

# ozito

## CHAINSAW CHAIN SHARPENER

### 85W

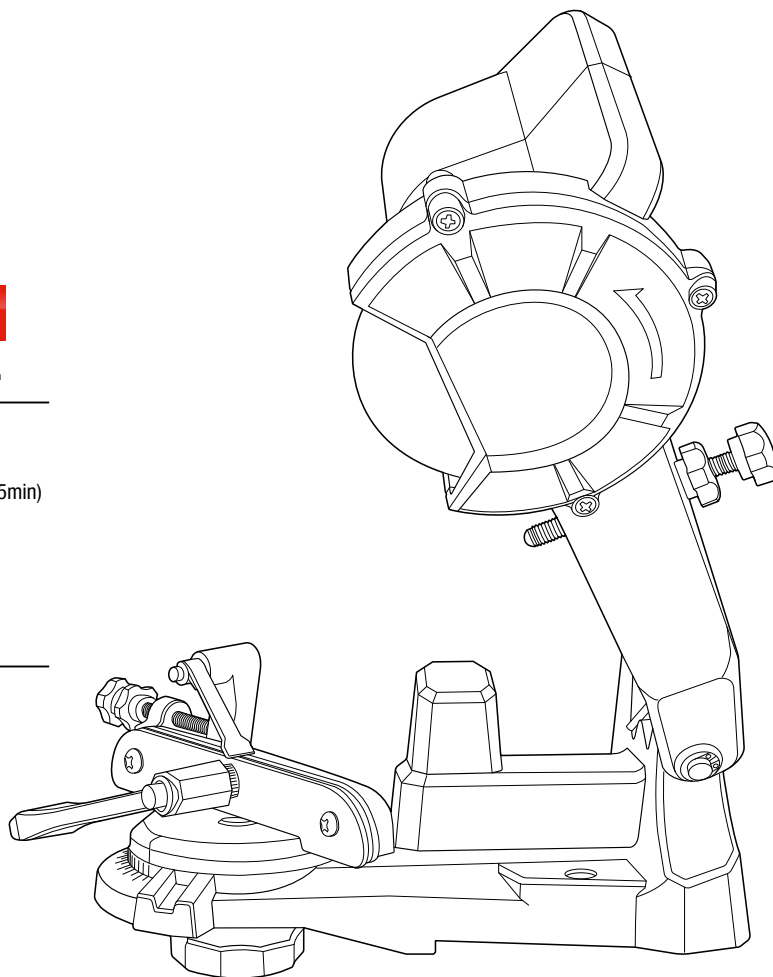
### INSTRUCTION MANUAL

#### SPECIFICATIONS

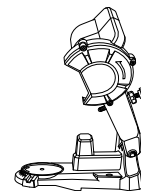
Voltage:	220-240V ~ 50Hz
Motor:	30W (S1), 85W (S2: 15min)
No Load Speed:	5,800/min
Table/Vice:	0°-35° left & right
Sharpening Wheel:	Ø108 x 3.2 x Ø23mm
Bore:	23mm
Suits Chain Pitch:	0.325" and 3/8"
Tool Weight:	2.0kg

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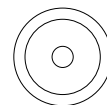
**3 YEAR**  
REPLACEMENT  
WARRANTY\*



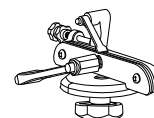
#### STANDARD EQUIPMENT



Chainsaw Chain Sharpener



Sharpening Wheel



Table/Vice

CCS-085

## WARRANTY

IN ORDER TO MAKE A CLAIM UNDER THIS WARRANTY YOU MUST RETURN THE PRODUCT TO YOUR NEAREST BUNNINGS WAREHOUSE WITH YOUR BUNNINGS REGISTER RECEIPT. PRIOR TO RETURNING YOUR PRODUCT FOR WARRANTY PLEASE TELEPHONE OUR CUSTOMER SERVICE HELPLINE:

**Australia: 1800 069 486**

**New Zealand: 0508 069 486**

TO ENSURE A SPEEDY RESPONSE PLEASE HAVE THE MODEL NUMBER AND DATE OF PURCHASE AVAILABLE. A CUSTOMER SERVICE REPRESENTATIVE WILL TAKE YOUR CALL AND ANSWER ANY QUESTIONS YOU MAY HAVE RELATING TO THE WARRANTY POLICY OR PROCEDURE.

