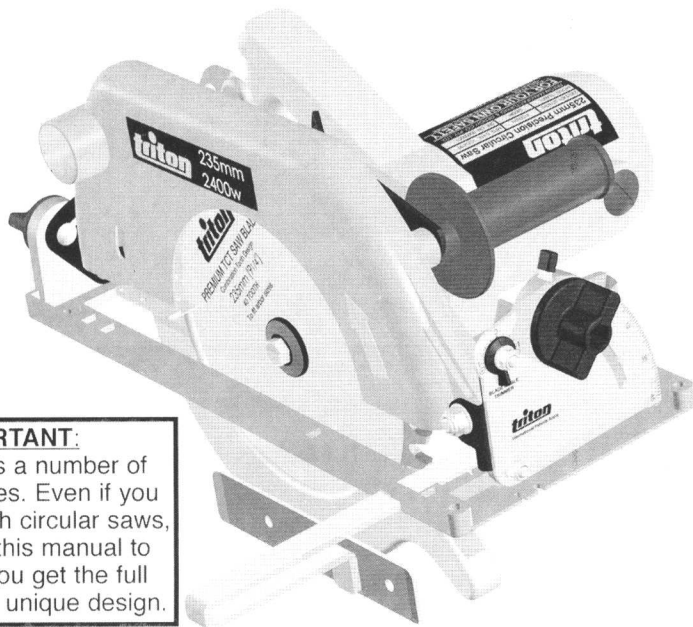


# **triton** 235mm PRECISION POWER SAW

## **OPERATING & SAFETY INSTRUCTIONS**



### **IMPORTANT:**

This saw has a number of unique features. Even if you are familiar with circular saws, please read this manual to make sure you get the full benefits of the unique design.

Due to our company policy of continuous product improvement, specifications may change without prior notice.

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PUA390 11.01

**Carefully read the following safety warnings prior to connecting the Triton Precision Power Saw to power.**

- **Always disconnect the saw from power** before fitting or removing the saw blade, fitting the trigger strap, mounting the saw in a saw bench or other maintenance work.
- **Avoid accidental starting of the saw.** Keep fingers clear of the saw trigger until required. If fitted to a saw bench, release the trigger strap when finished work.
- **Eye, ear and respiratory protection should always be used** with power tools.
- **Always wear appropriate clothing** (eg. no loose fitting clothes, neckties or jewellery, long hair should be tied back, legs covered & footwear worn. Shirt sleeves should be buttoned, or rolled up).
- **Do not remove or obstruct functioning of the blade guard.** Regularly check that it is in good working order. If fitting to a saw bench, lower the saw blade when finished work to allow the spring in the guard to relax.
- Prior to each use **check that the blade retaining nut and depth & angle adjusters are firmly tightened.**
- Where supplied, **ensure the riving knife is fitted for all cuts** except plunge cuts.
- **Always have your workpiece securely clamped.** Do not attempt to hold the workpiece in your hand while cutting. Keep both hands on the saw handles.
- **Do not over-reach.** Adopt a stance where your limbs will be safe even if the saw kicks back. **Do not try to remove off-cuts while the blade is spinning.** Do not apply lateral pressure on the disc or in any other way attempt to slow down or forcibly stop the blade from spinning.
- **Do not force the saw.** Adjust your feed rate to allow the tool to run at its' intended speed without labouring.
- **Avoid blade and/or arbor damage** by ensuring the saw guard has fully closed before setting the saw down.
- **Never work in confined and/or low-lit areas.** Always ensure you are on stable ground and have clear access to your work.
- **Do not subject the saw to excessive dampness or humidity,** or to an environment where explosive or corrosive gases could be present.
- Where required **always use a good quality extension lead.** A heavy duty type, fully unwound, should be used when working outdoors. Check power leads regularly for damage. Faulty leads should be replaced or repaired. Consider using a E.L.C.B. (Earth Leakage Circuit Breaker) for added electrical safety.
- **Any damage to the saw should be repaired and carefully inspected** before use.
- **Servicing should only be carried out by authorised Triton Saw Repair Centres** using original Triton replacement parts. Refer to list supplied for your nearest repairer.
- **Store the saw in a dry location, out of the reach of children.**

