



PCS31230-EU

# PROFESSIONAL CABINET SAW OWNER'S MANUAL



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Rev A - 05272025



[www.SawStop.eu/PCSSupport](http://www.SawStop.eu/PCSSupport)

EN - Additional translations of this manual are available from the above URL.  
IT - Ulteriori traduzioni di questo manuale sono disponibili all'URL sopra indicato.  
NL - Bijkomende vertalingen van deze handleiding zijn beschikbaar via de bovenstaande URL.  
SV - Ytterligare översättningar av denna bruksanvisning är tillgängliga via ovanstående URL.  
FI - Oppaan muita käännöksiä on saatavilla yllä olevasta URL-osoitteesta.  
DA - Der kan findes yderligere oversættelser af denne vejledning på ovennævnte webadresse.  
NB - Ytterligere oversettelser av denne håndboken er tilgjengelige på ovenstående internettadresse.  
PT - Traduções adicionais deste manual estão disponíveis no URL acima.  
CS - Další překlady tohoto návodu jsou k dispozici na výše uvedené adrese URL.  
PL - Dodatkowe tłumaczenia tej instrukcji dostępne są pod powyższym adresem WWW.

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Original Instructions - Professional Cabinet Saw

Updates to this manual and additional related documentation such as exploded views and parts lists are available at [SawStop.eu](http://SawStop.eu) or [SawStop.uk](http://SawStop.uk)

The saw pictured on the manual cover is shown with the optional Floating Dust Collection Guard.  
Your chosen configuration may look different.

# DECLARATION OF CONFORMITY

## EUROPE

We declare under our sole responsibility that this product: **Professional Cabinet Saw**

**Model: PCS31230-EU**

A stationary table saw, complies with all the relevant requirements in the following EU Directives:

- 2006/42/EC-Machinery Directive
- 2014/30/EU-Electromagnetic Compatibility
- 2015/863/EU-RoHS 3

Standards or normative documents:

Health and Safety	EN ISO 19085-1:2021 EN ISO 19085-9:2024
EMC	EN 55014-1:2017/A11:2020 EN 55014-2:1997/A2:2008
Environmental	EN 63000:2018
Number of the notified body: 0197	



Michael Davies  
Managing Director SawStop Europe  
73240 Wendlingen a.N., DEa.N., DE



Eric Burmester  
Vice President of Engineering  
11555 SW Myslony Street Tualatin, OR, USA

Tualatin, Oregon, USA

Date of Declaration: August 27, 2025

## UNITED KINGDOM

We declare under our sole responsibility that this product: **Professional Cabinet Saw**

**Model: PCS31230-EU**

A stationary table saw, complies with all the relevant requirements in the following EU Directives:

- The Supply of Machinery (Safety) Regulations 2008
- Electromagnetic Compatibility (EMC) Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

Standards or normative documents:

Health and Safety	BS EN ISO 19085-1:2021 BS EN ISO 19085-9:2024
EMC	BS EN 55014-1:2017/A11:2020 BS EN 55014-2:1997/A2:2008
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# SYMBOLS

The following symbols, acronyms and abbreviations may also be found on the exterior of your tool or in this manual.

SYMBOL	DEFINITION	SYMBOL	DEFINITION
	Electric shock hazard		Warning of general caution or danger
	Protective earth ground	"	Inch
V	Volts	lb	Pound
W	Watts	kg	Kilogram
Hz	Hertz (cycles per second)	°	Angular degree
~			
N <sub>o</sub> /min	Revolutions Per Minute	mm	Millimeter
m <sup>3</sup> /hr	Cubic Meters per hour	cm	Centimeter
	Read warnings and instructions		Keep all guards and covers in place
	Use hearing protection		Use eye protection
	Use a dust mask		Do not dispose with household waste
	Hand crush/pinch hazard		Hand crush/pinch hazard
	Foot crush hazard		Lift here for transport
	Remove riving knife		Use appropriate guard for groove cuts

# SPECIFICATION AND REQUIREMENTS

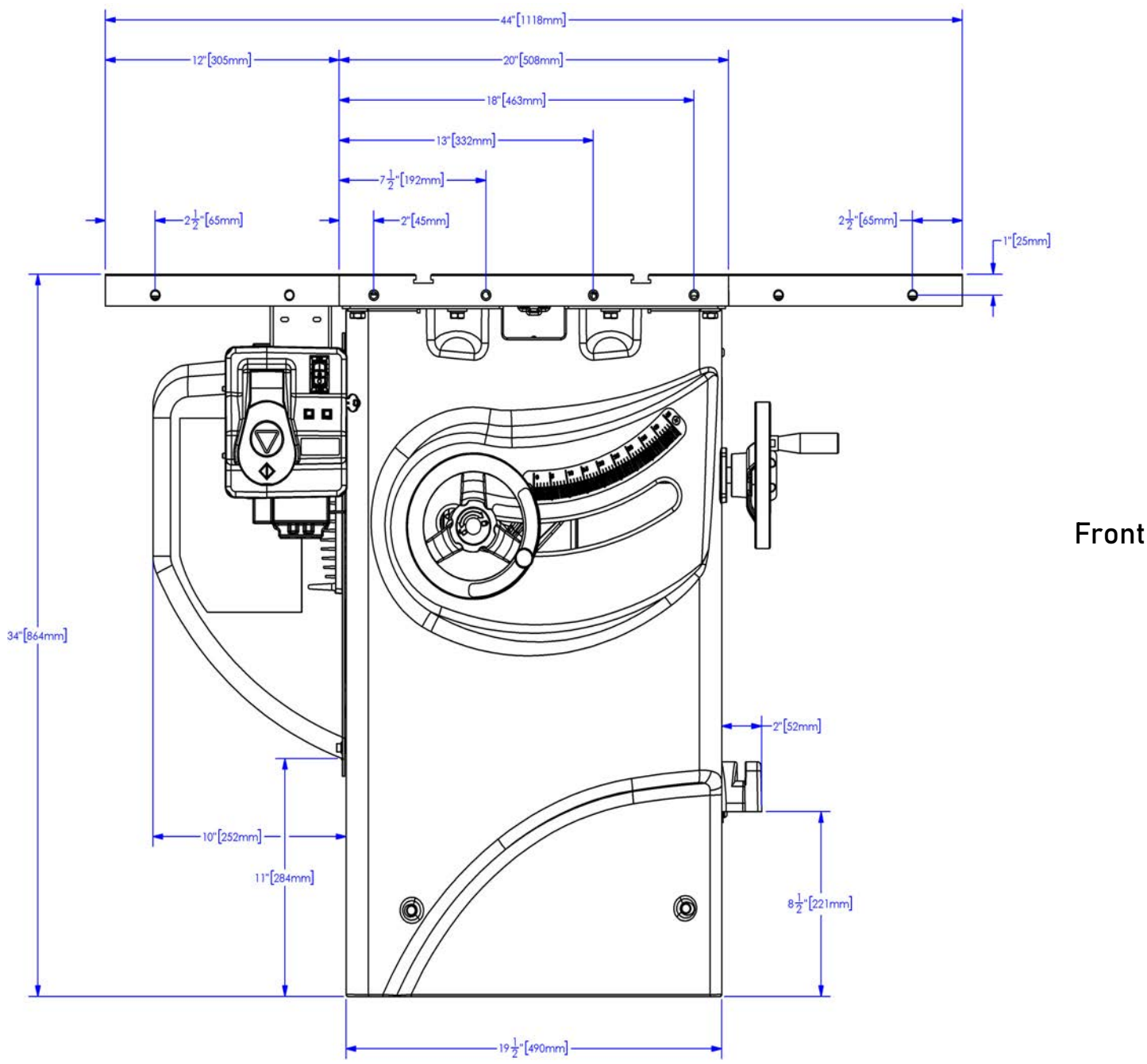
## GENERAL SPECIFICATIONS

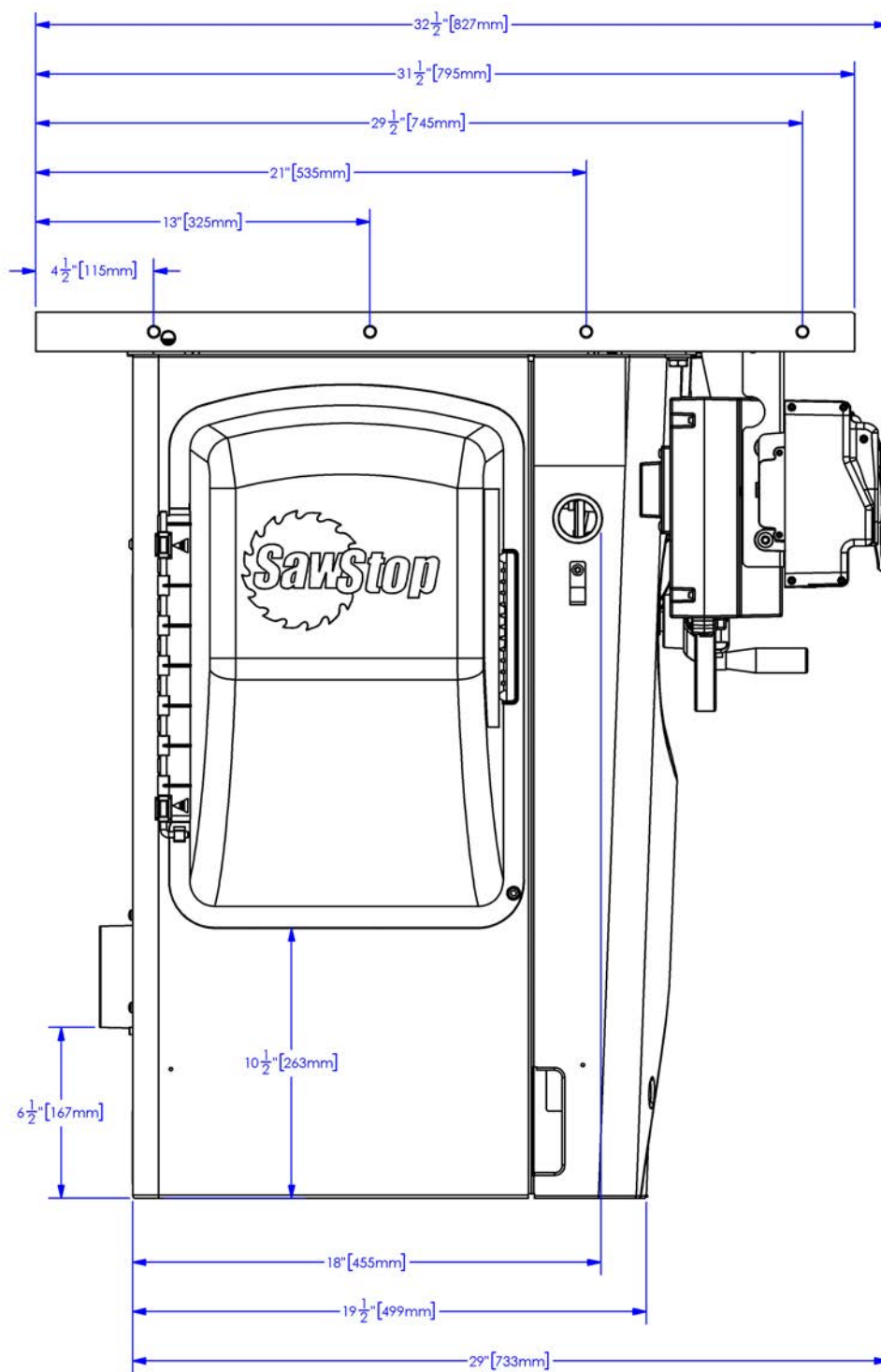
Overall saw dimensions - Table saw only	20" w x 32 1/2" d x 34" h (508mm x 827mm x 864mm)
Dimensions with 36" T-Glide fence rails	67 3/4" w x 32 1/2" d x 34" h (1720mm x 827mm x 864mm)
Dimensions with 52" T-Glide fence rails	84" w x 32 1/2" d x 34" h (2136mm x 827mm x 864mm)
Cabinet footprint	19 1/2" w x 19 1/2" d (495mm x 495mm)
Cast iron table	32 1/2" d x 44" w (827mm d x 1118mm w) w/ extension wings
Extension wing	32 1/2" d x 12" w (827mm d x 305mm w) [qty 2]
Extension Table (optional)	32 1/2" d x 23 3/4" w (827mm d x 602mm w) [36" rails] 32 1/2" d x 40" w (827mm d x 1018mm w) [52" rails]
Outfeed table	25" w x 16.2" d (635mm w x 410mm d)
Weights (approximate)	357 lb (162kg) - Table saw with extension wings only 427 lb (194kg) - w/ T-Glide Series Fence System, 36" rail kit 451 lb (204kg) - w/ T-Glide Series Fence System, 52" rail kit 43 lb (19kg) - Single cast iron extension wing
Shipping weight (approximate)	474lb (215kg) - Boxed table saw
Included blade	10" (254mm) 40-tooth, professional grade, 30mm arbor
Blade tilt	Left
Max. depth of cut, blade at 0°	3 1/8" (79mm)
Max. depth of cut, blade at 45°	2 1/4" (57mm)
Max. rip, right of blade	36" (914mm) w/ optional 36" fence rails 52" (1321mm) w/ optional 52" fence rails
Max. rip, left of blade	12" (304mm) w/ optional 36" or 52" rails
Blade Guard Options	Spreader mounted blade guard included with Over-Arm Dust Collector Floating guard included with Floating Dust Collector
Main bearing size	62mm OD x 30mm ID
Second bearing size	52mm OD x 25mm ID
Table in front of blade (max. elevation)	10 1/4" (260mm)
Table behind blade (max. elevation)	7 1/2" (190.5mm)
Arbor runout	0.001" (0.025mm) Maximum allowable runout
Table flatness measured diagonally	0.010" (0.25mm) Maximum gap
Overall table and extension wing flatness	0.025" (0.6mm) Maximum gap
Blade alignment with miter slot	0.010" (0.25mm) Maximum displacement
Deviation of miter gauge indexing stops from actual angle	±0.25°
Alignment between spreader and blade	0.010" (0.25mm) Maximum difference
Miter slots	T-shaped, 3/4" at top, 1" at bottom, 3/8" deep
Ambient temperature operating range	0-40° C and RH range of 20-95%
Altitude operating range	0-1000m
Storage conditions	-20-50° C 95% RH non-condensing



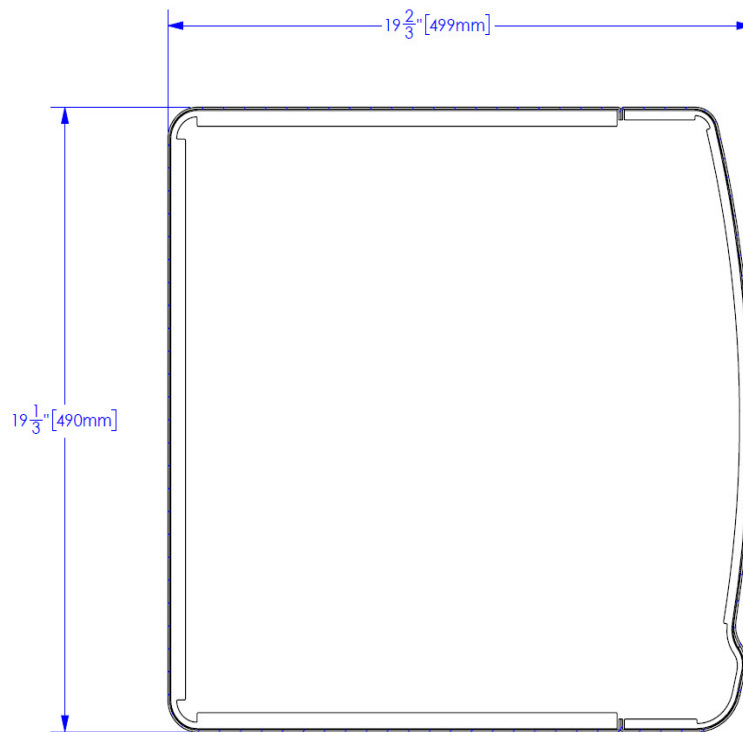


# PROFESSIONAL CABINET SAW DIMENSIONS





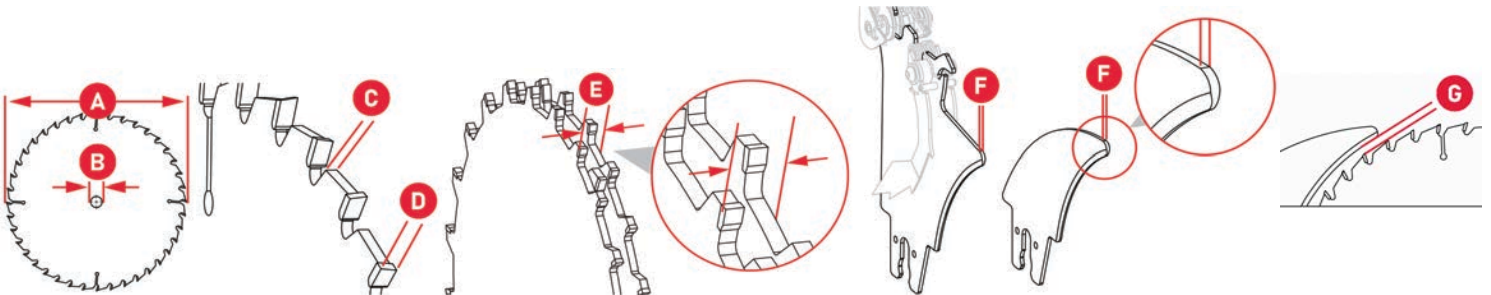
Left Side



Footprint

## BLADE REQUIREMENTS

Diameter (A)	10" (250mm, 254mm),
Bore (arbor) diameter (B)	30mm Using arbor washer with shoulder. 5/8" (16mm) Using arbor washer without shoulder.
Blade plate thickness (C)	0.071" = 0.083" (1.8mm - 2.1mm) as marked on Riving Knife
Blade kerf (D)	0.093" = 0.138" (2.35mm - 3.5mm) as marked on Riving Knife
Dado diameter	8" (203mm) Requires separate Brake Cartridge and table insert.
Dado bore (arbor) diameter (B)	5/8" (16mm)
Dado blade thickness (E)	.79" (20mm) maximum
Speed	N <sub>G</sub> : 4000/min
Riving Knife* or spreader thickness (F)	0.090" (2.3mm)
Blade and Riving Knife* or spreader gap (G)	0.175"-0.31" (4-8mm)



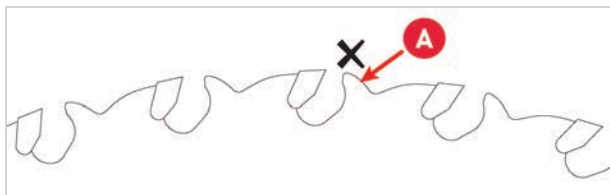
### **NOTE:**

\* The riving knife is an optional accessory available for purchase through the online SawStop parts store. If you purchased your saw configured with the Floating Dust Collection Guard (TSG-FDC), a 10" / 254mm blade compatible riving knife is provided.

### **More about blades:**

- Use only saw blades recommended by the manufacturer (see specification on the previous page) that meet EN 847-1.
- Use only blades that conform to the diameter, body thickness and kerf thickness specifications marked on the riving knife included with your saw.
- Use only saw blades that are marked with a speed equal or higher than the speed marked on the tool.
- Use a blade type appropriate for the material being cut.

This illustration shows a blade as equipped with shoulders (A). Do not use blades with shoulders. The shoulders could prevent the brake pawl from effectively engaging the blade in the event of an activation of the safety system.



### **WARNING:**

Do not use undersized blades. Blades smaller than 250mm could increase the chance of a more severe injury in the event of a safety system activation.

### **NOTE:**

Both the riving knife and the spreader are 0.090" (2.3mm) thick. Do NOT use a blade with a kerf less than 0.093" - 0.138" (2.3mm - 3.5mm) with this tool. When the blade and riving knife or spreader are installed in the saw, there should be a gap of 4-8mm between the blade and the riving knife or spreader.

### **IMPORTANT:**

Avoid overheating the tips of the saw blade teeth by keeping the blade clean and sharp. Ensure the dust collection system is clean and free of debris. When cutting plastic, make sure material feed rate does not cause the plastic to heat up or melt.

### **WARNING:**

To avoid risk of injury, wear gloves when handling saw blades. Never wear gloves when operating the saw.

The saw can be used to cut wood, plastic, pliable metal (e.g., aluminum), or other similar materials. Do not use the saw to cut ferrous metals. Conductive materials must be cut using Bypass Mode (see **START THE SAW - BYPASS MODE** on page 45).

## **NOISE EMISSIONS LEVELS**

Declared dual-number noise emission values in accordance with ISO 4871:1996:

A-weighted sound power level	$L_{WA} = 98.5 \text{ dB}$
Uncertainty	$K_{WA} = 4 \text{ dB}$
A-weighted emission sound pressure level	$L_{pA} = 92.2 \text{ dB}$
Uncertainty	$K_{pA} = 4 \text{ dB}$

Measurement made in accordance with ISO 19085-9:2024, Annex F, using:

- For sound power: ISO 3746:2010 with accuracy grade 3
- For emission sound pressure: ISO 11204:2010 with accuracy grade 3

## Operating Conditions During Measurements

### Machine Set-up

- Cutting width: 30mm
- Saw blade projection above table: 40mm
- Spindle speed: 4100 r/min
- Work-piece feed rate 6 to 8m/min

### Tool

- Saw blade: 254mm

### Workpiece

- Material: Particle board
- Board thickness: 19mm
- Board length: 600mm
- Board width: 600mm, processed down to a final width of not less than 150mm

If the declared emission values are to be verified, measurements shall be made using the same method and the same operating and mounting conditions as those declared.



### WARNING:

**Noise generated when working. Risk of damage to hearing.** Use hearing protection.

WARNING: The noise emission values given are only valid if the same operating and mounting conditions are applied. Other operating and mounting conditions, e.g. a different work process, can lead to higher noise emission with the risk of underestimation.

The noise emission values given are not exposure levels. While there is a correlation between the emission and exposure levels, noise emission values cannot be used to reliably determine whether or not further precautions are required. Factors that influence the actual level of exposure include the actual work process, characteristics of the work room and other adjacent sources of noise in operation

## ELECTRICAL CONNECTION

This saw is designed to operate on input voltages within +/- 10% of the voltage specified on the product specification label.



### WARNING:

SawStop table saws must be connected to a grounded wiring system. Failure to connect the saw to an adequate ground may prevent the safety system from detecting human contact and could result in a serious injury. Do not power this saw by a generator or battery inverter that is not itself grounded. Note that when using anything other than a public power source, performance of the saw cannot be guaranteed due to the variable quality and consistency of electrical power from alternative power sources.



### IMPORTANT:

See the included **Safety and General Use Instructions for Table Saws** manual for additional general specifications and important safety warnings.

# ASSEMBLING YOUR SAW

To assemble your SawStop Professional Cabinet Saw, perform the procedures in sequence listed in this chapter.

## UNPACKING YOUR SAW

Remove all packing materials and accessories before removing the saw from the shipping pallet. While unpacking your saw verify that the components shown on this page are included. Use care when unpacking your saw to prevent damage to any of the saw components or accessories. If the saw or the accessories have been damaged during shipping, report the damage to your shipper before proceeding with unpacking. Read and understand this manual fully before assembling and operating your saw.

### In the crate...

- A. Extension wings (2) (under saw cabinet)
- B. Switch box assembly (inside saw cabinet)
- C. Table saw - Pre-installed items include:
  - 10" (254mm) 40-tooth, professional grade, 30mm arbor
  - Blade adapter washer for 30mm bore
  - Zero-clearance table insert
  - Brake cartridge
- D. Outfeed table kit, Hardware Pack
- E. T-Glide Advance rip fence, installation poster, hardware pack, manual
- F. Elevation handwheel, Push block (magnetic)
- G. Motor cover
- H. 5/8" (16mm) bore blade washer
  - I. Blade wrenches (2)
- J. Miter gauge with crosscut fence
- K. Accessory holder
- L. Push stick
- M. Hardware pack
- N. Professional Cabinet Saw Owner's Manual
- O. Safety and General Use Instructions for Table Saws

## STANDING UP YOUR SAW

To avoid damaging your saw and ensure careful safety practices are observed, please refer to the poster found in the top of the shipping crate. It contains instructions for unboxing and standing up your saw.

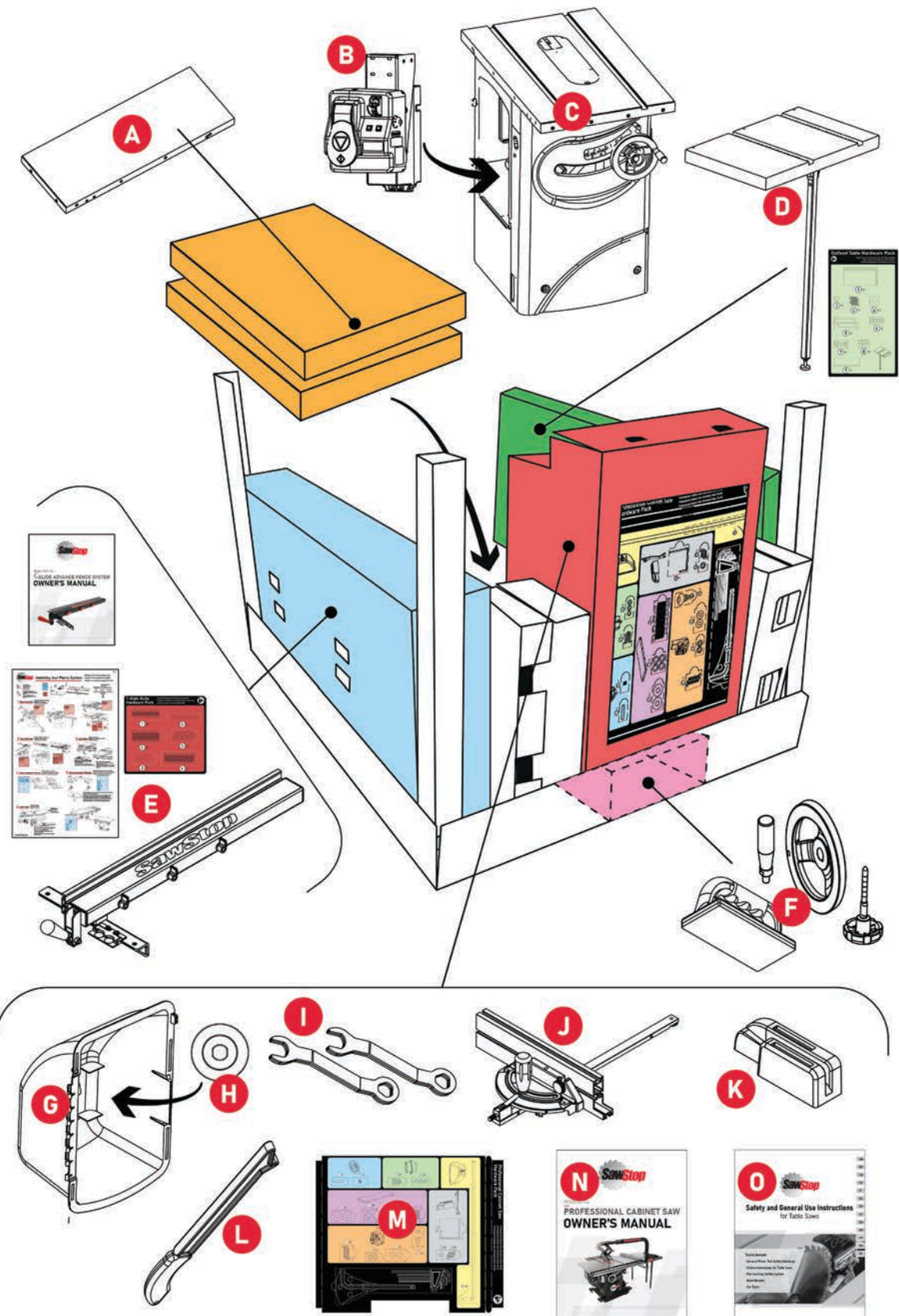


### WARNING:

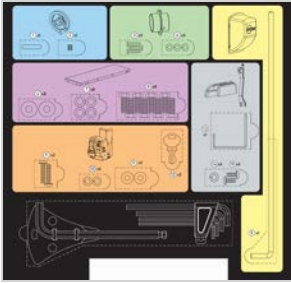
The saw weighs approximately 271 pounds (123KG) without the extension wings and 357 pounds (162KG) pounds with the extension wings. Be careful in handling the saw to avoid injury. Get help from a second person when necessary.







## ASSEMBLY PREPARATION



The instructions to assemble your Professional Cabinet Saw are described below. In addition to the tools included with the Table Saw Hardware Pack (shown at left), you will also need the following tools to complete the assembly:

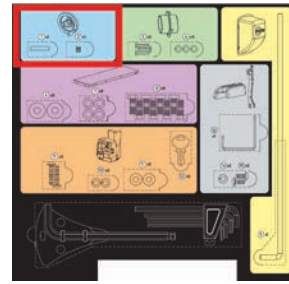
- #2 Phillips screwdriver
- 13mm wrench
- 14mm wrench
- Level or straight edge

Once the saw is in the upright position, remove the plastic covering from the cast iron table top and remove the yellow label from the top of the table insert. The table top and extension wings are shipped with a coating of oil to prevent the cast iron from rusting. Wipe the oil off the table top with a soft, clean cloth. Do the same for the extension wings (located in the bottom of the crate).

### **NOTE:**

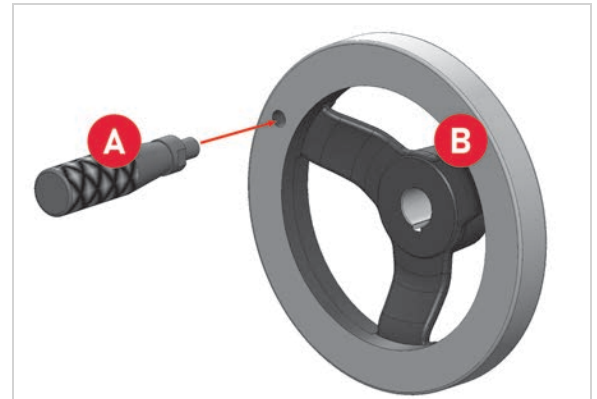
Before assembling the saw, make sure that all packaging has been removed and all parts unpacked. In particular, **DO NOT PROCEED** with the assembly of the saw until the Switch Box has been moved to the outside of the cabinet. When unpacking the Switch Box assembly, be careful not to damage the power cord or the cords attached to the Switch Box when cutting the cable ties. Be sure to remove all cardboard pieces from the inside of the cabinet.