The benefits provided under this warranty are in addition to other rights and remedies which are available to you at law.

Our goods come with guarantees that cannot be excluded at law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Generally you will be responsible for all costs associated with a claim under this warranty, however, where you have suffered any additional direct loss as a result of a defective product you may be able to claim such expenses by contacting our customer service helpline above.

#### 3 YEAR REPLACEMENT WARRANTY\*

Your product is guaranteed for a period of **36 months from the original date of purchase**. If a product is defective it will be replaced in accordance with the terms of this warranty. Warranty excludes consumable parts, for example: Sharpening wheel.

\*This product is intended for DIY use only and replacement warranty covers domestic use.

#### WARNING

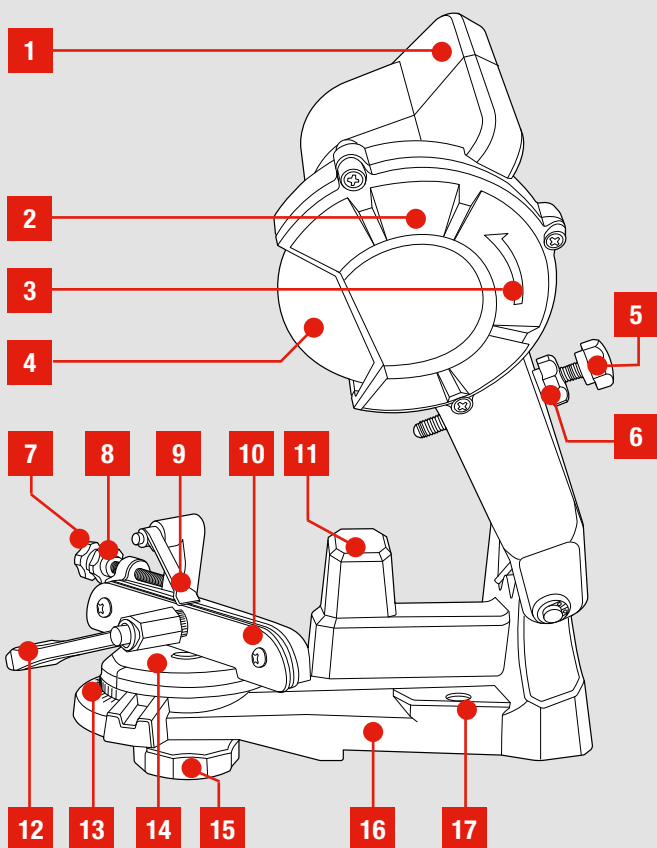
**The following actions will result in the warranty being void.**

- If the tool has been operated on a supply voltage other than that specified on the tool.
- If the tool shows signs of damage or defects caused by or resulting from abuse, accidents or alterations.
- Failure to perform maintenance as set out within the instruction manual.
- If the tool is disassembled or tampered with in any way.
- Professional, industrial or high frequency use.

# KNOW YOUR PRODUCT

## CHAINSAW CHAIN SHARPENER

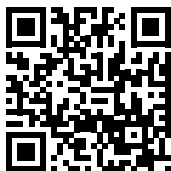
- |                                |                          |
|--------------------------------|--------------------------|
| 1. Lowering hand piece         | 10. Guide                |
| 2. Sharpening wheel cover      | 11. Depth stop platform  |
| 3. Direction of rotation arrow | 12. Guide clamp lever    |
| 4. Sharpening wheel            | 13. Table scale          |
| 5. Depth of grind knob         | 14. Table                |
| 6. Depth of grind lock nut     | 15. Table locking knob   |
| 7. Chain stop knob             | 16. Sharpener base       |
| 8. Chain stop lock nut         | 17. Bench mounting holes |
| 9. Chain (tooth) stop          |                          |



## ONLINE MANUAL

Scan this QR Code with your mobile device to take you to the online manual.