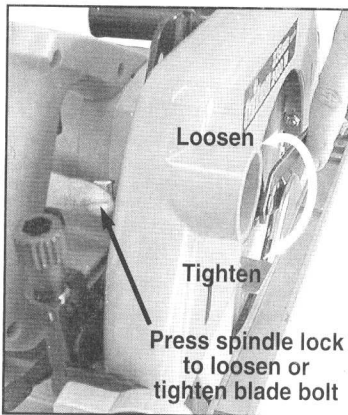
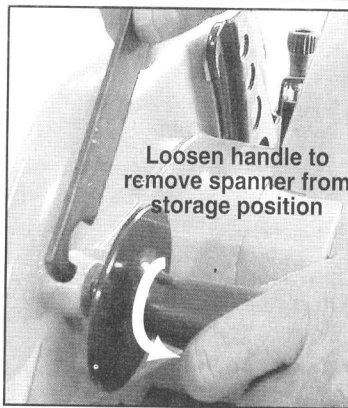
• Only use 235mm blades, with a kerf between 2.2 & 3.5mm, designed for circular saws with a no-load speed rating of at least 4500rpm. Never fit high speed steel blades or abrasive discs (except Triton Sanding Discs). Fitting of other purpose or different sized blades could void the warranty.

• Do not fit inferior blades. Regularly check the blade is flat, sharp and free of cracks or defects.

• Where a riving knife is fitted the blade disc must be a maximum thickness of 2.0mm with a kerf greater than 2.5mm.

1. Ensure the saw is disconnected from power.
2. Unscrew the handle half a turn to release the spanner from the storage position, as shown. Press the spindle lock, and loosen & remove the blade retaining bolt and outer flange washer from the arbor shaft.
3. With the saw set at full cut depth, retract the guard and fit the blade onto the shaft until it seats neatly against the inner flange washer. Note that the 25 - 16mm reduction bush must fit neatly in the arbor hole. **The blade teeth must point in the same direction as the arrow on the fixed guard housing.**
4. Replace the outer flange washer & retaining bolt and tighten with the spanner while depressing the spindle lock, as shown. **Do not over-tighten.** Return the spanner to the storage position and tighten the handle.
5. Regularly check the retaining bolt is tight.

**NOTE:** The arbor is fitted with a 16-25mm  $\varnothing$  spacer bush. It must be removed if fitting a blade with a 16mm arbor.

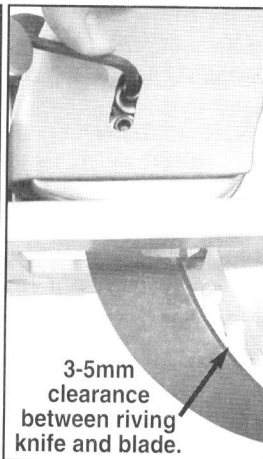


## **FITTING THE RIVING KNIFE (UK and South African models only)**

1. Rest the two large washers over the slots in the riving knife and insert it under the guard housing. Locate it with the slots directly over the internal bolt holes.

2. Screw the socket head bolts, with spring washers fitted, through the slot in the guard housing using the hex key provided. Do not yet fully tighten.

3. Retract the guard and position the riving knife 3-5mm away from the toothed rim of the saw blade with its tip no more than 5mm up from the lowest point on the blade. Tighten firmly.



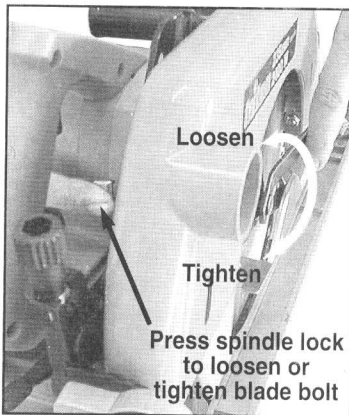
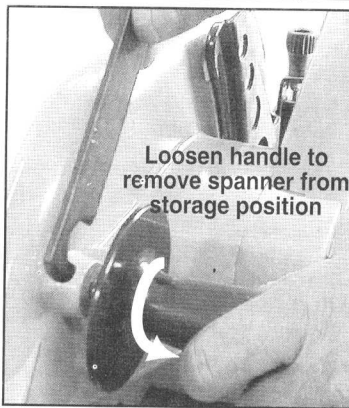
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**NOTE:** The arbor is fitted with a 16-25mm  $\varnothing$  spacer bush. It must be removed if fitting a blade with a 16mm arbor.

