# Making Adjustments to Your Saw

## Adjusting the Quick-Release Clamp

The clamping pressure holding the spreader or riving knife in the quick-release clamp is factory adjusted to require approximately 5-10 lbs. of force to push the handle to the fully down and clamped position. This is a moderate amount of force to apply with one hand. If excessive force is required to move the handle down, or if you are unable to move the handle down by hand, then the clamp should be adjusted to reduce the clamping pressure. Alternatively, if the handle moves down with only light pressure, then the clamping force should be increased. When evaluating the clamping force, make sure the riving knife or spreader is properly seated in the clamp.

> ***WARNING!*** *Always turn off the main power switch and unplug the power cord before making any adjustments to your saw.*

To adjust the clamping force, begin by removing the riving knife or spreader. Raise the handle so that it faces upward, and push the handle toward the clamp. The clamp assembly includes an internal spring designed to push the clamp open when the handle is raised. Therefore you will have to push the handle toward the clamp against the force of the spring.

When the handle is fully pressed against the clamp, an adjustment bolt will be exposed as shown in Fig. 99. Turn the adjustment bolt clockwise a slight amount to increase the clamping pressure, or counter-clockwise a slight amount to decrease the clamping pressure. Release the handle and allow the spring to push it away from the clamp and re-engage the adjustment bolt. Now reinstall the spreader or riving knife and test the clamping pressure. Repeat the adjustment as necessary until the correct clamping pressure is achieved.

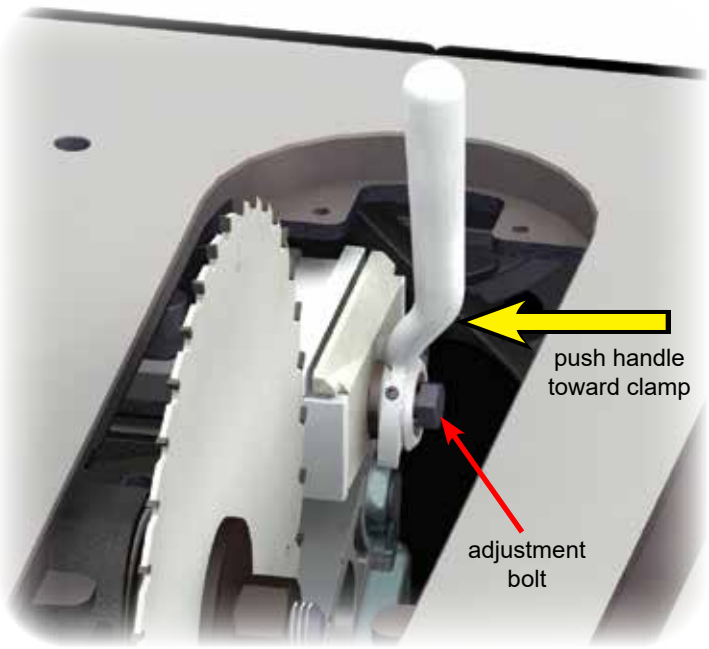



Fig. 99

> ***WARNING!*** *It is important to maintain the correct clamping pressure on the riving knife and spreader. If the pressure is too low these important safety devices may not function properly and a serious injury could result. In addition, the spreader or riving knife may come into contact with the blade and cause an unintended activation of the safety system.*

# Making Adjustments to Your Saw

## Adjusting the Miter Gauge

The miter gauge includes indexing stops to allow you to quickly set the gauge to -45°, 0°, and +45°. If necessary, you can adjust these indexing stops to increase the precision of your miter cuts.

To begin, loosen the miter gauge head by turning the locking handle counter-clockwise about ½ turn (see Fig. 100).

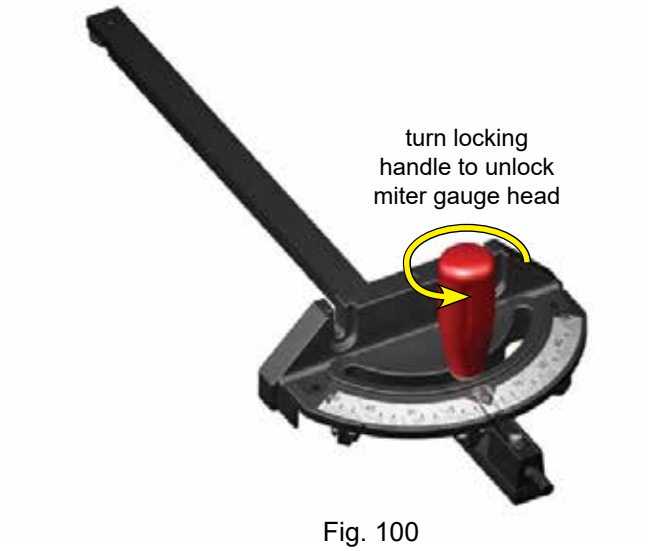



Fig. 100

Next, for the indexing stop you want to adjust, loosen the corresponding hex nut on the bottom of the miter gauge head and turn the stop adjustment screw counter-clockwise several turns (see Fig. 101). Place the miter gauge in either the left or right miter slot, and set a combination square to the desired angle (e.g., -45°, 0°, or +45°). Position one leg of the square flush against the blade and rotate the miter gauge head until it is flush against the other leg of the square.

Next, turn the handle clockwise until tight to lock the miter gauge head at the correct angle. Make sure the indexing pin is pressed in toward the miter gauge bar, then turn the stop adjustment screw clockwise until it hits against the indexing pin. Finally, tighten the hex nut against the indexing stop flange to prevent the screw from moving.

Repeat the above process for the other indexing stops if desired.

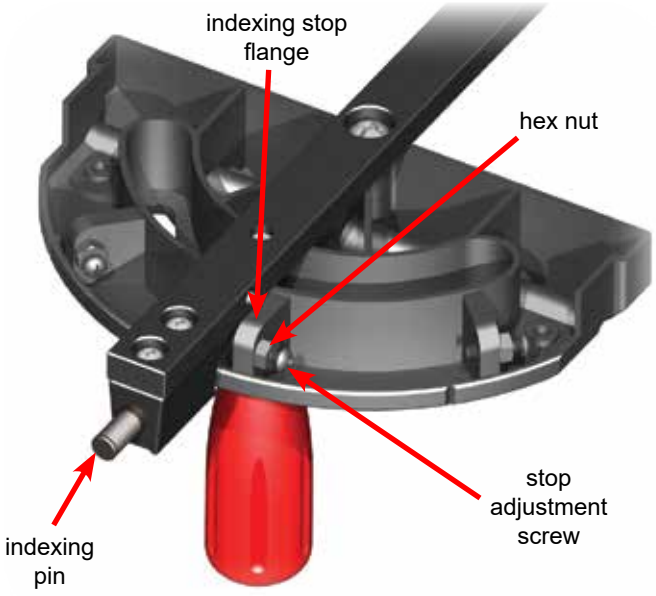



Fig. 101

# Maintenance

***WARNING!*** *Always turn off the main power switch and unplug the power cord before doing any maintenance on your saw.*

## SawStop Safety System

The safety system performs continuous self-checks both before and during saw operation. If a problem is detected, the appropriate status code will be displayed on the LEDs on the switch box and the appropriate action should be taken. No other maintenance is required.