## 1. INSTALLING THE TILT HANDWHEEL



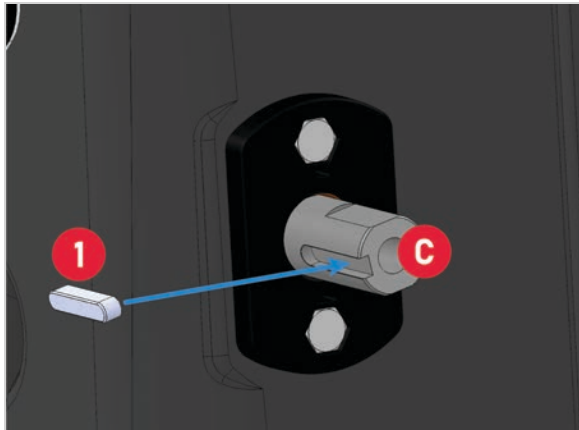
The hardware required to install the tilt adjustment handwheel is located in the area with the blue background on the Table Saw Hardware Pack.

1. Open the handwheel package and screw the handle (A) into the handwheel (B). Tighten the handle with a 14mm wrench.

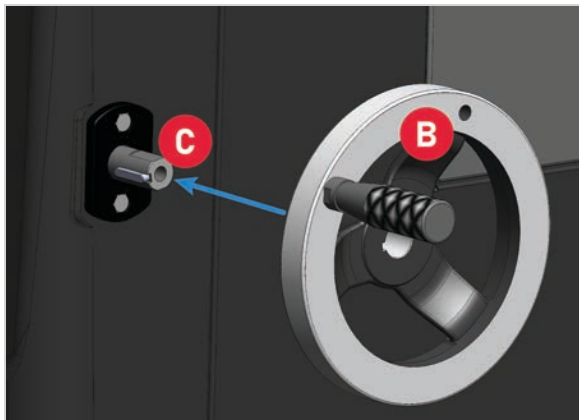




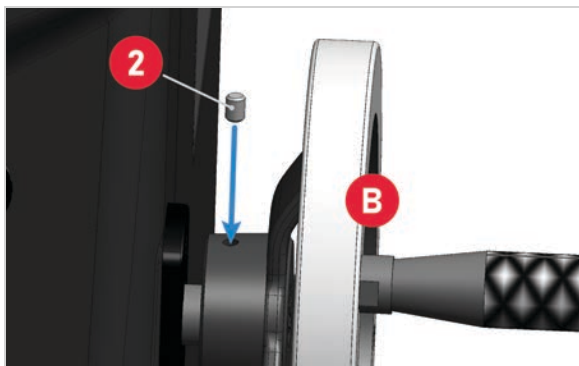
2. Remove a key (1) from the Table Saw Hardware Pack and insert it into the slot at the end of the tilt-angle control shaft (C) on the side of the saw.



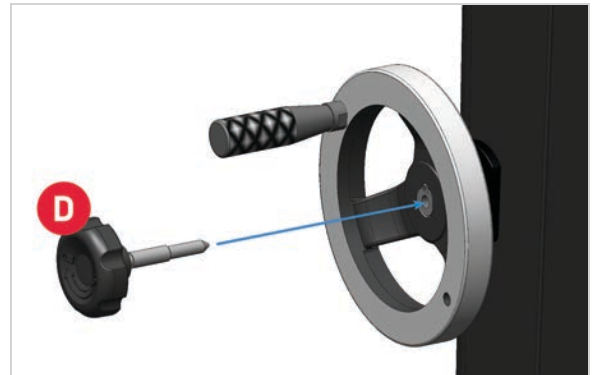
3. Slide the handwheel (B) onto the end of the shaft (C) until the face of the handwheel is flush with the end of the shaft.



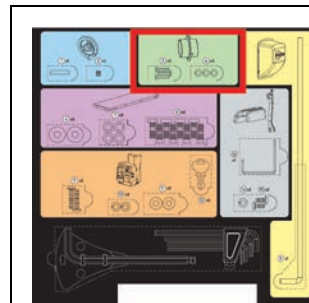
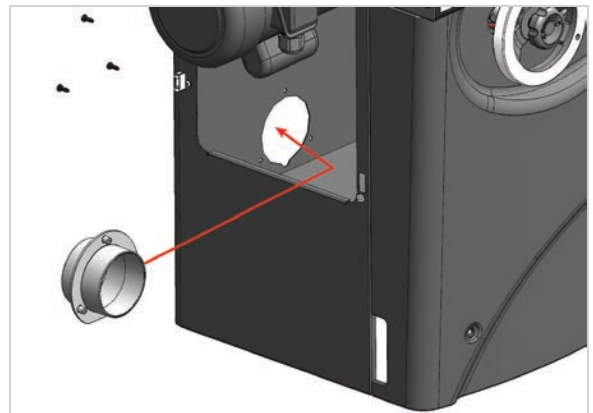
4. Remove a set screw (2) from the Table Saw Hardware Pack and insert it into the small hole located on the side of the handwheel (B). Use the included 3mm hex wrench to fully tighten the set screw.



5. Locate the lock knob with the shorter shaft. Screw the lock knob (D) into the end of the control shaft, but don't tighten it completely. The lock knob is used to prevent the handwheel from turning after an adjustment to the handwheel has been set.



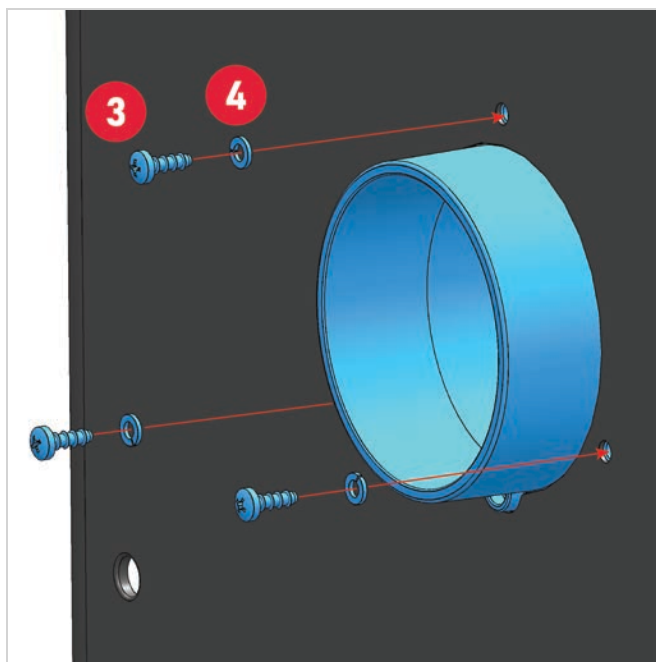
## 2. INSTALLING THE DUST PORT



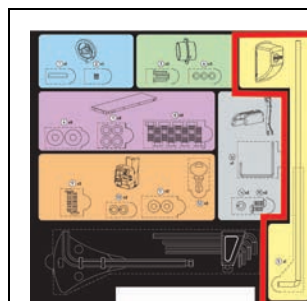
The hardware required to install the Dust Port is located in the area with the green background on the Table Saw Hardware Pack.

The Dust Port comes attached to the end of a flexible hose residing within the cabinet. The Dust Port must be inserted into the four inch diameter hole at the back of the cabinet from the inside of the cabinet as shown in the illustration above. Note that the Dust Port is keyed such that there is only one orientation where it fits correctly and flush to the cabinet. Be mindful of this as you move the Dust Port into place.

1. Remove the three Dust Port screws (3) and lock washers (4) from the Table Saw Hardware Pack and place one lock washer on each screw. Keep the screws nearby.
2. While holding the Dust Port in your hand, reach inside the cabinet through the opening on the side of the cabinet through which the motor protrudes. Fit the Dust Port in the hole so that the semicircle at the bottom of the opening in the cabinet aligns with the same shaped semicircle on the flange. When correctly installed, the flange of the Dust Port is flush to the cabinet and the three holes in the cabinet surrounding the Dust Port will line up with the three bosses in the Dust Port.
3. While holding the Dust Port firmly in place on the inside of the cabinet, insert each of the three screws (3) with washers (4) into the holes surrounding the Dust Port on the outside of the cabinet, as shown. Using a Phillips screwdriver, tighten each screw a little at a time until all three screws are securely in place.

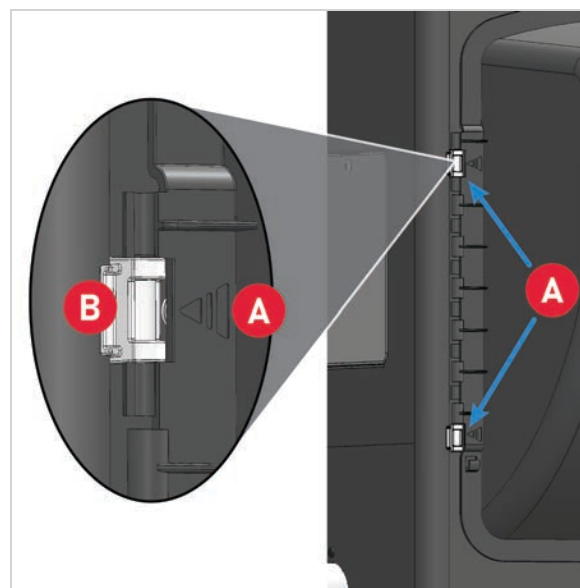


### 3. INSTALLING THE MOTOR COVER

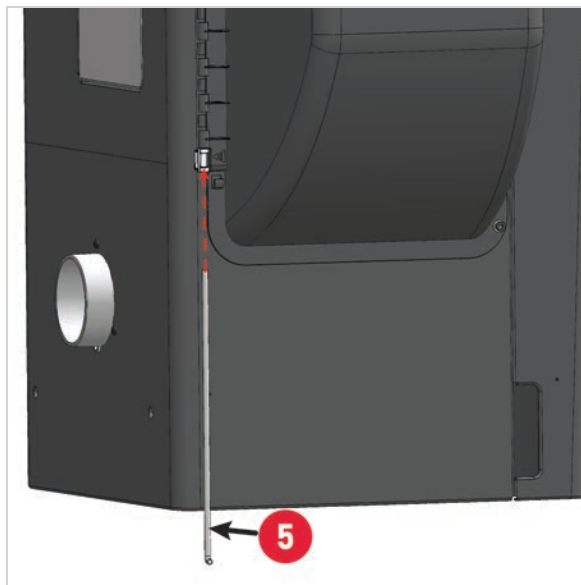


The hardware required to install the Motor Cover is located in the area with the yellow background on the Table Saw Hardware Pack.

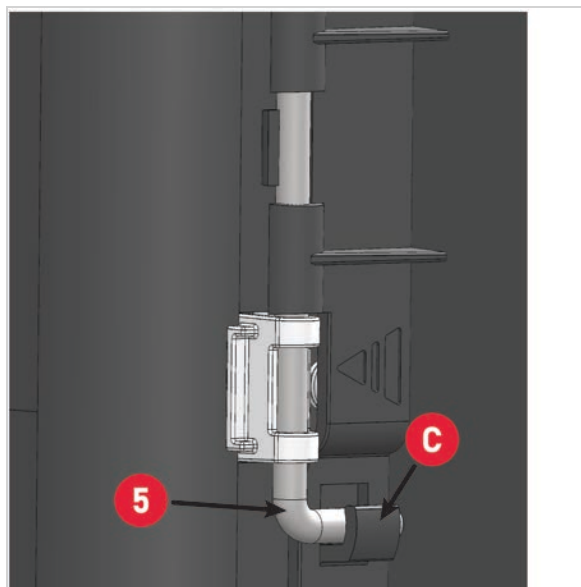
1. Hold the Motor Cover against the side of the saw over the motor such that the two arrows (A) on the side of the cover point to the two metal tubes (B) on the side of the cabinet.



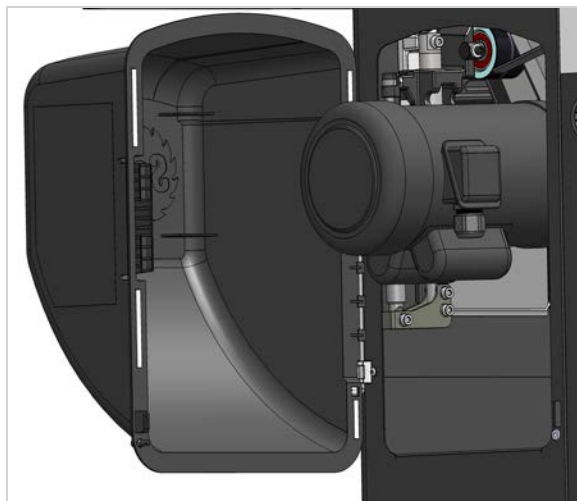
2. Slip the straight end of the motor cover rod (5) up through the bottom tube then through the row of half-cylinders along the edge of the Motor Cover and finally through the upper tube.



3. Rotate the motor cover rod so that the bent end of the rod fits into the hook (C) on the Motor Cover just below the bottom metal tube.

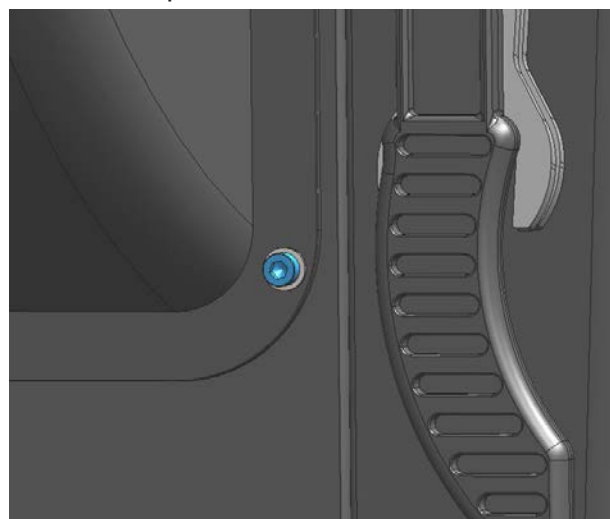


4. To open the Motor Cover, press on the ribbed section on the front of the Motor Cover until it unlatches and swing the cover away from the cabinet. Reverse the process to close the cover.

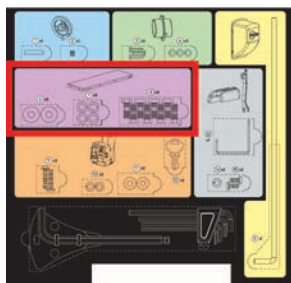
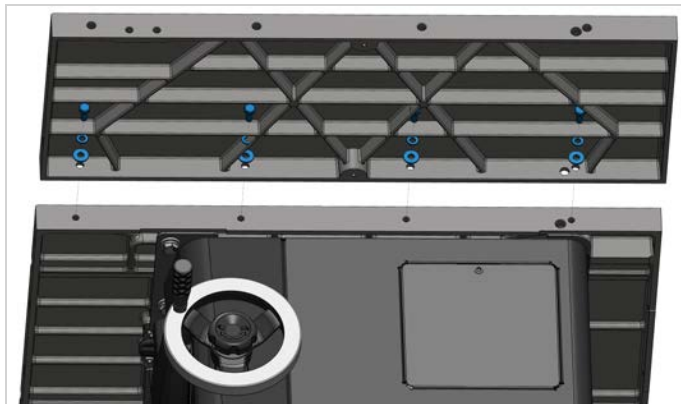


#### IMPORTANT:

After accessing the motor, firmly close the door then secure it by tightening the socket head screw near the lower-right corner of the door. A 4mm hex wrench is required.



## 4. MOUNTING THE EXTENSION WINGS

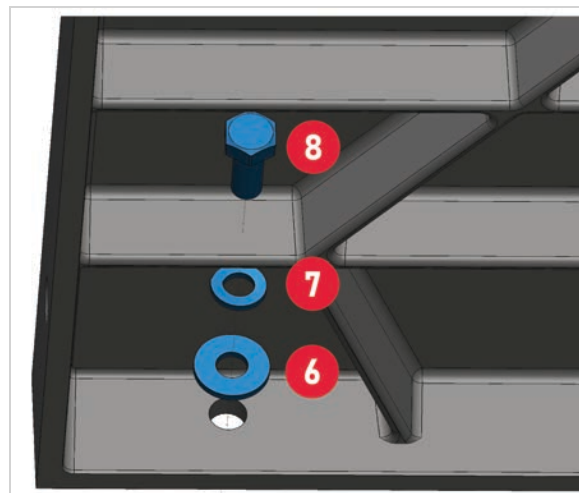


The hardware required to mount the cast iron extension wings to the cast iron table top is located in the area with the purple background on the Table Saw Hardware Pack.

Be mindful of possible sharp edges when handling the extension wings.

1. Position one of the extension wings next to the left side of the cast iron table with the chamfer toward the front and align the holes in the side of the wing with the four threaded holes on the side of the table.
2. Mount the left extension wing with four M8 washers (6), four M8 lock washers (7) and four M8 x 20 hex bolts (8), but do not tighten. Repeat the same procedure to mount the other extension wing

to the right side of the table.



### IMPORTANT:

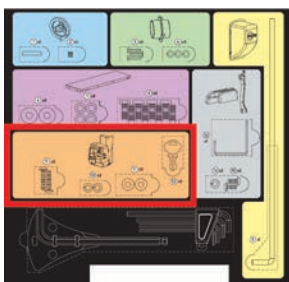
After installing the fence rails (see below), follow the procedure in the manual included with your fence system for leveling the extension wings with the main, cast iron saw table. Remember that when instructed to secure the wings, begin by aligning and tightening the center first, then move to aligning the front and rear of the wing.

## 5. INSTALLING THE FENCE RAILS



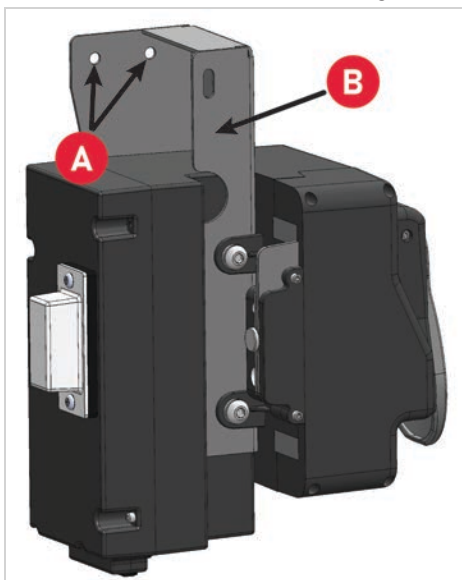
The fence system included with your saw is boxed separately and includes a separate installation manual. Please refer to that manual now and complete the installation of the fence rails and Extension Table before proceeding to the next section of this manual.

## 6. MOUNTING THE SWITCH BOX

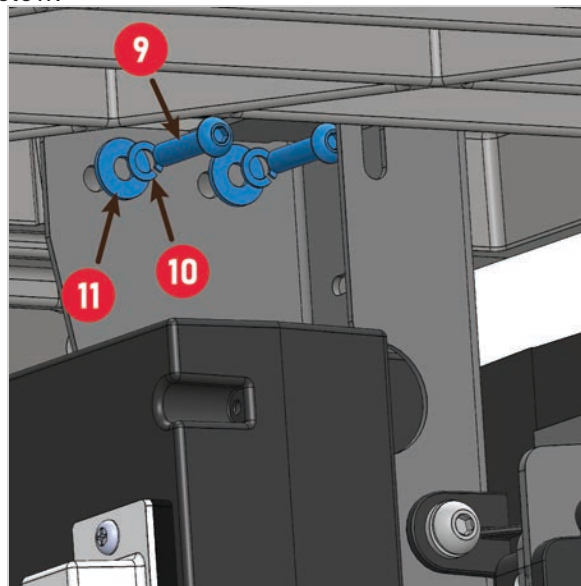


The hardware required to mount the Switch Box is located in the area with the orange background on the Table Saw Hardware Pack.

1. Remove two M6 x 20 button head socket screws (9), two M6 lock washers (10) and two M6 washers (11) from the Table Saw Hardware Pack. Place a lock washer followed by a washer on the end of each screw.
2. Mount the Switch Box under the left extension wing by inserting the screws with washers you assembled in step 1 into the two holes (A) at the upper end of the Switch Box mounting bracket (B).

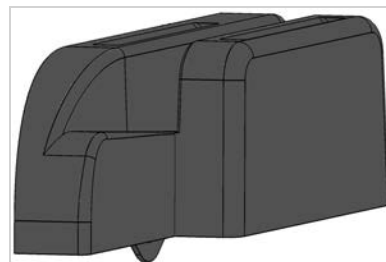


3. Thread the screws into the holes towards the front of the left extension wing shown in the illustration below.

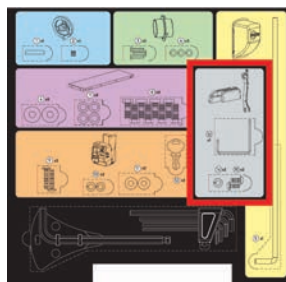


Tighten the screws with a 4mm hex wrench.

## 7. MOUNTING THE ACCESSORY HOLDERS



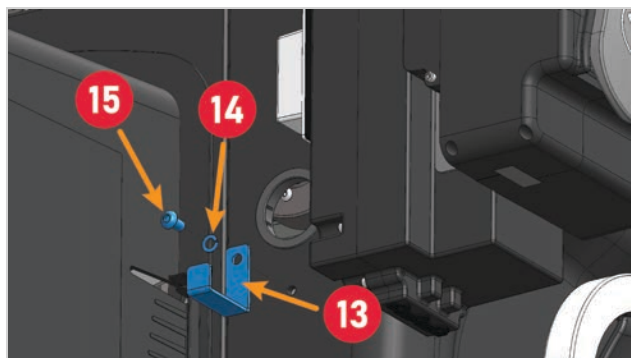
Your saw comes with two tool holders to store saw accessories. The blade wrench and push stick hook provides a place to hang the wrenches that came with your saw. The accessory tool holder (shown above) provides a place to store your Riving Knife, miter gauge, and blade guard.



The hardware required to mount the two accessory holders is located in the area with the gray background on the Table Saw Hardware Pack.

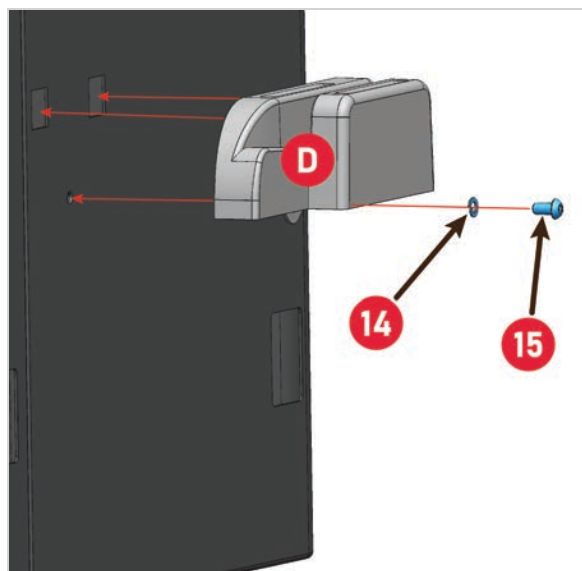


1. To mount the blade wrench holder\* (13), place the M6 lock washer (14) on the M6 x 12 button head screw (15) then insert the screw through the hole in the blade wrench holder (D).  
(\* Note: The push stick is also stored here.)



Next thread the screw into the hole on the left side of the cabinet behind the Switch Box. Tighten the screw with a 4mm hex wrench.

2. To install the accessory tool holder (D), place the M6 lock washer (14) on the M6 x 12 button head screw (15) then insert the screw through the hole at the bottom of the accessory tool holder.



Mount the accessory tool holder to the cabinet by slipping the ends of the hooks on the side of the tool holder (D) into the corresponding slots on the front lower corner of the right side of the cabinet and threading the screw into the hole in the cabinet. Tighten the screw with a 4mm hex wrench.

## Push Block Storage

A Push Block is included with your saw and is equipped with magnets for convenient storage of the Push Block on the exterior cabinet of the saw.



This accessory should be stored toward or on the front of the saw where it is easily accessible to the user. When the Push Block is not in use, refrain from storing the Push Block on the top side of the saw table where it could interfere with cutting operations and possibly result in serious injury.

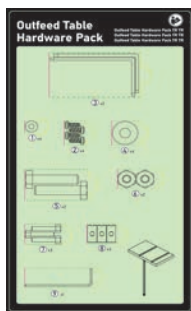
## 8. INSTALLING THE OUTFEED TABLE



The included outfeed table provides additional support for a larger workpiece at the back of the saw. The outfeed table and related hardware is contained in one box. Inventory all the parts before you begin. The box contains the following:

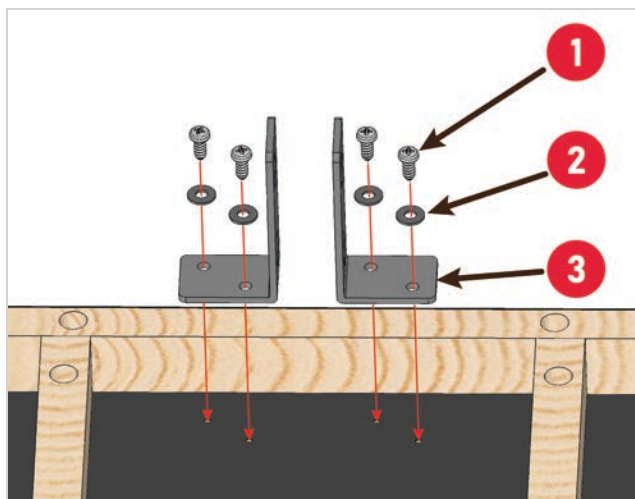
- Outfeed table
- Support leg
- Hardware pack\*

\*This hardware pack is specific and contains only parts for the outfeed table. It is not to be confused with the larger hardware pack associated with the rest of the table saw.



## Install the Leg Support Brackets

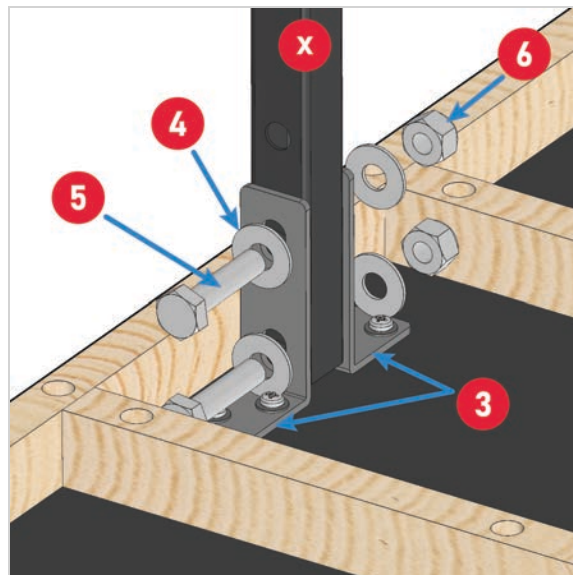
1. Install one washer (labeled 1 on the hardware pack) onto each of the four screws (labeled 2 on the hardware pack).
2. Locate the pre-drilled holes shown below on the underside of the outfeed table. Attach the L brackets (3) to the outfeed table as shown using the screws and washers you assembled in the previous step.



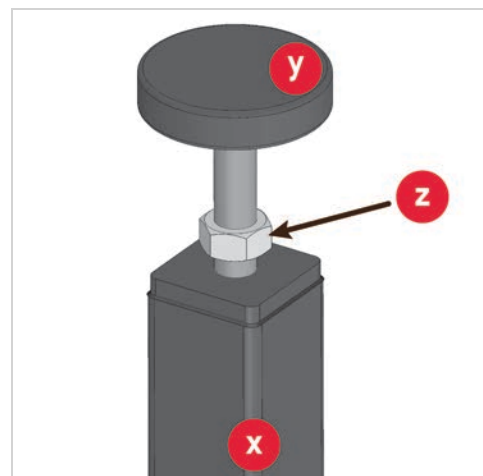
## Attach the Support Leg

3. Install one washer (4) onto each of the two bolts (5).

4. Locate the holes in the top of the support leg (opposite from the leveling foot). Align the holes in the support leg (x) with the holes in the L brackets (3) you installed in step 2.

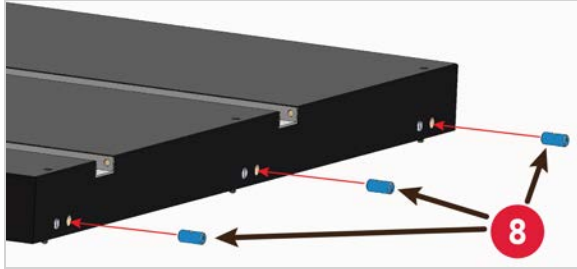


5. Insert the bolts with washers you prepared in step 3 as shown. Add a second washer (4) and nut (6) onto the end of each bolt (5) and tighten using a 17mm wrench.
6. Adjust the leveling foot (y) to approximate the correct height. Do not tighten the jam nut (z) on the leveling foot at this time.

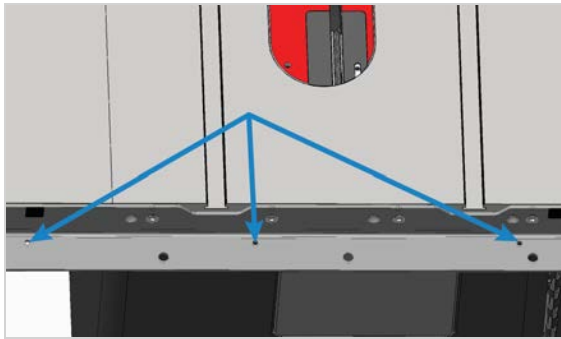


## Attach Outfeed Table to Fence Rail

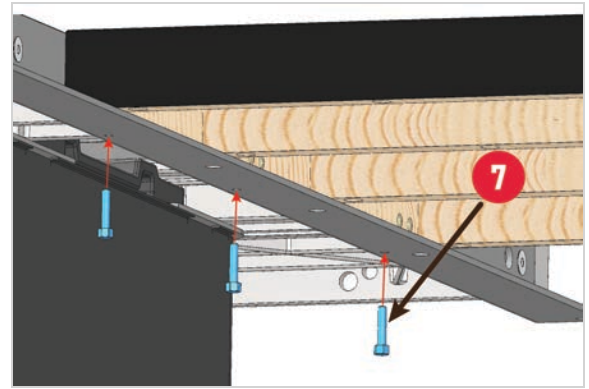
7. Install the three barrel nuts (8) into the horizontal holes at the edge of the outfeed table. Make sure the slots on the barrel nuts are facing outward so the position of the barrel nuts can be adjusted with a flat blade screwdriver.