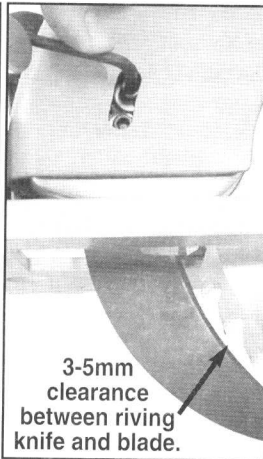


## FITTING THE RIVING KNIFE (UK and South African models only)

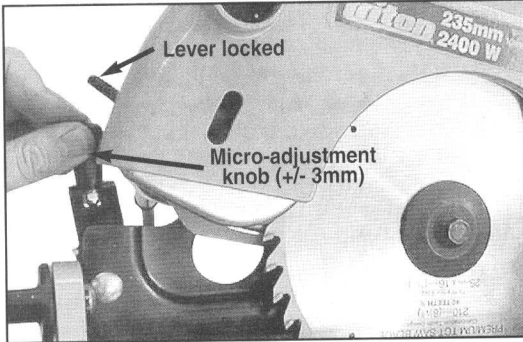
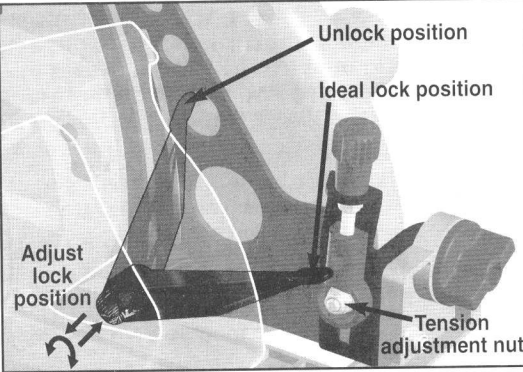
1. Rest the two large washers over the slots in the riving knife and insert it under the guard housing. Locate it with the slots directly over the internal bolt holes.

2. Screw the socket head bolts, with spring washers fitted, through the slot in the guard housing using the hex key provided. Do not yet fully tighten.

3. Retract the guard and position the riving knife 3-5mm away from the toothed rim of the saw blade with its tip no more than 5mm up from the lowest point on the blade. Tighten firmly.



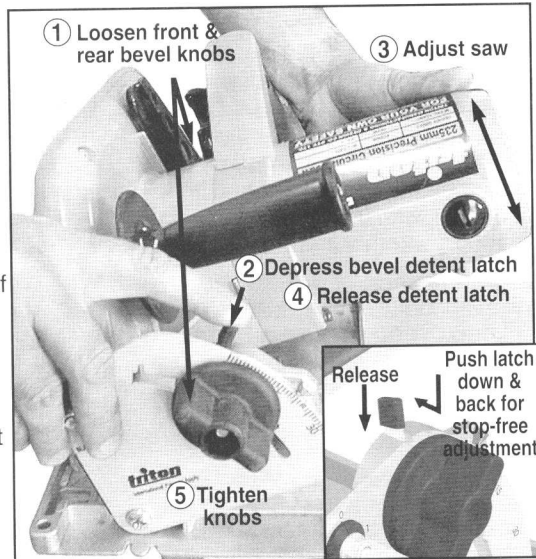
- Loosen the depth adjustment lever and lift the back of the saw away from the baseplate until the approximate depth is achieved. Push down on the lever to lock, but do not over-tighten.
- The lever is spring-loaded on a splined shaft. To adjust the lock and unlock positions (if necessary) simply pull the lever towards the hand-grip of the saw, rotate it slightly as required, and allow it to spring back to the normal position.
- For fine depth adjustments, lock the saw at the approximate depth and then turn the micro-adjustment knob for the exact depth. The adjustment range is 6mm. If insufficient, reset the main depth adjustment, and fine tune again. (If the micro adjuster feels too loose or too tight, adjust the nut tension as shown above.)