## Brake Cartridge

The condition of the cartridge should be checked after approximately every 50 hours of saw use. The cartridge is sealed to prevent the entry of dust or other contaminants into the housing. While a small amount of dust within the housing will not affect its operation, you should replace the cartridge if a significant amount of dust is visible inside the clear plastic housing. This would indicate that the cartridge housing seal has been damaged. The brake cartridge requires no other maintenance.

***WARNING!*** *Do not use a brake cartridge if more than a small amount of dust can be seen inside the clear housing. If sawdust becomes packed inside the housing, the brake may fail to activate or may activate more slowly, thereby resulting in a serious personal injury.*

## Elevation and Tilt Mechanisms

The elevation and tilt gearing should be kept clean and well lubricated. Periodically check the condition of the elevation miter gears and threaded shaft, and the tilt worm gear and sector gear. If necessary, clean off any dust, dirt, pitch or other debris using a wire brush, and then re-apply a good quality, non-hardening grease.

## Table and Extension Wings

The surface of the table and extension wings should be kept clean and free of any rust. If rust develops on the surface, you can remove it by spraying the surface with a light coat of WD-40® and scrubbing with a fine abrasive pad such as ScotchBrite® 7448 hand pads. To prevent the table from rusting, coat it with a surface protectant such as TopCote® or TopSaver™, available in many woodworking stores. If you do not plan to use the saw for an extended period of time, you can protect the table by applying a light coating of oil and then covering the table with wax paper.

## Motor Belt

The motor belt should be checked periodically for wear or damage. Replace the belt if it is worn or damaged.

# Troubleshooting

| Problem | Possible Cause(s) | Solution |
|---|---|---|
| The motor will not start and both LEDs on the switch box are off. | 1. There is no power to the saw. | 1. Ensure that the electrical supply to the saw is on and that the correct voltage is being supplied. |
| | 2. There is no brake cartridge installed in the saw. | 2. Install the brake cartridge. |
| | 3. The brake cartridge is defective. | 3. Replace the brake cartridge with a new cartridge. |
| The motor will not start and at least one LED on the switch box is on. | 1. The safety system has detected a system error and is displaying an error code on the LEDs. | 1. Consult the list of System Status Codes to determine the cause of the error and the corrective action. |
| | 2. The cartridge is defective. | 2. Try a different brake cartridge. |
| | 3. The thermal overload switch cut power to the motor to prevent overheating. | 3. Press the thermal overload reset button on the side of the contactor box. |
| | 4. The motor is unplugged from the saw. | 4. Plug the motor cord into the matching cord extending from the rear of the cabinet. |
| The motor stopped unexpectedly during use but the brake did not activate. | 1. The Start/Stop paddle was bumped. | 1. Ensure the Start/Stop paddle is in the *OFF* position and restart the saw. |
| | 2. The material being cut is overloading the safety detection system (e.g., green or wet wood). | 2. Use different wood or cut in Bypass Mode. |
| | 3. The safety system has detected a system error and is displaying an error code on the LEDs. | 3. Consult the list of System Status Codes to determine the cause of the error and the corrective action. |
| | 4. Electrical power to the system was lost at least temporarily. | 4. Ensure that the electrical supply to the saw is on and that the correct voltage is being supplied. |
| | 5. The cartridge is defective. | 5. Try a different brake cartridge. |
| The brake activated even though there was no accidental contact. | 1. Some electrically conductive material contacted the blade, arbor or arbor pulley. | 1. Make sure no metal or other conductive material is touching the blade, arbor or pulley. If you are trying to cut a conductive material, use Bypass Mode. |
| | 2. The spreader or riving knife came into contact with the blade. | 2. Ensure that the spreader or riving knife is accurately aligned and securely clamped in place. There should be gap of at least 3-8 mm between the blade and the spreader or riving knife. |
| Cannot turn the saw on in Bypass Mode. | 1. The sequence for starting the saw in Bypass Mode was not completed. | 1. Follow the steps for starting the saw in Bypass Mode exactly. |
| | 2. The safety system has detected a system error and is displaying an error code on the LEDs. | 2. Consult the list of System Status Codes to determine the cause of the error and the corrective action. |
| | 3. The Bypass key is not fully seated. | 3. Insert the Bypass Key fully and ensure it turns a full 90°. |

# Troubleshooting

| Problem | Possible Cause(s) | Solution |
|---|---|---|
| Cannot remove the brake cartridge. | 1. The cartridge key is still installed. | 1. Remove the cartridge key. |
| | 2. The cartridge is bound up on the pivot pin and the positioning pin. | 2. Pry the cartridge off the pins with a blade wrench as described on page 61. |
| | 3. The quick-release clamp handle is in the way. | 3. Swing the clamp handle fully upward to clear the cartridge. |
| | 4. The dust shroud is in the way. | 4. Raise the blade elevation fully. |
| Cannot install the brake cartridge. | 1. The holes in the cartridge shell are not aligned with the pivot pin and positioning pin. | 1. Make sure the mounting holes in the cartridge are aligned with the pivot and positioning pins. |
| | 2. There is debris on the pivot or positioning pins, or in the cartridge mounting holes. | 2. Make sure the pins and mounting holes are clean and free of obstructions. |
| | 3. The blade is interfering with the brake pawl. | 3. Adjust the brake positioning bolt to move the cartridge mounting bracket away from the blade. |
| Cannot remove the cartridge key. | 1. The cartridge key is not turned to the UNLOCKED position. | 1. Turn the key clockwise until it stops. |
| | 2. The shaft of the cartridge key is binding in the cartridge or on the cartridge mounting bracket. | 2. Try turning and removing the key while pressing upward or downward on the key or cartridge. |
| Cannot install the cartridge key. | 1. The key is not rotated properly to align with the keyhole in the cartridge. | 1. Rotate the key so that the handle is pointing directly toward the brake pawl. |
| | 2. The shaft of the cartridge key is binding in the cartridge or on the cartridge bracket. | 2. Try installing the key while pressing upward or downward on the key or cartridge. |
| Cannot lower the blade below the table. | 1. The lower elevation limit stop is not adjusted properly. | 1. Adjust the lower elevation limit stop. |
| | 2. Sawdust has accumulated within the trunnion assembly and on top of the lower elevation limit bolt. | 2. Locate the top of the lower elevation limit bolt and ensure that there is no sawdust on top of it or around it. |
| The blade slows down when cutting, but does not stop. | 1. The motor belt is warn or damaged. | 1. Replace the motor belt. |
| | 2. The blade is binding on the wood. | 2. Ensure the spreader or riving knife is aligned with the blade. If using the rip fence, ensure it is aligned parallel to the blade. |
| | 3. The blade is installed backwards. | 3. Remove the blade and reinstall in the correct orientation. |
| | 4. The voltage supplied to the motor is incorrect. | 4. Ensure the motor is wired to match the power that is being supplied. If using an extension cord, ensure the extension cord is the correct gauge. |