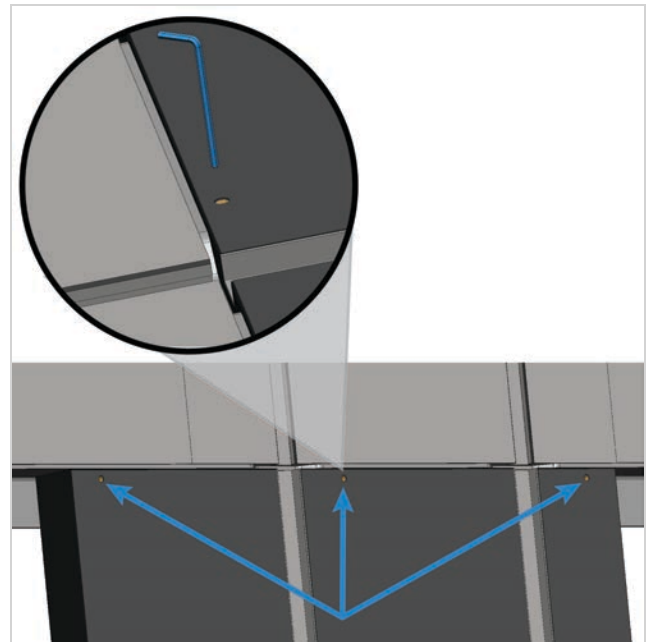
8. Locate the three small outfeed table mounting holes in the rear fence rail indicated below.



9. Align the corresponding holes on the underside of the rim of the outfeed table with the holes in the fence rail. These holes are perpendicular to those containing the barrel nuts you installed in step 7.
10. Install the three M5 hex head bolts (7) from the underside of the fence rail and thread them into the barrel nuts (8) that you installed in step 7. The orientation of the barrel nuts may need to be adjusted so that the threads in the barrel nuts are aligned with the path of the bolts being installed. Do not fully tighten the hex head bolts at this time.



11. From the top side of the outfeed table, adjust the three leveling set screws (v) using a 2.5mm hex wrench. Leveling is complete when the leading edge of the Extension Table sits about 1mm below the height of the cast iron saw table and the outfeed table is level from left to right.



### WARNING:

If desired, this height adjustment can put the Extension Table flush with the cast iron table (exact same height). For safety reasons, take special care that the outfeed table surface **DOES NOT EXCEED** the height of the cast iron table.



12. Make a final adjustment to the leveling foot at the bottom of the support leg and ensure that the outfeed table is level front-to-back. Secure the jam nut against the bottom of the support leg using a 12mm wrench.
13. Secure the bolts you installed in step 10 using an 8mm wrench. Do not over-tighten.

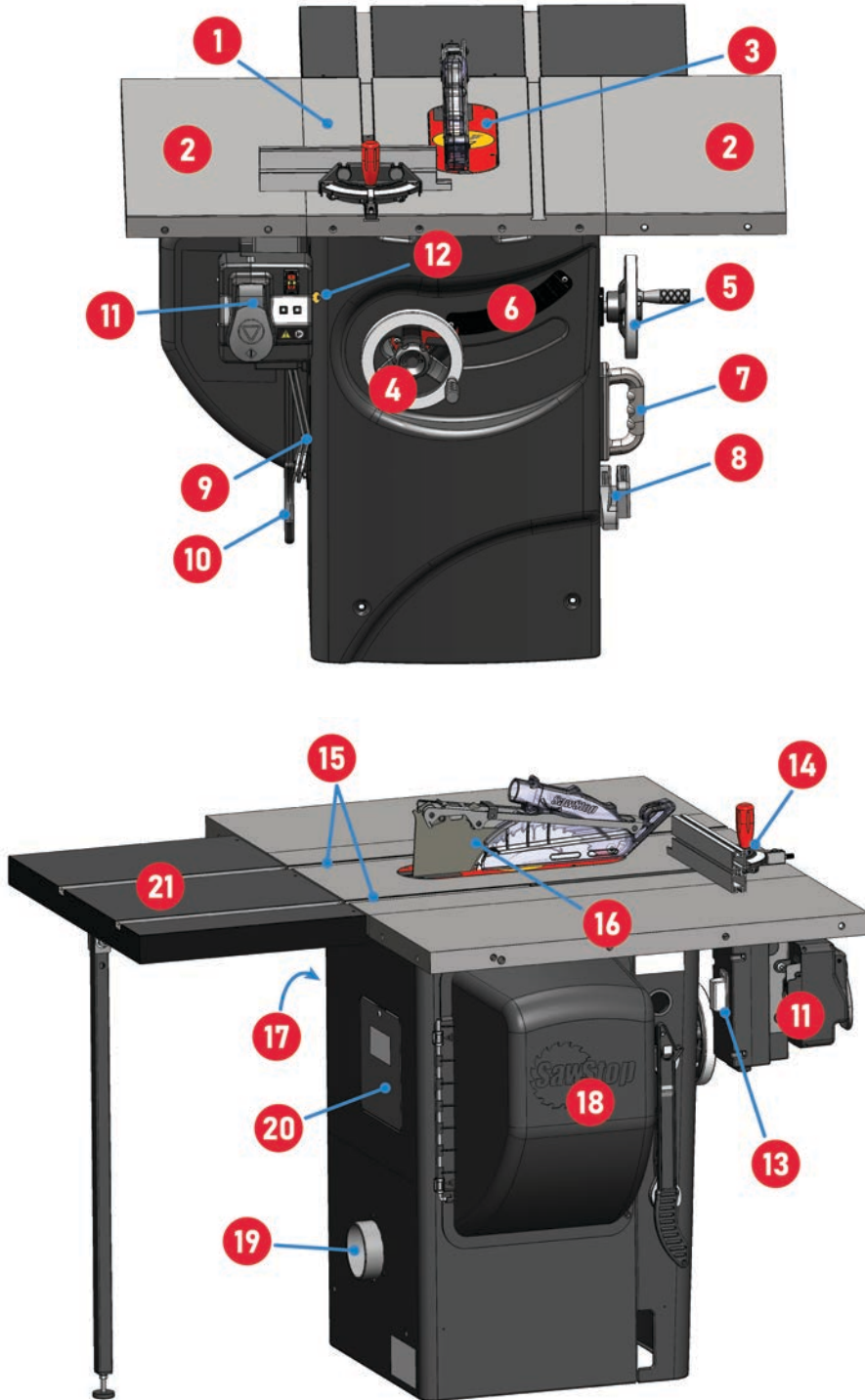
**Congratulations! Your SawStop Professional Cabinet Saw is now assembled.**



# GETTING TO KNOW YOUR SAW

## OVERVIEW

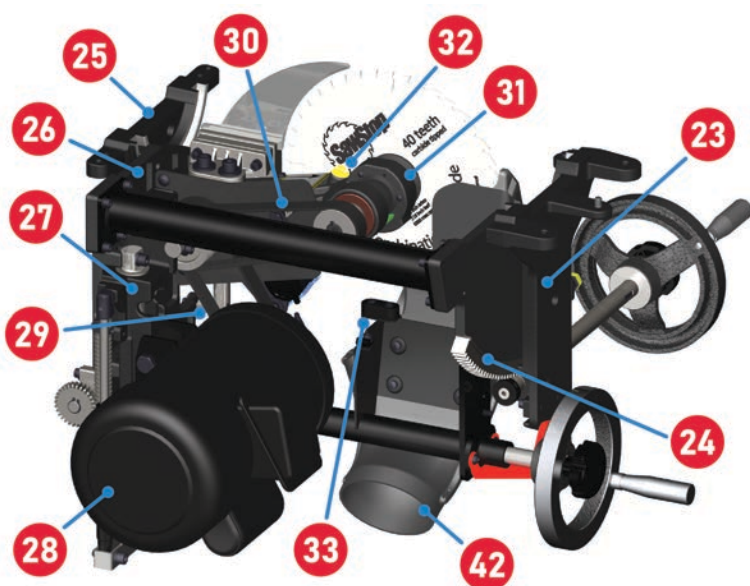
The major components of your saw are identified below. Make sure you become familiar with these components in order to follow the instructions in this manual.



### External Components

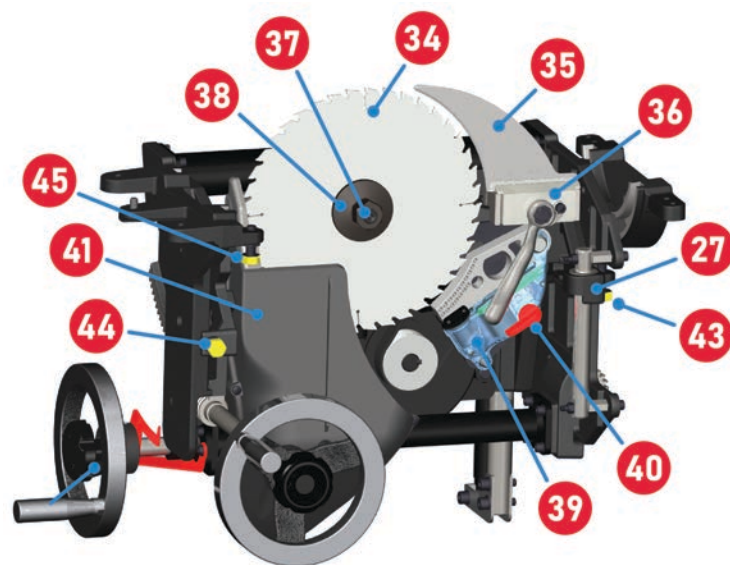
1. Table Top
2. Extension Wings
3. Standard Table Insert
4. Elevation Handwheel
5. Tilt Handwheel
6. Tilt Angle Scale
7. Push Block (magnetic)
8. Accessory Tool Holder
9. Blade Wrenches (2)
10. Push Stick
11. Switch Box
12. Bypass Key
13. Thermal Overload Switch
14. Miter Gauge
15. Miter Gauge Slots
16. Blade Guard Assembly
17. Side Access Panel
18. Motor Cover
19. Dust Port
20. Rear Access Panel
21. Extension Table
22. Riving Knife\*

\* Not pictured. Optional accessory included with the Floating Dust Collection Guard.



## Internal Components

- 23. Front Trunnion Bracket
- 24. Front Trunnion
- 25. Rear Trunnion Bracket
- 26. Rear Trunnion
- 27. Elevation Plate
- 28. Motor
- 29. Motor Belt
- 30. Arbor Belt
- 31. Arbor Block
- 32. Brake Positioning Bolt
- 33. Arbor Bumper
- 34. Saw Blade
- 35. Riving Knife\*
- 36. Quick-Release Clamp Handle
- 37. Arbor Nut
- 38. Arbor Washer
- 39. Brake Cartridge
- 40. Cartridge Key
- 41. Dust Shroud
- 42. Dust Port
- 43. Upper Elevation Limit Stop
- 44. 0° Tilt Limit Stop
- 45. 45° Tilt Limit Stop



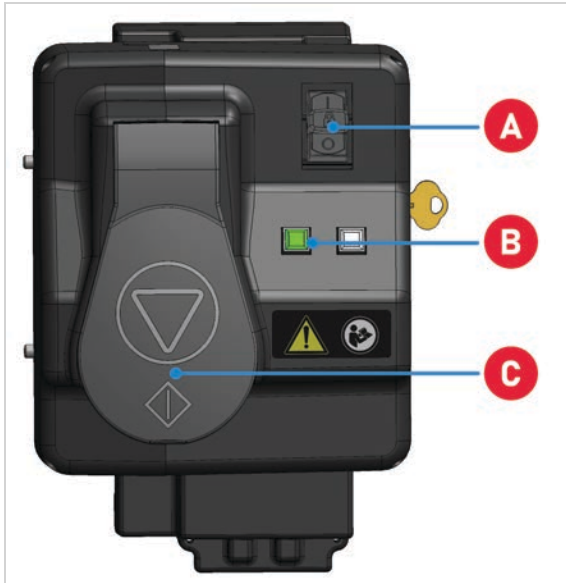
\* Optional accessory included with the Floating Dust Collection Guard.

## POWER CONTROLS

Use the power controls to run the saw and monitor the saw's status (see **USING THE MITER GAUGE** on page 43).

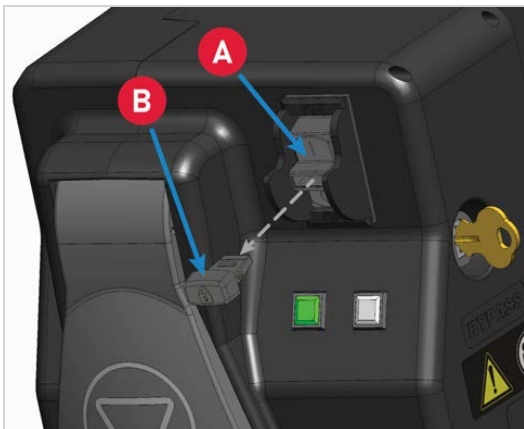
- A. Power Switch
- B. Status Lights
- C. Start/Stop Paddle for Blade

Status lights can flash slow or fast (see **STATUS LIGHTS & CODES** on page 39).



## LOCKOUT

The main power switch has a lockout key (B) that can be removed to prevent children or other non-authorized users from turning the saw on. To remove the key, pull it out, away from the switch (A). To replace the key, press it back into the socket until it snaps into place. When the key is removed, the main power switch can be turned OFF, but it cannot be turned ON.



## NORMAL MODE AND STANDBY MODE

Normal Mode is the regular operating mode when the saw is running, the mode you use to cut non-conductive materials. Standby Mode is when the saw is not running but ON. The safety system is active in both modes.

It is not necessary to turn the main power switch off after pushing in the Start/Stop paddle to turn off the motor. If you plan to make several cuts with the saw, you can leave the main power switch in the ON position between cuts to eliminate the delay due to the initialization routine. Once you have finished using the saw, turn the main power switch to OFF to reduce the likelihood of unintentional start-up.

## BYPASS MODE

Use Bypass Mode to 1) determine if a material is conductive 2) disable the safety system so you can cut conductive materials. (see page 45)



### IMPORTANT:

There is no protection in Bypass Mode; the brake will not activate if your skin touches the spinning blade. Use Bypass Mode only to test a material for conductivity and to cut conductive materials. To learn how to activate bypass mode, see page 45.

## STATUS LIGHT CODES

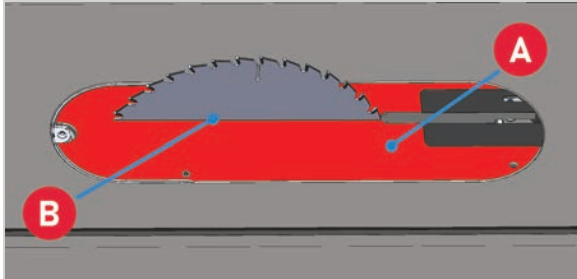
The green and white lights under the power controls indicate the status of the saw. The lights can display individually or in combination, depending on the status. Either light can flash slowly or quickly. Either light can display as solid.

(See **STATUS LIGHTS & CODES** on page 39)



## TABLE INSERT

Your Professional Cabinet Saw uses a 'zero-clearance' insert (A). The zero clearance slot (B) is pre-cut at the factory. The zero-clearance slot maximizes support under narrow cuts and reduces risk of kickback. You will need to cut the slot in replacement inserts (see page 62).



### How to Remove the Insert



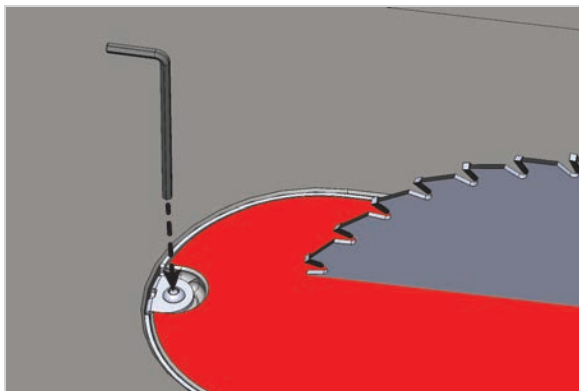
#### **WARNING:**

Always turn off the main power switch and unplug the power cord before removing or installing the table insert on your saw.

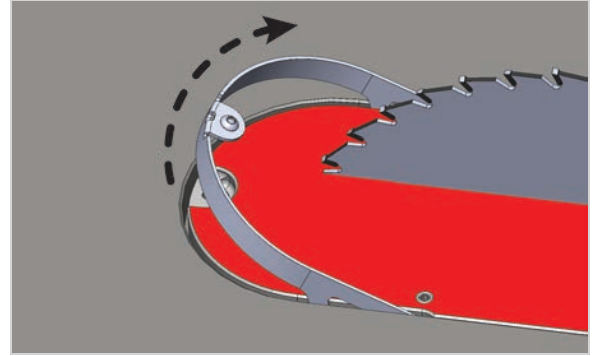
The rear of the table insert is held in place by two lock-down screws in the bottom rear of the insert and two lock-down screws in the table opening. It is held down in the front by latches formed at the ends of a rotating lock-down lever.

#### Removal steps:

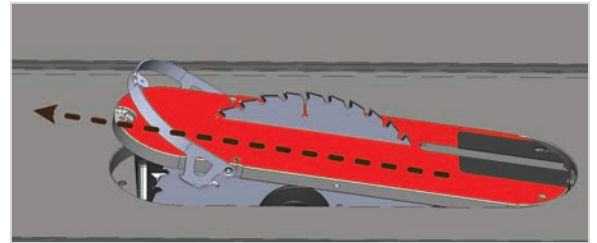
1. Use a 3mm hex wrench as shown below to loosen the small screw that secures the silver, metal lock-down lever.



2. Lift the silver metal tab to rotate the lock-down lever upward.



3. Lift slightly on the end of the table insert that is closest to the operator so that it is just above the cast iron table.
4. Pull the table insert toward the operator.



### How to Install the Insert

To install the insert, perform the above steps in the reverse order. Be sure that the metal lock-down lever is lifted to the upward position, then seat the insert into place using the same motion and angle with which it was removed. Once the insert is seated and flush with the table, press the metal lock-down lever fully downward and secure it in place using a 3mm hex wrench.



#### **IMPORTANT:**

Confirm that the small cap screw on the metal tab is fully tightened and flush. Failure to do so can cause the workpiece to catch or tip on the screw which can lead to binding of the workpiece and kickback.

If you wish to perform additional adjustment on the insert, see page 62.



## BLADE GUARD

Using the blade guard is one of the most important steps you can take to prevent injury. Many table saw injuries occur when the blade guard is either not being used or not being used properly.

### NOTE:

As the subject of blade guards is also closely integrated with the matters of dust collection, be sure to also read and understand the dust collection accessory options available for your saw. See **TOPSIDE DUST COLLECTION** on page 37.

Your blade guard type will depend on your chosen over-arm dust collection accessory. The blade guards included with each look different and are adjusted differently depending on whether you chose to accessorize your saw with the Floating Dust Collection Blade Guard (TSG-FDC), or the Overarm Dust Collection (TSA-ODC). For complete details, refer to the owner's manual included with your chosen top-side dust collection system.

The following information is relevant to the spreader-mounted blade guard included with the Overarm Dust Collection (TSA-ODC):

The blade guard on your SawStop Professional Cabinet Saw was designed to have a narrow profile that allows you to use the guard even when making narrow rip cuts. As a result, there are only a few situations where the blade guard cannot be used (e.g., dado cuts, rabbet cuts, and extremely narrow cuts).

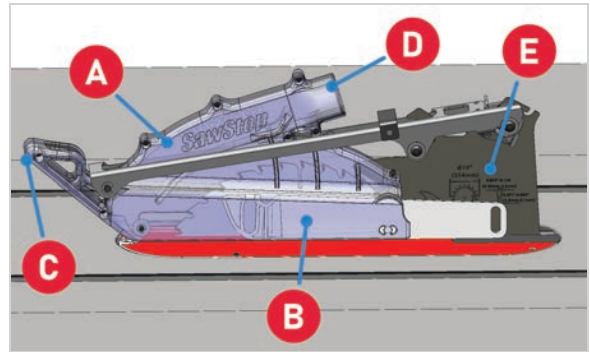
### WARNING:

Always use the spreader mounted blade guard or the floating blade guard, depending on your application and the configuration that was provided with the saw. For more information about safely setting up various cut types see the **Safety and General Use Instructions for Table Saws** manual included with your saw.

Always use the blade guard when making through-cuts. Use the low fence (see page 46) for thin cuts and narrow cuts.

Install the blade guard as describe on page 32. The blade guard consists of a top guard (A), side guards (B), wood

stop (C), dust port (D) and spreader (E) and anti-kickback pawls (not shown)\*.



- The side guards (B) are mounted to the top guard (A) so that they can pivot freely to automatically adjust to the height of the workpiece (up to 3 1/8" (79.3mm) high).
- The front of the top guard is formed into a wood stop (C) that prevents wood that is too thick to move through the blade guard from entering the guard.
- The spreader (E) helps minimize kickback by preventing a workpiece from pinching or shifting into the back of the blade. The spreader also supports a set of anti-kickback pawls\* to further minimize kickback.
- The anti-kickback pawls\* (not shown) help reduce the likelihood of kickback.

\* Anti-kickback pawls are an optional accessory included with the Floating Dust Collection Guard.

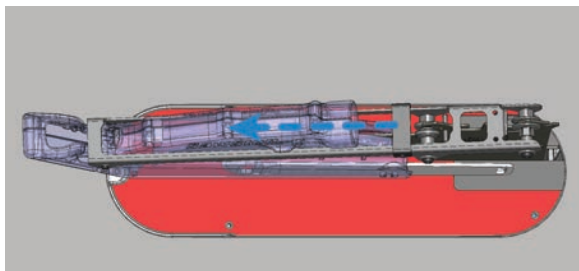
To use the blade guard, set the blade elevation and tilt angle to the desired settings and, if necessary, install or swing down the top guard so that the side guards rest on the table or insert. Make sure the top guard is securely in place in the spreader before use.

Cut the workpiece as described in the **Cut Types** chapter of the **Safety and General Use Instructions for Table Saws** that was included with your saw. The side guards will "float" on the top of the workpiece as the workpiece passes under the guard. The wood stop will prevent material that is taller than the height of the blade from entering the blade guard. The top guard and side guards are constructed of clear polycarbonate to allow you to clearly see the blade and the workpiece as it passes under the guard. After making the cut, the cut-off portion of the workpiece may be held beneath one of the anti-kickback pawls. In this case, turn

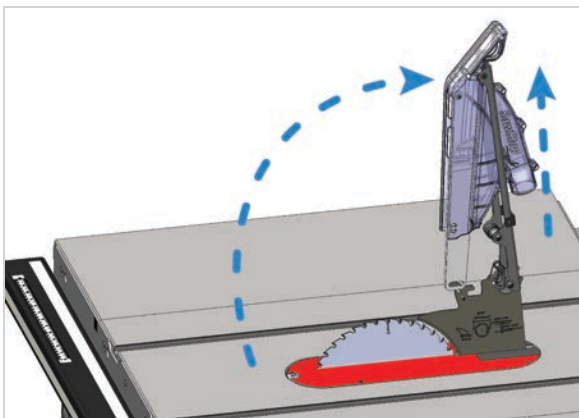
off the motor and wait until the blade stops before pushing the cut-off portion past the anti-kickback pawl.

Keep the guard clean and free of dust to allow unobstructed viewing of the blade and workpiece. For successful operation, the spreader must remain flat, and the side guards and anti-kickback pawls must pivot freely. If any portion of the blade guard ceases to function properly, replace or repair it before continuing to use the saw. When not in use, the blade guard can be stored by inserting the bottom of the spreader in the outer slot of the accessory tool holder mounted to the side of the saw.

The top guard can be placed in an upright position so that you can change the blade without removing the guard. Pull the top guard forward slightly and then up to release it from the front of the spreader.

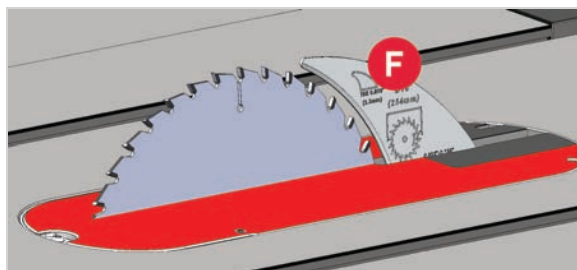


The top guard may then be placed in an upright position, balanced against the spreader. Once upright, the top guard may be removed from the spreader by lifting it up vertically. To reinstall the top guard in the spreader, reverse the process.



## RIVING KNIFE

Like the spreader, the Riving Knife\* (F) helps prevent pinching and binding, which reduces the likelihood of kickback.



Use the Riving Knife instead of the blade guard when 1) a rip cut is too narrow for clearance between the blade guard and the rip fence or 2) you are making a non-through cut (the blade does not pass all the way through the thickness of the material), as shown in the illustration, above. For more information about safely setting up various cut types, see the **Safety and General Use Instructions for Table Saws** manual included with your saw.

### NOTE:

\* The riving knife is an optional accessory available for purchase through the online SawStop parts store. If you purchased your saw configured with the Floating Dust Collection Guard (TSG-FDC), a 10" / 254mm blade compatible riving knife is provided.

# PREPARE YOUR SAW FOR USE

## SOLID, LEVEL & CLEARANCE

Place the saw on a solid and level working surface. Make sure there is enough space around the saw so that you can cut the workpiece without interference.



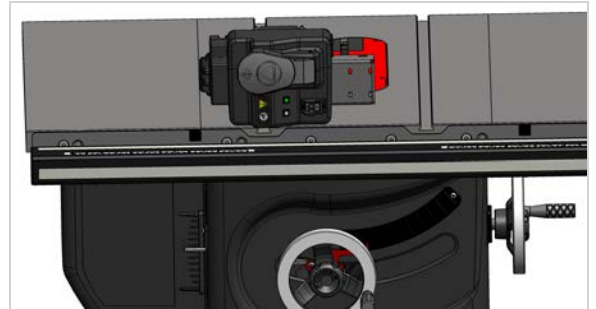
Also, make sure the workpiece is not too large to safely control as you make the cut. Make sure that you are able to prevent the workpiece from overbalancing as you pass the workpiece across the table and complete the cut.

## HOW TO TRANSPORT THE SAW

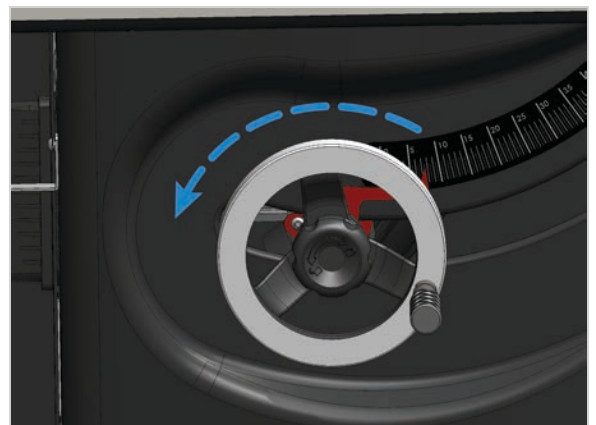
Follow these steps to transport or store the saw:

1. Turn off the saw, disconnect the power supply and properly secure the power cable.
2. Dismantle the Extension Table and over arm dust collection accessories (if present). Transport these items separately.
3. Remove the rip fence, miter gauge and blade guard. Transport these accessories separately.

4. Remove the switchbox and set it on top of the table.

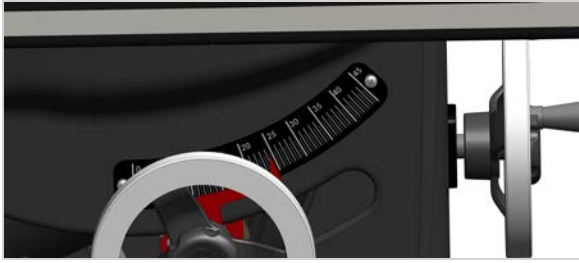


5. Wind and secure the power cord.
6. Fully lower the blade using the adjustment handwheel on the front of the saw.

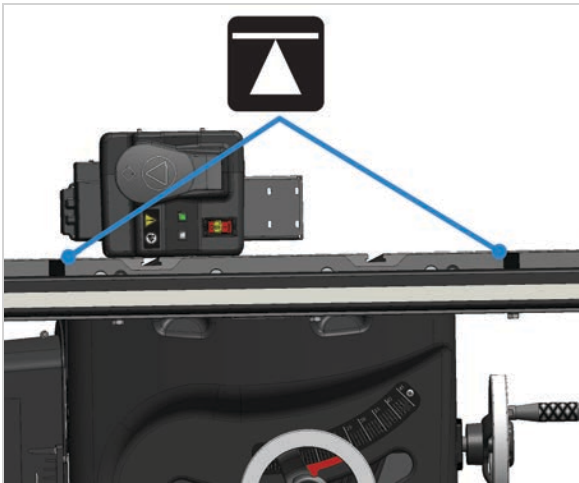




7. Set the bevel adjustment to 24.5° using the handwheel on the right side of the saw. This step positions the motor to optimize the center of gravity of the saw to the center of the table.



8. Position the lift straps under the table and placed close to the cabinet.



Look for the lift points marked on the saw with the symbol shown at right. This placement avoids excess strain on the extension wing fasteners.



**WARNING:**

Lift straps rated for 500lbs (227kg) or greater are required.

9. Using your lifting device attach the lift straps with an even length distribution and you can securely lift your Professional Cabinet Saw.



**IMPORTANT:**

If transporting over distance by truck, be advised there are additional steps for bolting the trunnions to the trunnion brackets to minimize flexing of the trunnions during shipping/bouncing. Contact SawStop Support for further information.

## ASSEMBLE THE MITER GAUGE

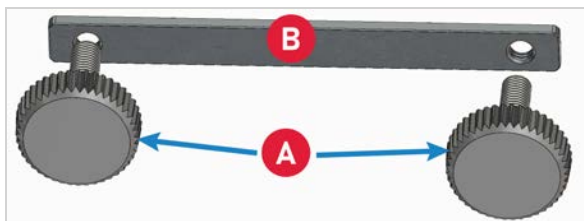
A crosscut fence is included with your miter gauge. The fence consists of an aluminum extrusion that attaches to the face of the included Miter Gauge. When attached, the fence offers additional support for a larger workpiece when passing it through the saw.



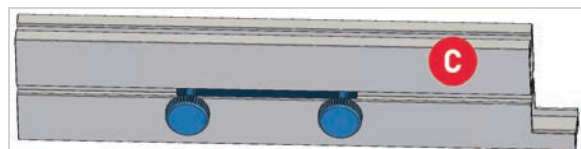
**WARNING:**

The included auxiliary fence is constructed of metal and is therefore conductive. If the crosscut fence comes into contact with the blade during operation, the SawStop safety system will activate. Take precautions to ensure the fence is properly positioned to avoid this by following the assembly steps below.