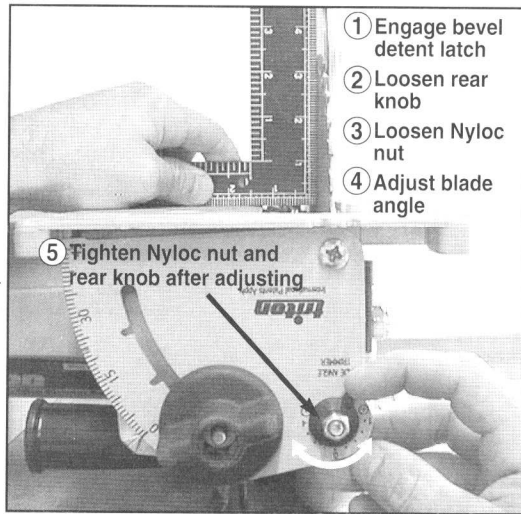
**Note:** The micro-adjustment knob must be set to full depth to achieve the 84mm maximum depth of cut.

## SETTING BEVEL ANGLES

- Bevel angles can be set anywhere within the range  $-1^{\circ}$  to  $46^{\circ}$ . Pre-set stops are available at  $0^{\circ}$ ,  $15^{\circ}$ ,  $22.5^{\circ}$ ,  $30^{\circ}$ , &  $45^{\circ}$  for quick, accurate bevel settings.
- Loosen the front and rear bevel knobs ① and depress the bevel detent latch ②. Pivot the saw to the angle you require ③. Then release the detent latch. A small movement of the saw motor will allow the latch to pop up into the detent position ④. Tighten both knobs ⑤.
- For selecting other angles, leave the detent latch disengaged by pushing it down and back towards the motor, where it has a "lock-out" position. Firmly tighten both knobs at the desired angle.



- You can fine-tune the calibration scale and the bevel detent positions by  $\pm 1^\circ$ .
- Make sure the saw is set at  $0^\circ$  and the bevel detent latch is engaged (1).
- Loosen the pivot clamping knob at the rear (2), and the Nyloc nut on the Blade Angle Trimmer (3). (Use the open end of the blade spanner).

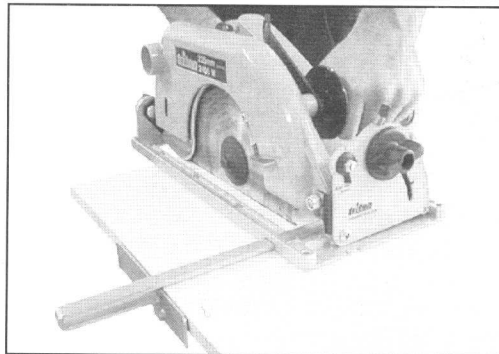


Adjust the trimmer left or right - until the blade is square to the baseplate or to the Triton table (4). **Tighten the rear knob and Nyloc nut after any adjustments (5)**

**Note:** For full trim range adjustment ensure the blade depth is set 2-3mm below maximum, for motor clearance. Full depth can be re-set once the adjustment has been made.

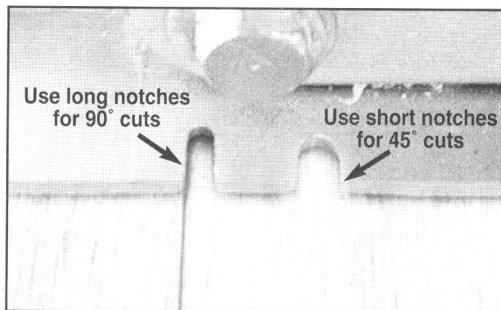
## RIPPING GUIDE

- The ripping guide can be used on the left or the right of the blade, as shown. Using the guide provides accurate cuts without the need to work free-hand following pencil lines.
- Locate the guide into the mounting slots at the front of the baseplate and tighten the thumb screw to lock it at the desired cut width. For maximum width setting, the thumb screw can be relocated to the inner or outer clamp location.