**3 YEAR REPLACEMENT WARRANTY\***



# SETUP & PREPARATION

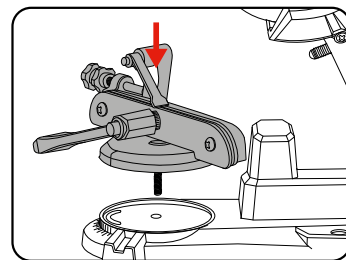
## 1. ASSEMBLY



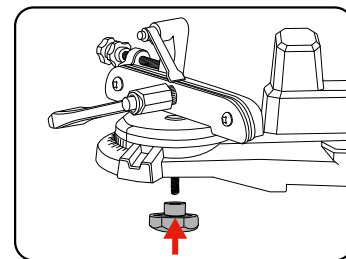
**WARNING:** BEFORE ASSEMBLING, MOUNTING, SETTING OR MAINTAINING YOUR SHARPENER, MAKE SURE THAT THE MOTOR IS OFF AND THE TOOL DISCONNECTED FROM THE POWER SUPPLY TO PREVENT ACCIDENTAL STARTING.

### Fitting the Table

1. Insert the bolt of the table through the hole in the sharpener base.



2. Secure the table in place by fixing the locking knob to the bolt (by screwing the knob clockwise).

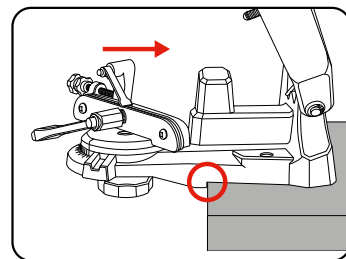


### Mounting the Sharpener

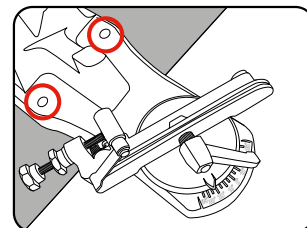
For safe operation of the sharpener, the base of the tool must be fitted to a flat, solid, secure surface such as a work bench.

The sharpener base is designed in two halves. The rear half is for fitting flat to a stable surface and the front is designed to protrude over the edge of the mounting surface.

The sharpener base should be fitted to the mounting surface by sliding the rear half back until the two 'steps' on the base align with the edge of the mounting surface. Ensure when mounting, that the table locking knob is still easily accessible for when adjusting the table angles.



Two 10mm mounting holes allow for fixing the base to the mounting surface (bolts not supplied). Ensure the mounting surface is capable of supporting the weight of the sharpener and chain to be sharpened.



## 2. SETTING OF THE SHARPENER

**WARNING:** ALWAYS WEAR HEAVY GLOVES WHEN HANDLING THE CHAIN.

**Note.** Prior to using the sharpener, several adjustments must be made in order to sharpen the teeth of the chain effectively.

### 1. Adjusting the angle of cut.

### 2. Adjusting the chain (tooth) stop.

### 3. Adjusting the depth of cut.

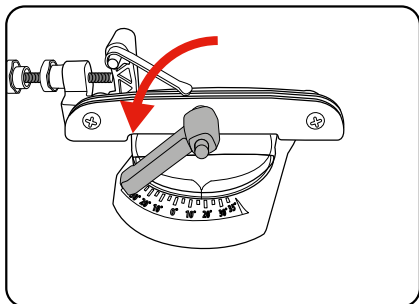
Failure to perform these adjustments will result in poor sharpening and possible damage to the chain being sharpened.

Before making adjustments, always ensure the sharpener has been disconnected from the power supply.