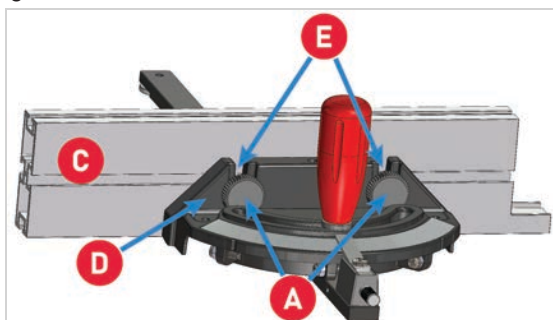
1. Thread the two included thumbscrews (A) into the threaded holes of the metal clamp bar (B). Just a few turns is sufficient for now.



2. Slide the metal clamp bar assembled with the thumbscrews into the T-slot on the fence (C) as shown. Position the guide bar toward the middle of the fence for now.

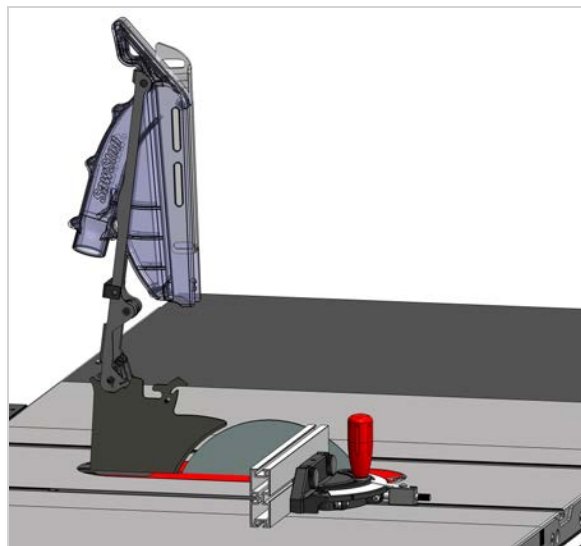


3. Place the miter gauge into the miter slot located to the left of the blade.
4. Place the assembled metal clamp bar (B), thumbscrews (A), and fence (C) onto the miter gauge as shown.

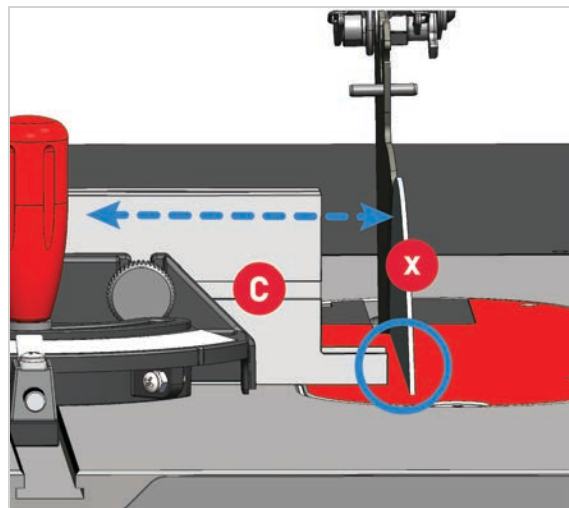


The crosscut fence (C) is positioned in front of the head of the Miter Gauge (D), and the shafts of both thumbscrews (A) are aligned with the upward-facing slots (E) on the miter gauge head.

5. Raise the saw blade and raise the blade guard as shown.



6. Slide the auxiliary fence (C) in relation to the miter gauge body so that there is not less than 1/8" (3mm) clearance between the fence (C) and the blade (x).



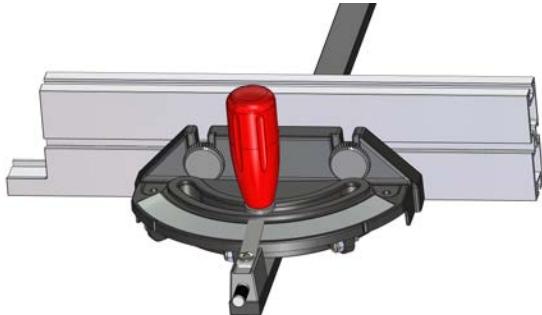
7. Secure the thumbscrews to ensure that the fence does not move during cutting operations.
8. With the saw still powered off, move the miter gauge forward and back along the full length of the miter slot and confirm that the fence does not contact the saw blade.

## Reversing The Crosscut Fence

The profile of the fence is designed to pass under the blade guard when moving the workpiece through the saw. When using the miter gauge in the miter slot located to the left of

the blade, the crosscut fence should be oriented as shown above, ensuring that the short portion of the fence extrusion is facing the blade.

If you choose to use the miter gauge in the miter slot located to the right of the blade, the orientation of the fence must be reversed as shown below.



As with the previous procedure, ensure that the short portion of the fence is nearest to the blade with a clearance of 1/8" (3mm) between the fence and the blade.

The assembly method using the metal clamp bar and thumbscrews with the fence extrusion is identical to the procedure described in the previous section.

## HOW TO INSTALL THE BLADE GUARD OR RIVING KNIFE

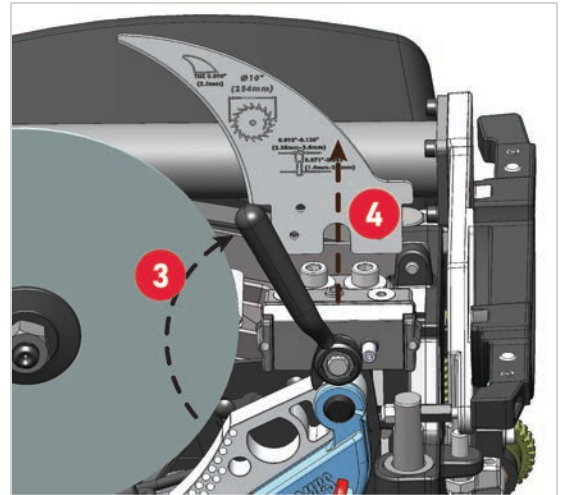
Your SawStop Professional Cabinet Saw includes a unique, quick-release blade guard mounting system. This mounting system was developed to allow you to quickly remove and install a blade guard or riving knife\* without the use of tools and without the need for realignment. The mounting system is factory-aligned to the arbor flange and should not require adjustment. If you wish to change the alignment, see **ALIGNING THE RIVING KNIFE/SPREADER TO THE BLADE** on page 58 for instructions.

### NOTE:

\* The riving knife is an optional accessory available for purchase through the online SawStop parts store. If you purchased your saw configured with the Floating Dust Collection Guard (TSG-FDC), a 10" / 254mm blade compatible riving knife is provided.

For the majority of sawing operations, including all through-sawing (where the blade cuts through the top of the wood), either the riving knife or spreader-mounted blade guard should be used. To install the blade guard, follow the steps below.

1. Remove the table insert.
2. Turn the elevation wheel clockwise to fully raise the blade.
3. Pivot the handle (3) up to open the clamp.



4. If present, remove the riving knife (4) by moving it slightly toward the right to clear the positioning pins, then lift it out of the clamp.
5. To install the spreader-mounted blade guard in its place, position the spreader in the clamp and flat against the base plate. The positioning pins will align the spreader in the correct position without effort.
6. Lower the clamping handle (3) completely to lock the spreader in place. If the clamping handle is difficult to lower, make sure the spreader is positioned flat against the base plate.

### NOTE:

To remove the spreader-mounted blade guard, use the same procedure as removing the riving knife described above. Similarly, to install the riving knife, use the same procedure as installing the spreader-mounted blade guard.

The clamping force used to hold the spreader or riving knife in place can be increased if the spreader and riving knife are not held securely, or decreased if too much force is required to lower the clamping handle. For clamping force adjustment instructions, see page 61.

### **! IMPORTANT:**

When using a dado set, neither the spreader-mounted blade guard nor the riving knife may be used. Instead, use other protective devices such as push sticks, push blocks, and feather boards.

After completion of grooving cuts, before returning to normal sawing operations, be sure to mount and adjust the riving knife or spreader.

### **i NOTE:**

Both spreader and the riving knife accessories are 2.3mm (0.090 inch) thick. Do not use a saw blade with a kerf less than 2.35mm with these tools. The kerf of a saw blade is the width of the cut produced by the blade.

### **! WARNING:**

Use the blade guard and spreader for every operation for which it can be used, including all through-sawing.

Related topics:

- **ALIGNING THE RIVING KNIFE/SPREADER TO THE BLADE** on page 58
- **SETTING THE HEIGHT OF THE RIVING KNIFE/SPREADER** on page 60
- **ADJUSTING THE CLAMPING FORCE FOR THE RIVING KNIFE/SPREADER** on page 61

## HOW TO DISABLE THE ANTI-KICKBACK PAWLS

### **i NOTE:**

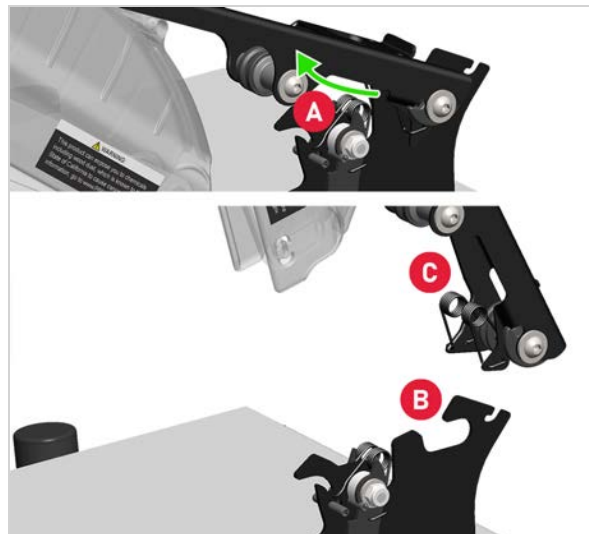
Anti-Kickback Pawls are an optional accessory available for purchase through the online parts store.

The anti-kickback pawls help reduce the chance of kickback and potential injury or property damage. The pawls are spring-loaded and designed to engage the workpiece if the workpiece moves towards the front of the saw. The pawls ride against the top of the workpiece as you make the cut. As you finish the cut, push the workpiece entirely past the back of the blade and the pawls, disengaging the workpiece from the pawls. The pawls are used for any cutting situation where the blade guard is used. It's also possible to disable the pawls for exceptions as needed.

Rotate both pawls up until they over-center and remain in the up and disabled position. You must rotate both pawls simultaneously. To enable the pawls, rotate the pawls back down into the working position.

If you prefer to remove the pawls completely, perform the following steps.

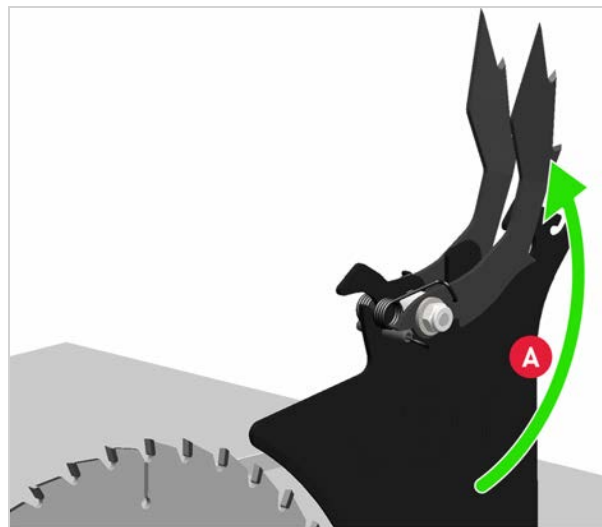
1. To separate the blade guard from the spreader, rotate up and pull forward (A) until the guide and height adjustment wheels are clear of the spreader (B). Continue to lift and rotate until the top guard spring (C) releases from the spreader.



For clarity, the anti-kickback pawls are not shown in the above illustration.

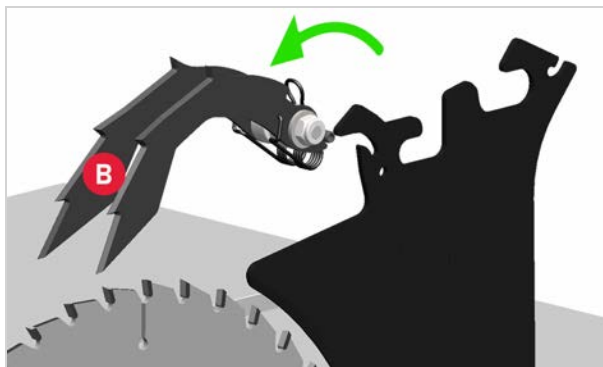
(Reverse these steps when you need to reinstall guard.)

2. To remove pawls, pull pawls back, up (A) ...





and forward to remove (B).



## HOW TO ATTACH A DUST COLLECTOR

Your SawStop Professional Cabinet Saw employs a below-table dust shroud around the blade to provide superior dust collection to ordinary saws. A flexible hose connects the dust shroud to a Dust Port that mounts to the back of the cabinet. Connect a suitable dust collection system to the Dust Port and always use the dust collection system when making a cut.



While the Dust Port on the back of your saw requires a 4" (101mm) diameter flex hose, employing adapters and running larger diameter hose or duct for the greater length of the run between your dust collector and saw will result in more efficient dust collection.

### MINIMUM DUST COLLECTOR SPECIFICATIONS

Airflow	850 m <sup>3</sup> /hour
Inlet diameter	4" (10cm)
Pressure drop	0.22 psi (1,5 kPa)
Recommended conveying air velocity in the duct	65.6 ft/s (20 m/s)

*External chips and dust extraction systems should be designed according to EN 12779:2015 or EN 16770:2018.*

If you power your dust collector and SawStop saw from the same electrical circuit, ensure the circuit and breaker has sufficient capacity for both machines.



#### IMPORTANT:

Always use a dust collection system when making cuts. Turn on the dust collection system before turning on the saw to make the cut. Keep the system free of accumulated dust and debris. Your Professional Cabinet Saw MUST be configured with one of the options described below.

## TOPSIDE DUST COLLECTION

As this subject is closely integrated with available blade guard options, be sure to also read and understand the **BLADE GUARD** section beginning on page 30.

Two solutions are available from SawStop for top side dust collection. Your Professional Cabinet saw purchase includes one of these dust collection accessories described below. For complete installation and setup instructions, please refer to the separate manual included with your over arm dust collection accessory.

### FLOATING OVERARM DUST COLLECTION (TSG-FDC)

This heavy-duty 4" (101mm) overarm is designed to provide operator protection while removing table-top dust in both standard and non-through cuts. The transparent blade cover is engineered to lift easily for quick blade access, and the rigid steel overarm swings smoothly away and back into operating position. The wide pipe allows for high air volume collection.

**i NOTE:**

This floating guard provides optimal safety for grooving cuts as a spreader-mounted blade guard must be removed for grooving.



### OVERARM DUST COLLECTION (TSA-ODC)

The Overarm Dust Collection system ships with the SawStop Dust Collection Blade guard for easy, reliable dust management that captures 99% of dust. The rubberized collar easily fits your DC Guard, and routes dust past the end of your Extension Table before joining your saw's 4" (101mm) collection port for extraction.

- Custom Y-Port unites 2.5" (63.5mm) duct above the table with one 4" (101mm) port below the table.



# USING YOUR SAW

## STATUS LIGHTS & CODES

The green and white lights under the power switch indicate the status of the saw. The lights function independently or in combination, depending on the status. Either light can flash slow or fast, or be on continuously. The white light can flash once indicating the saw is in Bypass Mode (see page 45).

Error codes not listed may also appear. If you are not able to identify the code or resolve an error situation, contact the SawStop Service department. Visit [SawStop.eu/support](http://SawStop.eu/support) for contact information.

See the descriptions of the status conditions in the table below.

GREEN	WHITE	STATUS	DESCRIPTION
Solid on	Slow blink	Starting up Initializing	The system is performing self-checks and energizing the brake system. This code should clear within 15 seconds after you turn on the power switch. If the ambient temperature is very low (below about 0° F (-17.8C)), this code may take longer to clear.
Solid on	Off	Ready or running	All self-checks have been completed, the safety system is operating properly, and the saw is in Standby Mode and ready to run.
Fast blink	Off	Coasting down	The blade is coasting down and that the safety system is ready to activate the brake if contact is detected. The safety system monitors the rotation of the blade while it is coasting down. If you touch the blade while this code is flashing, the brake will activate.
Solid on	Off	Bypass Mode ON*	The saw is running in Bypass Mode and will NOT activate the Brake Cartridge if you contact the spinning blade. Bypass Mode allows you to cut electrically conductive materials without activating the brake. When the saw is in Bypass Mode, the safety system is disabled.
Fast blink	Fast blink	Paddle OUT	The Start/Stop paddle is in the ON position (pulled out) before you turn on the power switch. Push the paddle in to the OFF position to clear this code. This is a safety feature to prevent the saw from restarting after a power loss or after the safety system has turned the saw off due to an error detected during use.
Solid on	Fast blink	Blade contact while stopped	There was contact with the blade (or a portion of the arbor) when the blade was not spinning in Standby Mode. Contact in this mode does not activate the brake. The code will automatically clear within 5 seconds after contact has ended. The system will not allow the motor to start while this code is displayed.

GREEN	WHITE	STATUS	DESCRIPTION
Slow blink	Fast blink	Blade contact during bypass	Contact was detected while the saw was running in Bypass Mode. The code indicates that the brake would have activated if the system had not been in Bypass Mode. The brake will not activate but the safety system will continue to monitor for contact. This error will automatically clear once the blade has finished coasting down.
Off	Slow blink	Brake Cartridge Key error	The cartridge locking key is not installed correctly. To clear this error, first turn the power switch to OFF, and then make sure the Cartridge Key is fully locked. See <b>INSTALLING A REPLACEMENT BRAKE CARTRIDGE</b> on page 73.
Off	Fast blink	Overload due to moisture	The material is too wet or green. Cycle the Start/Stop paddle and the power switch to clear. Allow material to dry or cut in Bypass Mode.
Slow blink	Solid on	Small or missing blade	<p>1. There is no blade currently installed or the blade is too small and thus incompatible with your saw. Switch power off, unplug the power cord and install a 10" (254mm) blade (or 8" Dado set and brake).</p> <p>2. The blade is either too far from or too close to the Brake Cartridge. To clear this error first turn the main power switch to OFF, and then adjust the position of the Brake Cartridge as described on page 75.</p>
Fast blink	Solid on	No blade rotation	The blade is stalled. Cycle power and cut material more slowly. Contact SawStop Technical Support if issue persists (see <a href="http://SawStop.eu/support">SawStop.eu/support</a> ).
Off	Solid on	Replace Brake Cartridge	The Brake Cartridge has already activated or there is some other permanent defect that cannot be corrected. If the cartridge has not activated, cycle the power off and on. If the error continues, install a new cartridge (see <b>INSTALLING A REPLACEMENT BRAKE CARTRIDGE</b> on page 73).



### WARNING:

\* THERE IS NO PROTECTION IN BYPASS MODE; the brake will not activate if you touch the spinning blade. Use Bypass Mode only to test a material for conductivity and to cut conductive materials. Use extra caution in Bypass Mode.

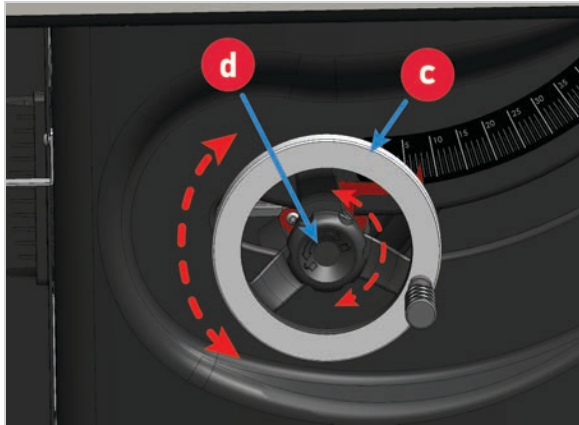


## ADJUST THE BLADE HEIGHT

To maximize safety, the height of the saw blade above the table should be as low as possible while still allowing a complete and precise cut. For through-cuts (i.e., cuts where the wood is cut through its entire thickness), the blade height should be adjusted so that the top of the blade is no more than 1/8" (3mm) to 1/2" (12mm) above the workpiece.

The blade can be adjusted from 1/8" (3mm) below the table top to 3 1/8" (79mm) above the table top. To adjust the height of the blade, follow these steps:

1. Locate the handwheel on the front of the saw (c).



2. Loosen the elevation lock knob (d) located in the center of the handwheel.
3. Turn the Elevation Handwheel until the blade is at the desired height. Clockwise to raise the blade height and counter-clockwise to lower the blade height.
4. Tighten the elevation lock knob when the desired height is reached. Do NOT overtighten.

The saw includes limit stops to prevent the height of the blade from being adjusted past the maximum and minimum set points. The upper limit stop is adjustable and pre-set at the factory. It should not need further adjustment, but if you decide to adjust the upper blade elevation limit stop, see page 55 for instructions.



### IMPORTANT:

When adjusting the height or tilt angle of the blade, reverse the handwheel slightly to release tension after reaching the limit stops. This prevents any slight twisting of the cast iron assembly that might affect blade alignment.

## ADJUST THE BLADE TILT ANGLE

The tilt (bevel) angle of the blade can be adjusted between 0° and 45°. Follow these steps to adjust the tilt angle of the blade.

1. Locate the handwheel on the right side of the saw.
2. Loosen the lock knob at the center of the handwheel.
3. Turn the Tilt Handwheel until the blade is at the desired angle. Rotate the handwheel clockwise to increase the tilt angle or counter-clockwise to decrease the tilt angle.
4. Tighten the tilt lock knob when the desired angle is reached. Do NOT overtighten.

The tilt-angle of the blade is indicated by the position of the red tilt angle indicator on the tilt-angle scale.



To learn how to calibrate the bevel indicator, see page 48.

The saw includes limit stops to prevent the tilt angle from being adjusted past the 0° and 45° set points. These limit stops are pre-set at the factory and should not need adjustment. If you decide to adjust the blade tilt limit stops, see page 56 for instructions.

## TURNING ON MAIN POWER AND STARTING THE MOTOR

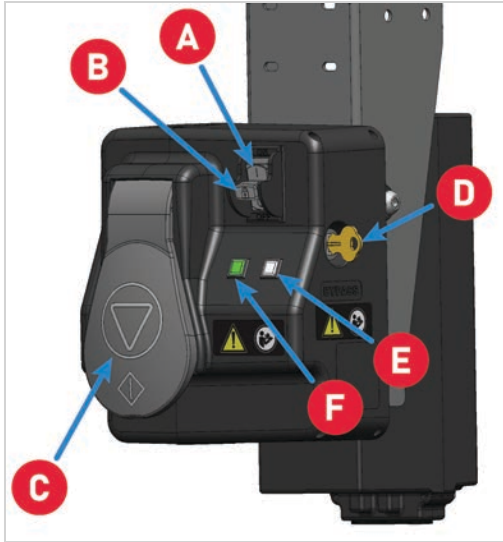
Your SawStop saw is equipped with a main power switch to supply power to the SawStop safety system and a Start/Stop paddle to turn the motor on and off. Both the main power switch and the Start/Stop paddle are mounted on the Switch Box. Learn and understand the power controls and procedure that follows.



### WARNING:

Never start the saw when the blade is in contact with the workpiece or any other object.

## POWER CONTROLS



- A. **Main Power Switch:** Activates power for the saw (but does not spin the blade).
- B. **Lock Out Key:** Remove to disable the saw (see page 41).
- C. **Start/Stop Paddle:** Pull out to turn on the motor and spin the blade. Push in to turn off the motor.
- D. **Bypass Key:** Turn key to run the saw in Bypass Mode. Remove key to lock out Bypass Mode (see page 41).
- E. **WHITE Status Light:** (see page 39).
- F. **GREEN Status Light:** (see page 39).

## START THE SAW - NORMAL MODE

Start your saw in Normal Mode to cut NON-CONDUCTIVE materials such as:

- Dry wood
- Dry plywood or OSB
- Dry pressure-treated wood
- MDF
- Plastic
- Solid surface
- Laminate
- Cardboard
- Foam



### WARNING:

Always wear hearing and eye protection when using saw!

## Procedure

1. To start your saw, make sure the Start/Stop paddle (C) is in the off (pushed in) position, then turn the main power switch (A) to the on position by flipping the toggle upward.

This will turn on power to the SawStop safety system. A brief initialization routine will be performed to test whether the system is operating properly. During this initialization period (approximately 5–10 seconds), green and white lights on the Switch Box (E, F) may blink in different patterns as the safety system runs through various self-check steps.

2. Once the safety system completes the initialization routine, the LEDs (E, F) will display the “READY” status display (green LED on solid, white LED off). The saw is now ready for use.
3. To start the motor, pull the Start/Stop paddle (C) out.



### WARNING:

Never start the saw when the blade is in contact with the workpiece or any other object.

If the READY status is not displayed after 15 seconds, the safety system has detected an error that must be corrected before the saw can be used. See **USING YOUR SAW** on page 39 for a key to the LED status codes and an explanation of the error detected for each code.



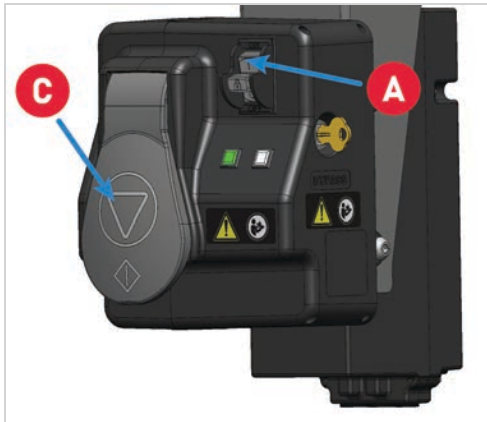
### WARNING:

Cutting conductive material in Normal Mode will cause the safety system to activate.

## STOP THE SAW - NORMAL MODE

It is not necessary to turn off the main power switch (A) after pushing in the Start/Stop paddle (C) to turn off the motor. If you plan to make several cuts with the saw, you can leave the main power switch (A) in the on (upward) position between cuts to eliminate the delay due to the initialization routine.

1. To stop the motor, push the Start/Stop (C) paddle in.



The paddle is designed so that it can be pushed in by the operator's upper leg or knee in an emergency.

Green status light flashes fast while blade spins down.



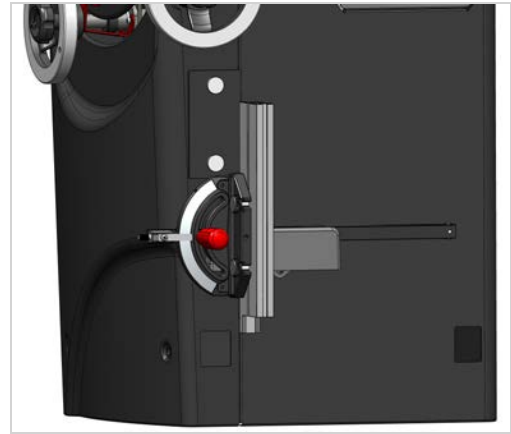
### WARNING:

Do not touch the blade while it is coasting down. Your touch will cause the safety system to activate.

2. Once you have finished using the saw, turn the main power switch (A) to off (flip the toggle downward) to reduce the likelihood of inadvertent start-up.

## USING THE MITER GAUGE

The miter gauge included with your saw allows you to make miter cuts and cross-cuts (cuts across the grain of the wood). When not in use, the miter gauge can be stored by inserting it into the miter gauge slot in the accessory tool holder mounted to the side of the saw.



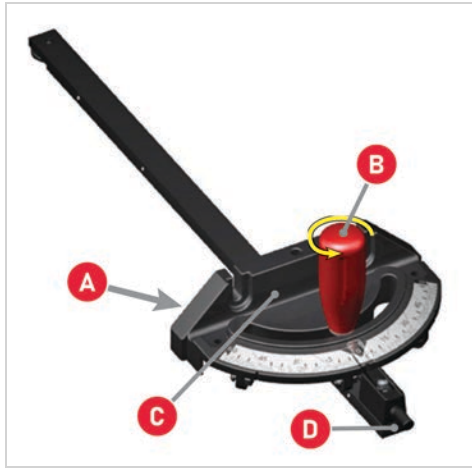
The main bar of the miter gauge fits in the T-shaped slots in the saw table. There is one slot on each side of the blade and the miter gauge can be used in either slot. However, do not use the miter gauge in the slot on the left of the blade when making bevel cuts.



### WARNING:

Understand the difference between rip cuts and cross cuts and how to safely perform them before cutting. Complete details for safe and proper execution of these and several other cut types are provided in the **Safety and General Use Instructions for Table Saws** manual included with your saw. Reference those instructions before proceeding.

The face of the miter gauge (A) can be adjusted between -60° and +60° relative to the blade. To adjust the miter angle, turn the handle (B) counter-clockwise approximately 1/2 turn to unlock the miter gauge head (C). Pull the indexing pin (D) out until it stops, and then rotate the head (C) until the indicator is positioned over the desired angle on the miter gauge scale. Use an angle gauge to set the angle between the miter gauge head and the blade if precise alignment is needed. Once the angle is correct, turn the handle (B) clockwise to lock the miter gauge head.



Adjustable index stops at -45°, 0°, and +45° are provided to allow quick and precise alignment at those angles. To use the index stops, rotate the miter gauge head (C) until the angle indicator reads approximately 5° higher (more positive) than the desired angle, and then push the indexing pin (D) forward until it stops. Next, rotate the miter gauge head counter-clockwise until the index stop hits the indexing pin. Lastly, tighten the handle (B) to lock the gauge at the desired angle.

The index stops are preset at the factory so further adjustment should not be necessary. If you wish to adjust the index stops, see **Calibrating 0° and 45° Index Stops** on page 64 for instructions.



#### **WARNING:**

Use the miter gauge for cross-cutting operations. To reduce the potential for kickback and serious injury, move the fence out of contact with the workpiece when cross-cutting to prevent the workpiece from binding between the fence and the blade.

Also see **ADJUSTING THE MITER GAUGE** on page 63.

## **Crosscut Fence**

A crosscut fence is included with your miter gauge. The fence consists of an aluminum extrusion that attaches to the face of the included miter gauge.



When attached, the fence offers additional support for a larger workpiece when passing it through the saw. For instructions, **ASSEMBLE THE MITER GAUGE** on page 33.



#### **WARNING:**

Use the miter gauge for cross-cutting operations. To reduce the potential for kickback and serious injury, move the fence out of contact with the workpiece when cross-cutting to prevent the workpiece from binding between the fence and the blade.

## **USING THE FENCE**



#### **WARNING:**

Understand the difference between rip cuts and cross cuts and how to safely perform them before cutting. Complete details for safe and proper execution of these and several other cut types are provided in the **Safety and General Use Instructions for Table Saws** manual included with your saw. Reference those instructions before proceeding.