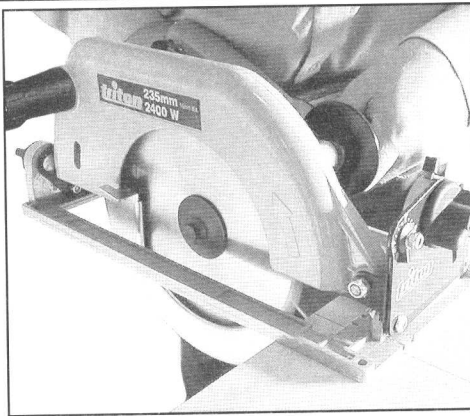


## SIGHTING NOTCHES

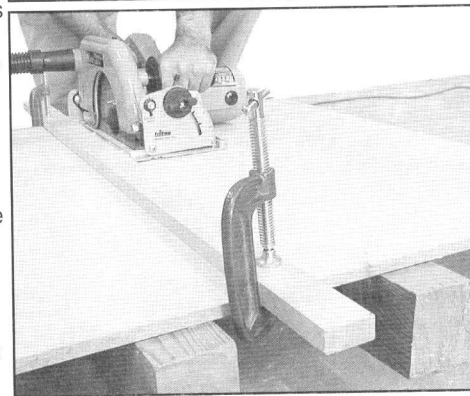
- Two sets of sighting notches near the front of the baseplate provide guidance when performing free-hand cuts following a pencil line. Use the longer, narrower notches for  $90^\circ$  cuts and the shorter notches for  $45^\circ$  cuts. Sight along either edge of the notch, depending on which side of the line you wish to cut.
- Use the second set of notches, closer to the saw blade, to confirm the alignment of your saw during the cut.



- Rest the front of the baseplate on the workpiece with your pencil mark aligned with the correct sighting notch. Ensure the blade is not touching the workpiece.
- Hold the saw firmly with both hands, as shown, and press the trigger. When the saw motor reaches full rotational speed, guide the saw smoothly along the cut line.
- Maintain a consistent feed rate - too fast may put excessive strain on the motor, while too slow may burnish your workpiece. Avoid any sudden movements of the saw.



- When cutting veneered board or wood less than 20mm thick, set the blade to protrude 5-10mm through the work. This will reduce splintering. When cutting thicker wood, set the blade to maximum depth to reduce kickback.
- Wherever possible, avoid free-hand cutting. It is much safer and more accurate to cut with the saw guided by a clamped on batten, as shown, or by fitting the saw to a Triton Workcentre or Compact Saw Table. If cutting free-hand, always mark a straight cutting line and keep the saw from wandering away from it.



- Make sure the workpiece cannot move during the cut, using clamps wherever possible. **Never perform any cuts on a workpiece held in the hand.**
- Large panels and long pieces must be well supported close to both sides of the cut to avoid pinching and kickback. Ensure the saw is positioned with the wider part of the baseplate resting on the larger piece, or on the piece with the best support.
- Prevent kickback by ensuring that you move the saw in a straight line. Ensure that your blade is in good order and that the cut does not close in on the blade. (Use a small wedge or 3mm spacer in the cut to prevent it closing if you're cutting difficult material). Release the trigger if the saw gives any sign of stalling but do not remove the saw until the blade stops spinning.
- Avoid cutting any nails, screws etc. by inspecting your workpieces and removing any fasteners prior to cutting.
- If any unusual noise or odour occurs during operation stop the saw immediately and contact an authorised Triton Saw Repair Centre.
- Do not operate the saw upside down unless securely mounted and guarded in a reputable brand saw bench (eg. a Triton Workcentre or Triton Compact Saw Table).