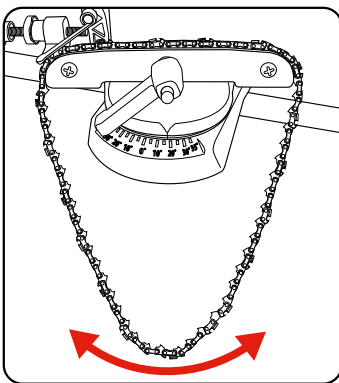
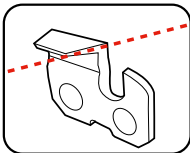
### Adjusting the Angle of Cut

1. Open the slide guide groove by rotating the guide clamp lever anti-clockwise.

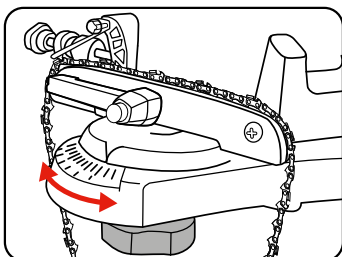
**Note:** The guide clamp lever is spring loaded to allow repositioning of the handle. By pulling out the lever and at the same time rotate to the opposite direction, then releasing will allow you to position the handle again to turn in the desired direction.



2. Fit a chain over the guide groove ensuring the inner side of the chain sits inside the guide groove. Ensure the chain hangs freely over the side of the mounting surface. The chain should be fitted so the teeth face the right hand side of the sharpener and the chain can move freely in both directions.

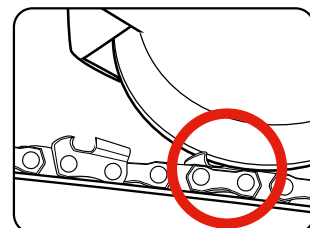
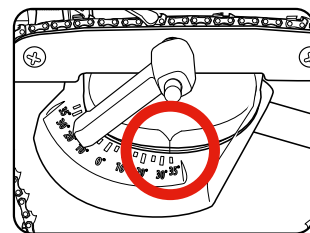


3. If you know the angle of the chain, rotate the table to the same angle as the chain. To rotate the table loosen the table lock knob and rotate the table until the scale indicator lines up with the scale on the base of the sharpener.



4. If you do not know the angle of the chain set, the table angle to 35°.

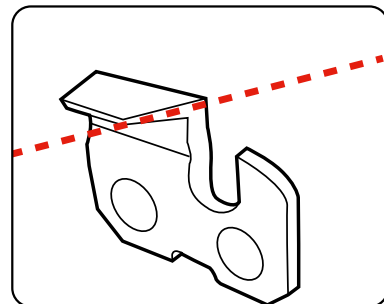
Take hold of the hand piece and bring it down so that the wheel is slowly lowered into the chain, along the cutting tooth. Slowly move the table so the cutting face of the tooth is parallel with the edge of the wheel. The most common chain angles are 30 – 35°. It may be necessary to slide the chain slightly to allow the wheel to enter down the face of the tooth.



5. Once the correct angle has been achieved tighten the table locking knob to lock the table in the current position.

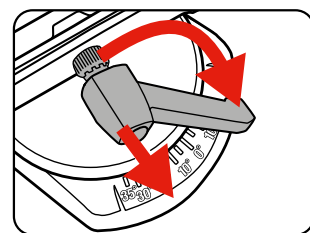
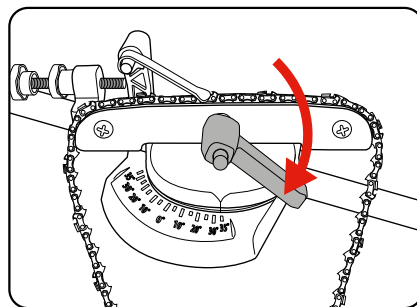
After the table is locked in the required position, take hold of the hand piece and lower the head assembly until the wheel is aligned along the tooth of the chain.

Confirm the angle then slide the chain so the face of the tooth is just touching the face of the wheel.



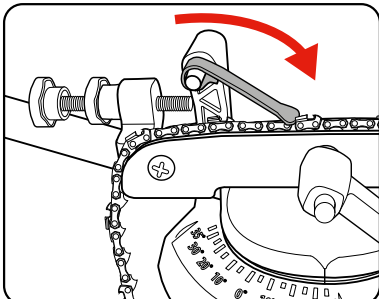
6. Lock the guide by rotating the clamping lever as far as it will go in a clockwise direction. Ensure the chain is clamped firmly into the sliding guide.