Also see **ADJUSTING THE FENCE** on page 63.

The SawStop T-Glide Advance Fence System is a is constructed of a heavy-duty steel body for maximum rigidity. Rollers under the main body ensures smooth, effortless repositioning when moving the fence to the desired rip width. It also features a sliding, moveable face consisting of a versatile aluminum extrusion. The face can be positioned (no tools required) fore and aft in relation to the main body in order to optimize the setup and safety for a variety of cut types. The extrusion can also be attached to the main fence body laying in a low fence orientation to ensure safe cuts for narrow pieces. The fence is reversible such that the moveable face can be placed on the left or

right side of the main body to accommodate use of fence at the left or right side of the blade. This fence system is available in either a 36" (900mm) or 52" (1320mm) version.

Be sure to also read and thoroughly understand the Owner's Manual included with your fence system.



#### **WARNING:**

A rip fence must always be used when making rip cuts. Never perform a ripping operation freehand or a serious injury may result.

## **START THE SAW - BYPASS MODE**

If you need to cut electrically conductive materials with this saw, you must operate the saw in Bypass Mode to prevent the brake from activating. In order to operate the saw in Bypass Mode, the safety system requires you to follow the procedure described below to ensure that the saw is never placed in Bypass Mode accidentally. If you are unsure whether a particular material is conductive, see **How to Test Material Conductivity** on the next page.



#### **NOTE:**

The saw will not start in Bypass Mode unless the Brake Cartridge is properly installed and all error codes are cleared. It is not possible to "override" an error by starting the saw in Bypass Mode.

Start your saw in Bypass Mode to cut CONDUCTIVE materials such as:

- Green or very wet wood
- Wet pressure-treated wood
- Very wet plywood or OSB
- Aluminum and other metals
- Carbon-filled materials
- Foil
- Mirrors



#### **WARNING:**

**There is no protection in Bypass Mode!** Use Bypass Mode only to cut conductive materials or to test conductivity (see page 46).

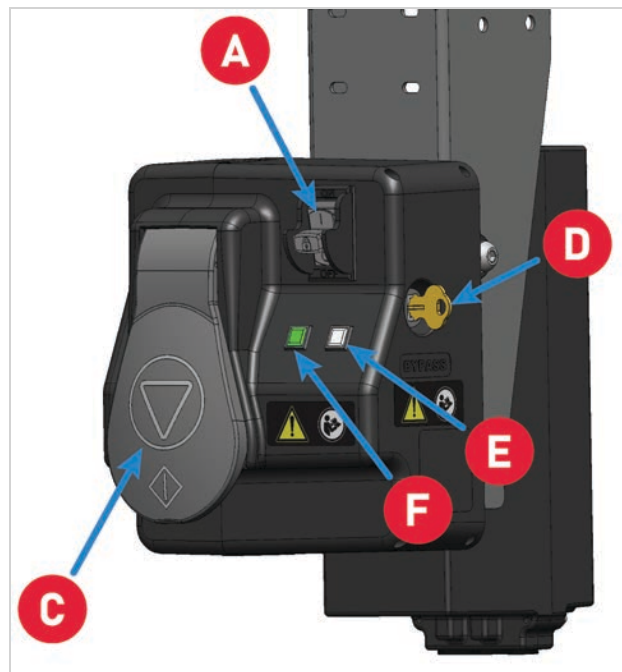


#### **NOTE:**

You cannot start in Bypass Mode unless the Brake Cartridge is installed and all error codes are cleared.

## **To Operate The Saw in Bypass Mode:**

1. Make sure the Start/Stop paddle (C) is in the off (pushed in) position, then turn the main power switch (A) to the on position by flipping the toggle upward. Wait until the safety system completes the initialization routine and the system status code indicates the saw is ready for operation.



2. Turn the Bypass Key (D) clockwise and hold it for at least 1 second. The green LED (F) will begin blinking slowly and the white LED will flash once to let you know when the 1 second has elapsed.
3. While still holding the Bypass Key (D) turned, pull the Start/ Stop paddle (C) out to the ON position. The blade will start to spin.
4. Continue to hold the Bypass Key (D) turned for at least 1 second after the motor starts—the white (E) LED will flash once again to let you know when the 1 second elapses. If you release the Bypass Key before 1 second has elapsed, the motor will stop and the "Push Start/Stop Paddle to OFF" error code will be displayed. If this happens, switch the Start/Stop paddle (C) to OFF and repeat this procedure from the beginning.

The green light (F) flashes while saw is running in Bypass Mode.



**NOTE:**

You cannot start in Bypass Mode unless the Brake Cartridge is installed and all error codes are cleared.

## STOP THE SAW - BYPASS MODE

1. When you have completed your cut, push the Start/Stop paddle (C) in to turn off the motor.

The paddle is designed so that it can be pushed in by the operator's upper leg or knee in an emergency.

The green status light (F) flashes fast while blade spins down.

**WARNING:**

The saw is still in Bypass Mode until the blade comes to a complete stop. The saw returns to Normal Mode automatically after the blade stops.

The next time you start the motor, the safety system will be active unless you repeat the procedure described above to start the motor in Bypass Mode.

2. Once you have finished using the saw, turn the main power switch (A) to off (flip the toggle downward) to reduce the likelihood of inadvertent start-up.

## MORE ABOUT BYPASS MODE

### How to Test Material Conductivity

Use Bypass Mode to see if material is conductive and would cause the brake to activate. Start the saw in Bypass Mode (see page 45), and then carefully make several cuts on a scrap piece of the material.

When testing conductive material, the following status light pattern indicates that the material is conductive and must be cut in Bypass mode to prevent the safety system from activating.

**GREEN:** Slow blink

**WHITE:** Fast blink

If this status code is not displayed after several trial runs, then it is likely the material is not conductive and you can make future cuts in Normal Mode.

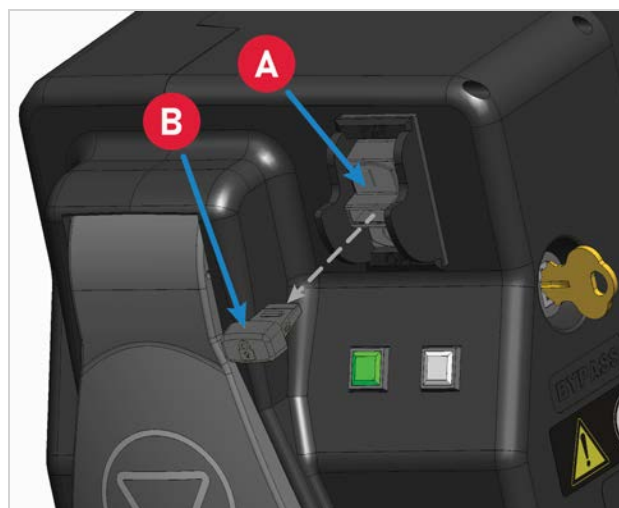
### How to Lock Out Bypass Mode

To prevent unauthorized use of the saw in Bypass Mode, remove the Bypass Key (D) from the saw when not in use.

## HOW TO DISABLE YOUR SAW

The main power switch has a lockout key (D) that you can remove to prevent children or other non-authorized users from turning the saw on.

1. To remove the key (B), pull it out, away from the switch.



To replace the key, press it back into the socket until it snaps into place. When the key is removed, the main power switch (A) can be turned OFF, but it cannot be turned ON.

## THERMAL OVERLOAD PROTECTION

The saw is equipped with a thermal overload relay that protects the motor from overheating due to prolonged overloading. If the thermal overload protection trips, it will shut off the motor automatically.

Resetting the thermal overload relay must be performed by a qualified service technician. Do not attempt to reset the overload relay yourself, as it may require inspection of internal wiring and motor conditions.

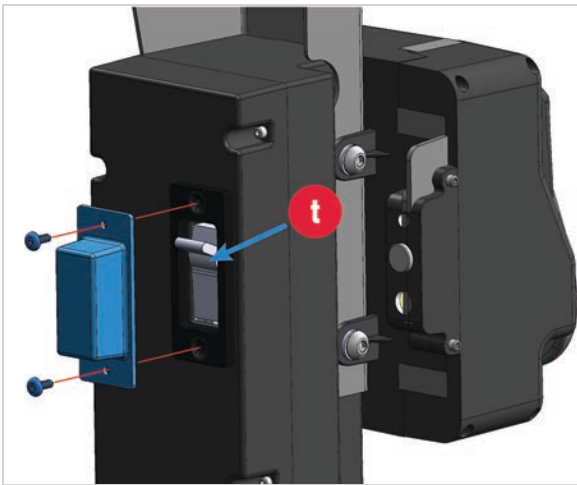




## OVERCURRENT PROTECTION

Your saw includes an overcurrent protection circuit breaker, which trips in the event of a short circuit or sudden surge in current exceeding the circuit breaker rated value. This helps protect the wiring and internal components of the saw. If the circuit breaker trips, perform the following steps to reset it:

1. Turn the main power switch (A) to the OFF (downward) position and ensure the saw is off..
2. Wait two minutes for safety..
3. Using a #2 Phillips screwdriver, remove the two screws securing the clear lens on the back of the contactor box.



4. Press the reset switch (t) downward. You should hear a soft click when it resets.
5. Reattach the clear lens and screws.

Once reset, double-check the electrical circuit and connections before resuming use. Always use an appropriate feed rate for the material being cut.

## USING A MOBILE BASE

The Professional Cabinet Saw is a stationary saw. In some situations it is important to be able to relocate your stationary saw from one position to another in your workshop. For example, you may want to store any stationary saw against a wall in your workshop, then move the saw away from the wall to use it. An optional mobile base accessory allows you to reposition your stationary saw with ease. It attaches to the cabinet and lifts the saw onto the wheels when you step on a lever. When the wheels are down, you can roll the saw from one location to

another. Stepping on a release will then raise the wheels and lower the saw back onto its feet. SawStop offers two mobile base accessories that are compatible with your Professional Cabinet Saw.

### Integrated Mobile Base

Designed to smoothly move your saw on any flat surface with the easy step of the lift pedal. The mechanism lifts with one-foot simplicity, and two polyurethane fixed-direction wheels and two 360° casters ensure easy movement. Powder-coated steel ensures durability, and allows the base to support the saw without the need for any extension pieces.



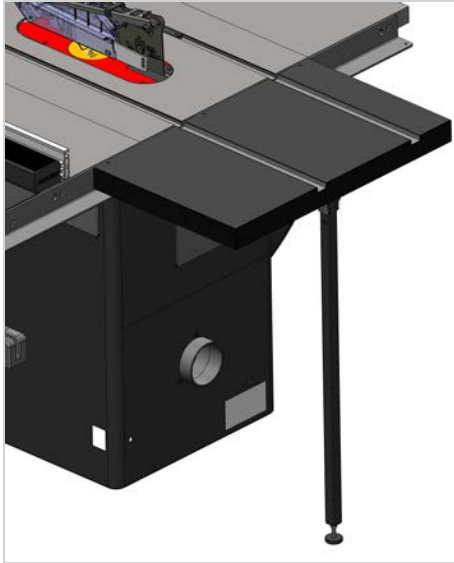
### Industrial Mobile Base

The SawStop Industrial Mobile Base comes with four, 360° casters to provide more flexible mobility. A foot operated hydraulic jack and quick release lever allow for the saw to be easily raised off the floor and lowered again.



## USING AN OUTFEED TABLE

You should use an out-feed table to support your work when cutting pieces longer than approximately 4' (122cm). The out-feed table attaches flush against the back edge of your saw and prevents your workpiece from dropping off the back of your saw during cutting.



Assembly instructions for the outfeed table included with your saw are found on page 16.

## MAKING ADJUSTMENTS TO YOUR SAW

Your SawStop Professional Cabinet Saw has been factory adjusted to rigid specifications to provide the highest quality performance and results. Additional adjustment or alignment should not be necessary. Nevertheless, your SawStop Professional Cabinet Saw has been designed to allow a wide range of adjustments and alignments to achieve the ultimate in precision. Before changing the alignment of any portion of the saw, make sure you read and understand the entire alignment procedure.



### WARNING:

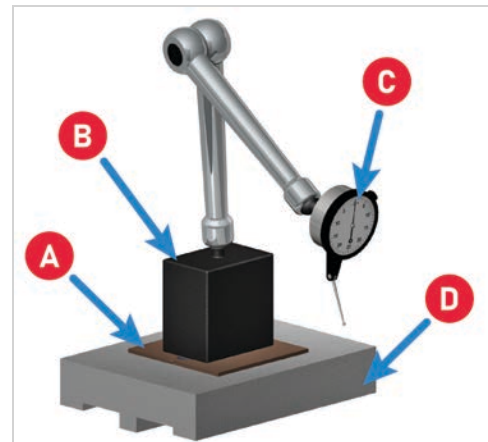
Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

## ALIGNING THE TABLE

For accurate cuts with the miter gauge, the miter slots in the table should be parallel to the blade. This is also important for rip cuts since the rip fence should be aligned to the miter slots. Two procedures for aligning the table are described below. The preferred procedure is described first and provides an accuracy of about  $\pm 0.002"$  (0.005mm). An alternative procedure is also described which provides an accuracy of about  $\pm 0.010"$  (0.254mm).

### Preferred Table Alignment Procedure

To align the table precisely, you will need a dial test indicator with a resolution and accuracy of at least 0.0005 inches, and a mount for the indicator that will slide smoothly in the miter slots. The mount should slide on the table on either smooth plastic glide plates or on ball bearing rollers. The mount should also include a lower rail or similar structure that fits relatively tightly in the miter slot, but not so tight as to prevent the mount from sliding. A sample mount is shown below.



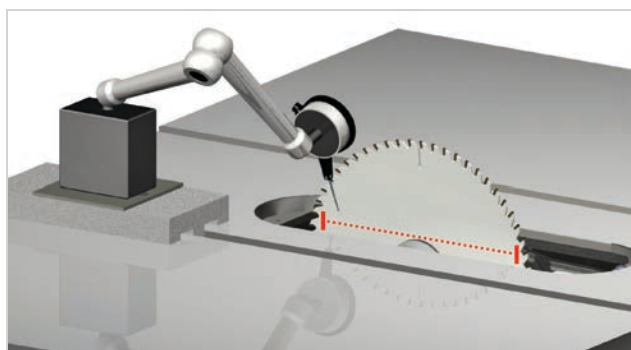
- A. Steel plate
- B. Magnetic base
- C. Dial test indicator
- D. Plastic mount

### Determine If Adjustment is Needed:

1. Remove the table insert (see page 29), and install a clean, high-quality blade or precision blank onto the arbor as described (see page 69). The blade should be flat and parallel to within 0.001 inch or less, and should not be coated with paint or similar materials that may affect the measurement. Attempting to align the table using a blade that is

not very flat will cause inaccuracy in the alignment.

2. Set the tilt angle to 0°. When setting the tilt angle and blade elevation, be sure to back the handwheels off slightly after reaching the limit stops. As with all table saws, pulling the handwheels tight against the limit stops can cause a slight twisting of the trunnion assembly and lead to inaccurate alignment measurements.
3. Raise the blade elevation to about 3" (76mm) above the table. Position the dial test indicator so that the measurement arm rests against the right side of the blade and about 1/4" (6mm) above the center of the arbor flange. Slide the mount forward until the measurement arm is about 1/2" (12mm) inside the front edge of the blade.



4. Set the dial indicator to zero. Slide the dial test indicator mount smoothly toward the back of the saw until the measurement arm is about 1/2" (12mm) inside the rear edge of the blade. Note the reading of the dial indicator as the mount moves across the blade.

If the dial indicator moves positive and then negative (or vice versa) a substantial amount, or if there is a sudden change in the reading rather than a gradual change, this indicates a non-flat area of the blade. If this happens, try rotating the blade 1/4 turn and retesting. Repeat this process until you get a reading that is not significantly affected by blade flatness. If you cannot get a good reading, try a different blade.

If there is a gradual and continuous change in the dial reading of over 0.002" (0.005mm) in either the positive or negative direction, rotate the blade 1/2 turn. Slide the dial indicator mount back toward the front of the blade and reset the indicator to zero. Now slide the mount toward the back of the saw again while noting the dial reading. If there is

similar change but in the opposite direction, this indicates that the left and right surfaces of the blade are not parallel. Rotate the blade 1/4 turn and repeat the process from the beginning. If you cannot get consistent readings, try a different blade.

If the dial indicator reads a relatively consistent difference between the front and rear of the blade, take the average of the readings. A measurement of 0.002" (0.005mm) or less indicates that the table is aligned within the margin of error for this measurement and no further alignment is necessary. For measurements larger than 0.002" (0.005mm), you can adjust the position of the table to improve the parallelism between the blade and the miter slot.

### Adjusting The Table

1. To adjust the alignment of the table, begin by loosening the four mounting bolts that attach the table to the cabinet by using a 17mm wrench, socket, or adjustable wrench.

#### **NOTE:**

The bolts that attach the table to the front of the cabinet are shown below. The bolts that attach the table to the back of the cabinet (not shown) can be accessed by opening the motor cover and side access panel. Tilt the blade to approximately 30° to access the left, rear bolt.



2. After loosening the front and rear bolts described above, slide the dial indicator to the front of the blade and set the readout to zero. Slide the dial indicator mount to the rear of the blade. The dial indicator should now be reading close to the average measurement you made previously. Note the direction of the dial indicator reading, whether it is positive or negative.

3. The table alignment is set by a pivot pin pressed into the boss indicated below at the front of the table.



4. Use the included 5mm hex wrench to adjust the positioning screws. The right positioning screw is shown below. There is also a left positioning screw (not pictured).



If the measurement is positive, loosen the left positioning screw and tighten the right positioning screw. If the measurement is negative, loosen the right positioning screw and tighten the left positioning screw. Make sure that before tightening one screw you loosen the opposite screw.

5. You should see the readout on the dial indicator change as you adjust the positioning screws. Adjust the screws until the readout is the same, but in the reverse direction. For example, if the initial reading was +0.006" (0.152mm), adjust the positioning screw until the reading is -0.006" (0.152mm).
6. Now slide the dial indicator mount back to the front of the blade and re-zero the readout. Slide the indicator mount smoothly toward the back of the saw until the indicator measurement arm is about 1/2 inch inside the rear edge of the blade. The new measurement should be much closer to

0.000".

7. If the new measurement is still too high, repeat the above process until the parallelism between the blade and the miter slot is satisfactory. Now, tighten the positioning screw that you loosened until it stops. Do not apply a lot of torque to this screw since that could push the table back out of alignment.
8. If you are going to make adjustments in the blade tilt alignment go on to the section **ALIGNING THE BLADE TO THE TILT AXIS** on the facing page. Otherwise, tighten the four table mounting bolts to secure the table to the cabinet. For best results, tighten each bolt a little at a time in a "star pattern" until all are tight. Watch the dial indicator while tightening, and if one bolt causes a significant change, tighten the other bolts first.

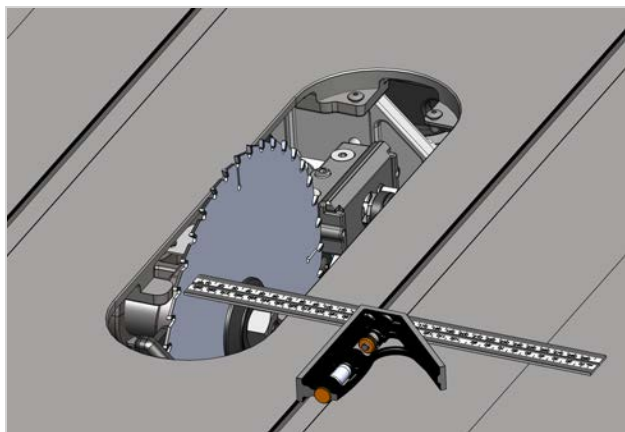
### Alternate Table Alignment Procedure

For this procedure you will need a set of calipers or a combination square.

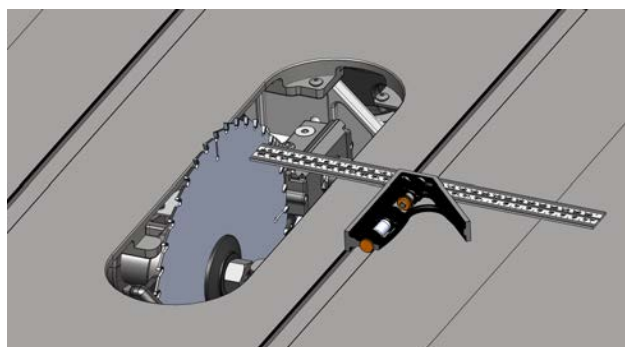
1. Remove the table insert and install a blade or reference plate as described in the **Preferred Table Alignment Procedure** on page 48. Set the tilt angle to 0° and raise the blade elevation to approximately 3" (76mm) above the table.
2. Select a point on the edge of the blade that is between two consecutive teeth and place a mark near that point.
3. Rotate the blade until that mark is just above the table and toward the front of the saw.
4. If you are using calipers, measure the distance between the left edge of the right-hand miter slot and the left side of the blade. (Make sure to measure the flat plate of the blade rather than the tooth.)



If you are using a combination square, set the end of the ruler flat against the right side of the blade, and position the base to be flush against the left side of the right-hand miter slot.



5. Write the measurement down.
6. Rotate the blade until the point you marked is just above the table but toward the back of the saw. Repeat the measurements above.



7. If necessary, loosen the table mounting bolts and adjust the position of the table as described in the **Preferred Table Alignment Procedure** on page 48.
8. Repeat the above measurements and table alignment until you are satisfied with the parallelism between the blade and the miter slot.
9. Tighten the table mounting bolts.

## ALIGNING THE BLADE TO THE TILT AXIS

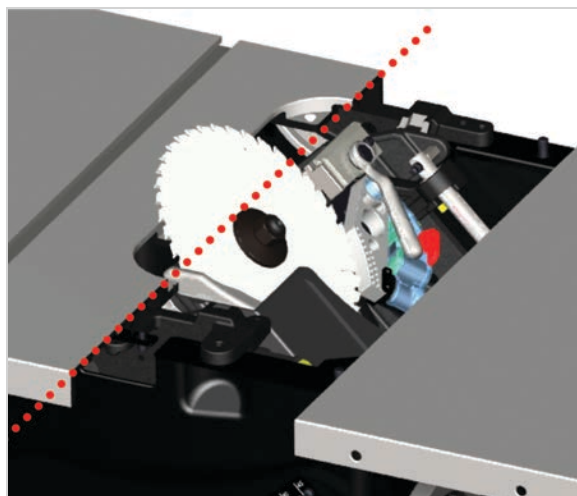
When making bevel cuts, the blade is tilted on an axis that runs along the surface of the table between the front and rear trunnion brackets. If the blade is not parallel to this axis, the blade will move out of parallel with the miter slots when it is tilted away from 0° (this assumes the table has been aligned to be parallel to the blade at 0° tilt angle). SawStop cabinet saws are the only major cabinet saws that

allow you to fine tune the parallelism of the blade to the tilt axis.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.



### NOTE:

This alignment procedure is not intuitive. Make sure you read this entire procedure before beginning and follow each step precisely. Any deviation from this procedure may create a substantial misalignment in your saw.

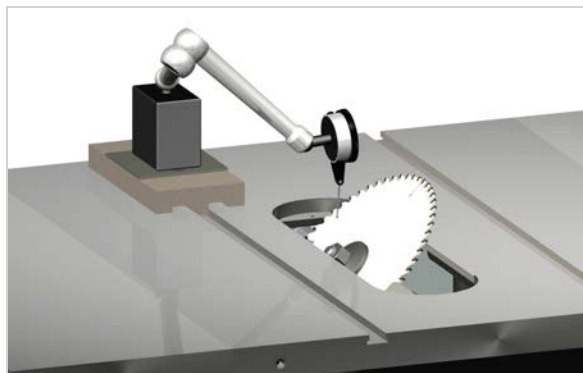
The geometry involved in this alignment procedure is tricky. That is because there is no way to easily measure the parallelism between the blade and the tilt axis. Instead, you must measure the alignment between the blade and the table at both 0° tilt and 45° tilt. The difference in those measurements is proportional to the misalignment between the blade and the tilt axis. To ensure accurate alignment, follow the procedure described below exactly.

To align the blade to the tilt axis, you will need a dial test indicator with a resolution and accuracy of at least 0.0005 inches, and a mount for the indicator that will slide smoothly in the miter slots. Another example use for this sort of gauge can be seen in the instructions for **ALIGNING THE TABLE** on page 48. The blade should be flat and parallel within 0.001" (0.0254mm) or less, and should not be coated with paint or similar materials that may affect the measurement. Attempting to align the blade to the tilt axis

using a blade that is not very flat will cause inaccuracy in the alignment.

#### Determine If Adjustment Is Needed:

1. First, align the table as described on page 48, using the precision alignment procedure. Make sure the blade is as close to parallel to the miter slot as possible.
2. Move the dial indicator measurement arm so that it is not touching the blade and tilt the blade to approximately 45°. Make sure not to tighten the Tilt Handwheel against the 45° limit stop. Now reposition the dial indicator measurement arm against the right side of the blade and about 1/4 inch directly above the arbor flange. Slide the dial indicator mount toward the front of the saw until the measurement arm is about 1/2" (12mm) inside the front edge of the blade as shown. Set the dial indicator readout to zero.



3. Slide the dial test indicator mount smoothly toward the back of the saw until the measurement arm is about 1/2" (12mm) inside the rear edge of the blade. Note the reading of the dial indicator as the mount moves across the blade. Write down the final number, including whether it is positive or negative. This number is proportional to the misalignment between the blade and the tilt axis.

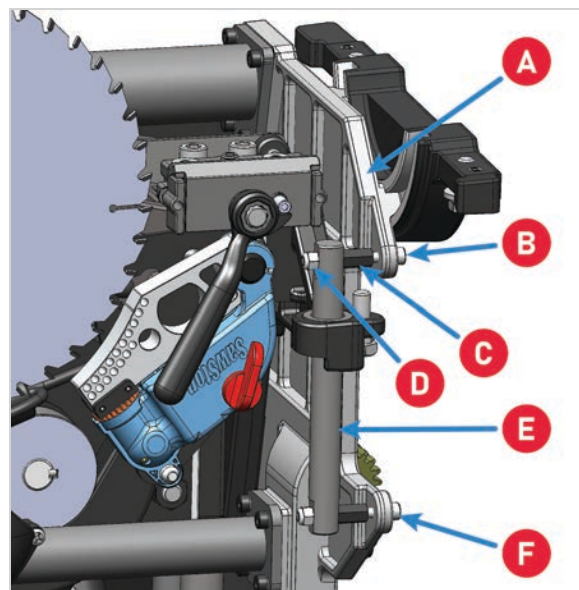
If the measurement is 0.002" (0.05mm) or less, then the blade is parallel to the tilt axis within the margin of error for this procedure and no further alignment is necessary. For measurements larger than 0.002" (0.05mm), you can adjust the angle of the blade to improve the parallelism between the blade and the tilt axis by following the steps below.

#### Adjust the Blade Angle:

1. Move the dial test indicator away from the blade, set the tilt angle back to 0° and reposition the dial

test indicator at the front of the blade

2. When you slide the dial indicator mount across the blade, you should see little or no change in the indicator readout since the table was previously aligned. Slide the dial indicator toward the front of the saw until the measurement arm is about 1/2" (12mm) inside the rear edge of the blade.
3. Set the readout to zero.
4. The angle of the blade relative to the tilt axis is controlled by two bolts (B and F) that bolt the secondary elevation shaft (E) to the rear trunnion (A).



To align the blade to the tilt axis, you need to adjust the position of the nut (D) and standoff (C) on the top bolt (B) of the secondary elevation shaft (E) until the misalignment between the blade and the miter slot as measured by sliding the dial indicator across the blade from front to back at a 0° tilt angle is 2.4 times the measurement taken at a 45° tilt angle, but in the opposite direction.

For example:

If the measurement taken at 45° was +0.006" (0.152mm), then the misalignment at 0° should be adjusted to  $(-2.4) \times (0.006) = -0.014"$  (.355mm).

5. Use a 10mm wrench to turn both the small nut and the standoff on the top bolt of the secondary elevation shaft.



6. Only make small turns (about one-third of a turn at a time). To create a positive misalignment, first loosen the nut and then turn the standoff counter-clockwise the same amount so that it moves towards the nut. To make a negative misalignment, first turn the standoff clockwise and then turn the nut clockwise the same amount so that it moves towards the standoff. You will see the dial indicator reading go positive as you create a final negative misalignment and negative as you create a final positive misalignment.
7. Keeping the dial test indicator positioned toward the front of the saw with the measurement arm about 1/2" (12mm) inside the front edge of the blade, set the dial readout to zero. Slide the dial indicator mount toward the back of the saw until the measurement arm is about 1/2" (12mm) inside the rear edge of the blade. Note the readout.
8. If the readout is -2.4 times the measurement you took at 45°, the bolt should be correctly adjusted. Otherwise, repeat the above process of adjusting the top bolt on the secondary elevation shaft until the dial indicator at 0° tilt angle reads -2.4 times the measurement taken at 45° as the dial indicator is moved across the blade from the front to the back.
9. Once the bolt is adjusted correctly, the blade should now be parallel to the tilt axis. Make sure the small nut at the end of the bolt is tight. Since the alignment of the blade has been changed, the table must now be realigned. Align the table as described on page 48, using the precision alignment procedure.
10. Once the table has been realigned, you can check the parallelism of the blade to the tilt axis by tilting the blade to 45° and measuring the alignment between the blade and the miter slot. If the misalignment of the blade and the miter slot is less than 0.002" (0.05mm) at both 0° and 45°, then the blade is parallel to the tilt axis. If necessary, you can fine tune the alignment by repeating the above procedure.