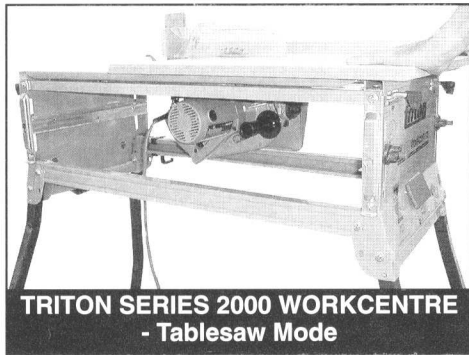
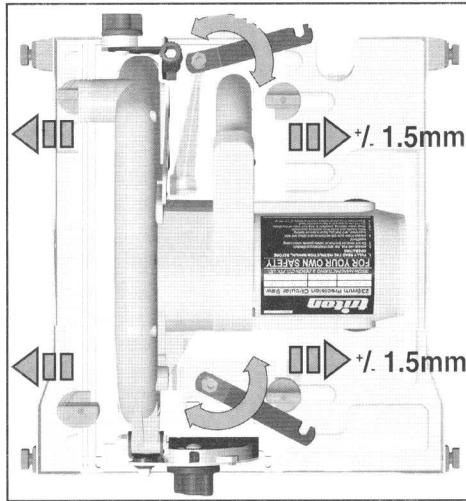
The Triton Precision Power Saw has been specifically designed to easily fit all model Triton Workcentres (MK3 and Series 2000), and all Compact Saw Tables. Follow the saw mounting and alignment procedures outlined in the instruction manual for the bench you have purchased.

### SERIES 2000 WORKCENTRES

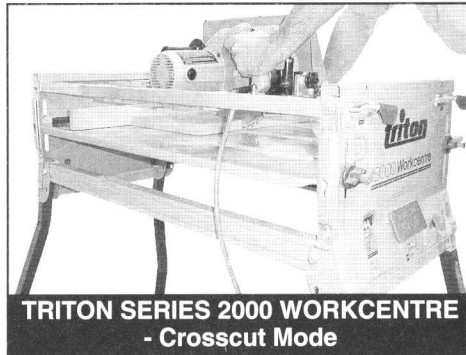
If you have a Series 2000 Workcentre with a Serial No. of 335,000 onwards, the saw slide chassis is made of pressed steel, painted silver, as shown opposite. It has facilities for attaching two alignment cams for easy mounting and positioning of the Triton Precision Power Saw, as shown.

The cams (which are included with the Workcentre slide chassis) allow the front and rear of the saw to be side-shifted by up to 1.5mm in either direction to ensure perfect alignment with the overhead guard support and the rip fence.

The new chassis is available as an upgrade to all MK3 and Series 2000 Workcentres with a Serial No. less than 335,000 (Part No. WCA400).



**TRITON SERIES 2000 WORKCENTRE**  
- Tablesaw Mode



**TRITON SERIES 2000 WORKCENTRE**  
- Crosscut Mode

### TRITON COMPACT SAW TABLES

The Triton saw is easily fitted to all Triton Compact Saw Tables. Compacts with a Serial No. of 8,000 onwards can utilise the above-mentioned saw alignment feature. The alignment cams are included with the Compact Saw Table. This feature cannot be used on Compacts with a Serial No. less than 8,000.



**TRITON COMPACT SAW TABLE**



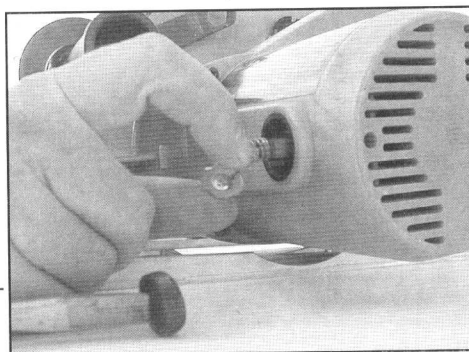
- Regularly check that the saw arbor, arbor washers and bore reducing spacer are clean, and free of built-up gum deposits or caked-on saw dust. Check that the faces of the arbor washers are smooth and free from burrs. Check that the blade retaining bolt is correctly tightened.
- Check the operation of the spring-loaded guard. It must close quickly and without scraping anywhere. Remove the blade and clean accumulated saw dust or wood slivers from the guard area.
- Occasionally check the tension of the micro-adjustment knob, and if necessary tighten or loosen the Nyloc nut near the base of the assembly as outlined on Page 4.
- The saw ventilation slots should be kept clean and clear of any foreign matter. Use a lightly dampened cloth to wipe the saw clean - do not use solvents.
- Regularly check the saw blade for flatness. Use of the saw with a buckled blade places excessive load on the motor and gearbox assembly, and may affect your warranty rights.

### BRUSH REPLACEMENT

- The carbon brushes are a consumable item which should be inspected periodically and replaced when worn.