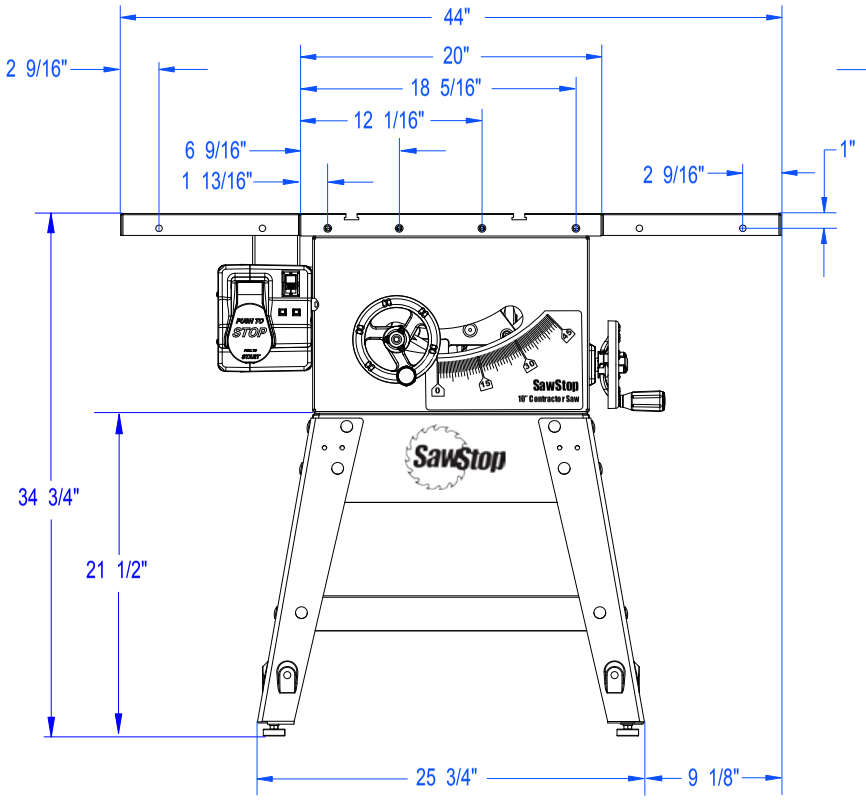
# Troubleshooting

| Problem | Possible Cause(s) | Solution |
|---|---|---|
| The blade hits the brake pawl during installation. | 1. The brake position is adjusted too close to the blade. | 1. Turn the brake positioning bolt counter-clockwise until the closest point between the brake pawl and the blade is about 1/16 inch to 1/8 inch. |
| | 2. The blade is the wrong size. | 2. Use only a 10 inch blade with a standard brake cartridge, or an 8 inch dado set with a dado cartridge. |
| The gears sound/feel rough when raising or lowering the blade. | 1. There is dust or debris on the miter gears or elevation shaft. | 1. Clean components and re-grease. |
| | 2. The elevation locking knob has not been released. | 2. Turn the elevation locking knob counter-clockwise to release the elevation handwheel. |
| The saw does not make accurate 45° or 90° cuts. | 1. The tilt limit stops are not adjusted properly. | 1. Adjust the tilt limit stops. |
| | 2. The tilt angle indicator is not adjusted properly. | 2. Adjust the tilt angle indicator. |
| | 3. The miter gauge is not adjusted properly. | 3. Adjust the miter gauge. |
| The material binds when making a rip cut. | 1. The rip fence is not aligned with the blade. | 1. Align the fence to the blade. |
| | 2. The material is warped. | 2. Select another piece of material. |
| | 3. The feed rate is too high. | 3. Try again at a lower feed rate. |
| | 4. The spreader or riving knife is not aligned with the blade. | 4. Align the spreader or riving knife. |
| The cuts are not clean or even. | 1. The blade is dull. | 1. Replace or sharpen the blade. |
| | 2. The blade is coated with pitch, gum or other material. | 2. Clean or replace the blade. |
| | 3. The blade is not the correct blade for the material or cut. | 3. Replace the blade. |
| The saw vibrates too much. | 1. The blade is damaged or unbalanced. | 1. Replace the blade. |
| | 2. The floor is uneven. | 2. Move the saw to a level, even surface. |
| | 3. The bearings are worn. | 3. Replace the bearings. |
| | 4. The motor belt is worn. | 4. Replace the motor belt. |
| The motor starts slowly and/or fails to reach nominal speed. | 1. The voltage supplied to the motor is incorrect. | 1. Ensure the motor is wired to match the power that is being supplied. If using an extension cord, ensure the extension cord is the correct gauge. |

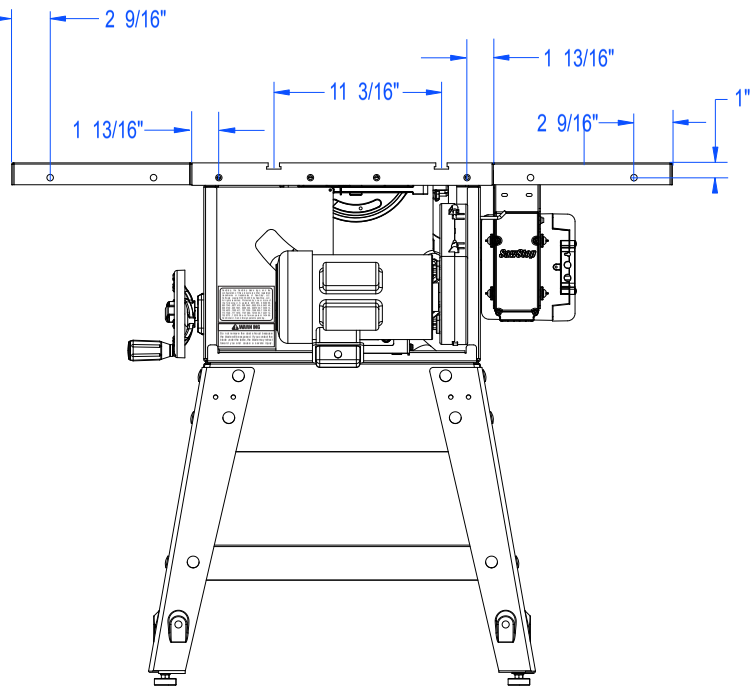
# Contractor Saw Specifications

| | |
|---|---|
| Overall saw dimensions (including the motor): | 44” w x 39 1/4” d x 34 3/4” h (table saw only)<br>58 1/2” w x 40” d x 34 3/4” h (w/ Contractor Fence Assembly)<br>69 1/8” w x 41” d x 34 3/4” h (w/ T-Glide Fence System & 36” rails)<br>85 1/4” w x 41” d x 34 3/4” h (w/ T-Glide Fence System & 52” rails) |
| Cabinet footprint: | 25 3/4” w x 27” d |
| Cast iron table: | 20” w x 27” d, 44” w x 27” d (w/ extension wings) |
| Extension wing: | 12” w x 27” d |
| Extension table (optional): | 19 3/4” w x 27” d (36” rails), 35 3/4” w x 27” d (52” rails) |
| Weights (approx.): | 225 lbs (table saw only)<br>245 lbs (w/ Contractor Fence Assembly)<br>310 lbs (w/ T-Glide Fence System, 36” rails & table)<br>335 lbs (w/ T-Glide Fence System, 52” rails & table)<br>35 lbs (optional cast iron extension wing) |
| Shipping weight (approx.): | 240 lbs (table saw only) |
| Blade: | 40-tooth, professional grade, 5/8” arbor |
| Blade diameter: | 10” |
| Blade tilt: | Left |
| Blade kerf: | 3 mm |
| Blade plate thickness: | 2 mm |
| Max. depth of cut, blade at 0º: | 3 1/8” |
| Max. depth of cut, blade at 45º: | 2 1/4” |
| Max. rip, right of blade: | 30 1/2” (w/ Contractor Fence Assembly)<br>36 1/2” (w/ optional 36” rails)<br>52 1/2” (w/ optional 52” rails) |
| Max. rip, left of blade: | 16 1/2” (w/ Contractor Fence Assembly)<br>12 1/2” (w/ T-Glide Fence System) |
| Dado diameter: | 8” (requires a separate brake cartridge and table insert) |
| Dado max. width: | 13/16” |
| Arbor diameter at blade: | 5/8” |
| Main bearing size: | 62 mm OD x 30 mm ID |
| Second bearing size: | 52 mm OD x 25 mm ID |
| Table in front of blade (max. elevation): | 10 5/8” |
| Table behind blade (max. elevation): | 7 1/8” |
| Arbor Runout: | 0.001” maximum allowable runout |
| Table Flatness Measured Diagonally: | 0.016” maximum gap |
| Blade Alignment with Miter Slot: | 0.010” maximum displacement |
| Deviation of Miter Gauge Indexing Stops from actual angle: | ±0.25º |
| Alignment between Spreader and Blade: | 0.010” maximum difference |
| Miter slots: | T-shaped, 3/4” at top, 1” at bottom, 3/8” deep |
| Dust collection port diameter: | 4” |
| Riving knife / spreader thickness: | 2.3 mm |
| Blade guard: | polycarbonate, extends only 1” to right of blade |
| Standard Insert: | zero-clearance, phenolic core, melamine surfaces |
| Belts: | V-ribbed belt— motor belt is static dissipative |
| Handwheels: | 6” diameter, cast aluminum with ABS handle |
| Motor Options: | 1.75 hp, 60 Hz, dual voltage motor (model CNS175)<br>14A at 110-120V (pre-wired in this configuration)<br>or 7A at 208-240V<br>1.75 hp, 50 Hz, 208-240V (model CNS175-AU)<br>1.75 hp, 50 Hz, 220V (model CNS175-CH) |