## ALIGNING THE BLADE ELEVATION ASSEMBLY

The following blade elevation alignment procedure assumes the blade has already been aligned with the tilt axis. If the blade has not been aligned with the tilt axis, first follow the procedure in the section **ALIGNING THE BLADE**

**TO THE TILT AXIS** on page 51, and then continue with aligning the blade elevation assembly.

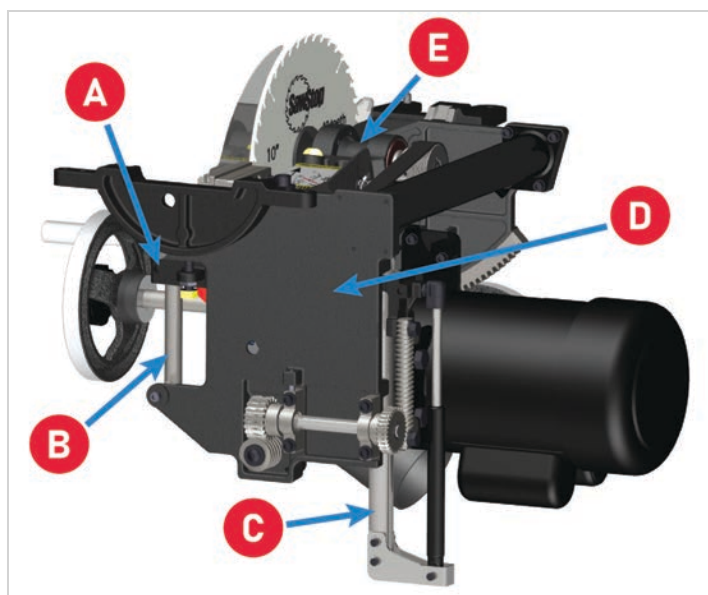
The blade elevation assembly controls the motion of the blade as it is raised and lowered. Aligning the blade elevation assembly ensures that there is minimal lateral movement of the blade as it is raised and lowered. Although all table saws suffer from some lateral blade movement due to tolerance stack-ups in machining.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

The SawStop Professional Cabinet Saw uses a vertical slide elevation design for ultra smooth operation and rigidity. The blade and arbor block are mounted on a large cast iron base called the elevation plate.



- A. Elevation plate
- B. Secondary elevation shaft
- C. Primary elevation shaft
- D. Rear trunnion
- E. Arbor block

The elevation plate (A) slides up and down on two shafts that are attached to the rear trunnion (D). This blade elevation assembly is aligned by adjusting the orientation of the secondary elevation shaft (B) so that it is parallel to the primary elevation shaft (C). If the shafts are not parallel the blade will rotate about a vertical axis as the blade is raised

and lowered. When the blade elevation assembly is aligned, the blade will remain parallel to the miter slots with minimum lateral movement as it is raised and lowered.

#### Determine If Adjustment is Needed:

1. Verify that the table is aligned. With the blade fully elevated and at a 0° tilt angle, measure the parallelism of the blade relative to the miter slots in the table as described in the section named **ALIGNING THE TABLE** on page 48.
2. With the blade at a tilt angle of 0°, lower the blade below the table. Make sure to back the handwheels off slightly to release the pressure between the trunnion assembly and limit stops. Next, position the dial test indicator near the right side of the blade. The indicator measurement arm should rest against the blade approximately 1/2" (12mm) inside the front edge of the blade and about 1/2" (12mm) higher than the top of the arbor washer.



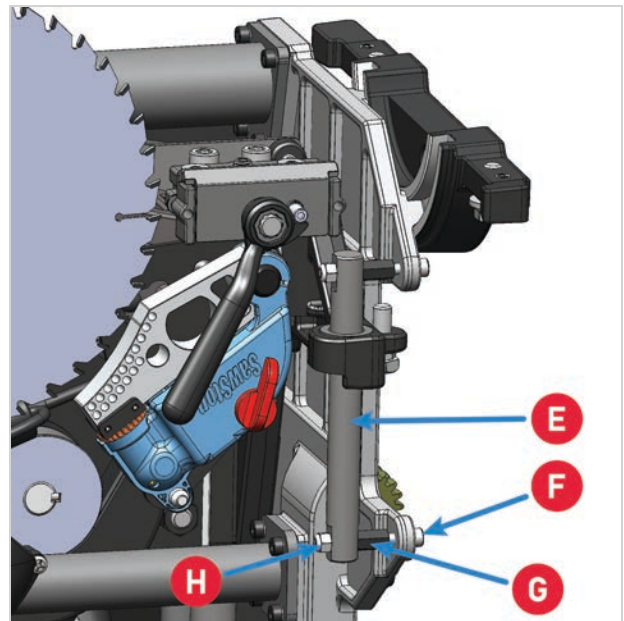
Depending on the geometry of your dial test indicator, it may be necessary to position the indicator below the table.

3. Now measure the parallelism of the blade relative to the miter slots in the table as described in the section **ALIGNING THE TABLE** on page 48. Note the readout of the dial indicator including whether it is positive or negative.
4. If the measurement is 0.002" (0.05mm) or less, then the blade elevation assembly is aligned within the margin of error for this measurement and, therefore, no further alignment is needed. If the measurement is greater than 0.002" (0.05mm), you can adjust alignment by following the steps below.

#### Alignment Procedure:

To align the blade elevation assembly, you will need to adjust the position of the nut (H) and standoff (G) on the

bottom bolt (F) of the secondary elevation shaft (E) until the blade is parallel to the miter slot as measured by sliding the dial indicator across the blade.



1. Use a 10mm wrench to turn the nut (H) and standoff (G). Make only small turns (about one-third of a turn at a time). **If your reading above was negative**, first loosen the nut by turning it counter-clockwise and then turn the standoff counter-clockwise the same amount so that it moves towards the nut. **If your reading above was positive**, first turn the standoff clockwise and then turn the nut clockwise the same amount so that it moves towards the standoff. Measure the parallelism of the blade relative to the miter slots and keep adjusting the nut and standoff until the reading on the dial indicator is zero as you slide the dial indicator across the blade.
2. Once the blade is parallel to the miter slots with the blade fully lowered, make sure the small nut (H) at the end of the bolt (F) is tight.
3. Fully raise the blade.
4. Measure the parallelism of the fully raised blade. If the blade is not parallel to the miter slots, you will need to redo the alignment process. Begin by re-aligning the table with the blade fully elevated and at a 0° tilt angle (see page 48). Then continue the alignment process by re-aligning the blade to the tilt axis (see page 51) and then re-aligning the blade elevation assembly (see page 53).

## ADJUSTING THE BLADE HEIGHT LIMIT STOPS

The lower elevation limit stop prevents the arbor block or blade from hitting the lower trunnion assembly and dust shroud. The arbor bumper (see page 27) serves as the lower elevation limit and cannot be adjusted.

The Upper Elevation Limit Stop prevents the arbor block and the motor belt from hitting the underside of the table. The upper limit stop is adjustable and pre-set at the factory. It should not need further adjustment but if you decide to adjust the upper blade elevation limit stop, perform the procedure described below.

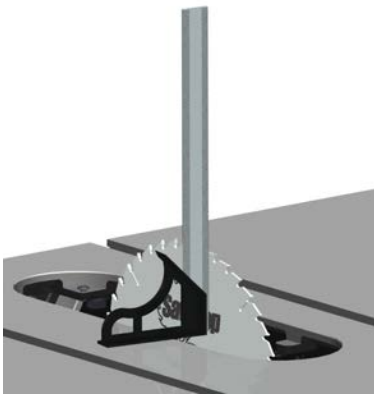


### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

### Determine If Adjustment Is Needed

1. To check the position of the Upper Elevation Limit Stop, follow the steps below.
2. Set the blade tilt to 0°.
3. Install a 10" (250mm, 254mm) saw blade on the arbor (see page 69).
4. Turn the Elevation Handwheel clockwise until the limit stop is reached.
5. Using a combination square or similar tool, measure the distance from the top of the table to the tip of the highest tooth on the blade.

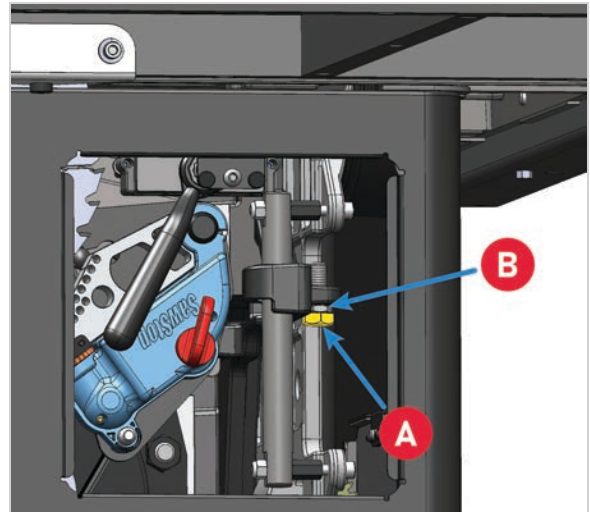


6. The maximum height of the blade above the table should be 3 1/8" (79.3mm). If the blade is 33/16"

(80.5mm) or higher above the table, the Upper Elevation Limit Stop should be adjusted downward. If the blade is less than 3 1/8" (79.3mm) above the table, you can adjust the limit stop upward to 3 1/8" (79.3mm). Alternatively, you can adjust the limit stop so that the maximum blade height is lower than 3 1/8" (79.3mm).

### Adjust The Limit Stop

The Upper Elevation Limit Stop is fixed by the yellow painted bolt (A) located on the elevation plate and can be accessed through the side panel or the rear access panel with the blade lowered.



The Upper Elevation Limit Stop can be adjusted by using a 17mm wrench to turn the bolt (A) and a 14mm wrench to turn the locking nut (B).

### Raise the Maximum Blade Elevation:

1. Loosen the locking nut (B) and back it off several turns. Then turn the upper limit bolt (A) counter-clockwise several turns.
2. Adjust the Elevation Handwheel until the blade elevation is set to the correct maximum height. If the Upper Elevation Limit Stop prevents you from raising the blade to the desired maximum elevation, continue to turn the bolt (A) counter-clockwise until the blade can be raised to the correct elevation. Make sure that neither the arbor block nor the belt comes in contact with the underside of the table or damage can result.

3. Once the blade is set to the correct maximum elevation, turn the upper limit bolt clockwise until it is tight.
4. Next, turn the locking nut (B) clockwise until it is tight. The upper elevation limit has now been set.

#### Lower the Maximum Blade Elevation

1. Adjust the Elevation Handwheel until the blade elevation is set to the correct maximum height. Loosen the locking nut (B) and back it off several turns.
2. Turn the bolt (A) clockwise until it is tight. If the blade elevation is still set too high, continue loosening the locking nut (B) and turning the bolt (A) clockwise until the blade is set to the correct maximum elevation.
3. Turn the locking nut (B) clockwise until it is tight.

The upper elevation limit has now been set.

## ADJUSTING THE TILT LIMIT STOPS AND TILT ANGLE INDICATOR

The tilt limit stops allow you to easily and quickly set the bevel angle to 0° and 45°. However, when making precision cuts, it is always best to check the angle of the blade with a combination square or similar tool.



### **WARNING:**

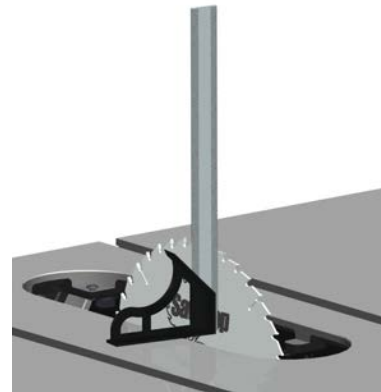
Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

### 0° Tilt Limit Stop

#### Determine If Adjustment is Needed:

1. To check the position of the 0° limit stop, install a 10" (250mm, 254mm) saw blade on the arbor (see page 69).
2. Raise the blade to its full elevation.
3. Turn the Tilt Handwheel clockwise until the limit stop is reached.

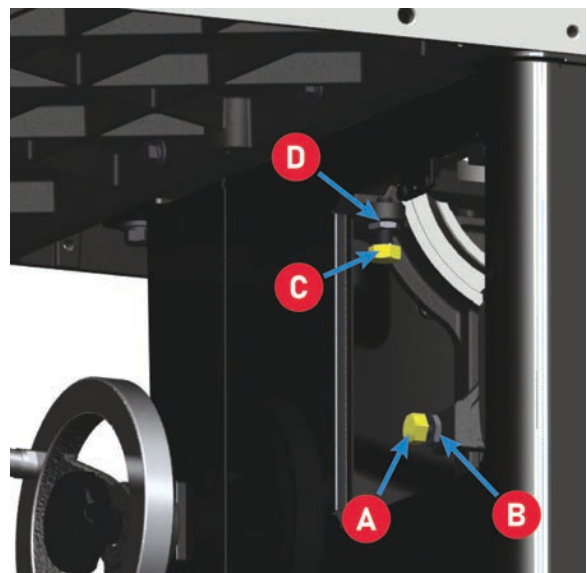
4. Using a square, check to see that the blade is at a 90° angle to the table.



If you need to adjust the position of the 0° limit stop, follow the instructions below.

#### Adjust the 0° Limit Stop

The 0° tilt limit stop is set by the yellow painted bolt located on the front trunnion (A) and can be accessed through the side panel. You will need a 17mm wrench to turn the bolt (A) and a 14mm wrench to turn the locking nut (B).



1. Loosen the locking nut (B) and back it off several turns.
2. Then turn the 0° tilt limit bolt (A) counter-clockwise several turns.
3. Adjust the tilt angle until the blade is at 90° to the table. If the blade still cannot reach a 90° angle with the table, keep turning the nut (B) and bolt (A) counter-clockwise until it can.



4. Once the blade is in the correct position, turn the 0° limit bolt (A) clockwise until it is tight.
5. Turn the locking nut (B) clockwise until it is tight.

#### If the Blade Moves Past 90°

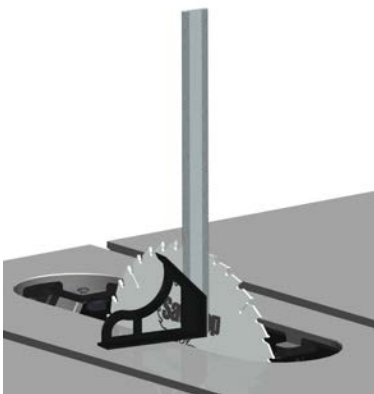
1. If the blade moves past a 90° angle with the table at a minimum tilt angle, first position the blade so that it forms a 90° angle with the table.
2. Loosen the locking nut (B) and back it off several turns.
3. Turn the 0° limit bolt (A) clockwise until it is tight.
4. Turn the locking nut (B) clockwise until it is tight.

The 0° tilt limit stop has now been set.

## 45° Tilt Limit Stop

#### Determine If Adjustment is Needed:

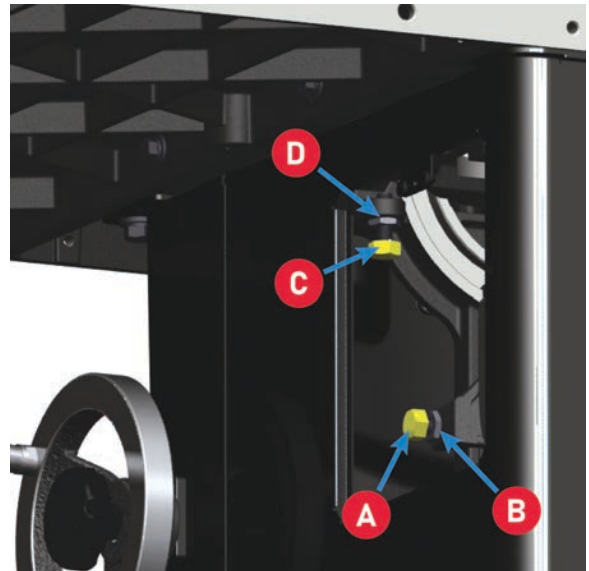
1. Install a 10" (250mm, 254mm) saw blade on the arbor (see page 69).
2. Raise the blade to its full elevation.
3. Turn the Tilt Handwheel counter-clockwise until the limit stop is reached.
4. Using a combination square, check to see that the blade is at a 45° angle to the table.



If you need to adjust the position of the 45° limit stop, follow the instructions below.

#### Adjust the 45° Limit Stop

The 45° tilt limit stop is set by the yellow painted bolt located on the front trunnion bracket (C) and can be accessed through the side panel. Use a 17mm wrench to turn the bolt and a 14mm wrench to turn the locking nut (D).



1. Loosen the locking nut and back it off several turns.
2. Turn the 45° tilt limit bolt clockwise several turns.
3. Set the blade at a 45° angle with the table.
4. If the blade still can't reach a 45° angle with the table, keep turning the nut counter-clockwise and the 45° tilt limit bolt clockwise until the blade is at a 45° angle with the table.
5. Once the blade is in the correct position, turn the 45° tilt limit bolt counter-clockwise until tight. Finally, turn the locking nut clockwise until tight.

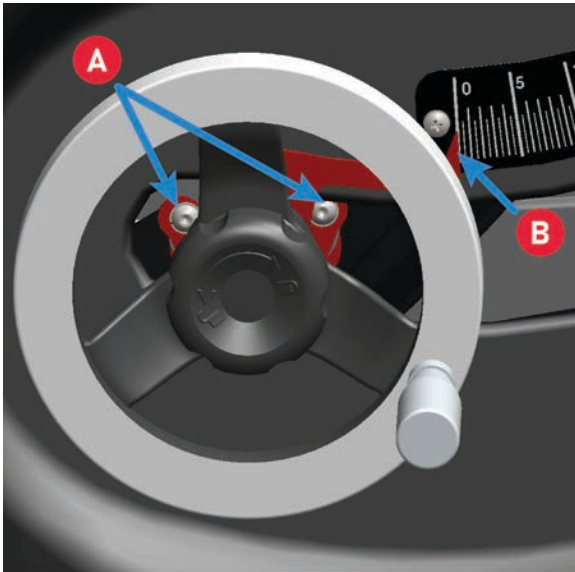
#### If the blade moves past 45°

1. If the blade goes past an angle of 45° with the table at maximum tilt, loosen the locking nut (D) and back it off several turns.
2. Set the blade at a 45° angle with the table.
3. Turn the 45° tilt limit bolt (C) counter-clockwise until it is tight.
4. Turn the locking nut (D) clockwise until it is tight.

The 45° tilt limit stop has now been set.

## Tilt Angle Indicator

The tilt angle indicator is located at the front of the Professional Cabinet Saw, just behind the Elevation Handwheel.



The indicator shows the current angle of the blade relative to vertical (i.e., perpendicular to the table top).

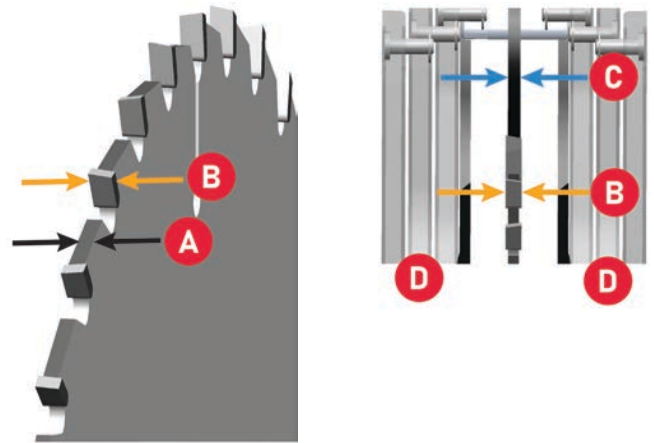
Once the 0° limit stop is correctly set, turn the tilt hand wheel clockwise until the limit stop is reached. Check the reading of the tilt angle indicator. If necessary, adjust the indicator by using a 4mm hex wrench to loosen the two locking screws that attach the indicator to the left and right sides of the elevation shaft and repositioning the indicator until it reads 0°. It may be helpful to remove the elevation hand wheel to access the screws. Lock the indicator in place by tightening the locking screws.

## ALIGNING THE RIVING KNIFE/SPREADER TO THE BLADE

For safe operation, the spreader and Riving Knife\* should be aligned parallel to the blade and within the width of the kerf. Kerf is the thickness across the width of the teeth.

### NOTE:

\* The riving knife is an optional accessory available for purchase through the online SawStop parts store. If you purchased your saw configured with the Floating Dust Collection Guard (TSG-FDC), a 10" / 254mm blade compatible riving knife is provided.



A. Blade thickness  
B. Blade kerf

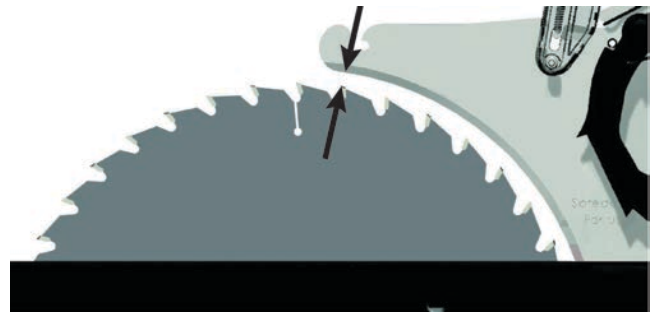
C. Spreader  
D. Side guards



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

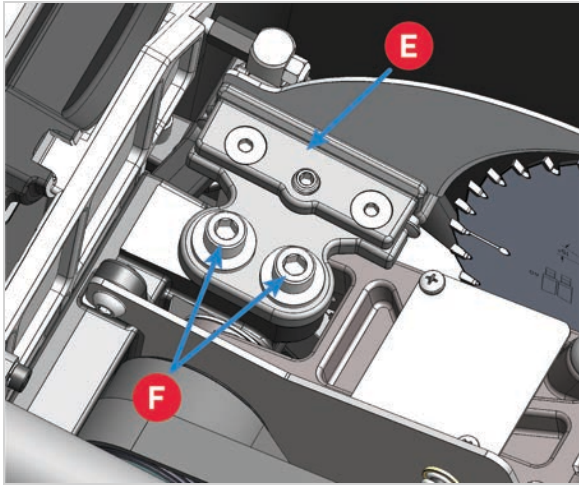
There should also be a gap of approximately 4-8mm between the front edge of the spreader or Riving Knife and the teeth of the blade. (Depicted below with spreader installed.)



If replacing the saw blade with a different size (e.g., 250mm or 254mm) be sure to also install a riving knife of matching size. Refer to the markings on the riving knife for the blade size for which it is intended. A riving knife matched for use with 254mm blades is included with the Floating Dust Collector accessory. Additionally, both sizes of riving knife are available as optional accessories from the online SawStop store.



The spreader or Riving Knife is held in position by a quick-release clamp (E) mounted under the table and behind the blade. (Depicted below with Riving Knife installed.)



If the spreader or Riving Knife is not aligned with the blade or is too close to the blade, then the position of the clamp must be adjusted. Once the clamp is properly adjusted, the spreader and Riving Knife will automatically align to the blade when installed in the clamp.

#### Adjust the Position of the Clamp

1. Set the tilt angle to 0° and remove the table insert.
2. Remove the blade and set it aside.
3. Make sure the spreader or Riving Knife is installed and lower the blade elevation to zero to provide access to the clamp (E).
4. Two mounting bolts (F) hold the quick-release clamp assembly (E) in the saw. Loosen both mounting bolts (F) using the included 8mm wrench just enough so that you can slide the clamp (E) along its mounting surface with some friction.
5. Reinstall the blade and raise the blade to the fully elevated position.

#### Align the Spreader or Riving Knife

6. So it is within the kerf of the blade, place a straight edge along the left side of the blade, making sure the straight edge runs between the teeth.
7. Slide the clamp assembly (E) left or right until the left side of the spreader is flush and flat against the straight edge.

In the event that the spreader is installed when performing this alignment and you have the

optional anti-kickback pawl accessory installed, you may find it necessary to flip the left anti-kickback pawl out of the way while performing this step.

#### **NOTE:**

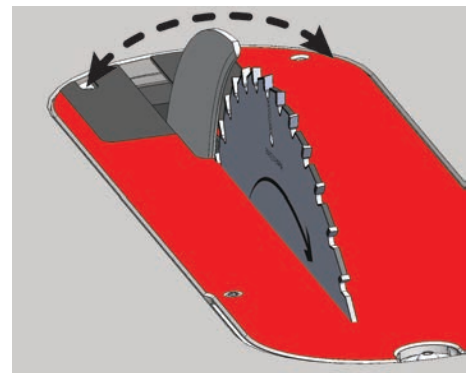
If you are using a thin-kerf blade (i.e., kerf is 3/32" (2.4mm)), you may need to place one or more shims between the straight edge and the side of the blade to ensure the spreader is centered with the blade.

8. To adjust the gap between the front edge of the spreader or Riving Knife and the teeth of the blade, slide the clamp (E) forward or backward until the spacing is approximately correct.
9. When the spreader or Riving Knife is both aligned and spaced properly, tighten the two mounting bolts (F) to hold the quick-release clamp assembly in position.

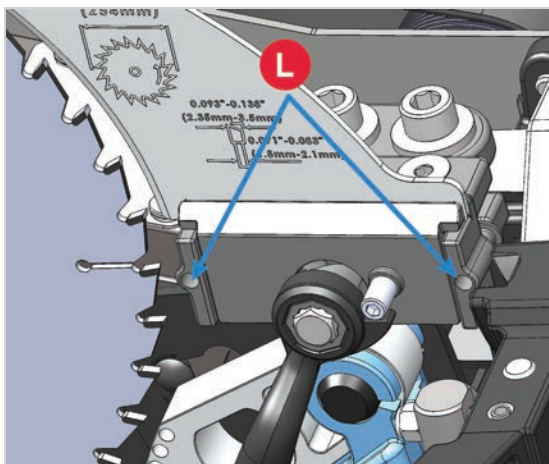
#### **WARNING:**

Make sure there is at least 4mm spacing between the Riving Knife and blade at all points. Contact between the blade and either the Riving Knife or spreader during operation may cause the brake system to be activated.

10. With the mounting bolts (F) secure, confirm that the Riving Knife or spreader is coplanar to the blade top to bottom.



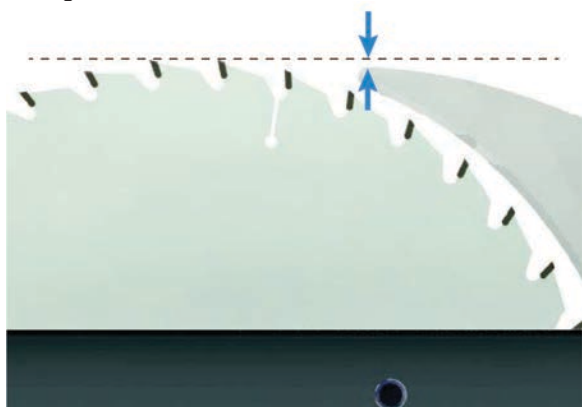
- a. If the tip Riving Knife or spreader is pitched to the left in relation to the blade, rotate both horizontal positioning bolts (L) clockwise until alignment is achieved. Use the included 3mm hex wrench for this adjustment.



- b. If the tip Riving Knife or spreader is angled to the right in relation to the blade, rotate both horizontal positioning bolts (L) an equal number of turns counter-clockwise until alignment is achieved.

## SETTING THE HEIGHT OF THE RIVING KNIFE/SPREADER

When using the Riving Knife\*, the top of the Riving Knife should be between 0-2mm below the top of the blade. This allows the Riving Knife to be used on rebate cuts and other non-through cuts.



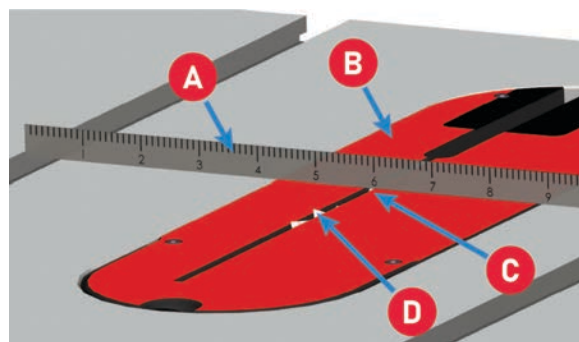
### **NOTE:**

To learn more about non-through cuts and performing many other cut types, please refer to the **Safety and General Use Instructions for Table Saws** manual included with your saw.

### **NOTE:**

\* The riving knife is an optional accessory available for purchase through the online SawStop parts store. If you purchased your saw configured with the Floating Dust Collection Guard (TSG-FDC), a 10" / 254mm blade compatible riving knife is provided.

1. To check the height of the Riving Knife relative to the blade, lower the blade elevation until the lower limit stop is engaged.
2. Place a ruler or another straight edge (A) on the table so that it lies across the width of the table insert (B) and directly above the tip of the Riving Knife (C).



3. Raise the blade elevation until the tip of the Riving Knife (C) just comes in contact with the straight edge or ruler (A).
4. Measure the distance from the top of the table to the top of the blade (D). If the height of the riving knife is set correctly, the saw blade should be between 0-2mm above the table. If the distance is between 0-2mm, no further adjustments are necessary.
5. If the height of the Riving Knife is not correct, use the Elevation Handwheel to set the top of the blade to 0-2mm above the top of the table.

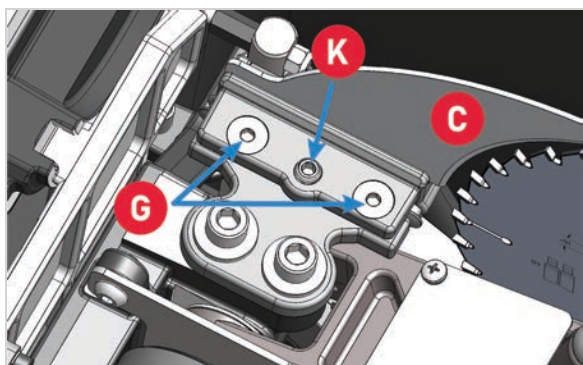
In some cases, adjusting the vertical alignment may cause the spacing between the front edge of the Riving Knife and the teeth of the blade to be incorrect. If this happens, repeat the steps explained in the previous section (**ALIGNING THE**

**RIVING KNIFE/SPREADER TO THE BLADE** on page 58) to adjust the gap between the front edge of the spreader and the teeth of the blade so that it is 4-8mm.

Once the clamp has been properly positioned, further adjustment should not be necessary. Both the spreader and Riving Knife will now automatically align when installed in the clamp.

## SETTING THE CONCENTRICITY OF THE RIVING KNIFE/SPREADER

The vertical adjustment bolts described in the previous procedure can also be used to set the concentricity of the Riving Knife in relation to the blade. This is achieved by adjusting only one of the adjustment bolts (G).



1. Remove the table insert (B) and loosen the set screw (K) located between the pair of vertical positioning bolts (G).
2. To change the concentricity of the arc of the Riving Knife with the blade, adjust only the front or only the rear vertical positioning bolt (G) until the desired position is achieved.
3. Once the alignment of the Riving Knife is correct, re-tighten the set screw (K).
4. Check to make sure the tip of the Riving Knife (C) is level with the table as described in the previous section. Repeat the Riving Knife height adjustment steps if necessary.

