5/16"	*	1
30	Hex Nut 1/4"	*	1
32	Pad Set	965041301	2
33	Set Screw 3/8" x 3/8"	*	2

(*) Standard hardware item, available locally.

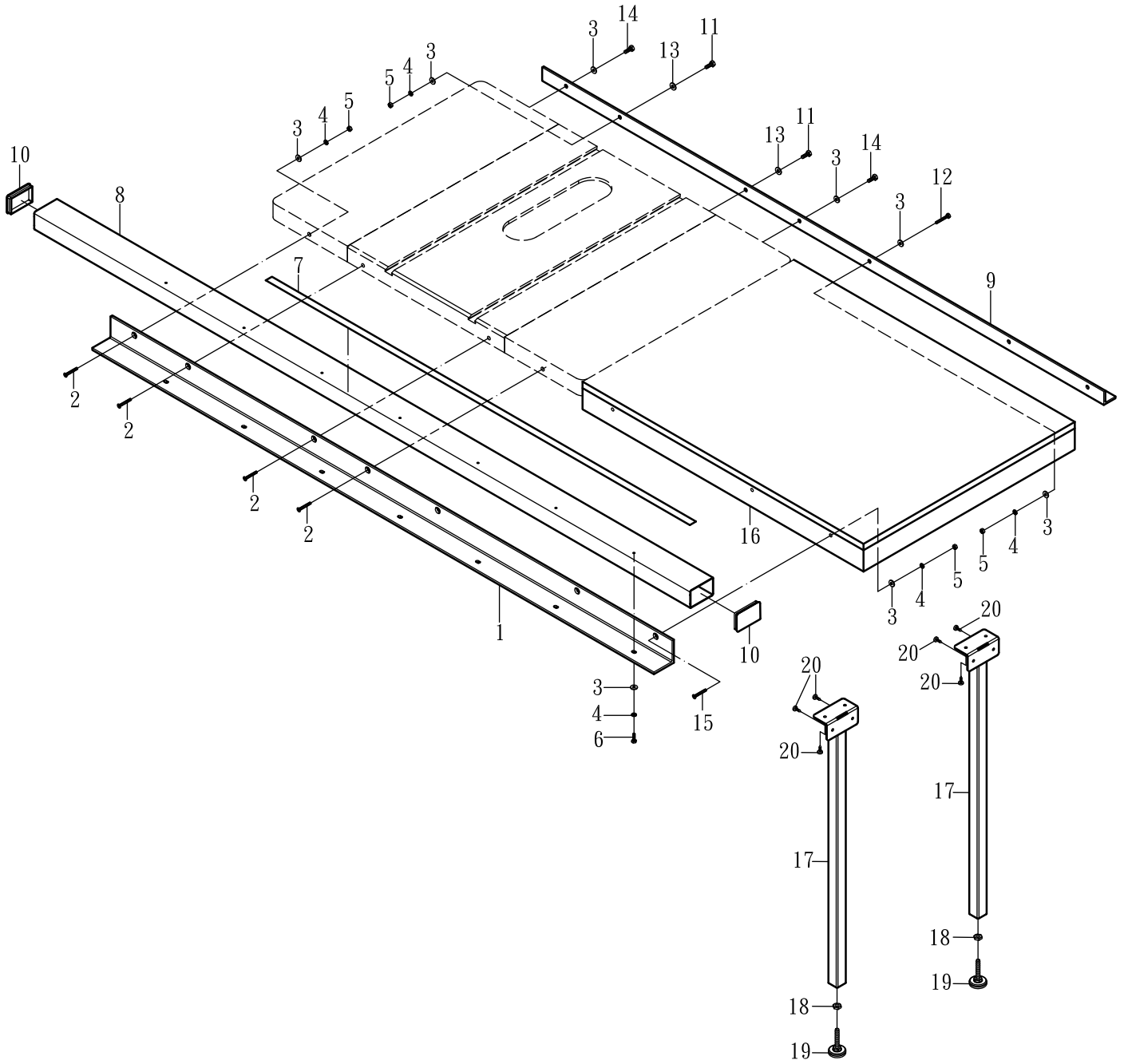


Figure 40 – Replacement Parts Illustration for Rail Assembly

REPLACEMENT PARTS LIST FOR RAIL ASSEMBLY

Ref. No.	Description	Part Number	Qty.
1	Front Rail	965041601	1
2	Flat Head Screw 1/4" × 1-1/4"	*	4
3	Flat Washer 1/4"	*	15
4	Lock Washer 1/4"	*	13
5	Hex Nut 1/4"	*	6
6	Hex Cap Screw 1/4" × 3/4"	*	7
7	Scale	965041701	1
8	Guide Rail	965041801	1
9	Rear Rail	965041901	1
10	Guide Cover	965042001	2
11	Hex Cap Screw 5/16" × 3/4"	*	2
12	Hex Cap Screw (For Wood Table) 1/4" × 1-3/4"	*	3
13	Flat Washer 5/16"	*	2
14	Hex Cap Screw 1/4" × 1-1/4"	*	2
15	Flat Head Screw (For Wood Table) 1/4" × 1-3/4"	*	3
16	Wood Table	965042101	1
17	Leg	965047001	2
18	Hex Nut 3/8"	*	2
19	Adjusting Foot	965042401	2
20	Machine Screw 3/16" × 5/8"	*	8

(*) Standard hardware item, available locally.

PALMGREN WARRANTY

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which it was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

The Palmgren branded items carry the following warranties on parts:

All arbor presses, vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.

All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, abrasive finishing machines and work stands - 3 YEARS.

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

Failure to follow these instructions will void the warranty.

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way related to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.

PALMGREN®

Palmgren - a C.H. Hanson Company
2000 N. Aurora Rd., Naperville, IL 60563 U.S.A.
or call 1-800-827-3398