# Contractor Saw Dimensions

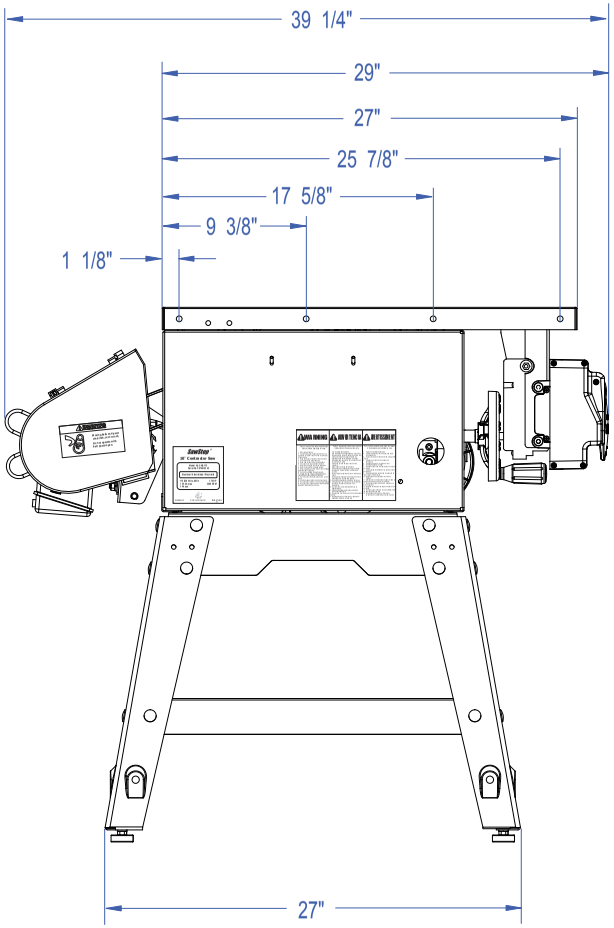



Front View

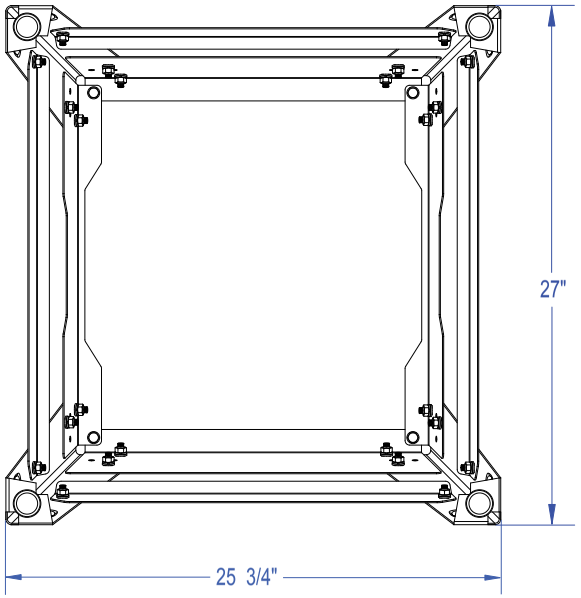



Rear View

# Contractor Saw Dimensions




Left Side View

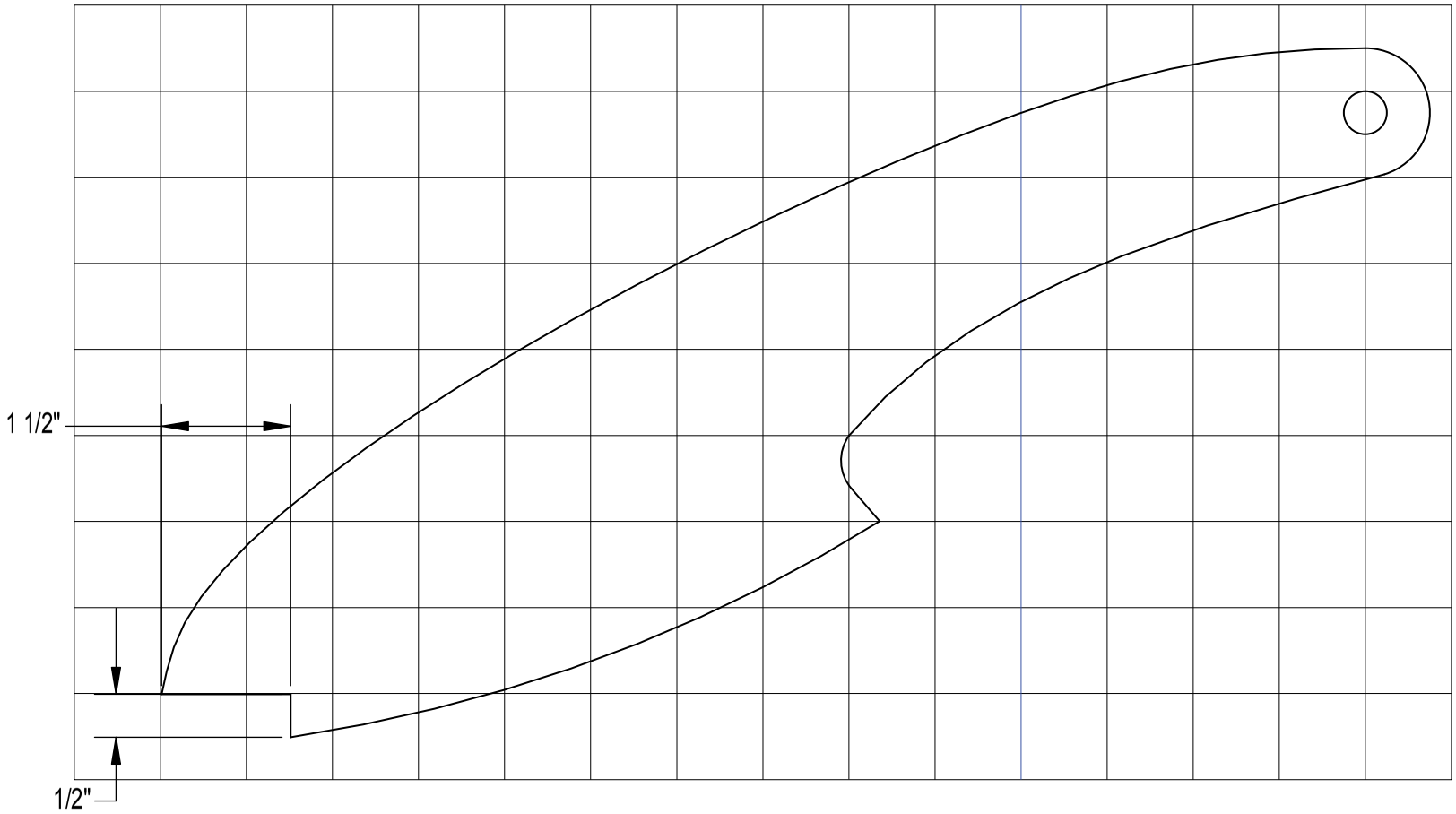



Footprint

# Push Stick Construction

Squares are 1 inch.

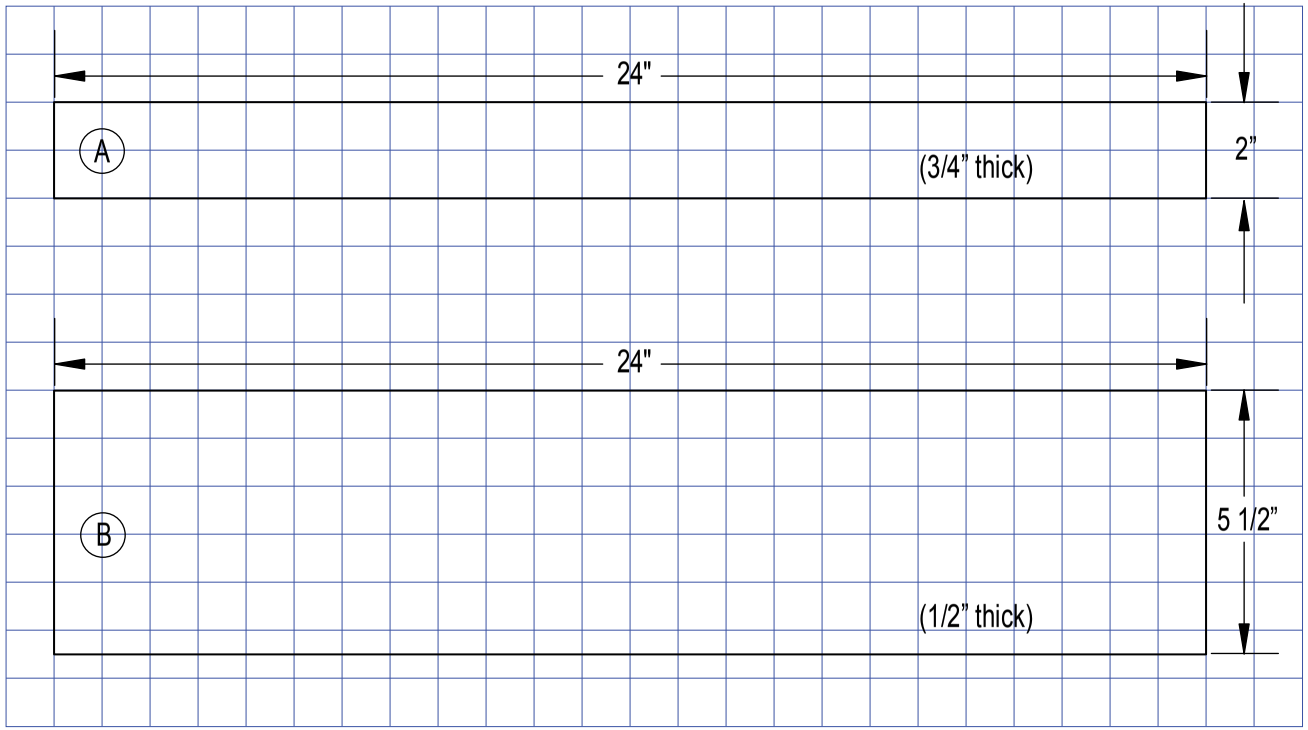
Pushstick should be ½ inch to ¾ inch thick.

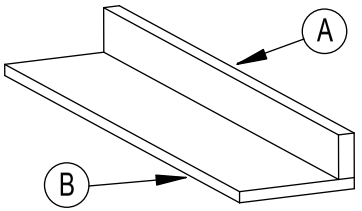



This diagram illustrates a typical pushstick. Pushsticks should be constructed from material that is sturdy and electrically non-conductive such as scrap wood. Pushsticks should always be used when rip cutting pieces narrower than 6 inches.

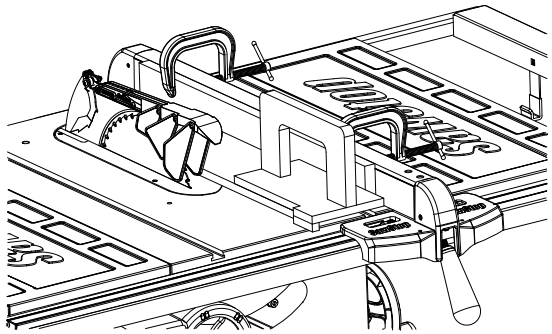
# Auxiliary Fence Construction

Squares are 1 inch.