## ADJUSTING THE CLAMPING FORCE FOR THE RIVING KNIFE/SPREADER

The clamping pressure holding the spreader or Riving Knife in the quick-release clamp is factory adjusted to require approximately 5-10 lbs. (2.2-4.5Kg) of force to push the handle to the fully down and clamped position. This is a

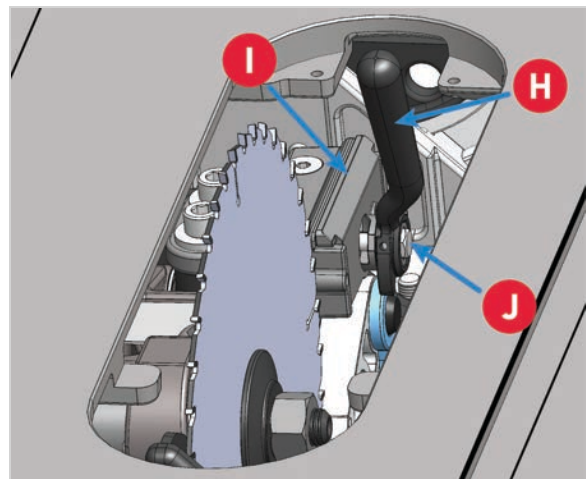
moderate amount of force to apply with one hand. If excessive force is required to move the handle down, or if you are unable to move the handle down by hand, the clamp should be adjusted to reduce the clamping pressure. Alternatively, if the handle moves down with only light pressure, then the clamping force should be increased. When evaluating the clamping force, make sure the Riving Knife or spreader is properly seated in the clamp.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

1. To adjust the clamping force, begin by removing the Riving Knife or spreader.
2. Raise the handle (H) so that it faces upward, and push the handle toward the clamp (see direction of dotted arrow). The clamp assembly includes an internal spring designed to push the clamp open when the handle is raised. Push the handle (H) toward the clamp (I) against the force of the spring.



3. When the handle (H) is fully pressed against the clamp (I), the head of the adjustment bolt (J) is exposed. Turn the adjustment bolt (J) clockwise a slight amount to increase the clamping pressure, or counter-clockwise a slight amount to decrease the clamping pressure.
4. Release the handle and allow the spring to push it away from the clamp and re-engage the adjustment bolt.

5. Reinstall the spreader or Riving Knife and test the clamping pressure.
6. Repeat the adjustment as necessary until the correct clamping pressure is achieved.



### 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.

## PREPARING A NEW TABLE INSERT

The table insert that came with your SawStop saw is pre-cut at the factory but replacement inserts are not pre-cut. The procedure below describes how to cut the slot in your new table insert for 10" blades, or dado table insert.



### IMPORTANT:

Remove the blade guard or Riving Knife before you begin. If you attempt this procedure without doing so, there is risk of activating the SawStop safety system.

1. See the instructions for **How to Install the Insert** on page 29 to install the new insert into the table.

2. Follow the instructions in the next section for **ADJUSTING THE TABLE INSERT**.

3. Using a 3mm hex wrench, secure the locking lever with the button head screw located on top of the locking lever.

4. Clamp a piece of wood to the table top so that it partially covers the right side of table insert. Position the piece of wood so that it will not be cut by the blade or dado set as it passes through the insert. The wood will help hold the table insert in place during cutting.



5. Slowly rotate the Elevation Handwheel clockwise to raise the spinning blade or dado set to full height and then counter-clockwise until the lower elevation limit is reached.



### IMPORTANT:

Wear hearing and eye protection when performing this procedure.

If you are cutting a dado table insert you may skip steps 6.

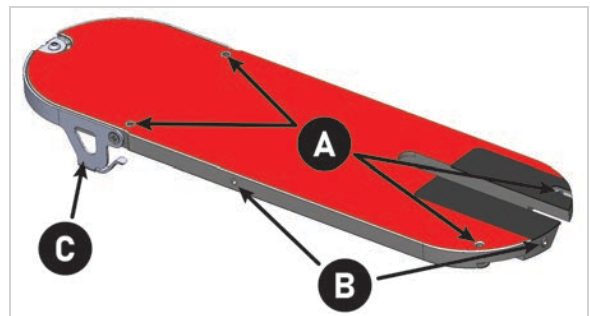
6. With the blade fully lowered, adjust the Tilt Handwheel until the tilt is set to 45° and then repeat step 5.

Your new table insert is now cut and ready to use. Be sure to install either the blade guard or the Riving Knife when using your saw with 10" (254mm) blades.

## ADJUSTING THE TABLE INSERT

The SawStop zero-clearance insert has been designed to fit securely within the table opening and just below the table top. The blade slot in the insert is pre-cut at the factory after all alignments to the saw have been completed.

As shown below, the insert includes front and rear leveling screws (A) to set the height of the insert. In addition, positioning screws (B) at the rear and right side of the insert prevent it from rattling in the table opening. Finally, a lock-down lever (C) at the front prevents the insert from rising unexpectedly.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

The insert should slide easily into and out of the table opening, but should not be loose in the opening.

If the insert is too loose, use the included 3mm hex wrench to turn the side and/or rear positioning screw(s) (B) counter-clockwise as needed to reduce the clearance



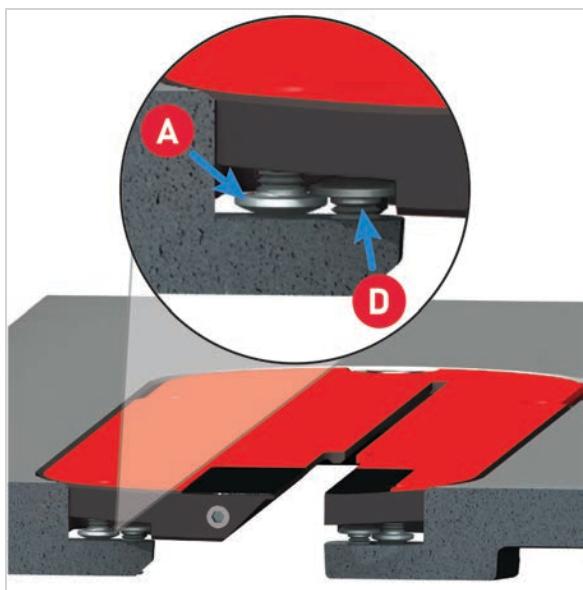
between the insert and the table opening. If the insert is too tight, turn the side and/or rear positioning screw(s) (B) clockwise as needed to increase the clearance between the insert and the table opening.

To set the height of the insert, use the included 3mm hex wrench to adjust the front and rear leveling screws until the insert is just below the surface of the table. The lower end of each front leveling screw should rest on the corresponding support ledge on the table (highlighted as blue in the illustration below).



### Adjusting the Rear Lock-Down Screws

The rear of the table insert is held down by a pair of lock-down screws (D) mounted in the table at the rear of the table opening. The lock-down screw heads overlap the heads of the rear leveling screws extending down from the insert. The overlapping screw heads hold down the table insert.



The height of the lock-down screws (D) should be adjusted to fit close above the leveling screws (A), while allowing enough clearance to install and remove the table insert without difficulty. The height of the lock-down screws can be adjusted using the included 3mm hex wrench.

## ADJUSTING THE FENCE

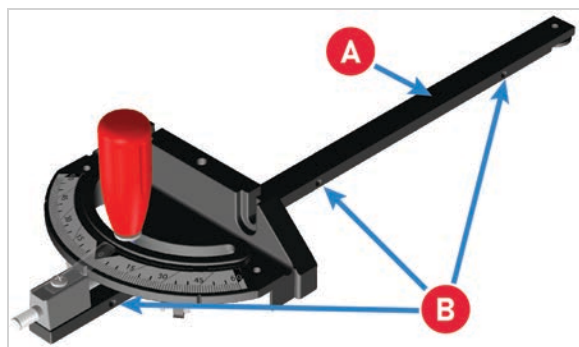
Your fence system is designed with adjustments for parallelism, clamping force, squaring the fence face to the table, precision placement of the indicator lens, and more.

- For detailed instructions regarding these adjustments, initial installation and more, refer to the manual included with your fence system.
- For the T-Glide Advance fence with the adjustable sliding face, the unique features of this fence along with safe and proper setup instructions for various cut types can also be found in the manual included with the fence system.
- To learn about basic use of the fence for rip cutting and related setups, see the **CUT TYPES** section of the **SAFETY AND GENERAL USE INSTRUCTIONS FOR TABLE SAWS** manual included with your saw.

## ADJUSTING THE MITER GAUGE

### Fitting the Bar to the Miter Slot

The miter gauge bar (A) includes three spring bearings which ensure a close fit between the miter gauge main bar and the miter gauge slots in the table. The bearings can be adjusted (B) to protrude further outward from the side of the main bar to tighten the fit between the main bar and the miter slots. Alternatively, the bearings can be adjusted inward to loosen the fit.



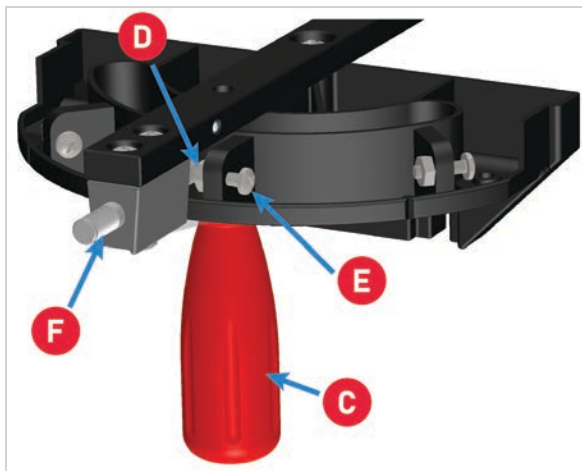
1. To adjust the position of the spring bearings, insert a 2.5mm hex wrench into the back of the bearing (B).

2. Turn the wrench clockwise to tighten the fit, or counter-clockwise to loosen the fit.

## Calibrating 0° and 45° Index Stops

The miter gauge also 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.

1. To begin, loosen the miter gauge head by turning the red locking handle (C) counter-clockwise about 1/2 turn.
2. Flip the miter gauge over to the orientation shown below.



3. For the indexing stop you want to adjust, loosen the corresponding locking nut (D) on the bottom of the miter gauge head.
4. Turn the set screw (E) counter-clockwise several turns.
5. 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°).
6. Raise the saw blade.
7. Position one leg of the square flush against the saw blade and rotate the miter gauge head until it is flush against the other leg of the square.
8. Turn the red handle clockwise (C) until tight to lock the miter gauge head at the correct angle.
9. Make sure the indexing pin (F) is pressed in toward the miter gauge bar.
10. Turn the set screw (E) clockwise until it hits against the indexing pin (F).
11. Tighten the locking nut (D) to prevent the set screw from moving.

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

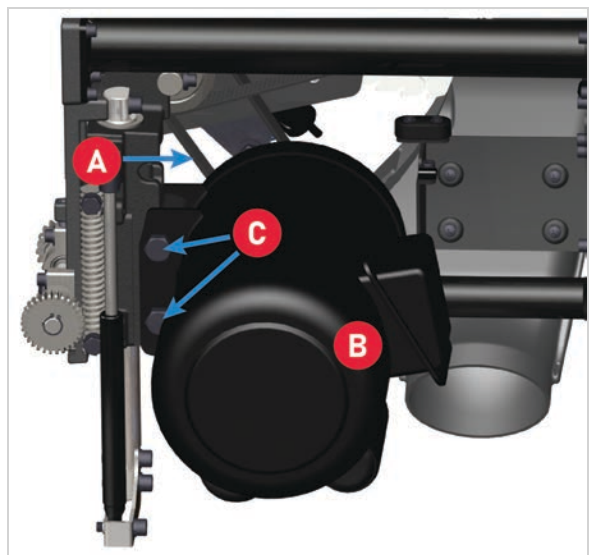
## Adjust the Auxiliary Fence Position

An auxiliary fence is included with your miter gauge. The fence consists of an aluminum extrusion that attaches to the face of the included miter gauge. When attached, the fence offers additional support for a larger workpiece when passing it through the saw.

For detailed instructions, see **ASSEMBLE THE MITER GAUGE** on page 33.

## ADJUSTING THE MOTOR BELT TENSION

The tension of the motor belt should be such that light finger pressure on one side of the belt (A) causes no more than about 1/4" (6.3mm) deflection. If there is more than 1/4" (6.3mm) deflection, the belt should be tightened. This is accomplished by adjusting the position of the motor.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

1. Open the motor cover to access the motor (B).
2. While supporting the motor (B) with one hand, loosen the two motor bolts (C) with a 19mm socket wrench. An extension on the socket will allow the wrench handle to clear the motor so that the



wrench can be turned more easily.

3. Once the motor bolts are loose, lower the motor and then tighten the bolts (B) with the wrench.
4. Check the tension as described above and repeat the procedure if the belt is still too loose.

## ADJUSTING THE TILT GEARING

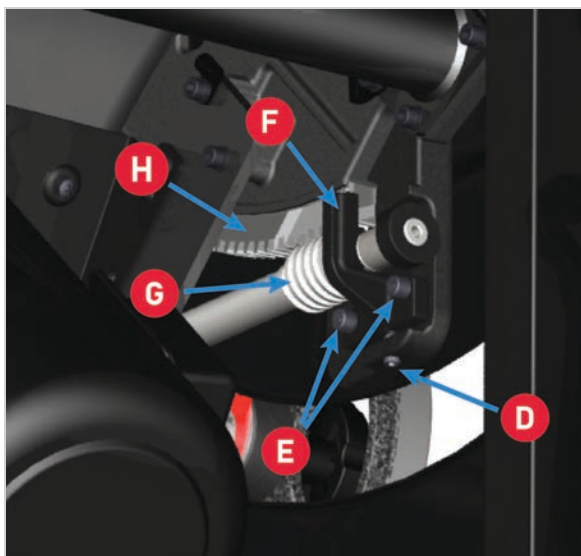
The position of the worm at the end of the Tilt Handwheel shaft can be adjusted if necessary so that it meshes properly with the tilt sector gear. This is accomplished by adjusting the set screw at the bottom of the front trunnion bracket.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

1. Tilt the blade to 45° and open the motor cover.
2. Locate the set screw (D) and the two bolts (E) that attach the tilt worm bracket (F) to the front trunnion bracket shown in the illustration below.



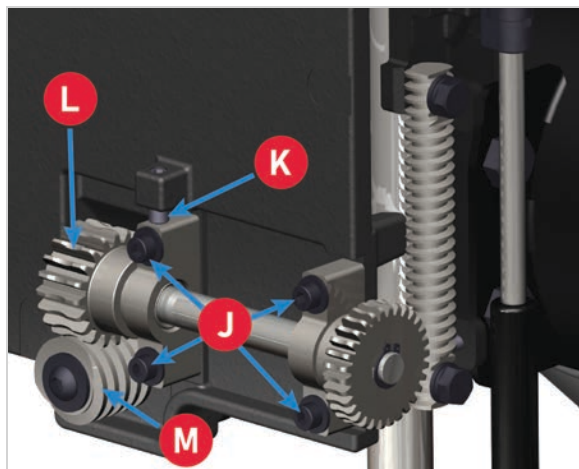
3. Loosen the two bolts (E) located just below the worm (G) using the 5mm hex wrench included with your saw.
4. Use the included 4mm hex wrench to turn the set screw (D) clockwise to move the worm (G) closer to the tilt sector gear (H).
5. Tighten the bolts (E).

6. Turn the Tilt Handwheel through its full range of motion from 0° to 45°.
7. If there is extra play when turning the handwheel, tighten the set screw farther.
8. If the handwheel binds or is difficult to turn then the set screw should be loosened.

## ADJUSTING THE ELEVATION GEARING

### Elevation Worm Adjustment

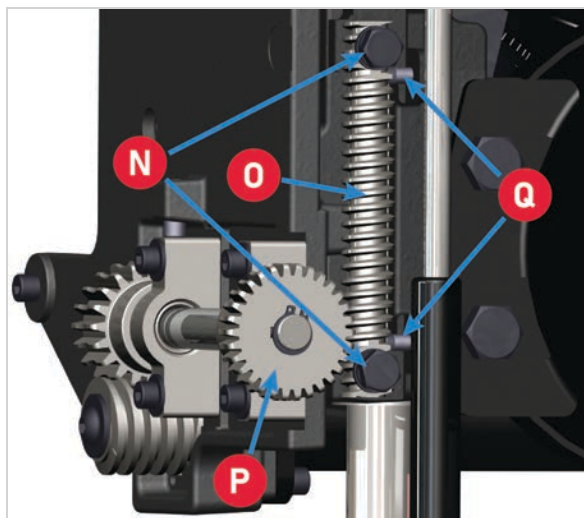
The position of the worm at the end of the Elevation Handwheel shaft can be adjusted if necessary so that the worm meshes properly with the worm gear. This is accomplished by adjusting the set screw on the lower back of the rear trunnion.



1. Tilt the blade 20-30 degrees and open the rear access panel.
2. Loosen the four bolts (J) that mount the two brackets on the back of the rear trunnion by turning each bolt about one-quarter turn using the included 5mm hex wrench.
3. Use the included 4mm hex wrench to turn the set screw (K) clockwise to move the position of the worm gear (L) closer to the worm (M).
4. Tighten the four bolts (J) that you loosened in step 2.
5. Turn the Elevation Handwheel through its full range of motion. If there is extra play when turning the handwheel, repeat the above steps and tighten the set screw (K) farther. If the handwheel binds or is difficult to turn, the set screw should be loosened.

## Elevation Threaded Rod Adjustment

The thread engagement between the threaded rod (O) and the pinion gear (P) can be adjusted if necessary so that the elevation plate moves up and down smoothly without binding. This is accomplished by adjusting the two set screws (Q) that contact the front of the threaded rod (O). This changes the position of the threaded rod with regard to the pinion gear (P) allowing the gears to mesh properly.



1. Remove the motor cover to gain access to the set screws (Q).
2. Using a 13mm wrench, loosen the two bolts (N) that mount the threaded rod (O) to the side of the elevation plate.
3. Use the included 3mm hex wrench to turn each of the set screws (Q) clockwise. This moves the threaded rod (O) closer to the pinion gear (P). Make sure to turn each set screw the same amount.
4. Tighten the two bolts (N) you loosened in step 2.
5. Turn the Elevation Handwheel through its full range of motion. If there is extra play when turning the handwheel, repeat the steps above and tighten the set screws farther. If the handwheel binds or is difficult to turn, then the set screws should be loosened.

## MAINTENANCE

- Proper maintenance of your saw and proper adjustment of guards ensures best performance, safe operation and minimizes noise output from the tool.
- Address problems or defects with the machine, including issues with guards and blades, as soon as they are discovered.
- Inspect the blade before each use and check it for wear. Do not operate the saw with a dull blade. Only use sharp, properly maintained blades.

## USER-REPLACEABLE PARTS AND ACCESSORIES

The following is a list of typical user-replaceable parts, and where to find replacement/installation instructions:

PART	Part #	PAGE
Cartridge	TSBC-10R3-I	71
Replacement Table Insert - PCS	TSI-SLD-I	
Replacement Table Insert for Dado - PCS	TSI-DLD-I	29
250mm Riving Knife Kit - PCS	PCS-KIT-047	
254mm Riving Knife Kit - PCS	PCS-KIT-050	32
Replacement Blade Guard Kit - PCS	PCS-KIT-030	32
Spreader Kit - PCS	PCS-KIT-048	32
Anti-Kickback Pawl Assembly	PCS-KIT-051	32
Motor and Arbor Belt Replacement Kit	PCS-KIT-017	*
Arbor washer - with shoulder - for 30mm arbor blade - PCS	PCS-KIT-045	69
Arbor washer - no shoulder - for 5/8" arbor blades - PCS	PCS-KIT-039	69
Replacement Push Stick	PCS-KIT-001	--
Brake Cartridge Key	PCS-KIT-002	72

\* Contact SawStop support for installation instructions.

## HOW TO ORDER PARTS

See the Professional Cabinet Saw exploded views and parts lists available for download at [SawStop.eu](http://SawStop.eu) for a complete

listing of components and part numbers. For parts and further technical assistance contact SawStop. Visit us at [SawStop.eu/support](http://SawStop.eu/support).

## 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.

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.

## POWER CORD

Periodically check the condition of the power cord. If the cord becomes damaged, it must be replaced by a specially prepared supply cord available through SawStop Service. The cord must be replaced by SawStop or an authorized service agent. Contact SawStop service for details ([seeSawStop.eu/support](http://SawStop.eu/support)).

## BLADE GUARD

Keep the blade guard free of accumulated saw dust, wood chips, and other debris. Vacuum out any dust as needed. Check that you have a clear view of the saw blade from all angles; make sure no abrasions or materials on the blade guard obscure your view. Before each use, check that the blade guard pivots up and down freely. It should rest completely on the table when not in use, and the side plate should contact the table when the blade is tilted to 45 degrees.

## ELEVATION AND TILT MECHANISMS

The elevation shafts and the tilt and elevation gearing should be kept clean and well lubricated. Periodically check the condition of the elevation worm gear, the elevation threaded rod and the tilt sector gear as well as the front and rear trunnion brackets. 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. The bushings for the tilt and elevation handwheel shafts should also be kept lubricated with a lightweight penetrating oil. Lubrication points are shown in the illustrations on the next page.

## CABINET

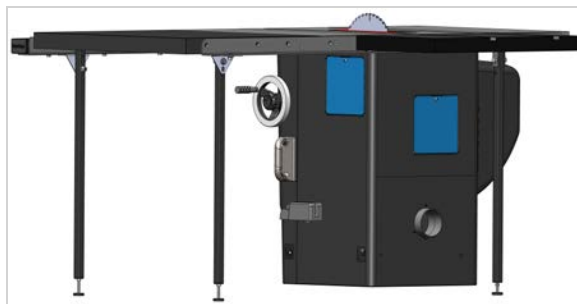
The interior of the cabinet should be kept free of accumulated saw dust, wood chips, and other debris. Although most of the dust is collected by the dust collection system, it is normal to have some dust collect in the cabinet. Periodically check the dust inside the bottom of the cabinet and trunnion assembly. Vacuum out the dust as needed to prevent any buildup.



### WARNING:

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

There are multiple ways to access the interior of the cabinet for cleaning and other maintenance: On the left side of the cabinet, open the motor door (see page 19). On the top of the saw table, remove the red table insert (see page 29). On the back and left sides of the cabinet, two small access doors (shown in blue below) can also be opened using a 4mm hex wrench.



A hex wrench is required to loosen a retaining associated with each of these points of access. After accessing the

interior of the saw, be sure to use the hex wrench to re-tighten the retaining screw in order to secure the opening.



#### **WARNING:**

When working beneath the saw table, be mindful of low head clearance and sharp edges.

## **TABLE AND EXTENSION WINGS**

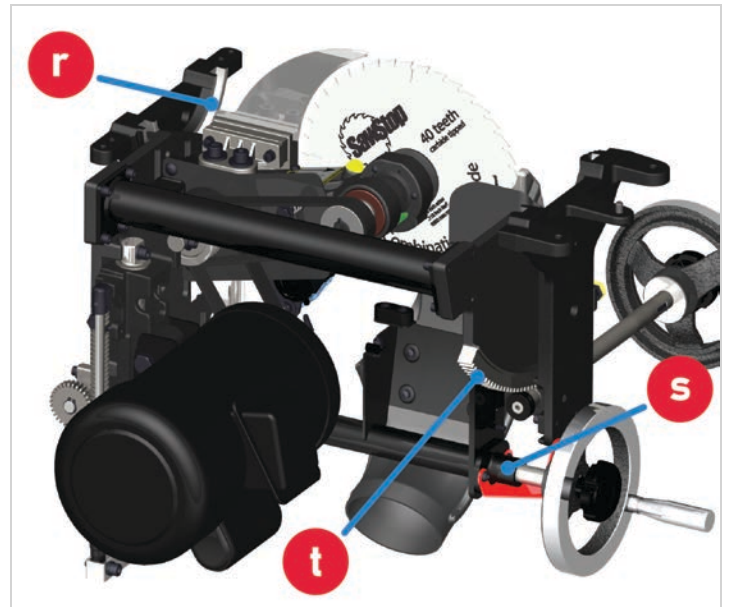
The surface of the table and extension wings should be kept clean and free of any rust. If rust develops on the surface, you can remove it by spraying the surface with a light coat of WD 40® and scrubbing with a fine abrasive pad such as Scotch-Brite® 7448 hand pads. To prevent the table from rusting, coat it with a surface protectant such as GlideCote® 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.

## **BELTS**

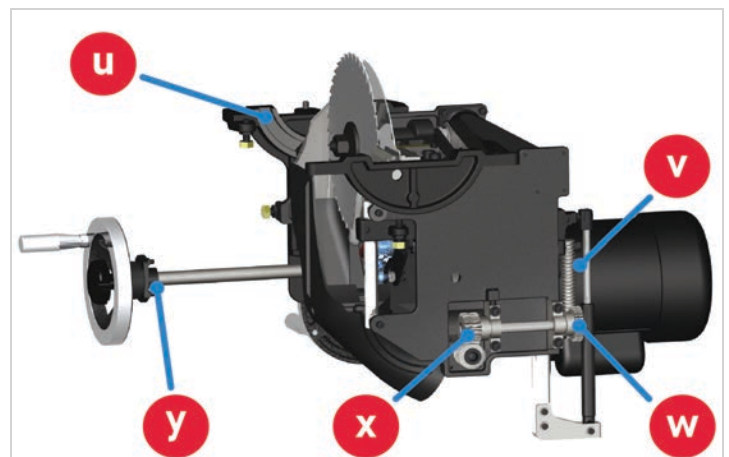
The arbor belt and motor belt should be checked periodically for wear or damage. Replace any worn or damaged belts. In addition, check the tension of the motor belt. If light finger pressure on one side of the belt causes more than about 1/4 inch deflection, the belt should be tightened by adjusting the position of the motor as described on page 64. The arbor belt cannot be tightened, and therefore must be replaced if it does not have sufficient tension to prevent slipping under load.

## **LUBRICATION POINTS**

Points that need to be kept lubricated are shown in the following illustrations. The front trunnion, rear trunnion, and sector gear are most easily accessed through the motor cover opening with the blade tilted to 45°. The sector gear should be lubricated on both sides that run along the teeth as well as the teeth. The worm gear and threaded rod can be accessed through the rear access panel with the blade tilted to 45°.



- r. Rear trunnion bracket
- s. Elevation Handwheel shaft bushing
- t. Sector gear



- u. Front trunnion bracket
- v. Tilt handwheel shaft bushing
- w. Worm gear
- x. Pinion gear
- y. Threaded rod



## HOW TO CHANGE THE BLADE



### WARNING:

Wear gloves when handling the blade.

The SawStop Professional Cabinet Saw is designed to be used with a 10" (254 mm) or 9.84" (250mm) saw blade or an 8" (203mm) dado set (optional accessory). A dado set is made up of two circular saw blades on either side of a set of removable knives or chippers. You can use a dado set to cut a groove or slot in a workpiece.

After completion of grooving cuts, before returning to normal sawing operations, be sure to mount and adjust the riving knife or spreader-mounted blade guard.



### WARNING:

Only install 10" (254 mm) or 9.84" (250mm) saw blade or an 8" (203mm) dado sets designed in accordance with EN 847-1:2017. A 30mm or 5/8" (16mm) bore is required for standard saw blades, and a 5/8" (16mm) bore is required for dado blades. Always use the appropriate blade washer for the saw blade bore. The maximum dado groove width is 20mm. The workpiece shall be manually fed only.

Learn more about blade requirements and blade compatibility with the SawStop safety system. Refer to the **Safety and General Use Instructions for Table Saws** manual that was included with your saw.

If you attempt to use an incompatible blade, the safety system will display an error code and prevent the motor from starting.

The Professional Cabinet Saw comes with a 40 tooth, 10 inch (254mm) combination saw blade. The blade may be lightly coated in oil to prevent rusting. Clean the blade thoroughly before you use it for the first time.

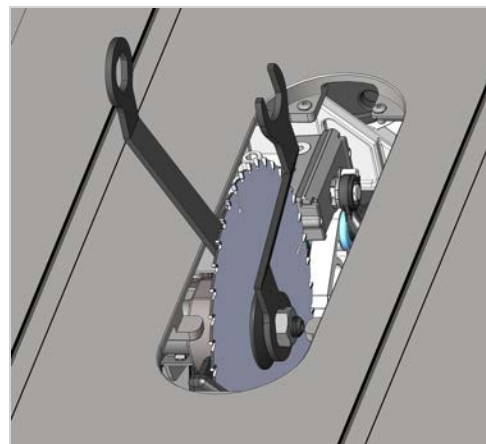


### WARNING:

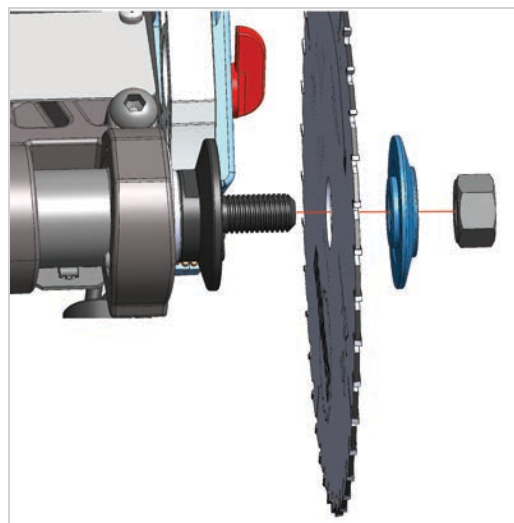
Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

### Procedure:

1. After removing the table insert, use the open end of one of the blade wrenches included with the saw to hold the arbor behind the arbor flange, and use the closed end of the other blade wrench to loosen the arbor nut. The arbor nut is right-hand threaded so turn the nut counter-clockwise to loosen it.

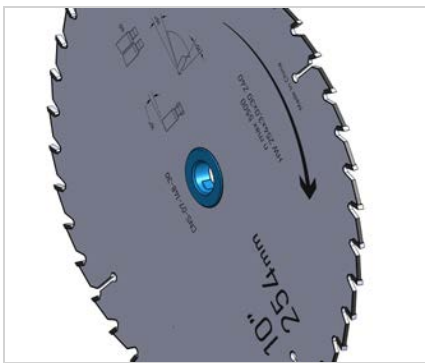


2. Set the arbor nut and washer aside for later re-installation. Remove the existing blade from the arbor and put it away.
3. If installing a standard 10" (254mm) blade, use the included arbor washer with shoulder (shown in blue) for blades with a 30mm arbor hole.





Confirm that the shoulder of the inner washer is seated properly into the arbor hole of the blade.



Make sure direction of blade rotation matches direction of teeth as indicated by the arrow printed on the blade.

4. Reinstall the outer arbor washer and arbor nut. Confirm again that the shoulder of the outer washer is seated properly into the arbor hole of the blade.
5. Apply the included blade wrenches to the arbor and arbor nut as described in step 1. The arbor nut is right-hand threaded so turn the nut clockwise to tighten it. Do not over-tighten.

### **IMPORTANT:**

If installing a dado stack, use the included arbor washer without shoulder. A dado stack with 5/8" (15.8mm) arbor hole is required. Dado stacks with a 30mm arbor hole are not supported.