Should the chain still not be clamped, pull the clamping lever outwards (away from the guide), turn the lever anti-clockwise 1/4 of a turn. Push the lever back in towards the guide. Proceed to rotate the lever fully clockwise. Check the chain is clamped. Should it still not be clamped, repeat the process above.

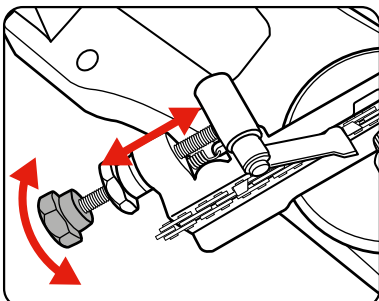


## Adjusting the Chain (tooth) Stop

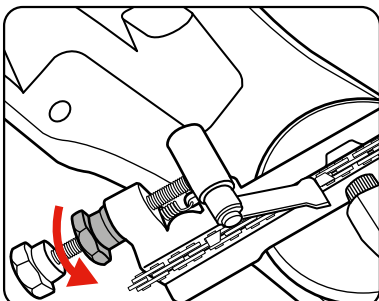
1. With the chain clamped in position, rotate the chain stop in behind the chain tooth aligned with the sharpening wheel from the previous setting.



2. Adjust the chain stop knob so that it is firmly behind and at the bottom of the aligned chain tooth, by rotating either clockwise to move the chain stop forward or anti-clockwise to move the chain stop backward.

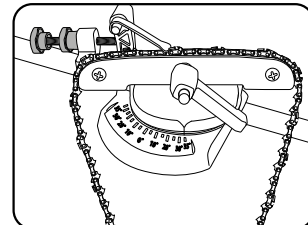


3. When the chain stop is properly adjusted it should be directly behind the chain tooth as shown. To secure in position rotate the chain stop lock nut clockwise as far as possible.

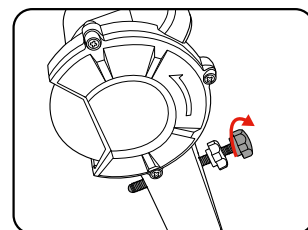


## Adjusting the Depth of Cut

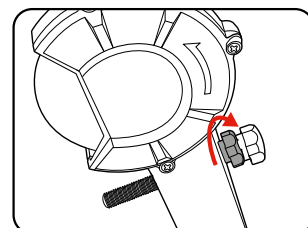
1. Ensure the chain is still locked in place, the chain stop still flipped into position and the chain stop knob and lock nut are still secured.



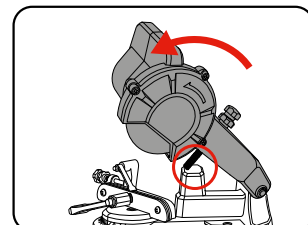
2. Rotate the depth of grind knob clockwise as far as it will go (so as much of the pin is exposed under the head piece as possible).



3. Rotate the depth of grind lock nut towards the housing of the tool.

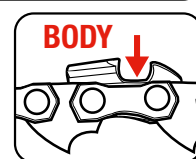
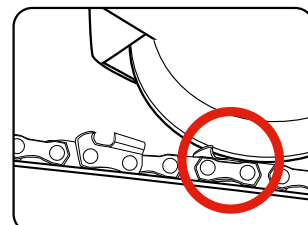


4. Lower wheel towards the face of the tooth. The depth of grind pin should meet the depth stop platform and stop the sharpening wheel from travelling the full distance to the tooth.

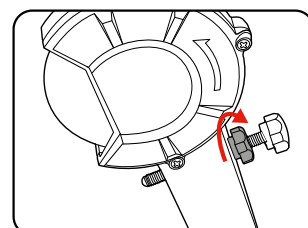


5. Whilst still applying downward pressure on the hand piece simultaneously start rotating the depth of grind knob anti-clockwise. Slowly continue rotating the knob anti clockwise whilst watching the sharpening wheel get closer to the tooth of the chain.