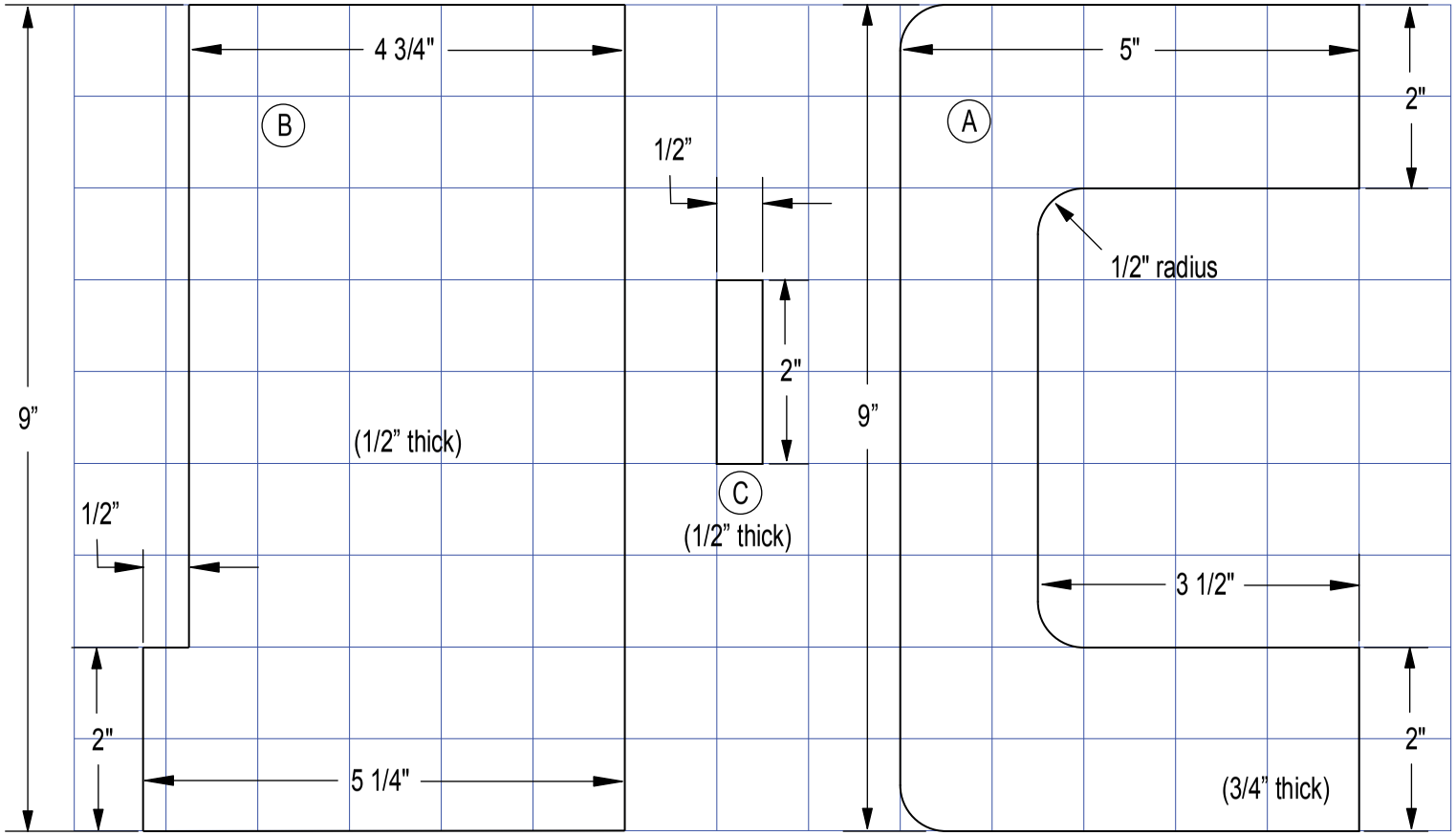

This diagram illustrates a typical auxiliary fence for use with the push block shown on page 84. Cut piece A out of ¾ inch thick hardwood and cut piece B out of ½ inch thick plywood. Position piece A along the edge of piece B as shown in the drawing above, and attach it using wood glue and counter-sunk wood screws.

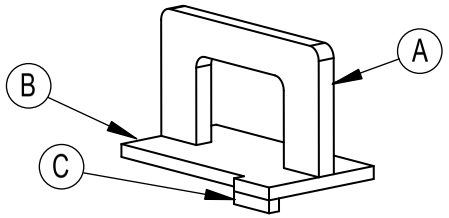


To use the auxiliary fence, place it on the saw with piece B flat on the table top and piece A against the left side of the rip fence. Position the auxiliary fence so that the front edge of piece B is 1-2 inches back from the front edge of the table, and then clamp piece A securely to the rip fence. Position the rip fence so that the spacing between the left edge of piece B and the blade is the width you want to cut, and then lock the rip fence in place. Slide the workpiece along the edge of piece B closest to the blade. If your hand comes within 6 inches of the blade, remove your hand from the workpiece and use the push block to finish the cut, as shown in the drawing to the left.

# Push Block Construction

Squares are 1 inch.



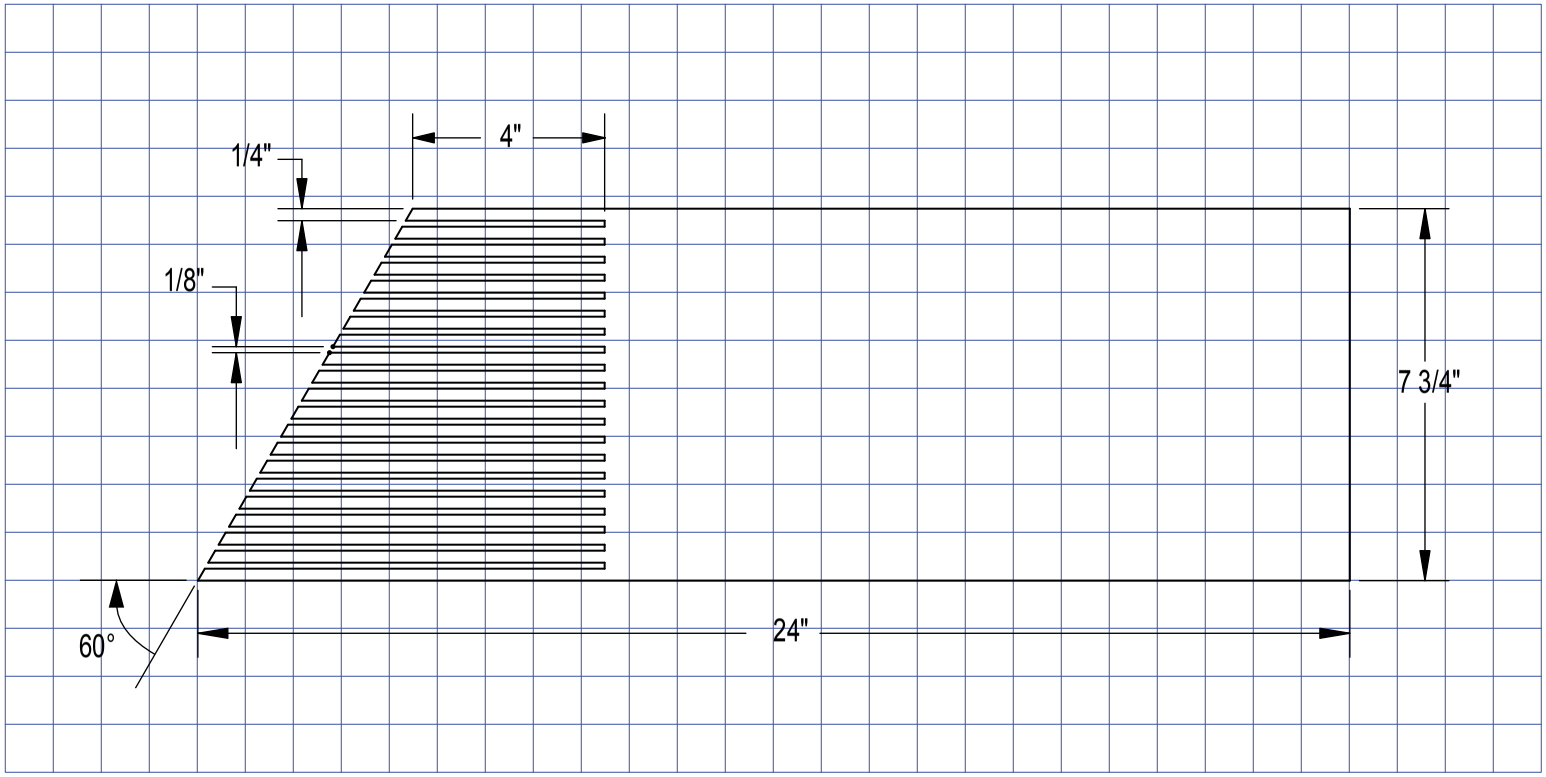




This diagram illustrates a typical push block. It includes the three pieces shown here labeled A, B, and C. Cut piece A out of ¾ inch thick hardwood and cut pieces B and C out of ½ inch thick plywood. Attach piece A to the center of piece B using wood glue and counter-sunk wood screws. Attach piece C to piece B as shown in the drawing to the left using wood glue only. Do not use metal fasteners to attach piece C to piece B.