You will also need to install an optional dado brake cartridge and an optional dado table insert (see page 71). A dado set cannot be used with the standard SawStop brake cartridge or table insert.

## Brake Position Adjustment

Following every blade change, it is important to accurately adjust the spacing between the brake cartridge and the blade. This is key to the operation of the SawStop safety system. For the complete procedure see **BRAKE POSITION ADJUSTMENT** on page 75.

### **WARNING:**

Always make sure the motor is off, the power cord is unplugged, and the blade is completely stopped before making any adjustments.

## WHAT TO DO IF THE SAFETY SYSTEM ACTIVATES

When the SawStop safety system is activated, the brake pawl will be pushed into the blade to stop its rotation. If the blade is spinning at a significant speed, the arbor block will retract to lower the blade below the table. Both of these actions will occur within just a few milliseconds. In addition, the safety system will turn off the motor and display the "Replace Cartridge" system status code on the LEDs on the Switch Box (see **USING YOUR SAW** on page 39).

Once the safety brake is activated, you will need to carry out the 3 steps described below to reset the safety system and the saw before continuing to use the saw.

### **WARNING:**

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

1. **Reset the Retraction of the Arbor Block:** During normal use, the arbor block is held in place by a spring-loaded support mechanism called the retraction bracket. When the brake is activated, the angular momentum of the spinning blade is transferred to the arbor block, causing it to drop out of the retraction bracket.

To reset the arbor block into the retraction bracket, turn the Elevation Handwheel counter-clockwise until the lower elevation limit stop is reached. The arbor block will automatically engage the retraction bracket. Now turn the Elevation Handwheel clockwise to raise the arbor block and blade.

2. **Replace the Brake Cartridge:** The SawStop Brake Cartridge must be replaced in the event the brake is activated. See **HOW TO REMOVE AN ACTIVATED BRAKE CARTRIDGE** on page 73. The brake pawl and components inside the sealed housing are expended when the brake is activated. Therefore, the Brake Cartridge cannot be reused after the brake is activated and it may be discarded. Once the activated cartridge has been removed, obtain another Brake Cartridge that has not been activated and follow the instructions in this manual to install it. See **INSTALLING A REPLACEMENT**

## BRAKE CARTRIDGE on page 73.

If the brake activated due to accidental contact between the blade and an operator, please return the cartridge to SawStop. During use the cartridge is constantly measuring data about the operation of the saw and the signal received from the blade. When the brake is activated, the most recent data is stored into memory and SawStop can download the data from the activated cartridge. This data is very important to our continuing research and development program. Therefore, contact SawStop to arrange shipment of the cartridge back to SawStop. Once SawStop's engineers verify the brake activated due to accidental skin contact, you will receive a replacement cartridge free of charge.

If you are unsure why the cartridge activated, you can return the cartridge to SawStop for analysis by SawStop's service engineers. When the cartridge data is downloaded, it is usually possible to determine what caused the brake to activate so that unintended activations can be prevented.

3. **Change the Blade:** When the brake is activated, the aluminum brake pawl will pivot into the teeth of the saw blade with great force and speed. This usually causes the brake pawl to lock-up on the blade. If you remove the brake pawl from the blade, one or more of the carbide teeth on the blade will usually be pulled off. Therefore, it is almost always necessary to replace or repair the blade after the safety system has been activated. See **HOW TO CHANGE THE BLADE** on page 69.

Once the retraction of the arbor block has been reset and the Brake Cartridge and blade have been replaced, the saw is ready for operation.

### **IMPORTANT:**

Please read the important supplemental information about the SawStop safety system in the **Safety and General Use Instructions for Table Saws** manual included with your saw.

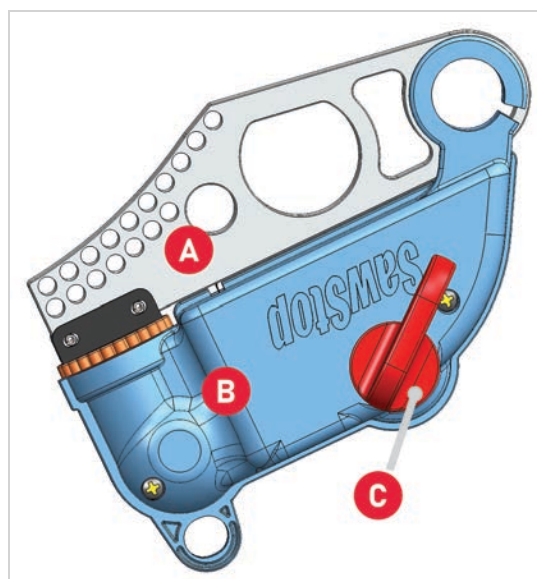
## BRAKE CARTRIDGE



### **WARNING:**

Never attempt to activate the safety system intentionally.

The SawStop Brake Cartridge includes a sealed housing containing the SawStop system electronics, and an aluminum block called a brake pawl (A). The sealed housing (B) also includes a high-speed actuator that pushes the brake pawl into the teeth of the saw blade in the event accidental contact is detected. The Cartridge Key (C) helps to lock the cartridge into place once it is seated. (See detailed installation instructions later in this chapter.)



### **IMPORTANT:**

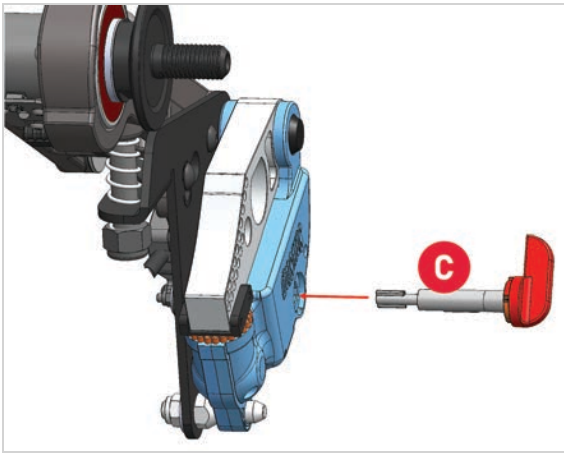
Please read the important supplemental information about the SawStop safety system in the **Safety and General Use Instructions for Table Saws** manual included with your saw.

Like any electronic component, Brake Cartridges should be handled with care. Store Brake Cartridges in a safe, dry place when not in use.

The Brake Cartridge must be changed in the event the brake is activated. The Brake Cartridge must also be changed whenever swapping between 10" (254mm or 250mm) standard blades and dado sets. For dado cuts, the optional dado Brake Cartridge must be installed. The SawStop dado cartridge is identical to the standard Brake Cartridge with

the exception of the brake pawl. The dado brake pawl is larger than the standard brake pawl to accommodate the width and diameter of 8" (203mm) dado sets. Other size dado sets or standard 10" (254mm or 250mm) blades are not compatible with the dado cartridge.

Changing the Brake Cartridge is a simple process. The safety system will not allow the motor to start unless the Brake Cartridge is correctly installed. The Brake Cartridge is mounted beneath the table and behind the blade. Alignment holes in the cartridge chassis straddle a large pivot pin (D) and a smaller positioning pin (E). Both the pivot pin and positioning pin extend outward from a cartridge mounting bracket that sets the position of the cartridge. The cartridge mounting bracket also holds a data cable that self-aligns to the connector in the side of the cartridge. A Cartridge Key (C) is used to lock the Brake Cartridge in place against the cartridge mounting bracket.



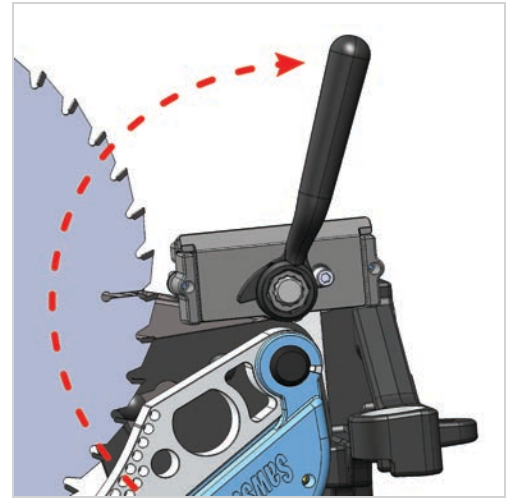
## HOW TO CHANGE BRAKE CARTRIDGE

### **WARNING:**

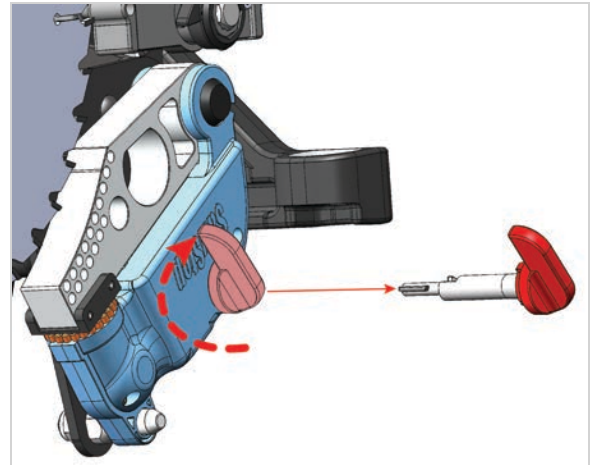
Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

1. To change the cartridge, begin by setting the tilt angle to 0° and raising the blade elevation to the maximum height. This allows the easiest access to the Brake Cartridge.
2. Remove the table insert from the table.

3. Rotate the blade guard clamping handle fully upward to provide clearance for removing the Brake Cartridge.

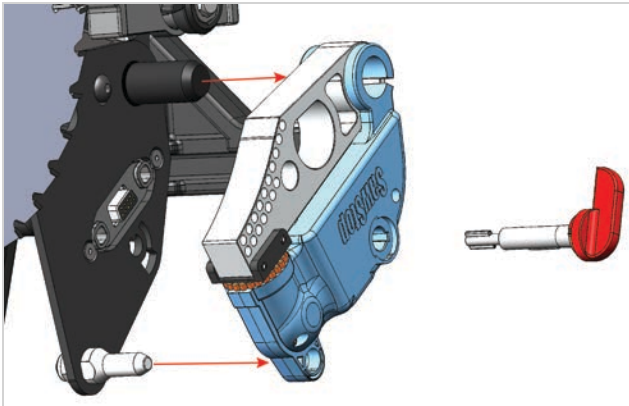


4. Remove the Cartridge Key by turning it 90° clockwise and then pulling it away from the cartridge. Set the Cartridge Key aside for use with the new cartridge.



It may take a small amount of force to turn the key and pull it out. Make sure you turn the key a full 90°, as the key cannot be pulled out unless it has been fully rotated.

5. If the Brake Cartridge has not been activated, slide the Brake Cartridge to the right until it clears both pins.



#### **WARNING:**

Do not drop, hit, or otherwise subject brake cartridges to abuse as this may damage the cartridge. In addition, the high speed actuator could be unexpectedly triggered due to damage, thereby causing the brake pawl to be pushed away from the housing at very high speed and with great force. This could result in serious injury.

## **HOW TO REMOVE AN ACTIVATED BRAKE CARTRIDGE**



#### **WARNING:**

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

Upon brake activation, the blade will stop spinning and may drop below table. You must replace the brake and blade to reset your saw. When Brake Cartridge activates, the brake pawl typically will be locked onto the blade or dado set. As a result, it is usually easiest to remove the blade and the Brake Cartridge together.

1. To remove the cartridge and blade together, first remove the blade nut and the Cartridge Key as described in the previous section.
2. You can remove the blade and Brake Cartridge simultaneously by alternately moving the blade and then the cartridge to the right to “walk” them off the arbor and cartridge mounting pins.

3. Often you can “walk” them to the right by hand. If more force is needed, use a blade wrench as a lever. To do this, place one end of the wrench between the blade and the side of the arbor block, being careful to maneuver around the dust shroud. Now push the blade a short distance away from the arbor flange.



#### **IMPORTANT:**

Do not place the wrench against the dust shroud because the dust shroud could break.

4. Remove blade wrench from the blade and place the end of the wrench between the brake pawl and the cartridge mounting bracket. Gently pry the cartridge away from the arbor block a short distance.
5. Only move the blade and cartridge a short distance each step to avoid binding. Each step should be no greater than the distance equal to one or two threads on the arbor.
6. Repeat these alternating steps (step 3 and 4 ) to walk the cartridge and blade off. A significant force may be needed to pry the cartridge off the mounting pin if the brake pawl deformed and pinched the pivot pin when it stopped the blade.

## **INSTALLING A REPLACEMENT BRAKE CARTRIDGE**



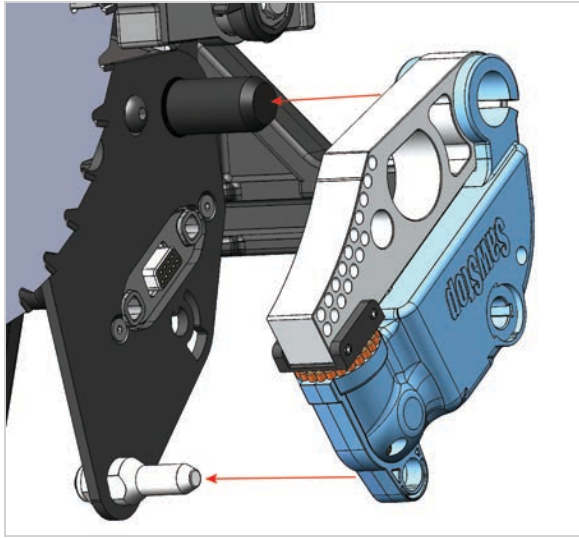
#### **IMPORTANT:**

Please read the important supplemental information about the SawStop safety system in the **Safety and General Use Instructions for Table Saws** manual included with your saw.

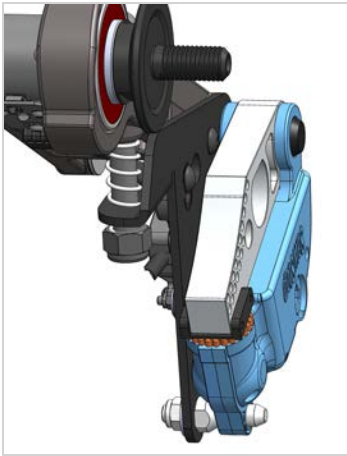


To install a Brake Cartridge, follow the steps below.

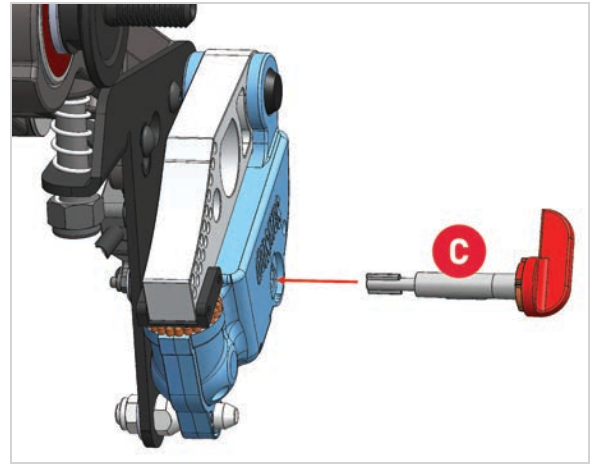
1. Align the mounting holes in the cartridge with the pivot pin and positioning pin in the saw.



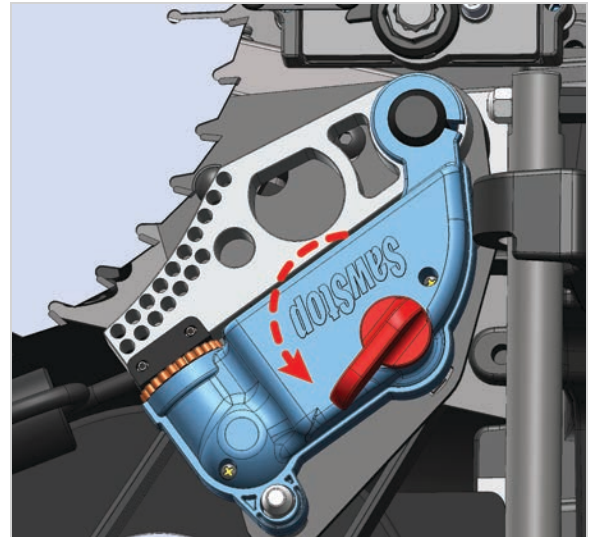
2. Slide the cartridge onto the pins until the cartridge rests against the mounting bracket. The cartridge will automatically align with a data cable mounted in the saw.



3. Insert the Cartridge Key into the hole in the cartridge housing. The key shaft has a ridge that must be aligned with a channel in the hole. As a result, the key can only be inserted into the hole when the red handle is pointing toward the brake pawl.



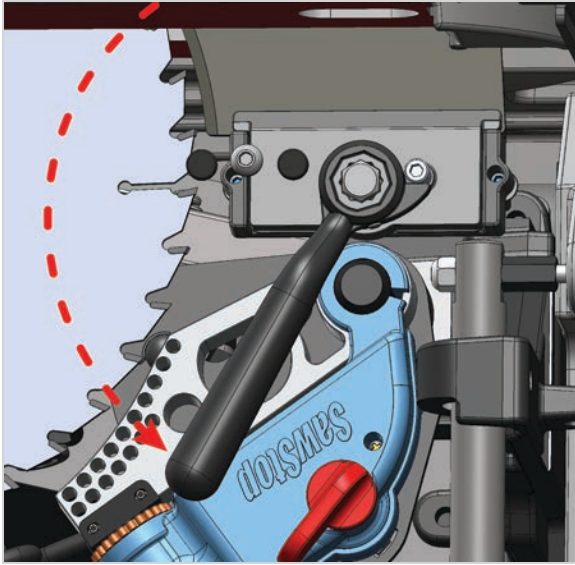
Rotate the key 90° counter-clockwise to lock the cartridge in place. The key will not rotate unless it is fully seated against the side of the cartridge housing and the cartridge housing is pressed against the cartridge mounting bracket.



4. Once the key is rotated to its locked position, it cannot be removed and the cartridge will be locked in place. Rotating the key to the locked position also actuates a switch inside the cartridge that signals to the safety system that the cartridge is correctly installed and locked in place. The system will not allow the saw to start if the switch is not actuated. If you attempt to turn on the saw when the key is not in the locked position, the LED lights on the Switch Box will flash a status code indicating the key should be turned to ON. Turning the key to ON means turning the key to the locked position.



5. Fully rotate the blade guard clamping handle counter-clockwise to lock the spreader or Riving Knife in place.



6. Install the blade or dado set as described on page 69, and adjust the brake position as described in the next section.



#### **WARNING:**

Always check, and if necessary, adjust the position of the brake after changing the Brake Cartridge or the blade. An improperly positioned brake could increase the time required to stop the blade in the event of accidental contact, or cause the brake to actuate unexpectedly if the blade comes into contact with the brake.

## **BRAKE POSITION ADJUSTMENT**



#### **WARNING:**

Never adjust the position of the Brake Cartridge while the blade is spinning.

It is important to accurately adjust the spacing between the Brake Cartridge and the blade. If the brake is too far from the blade, the safety system will take longer than necessary to stop the blade. On the other hand, if the brake is too close to the blade, a portion of the blade might contact the brake and cause it to activate.



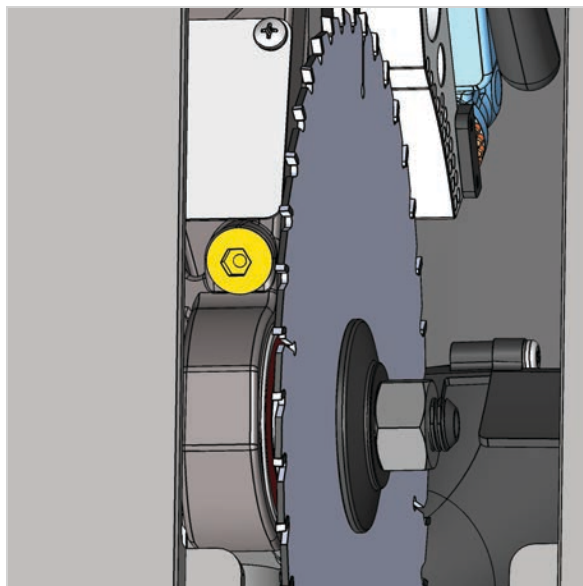
#### **WARNING:**

Ensure the machine is isolated from all power sources. Always turn off the main power switch and unplug the power cord before working on or maintaining your saw.

The exact diameters of saw blades will vary. In addition, blades that have been resharpened one or more times will usually be under the manufacturers stated size. Therefore, always check the spacing between the blade and the brake when installing a different blade or Brake Cartridge.

The spacing between the Brake Cartridge and the blade is adjusted by the yellow brake positioning bolt mounted in the top of the arbor block.

1. To access the brake positioning bolt, set the tilt angle to 0° and adjust the blade elevation to approximately 1 1/2 inches (38mm) above the table top. The bolt will be accessible through the opening in the table top. The head of the bolt is painted yellow for easy visibility.



The two slots on the blade spacing adjustment gauge are for storing the 8mm hex wrench that is used to adjust the brake position (described in step 2). The blade spacing adjustment gauge also contains magnets so it can be attached to the side of the Professional Cabinet Saw housing.

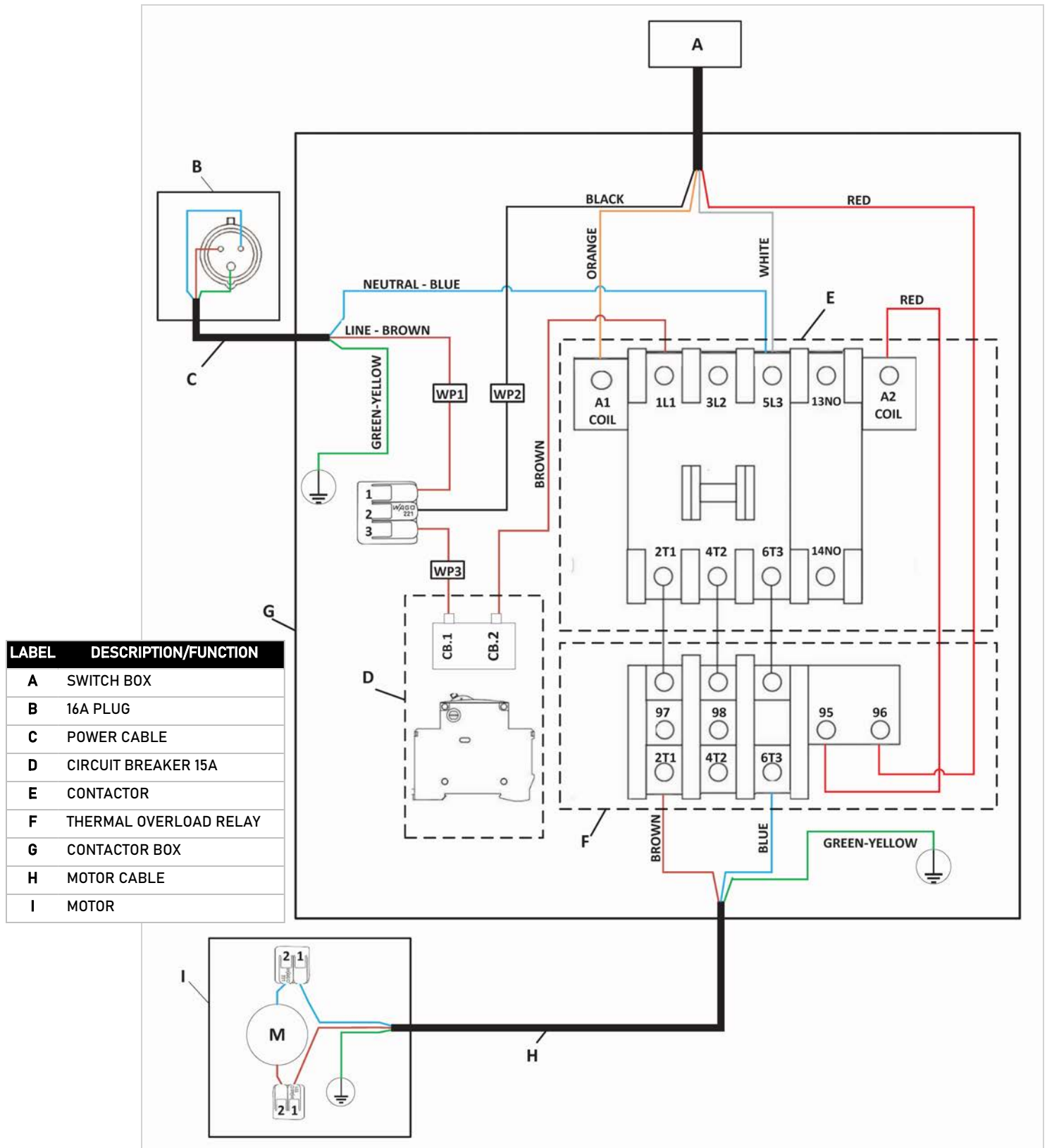
4. After adjusting the brake position and before starting the saw, spin the blade by hand at least one full revolution. During rotation, watch the gap between brake pawl and blade to verify that no part of the blade comes into contact with the brake pawl.

2. Using the 8mm hex wrench included with the saw, turn the brake-positioning bolt clockwise to decrease the spacing between the Brake Cartridge and the edge of the blade, or counterclockwise to increase the spacing. Adjust the brake position as needed to set the spacing between the teeth of the blade and the closest point on the Brake Cartridge to between  $\frac{1}{16}$  and  $\frac{1}{8}$  inch.
3. A blade spacing adjustment gauge is included with the tools in the Table Saw Hardware Pack. Place the tip of the spacing gauge between the closest points on the blade and Brake Cartridge to set the appropriate spacing.



# ELECTRICAL DIAGRAM

Repairs of the machine's control box must be carried out by the original manufacturer or an authorized service provider.



# TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE(S)	SOLUTION
The motor will not start and both status lights on the Switch Box are off.	There is no power to the saw.	Make sure the electrical supply to the saw is on and that the correct voltage is being supplied.
	There is no Brake Cartridge installed in the saw.	Install the Brake Cartridge (see page 71).
	The Brake Cartridge is defective.	Replace the Brake Cartridge with a new cartridge (see page 71).
The motor will not start: the power switch is on, the white status light on solid, the green status light is off (see page 1).	The Brake Cartridge is defective.	Replace the Brake Cartridge with a new cartridge (see page 71).
The motor starts slowly and/or fails to reach full operating speed.	The electrical supply voltage is too low.	Make sure the correct voltage is being supplied to the saw.
	The belt is worn or slipping.	Replace the belt.
The motor stopped unexpectedly during use but the brake did not activate.	The Start/Stop paddle was bumped.	Ensure the Start/Stop paddle is in the OFF position, and then restart the saw.
	The material being cut is overloading the safety detection system (e.g., green or wet wood).	Use a different wood or cut in Bypass Mode (see page 45).
	Electrical power to the system was lost, at least temporarily.	Ensure that the electrical supply to the saw is on and you are using the correct voltage.
	The Brake Cartridge is defective.	Replace the Brake Cartridge with a new cartridge (see page 71).
Cannot turn the saw on in Bypass Mode.	The sequence for starting the saw in Bypass Mode was not completed.	Follow the steps for starting the saw in Bypass Mode (see page 45).
	The Bypass Lockout Key is not fully seated.	Insert the Bypass Key fully.

PROBLEM	POSSIBLE CAUSE(S)	SOLUTION
The brake activated, even though there was no accidental contact.	An electrically conductive material contacted the blade, arbor or arbor pulley.	Make sure no metal or other conductive material is touching the blade, arbor or pulley. Use Bypass Mode to cut conductive materials (see page 45).
	The spreader or Riving Knife came into contact with the blade.	Ensure that the spreader or Riving Knife is aligned and securely clamped in place. There should be a gap of 4-8mm between the blade and the spreader or Riving Knife (see page 1, illustration G).
	The blade made contact with the brake pawl.	Make sure there is a gap of 1.5mm to 3mm between the teeth of the blade and closest point on the Brake Cartridge. Use only a 10" blade with a standard Brake Cartridge.
The blade hits the brake pawl during installation.	The blade is the wrong size.	Use only a 10" blade with a standard Brake Cartridge.
Cannot install the Cartridge Key.	The key is not rotated properly to align with the keyhole in the cartridge.	Rotate the key so that the handle is pointing directly toward the brake pawl.
	The shaft of the Cartridge Key is binding in the cartridge or on the cartridge bracket.	Try installing the key while pressing upward or downward on the key or cartridge.
Raising or lowering the blade feels or sounds rough.	The alignment block is worn, damaged or needs lubrication. The elevation rail is dirty and needs lubrication.	Clean components and re-grease.
	The backdrive prevention assembly is worn.	Contact SawStop Service.
The saw does not make accurate bevel cuts.	The tilt limit stops are not adjusted properly.	Adjust the tilt limit stops.
	The tilt angle indicator is not adjusted properly.	Adjust the tilt angle indicator.
Cannot remove the Brake Cartridge.	The Cartridge Key is still installed.	Remove the Cartridge Key.
	The cartridge is bound up on the pivot pin and the positioning pin.	Pry the cartridge off the pins with a blade wrench (see page 72).



PROBLEM	POSSIBLE CAUSE(S)	SOLUTION
Cannot install the Brake Cartridge.	The holes in the Brake Cartridge shell are not aligned with the pivot pin and positioning pin.	Make sure the mounting holes in the Brake Cartridge are aligned with the pivot and positioning pins.
	There is debris on the pivot or positioning pins, or in the cartridge mounting holes.	Make sure the pins and mounting holes are clean and free of obstructions.
	The blade is interfering with the brake pawl.	Use only a 10" blade with a standard Brake Cartridge.
Cannot remove the Cartridge Key.	The Cartridge Key is not turned to the UNLOCKED position.	Turn the key clockwise until it stops.
	The shaft of the Cartridge Key is binding in the cartridge or on the cartridge mounting bracket.	Try turning and removing the key while pressing upward or downward on the key or cartridge.

# NOTES



# NOTES



# NOTES





## **USA/CANADA**

### **SawStop, LLC**

11555 SW Myslony St,  
Tualatin, OR 97062 USA

### **SawStop.com/support**

Service@SawStop.com  
(503) 582-9934

Parts available for purchase at SawStop.com

## **EUROPE/UK**

### **TTS Europe SE**

Wertstrasse 20  
73240 Wendlingen a.N., DE

### **UK Regulatory**

Authorised Rep Compliance Ltd., ARC House,  
Thurnham, Lancaster, LA2 0DT, UK.

### **SawStop.eu/support**

SupportEurope@SawStop.com

## **AUSTRALIA**

### **Carbatec.com.au/contact**

customercare@carbatec.com.au