- **With the saw disconnected from power,** unscrew the brush caps located near the end of the motor. Remove the brushes by pulling carefully on the protruding springs, as shown.

If either of the brushes is worn to less than 6mm long, they must both be replaced using genuine Triton replacement brushes - available from Authorised Triton Saw Repair Centres.



- Triton Manufacturing & Design Co. Pty. Ltd. will not be responsible for any damage or injury caused by unauthorised repair of the saw or by mishandling of the tool.

### SAW BLADE MAINTENANCE

- Regularly check that the blade is free from a build up of gum resins or saw dust. If necessary clean with a solvent such as WD40, RP7 or mineral turpentine.
- The tungsten carbide teeth should be checked regularly for sharpness and tooth breakages, and repaired or re-sharpened as required. Note that when re-sharpening, the bevel angles on the front of the teeth should be retained. If your local saw sharpener cannot provide this service, please contact your nearest Triton office for referral to a suitably equipped saw sharpening service.

The chart below contains information designed to assist in diagnosing and resolving saw problems.

SYMPTOM	POSSIBLE CAUSE	REMEDY
<ul style="list-style-type: none"> <li>Saw will not operate</li> </ul>	<ul style="list-style-type: none"> <li>No supply of power</li> <li>Brushes worn or sticking</li> <li>Trigger is faulty</li> <li>Motor components open or short circuited</li> </ul>	<ul style="list-style-type: none"> <li>Check that power is available at source</li> <li>Disconnect power, open brush caps and ensure brushes move freely in the holders. Check whether brushes require replacing as outlined above.</li> <li>Contact Repair Centre</li> <li>Contact Repair Centre</li> </ul>
<ul style="list-style-type: none"> <li>Saw running slowly</li> <li>Makes an unusual sound</li> </ul>	<ul style="list-style-type: none"> <li>Blunt or damaged blade</li> <li>Motor is overloaded</li> <li>Mechanical obstruction</li> <li>Armature has shorted sections</li> </ul>	<ul style="list-style-type: none"> <li>Re-sharpen or replace blade</li> <li>Reduce pushing force on saw. Ensure the cut isn't closing and pinching the blade.</li> <li>Contact Repair Centre</li> <li>Contact Repair Centre</li> </ul>
<ul style="list-style-type: none"> <li>Motor runs but blade won't spin</li> </ul>	<ul style="list-style-type: none"> <li>Blade retaining nut is loose, or reducing spacer incorrectly fitted.</li> <li>Broken gear shaft or teeth</li> </ul>	<ul style="list-style-type: none"> <li>Tighten blade retaining nut. Ensure the arbor reducing spacer and flange washers are correctly fitted.</li> <li>Contact Repair Centre</li> </ul>
<ul style="list-style-type: none"> <li>Heavy sparking occurs inside motor housing</li> </ul>	<ul style="list-style-type: none"> <li>Brushes not moving freely</li> <li>Armature short circuited or open circuited</li> <li>Commutator surface not clean</li> </ul>	<ul style="list-style-type: none"> <li>Disconnect power, remove brushes, clean or replace</li> <li>Contact Repair Centre</li> <li>Contact Repair Centre</li> </ul>
<ul style="list-style-type: none"> <li>Retractable guard will not close, or is slow to close</li> </ul>	<ul style="list-style-type: none"> <li>Return spring detached or broken</li> <li>Guard is bent</li> <li>Mechanism fouled by sawdust</li> </ul>	<ul style="list-style-type: none"> <li>Re-attach or replace spring (use only genuine Triton replacement parts).</li> <li>Straighten it, or contact Repair Centre</li> <li>Clean and lightly lube fouled mechanism</li> </ul>
<ul style="list-style-type: none"> <li>Saw depth adjustment not holding.</li> </ul>	<ul style="list-style-type: none"> <li>Depth adjustment lever requires repositioning.</li> </ul>	<ul style="list-style-type: none"> <li>Reposition the depth adjustment lever as described on page 4 "Adjusting Cut Depth"</li> </ul>

If a problem cannot be resolved using the above advice do not tamper with the saw - phone **1 300 655 686**, from within Australia, for referral to your nearest authorised Triton Saw Repair Centre. If outside of Australia, contact your nearest Triton office for assistance (details on cover).