# ***Featherboard Construction***

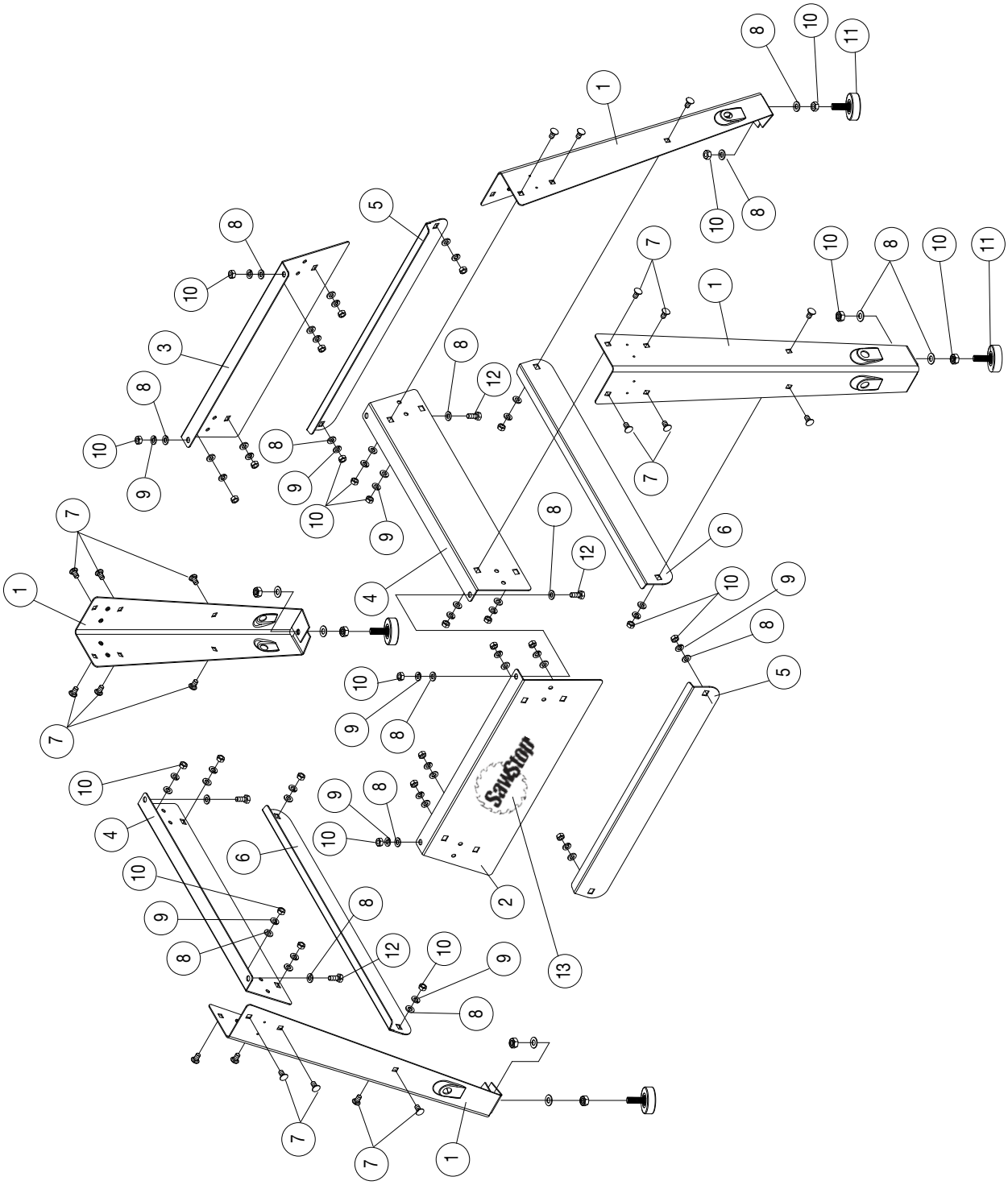
Squares are 1 inch.

Featherboard should be approximately $^{3}/_{4}$ inch thick.




This diagram illustrates a typical featherboard. Featherboards should be constructed from good quality wood that is free of knots. Use featherboards to help keep the material being cut in contact with the table and to help prevent kickback. Do not use featherboards when cutting with the miter gauge.

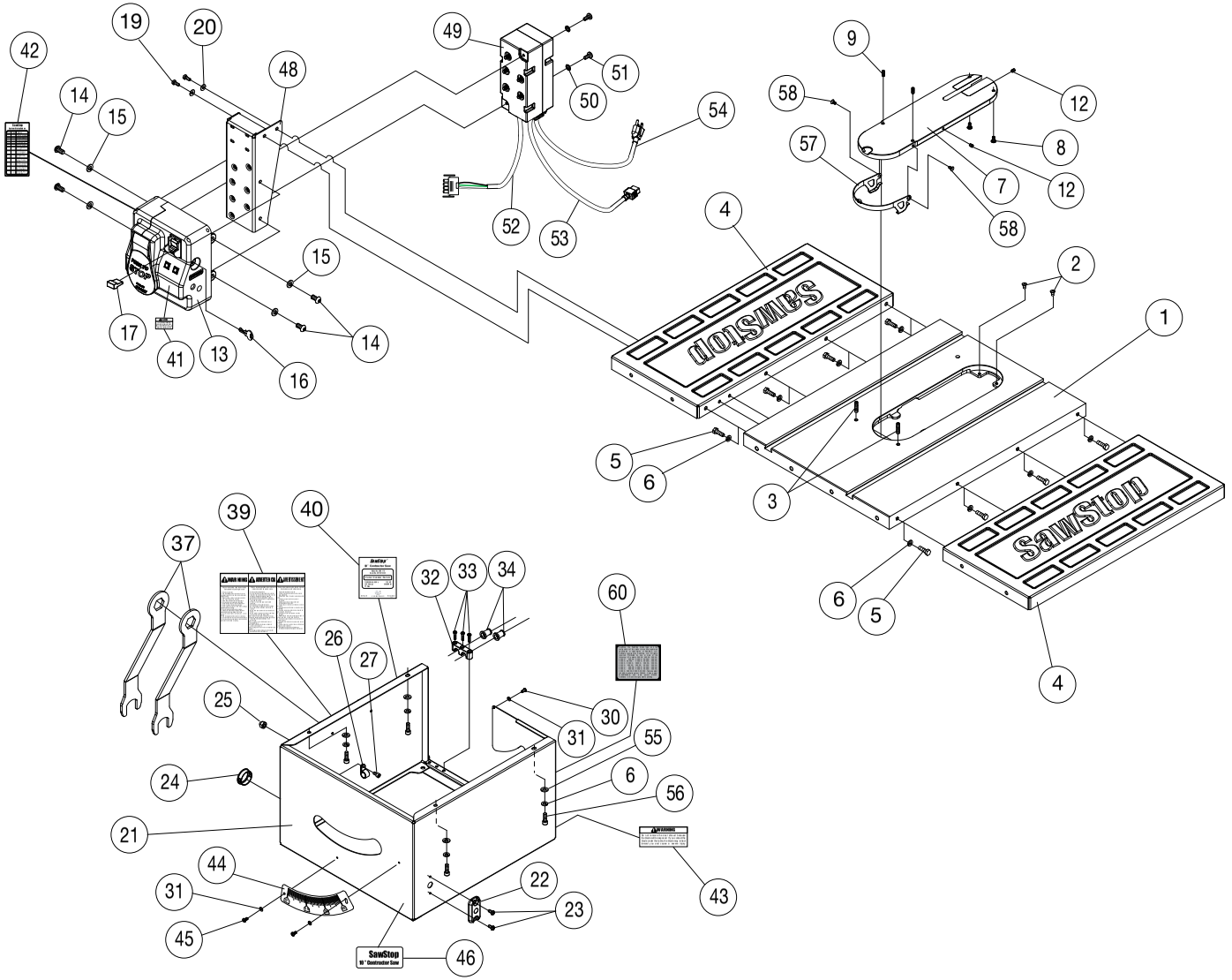
# Stand Assembly Exploded View



# ***Stand Assembly Parts List***

| No. | Description | Part No. | Qty. |
|---|---|---|---|
| | Stand Assembly | CNS-07-000 | 1 |
| 1 | Stand Leg | CNS-07-001 | 4 |
| 2 | Stand Front Panel | CNS-07-002 | 1 |
| 3 | Stand Rear Panel | CNS-07-003 | 1 |
| 4 | Stand Side Panel | CNS-07-004 | 2 |
| 5 | Stand Front/Rear Bracket | CNS-07-005 | 2 |
| 6 | Stand Side Bracket | CNS-07-006 | 2 |
| 7 | M8x1.25x20 Carriage Bolt | CNS-07-007 | 24 |
| 8 | M8x16x2 Washer | CNS-07-008 | 40 |
| 9 | M8 Lock Washer | CNS-07-009 | 28 |
| 10 | M8x1.25 Hex Nut | CNS-07-010 | 36 |
| 11 | Leveling Foot | CNS-07-011 | 4 |
| 12 | M8x1.25x20 Hex Head Bolt | CNS-07-012 | 4 |
| 13 | SawStop Label | CNS-07-257 | 1 |

# Housing and Table Exploded View



# Housing and Table Parts List

| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 1 | Table | CNS-07-013 | 1 |
| 2 | Rear Lock Down Screw for Insert | CNS-07-014 | 2 |
| 3 | M6x1.0x20 Set Screw | CNS-07-015 | 2 |
| 4 | Standard Extension Wing | CNS-07-016 | 2 |
| 5 | M8x1.25x16 Hex Head Bolt | CNS-07-018 | 8 |
| 6 | M8 Lock Washer | CNS-07-019 | 12 |
| 7 | Lock-Down Standard Insert Assembly (complete) | TSI-SLD | 1 |
| 8 | M6x1.0x9.5 Insert Leveling Screw | CNS-07-021 | 2 |
| 9 | M6x1.0x14 Set Screw | CNS-07-022 | 2 |
| 12 | M6x1.0x8 Set Screw | CNS-07-025 | 2 |
| 13 | Switch Box Assembly (includes items 16-17, 41-42) | CNS-07-026 | 1 |
| 14 | M8x1.25x12 Button Head Socket Screw | CNS-07-027 | 4 |
| 15 | M8 Lock Washer | CNS-07-028 | 4 |
| 16 | Bypass Key | CNS-07-029 | 2 |
| 17 | Switch Box Lock Out Key | CNS-07-030 | 1 |
| 19 | M6x1.0x20 Hex Head Bolt | CNS-07-032 | 2 |
| 20 | M6x13x1 Washer | CNS-07-033 | 2 |
| 21 | Cabinet | CNS-07-034 | 1 |
| 22 | Tilt Shaft Mounting Bracket | CNS-07-035 | 1 |
| 23 | M6x1.0x8 Button Head Socket Screw | CNS-07-036 | 2 |
| 24 | Switch Box Cable Grommet | CNS-07-037 | 1 |
| 25 | M5x0.8 Hex Cap Nut | CNS-07-038 | 1 |
| 26 | Switch Box Cable Clamp | CNS-07-039 | 1 |
| 27 | M5x0.8x8 Socket Head Cap Screw | CNS-07-040 | 1 |
| 30 | M5x0.8x12 Pan Head Phillips Screw | CNS-07-043 | 1 |
| 31 | M5x10x1 Washer | CNS-07-044 | 3 |
| 32 | Rear Cable Clamp | CNS-07-045 | 1 |
| 33 | M5x0.8x20 Pan Head Phillips Screw | CNS-07-046 | 3 |
| 34 | Rear Cable Grommet | CNS-07-047 | 2 |
| 37 | Blade Wrench | CNS-07-050 | 2 |
| 39 | Main Warning Label | CNS-07-052 | 1 |
| 40 | Specification Label (CNS175) | CNS-07-053 | 1 |
| | Specification Label (CNS175-KR) | CNS-14-001 | |
| | Specification Label (CNS175-CH) | CNS-13-003 | |
| | Specification Label (CNS175-AU) | CNS-15-001 | |
| 41 | Main Power Label | CNS-07-054 | 1 |
| 42 | System Status Label | CNS-07-055 | 1 |
| 43 | Dust Shroud Warning Label | CNS-07-256 | 1 |
| 44 | Tilt Angle Scale | CNS-08-001 | 1 |
| 45 | M5x0.8x10 Pan Head Phillips Screw | CNS-08-002 | 2 |
| 46 | Contractor Saw Label | CNS-08-003 | 1 |
| 48 | Switch Box Mounting Bracket | CNS-09-001 | 1 |

| No. | Description | Part No. | Qty. |
|---|---|---|---|
| 49 | 115V Contractor Box Assembly (includes items 48, 50-54) | CNS-WA-012 | 1 |
| | 230V Contractor Box Assembly (includes items 48, 50-54) | CNS-WA-014 | |
| | 240/50 Hz Contractor Box Assembly (Australia only - includes items 48, 50-54) | CNS-WA-013 | |
| | 220V/50 Hz Contactor Box Assembly (CNS175-CH only - includes items 48, 50-54) | CNS-WA-034 | |
| | 220V/60 Hz Contactor Box Assembly (CNS175-KR only - includes items 48, 50-54) | CNS-WA-031 | |
| 50 | M5 External Tooth Lock Washer | CNS-09-002 | 2 |
| 51 | M5x0.8x8 Button Head Phillips Screw | CNS-09-003 | 2 |
| 52 | Motor Control Cable Assembly | CNS-09-004 | 1 |
| 53 | Motor Cable Assembly | CNS-09-005 | 1 |
| 54 | 115V Main Power Cable Assembly | CNS-09-006 | 1 |
| | 230V Main Power Cable Assembly | CNS-09-007 | |
| | 240V/50 Hz Main Power Cable Assembly (Australia only) | CNS-09-008 | |
| | 220V/50 Hz Main Power Cable Assembly (China only) | CNS-13-002 | |
| 55 | M8x16x2 Washer | CNS-09-009 | 4 |
| 56 | M8x1.25x18 Socket Head Cap Screw | CNS-09-010 | 4 |
| 57 | Table Insert Lock-Down Lever | CNS-10-001 | 1 |
| 58 | M4x0.7x10 Flat Head Phillips Screw | CNS-10-002 | 2 |
| 60 | Patent Label | CNS-11-001 | 1 |

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