6. When the wheel enters along the face of the tooth, make sure the wheel is lowered until it covers the full face of the tooth but **DOES NOT** touch the tooth body below. Alternatively, you can lower the sharpening wheel until it firmly sits on top of the tooth body and then rotate the depth of grind knob 1/2 a turn clockwise to lift it slightly away from the body. Lifting the sharpening wheel away from the body will prevent cutting into the body or link and damaging the chain.



7. When the depth adjustment is correct, hold the depth of grind knob in position with one hand, using the free hand rotate the grind lock nut clockwise locking the depth of grind pin in position. The initial set up is now complete. Fine adjustments may still need to be made once first sharpening operation is performed.



# OPERATION

## 3. OPERATION

**WARNING:** TO REDUCE THE RISK OF ELECTRICAL SHOCK, WE RECOMMEND THE USE OF A RESIDUAL CURRENT DEVICE (RATED 30mA OR LESS).

**WARNING:** ENSURE YOU WEAR PERSONAL PROTECTION EQUIPMENT SUCH AS HEAVY GLOVES, HEARING AND EYE PROTECTION.

Prior to operation, ensure you have read and understood the operating instructions.

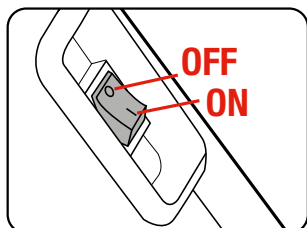
Connect the tools power-plug to a power-point.

If multiple chains are to be sharpened, it is suggested the sharpener be turned off at the completion of each chain for a period equal to that of sharpening the previous chain.

### Switching On and Off

To turn the tool ON, press the 'I' on the switch. To turn the motor OFF, press the 'O' on the switch.

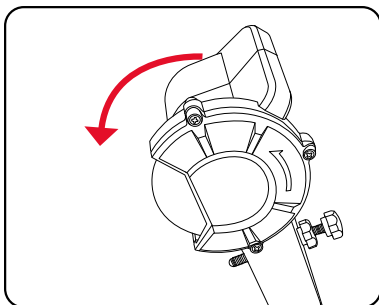
**Note:** When turning on the sharpener, stand to one side of the tool. Ensure you wear safety glasses, heavy gloves and ear protection.



### Using the Sharpener

Turn on the sharpener, and slowly lower the hand-piece. If you notice a slight error in your settings, turn off the tool and unplug from the power point prior to making any further adjustments.

**Note:** A successful grind occurs when the contact between the sharpening wheel and tooth is gradual and smooth.

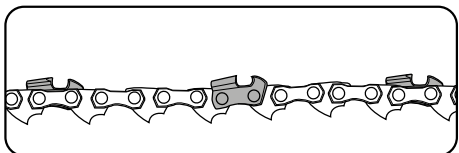


**WARNING:** DURING OPERATION, IT IS IMPORTANT NOT TO OVERLOAD THE SHARPENER. THE SHARPENER SHOULD RUN AT ALMOST FULL SPEED AT ALL TIMES. IF TOO MUCH PRESSURE IS APPLIED, THE SHARPENER WILL START TO SLOW DOWN (NOTICED MAINLY BY THE DRAMATIC AUDIBLE CHANGE OF THE MOTOR).

Should the sharpener speed slow down, allow the hand-piece to raise up a little (in effect allowing the wheel to lift away from the chain) and let the motor return to full speed before continuing to sharpen.

The chain saw chain is fitted with two sets of teeth, usually every second tooth is the opposite to the last. When there is an odd number of teeth in the chain, the teeth can be doubled up ie. left, left, right.

Should the chain have an odd number of teeth, check to find this point, and be aware of this condition.



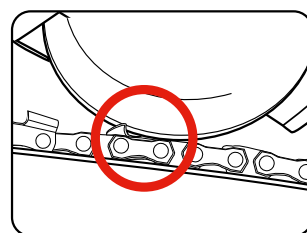
The sharpening process consists of two operations. These are, setting to the left, and then setting the right. It is suggested that you sharpen all of the teeth that face one side (every second tooth) and then proceed to sharpen all the teeth on the opposite side.

It is important to always ensure the tooth is correctly located against the chain stop, the chain is correctly locked in place, the initial set-up as previously described has been correctly carried out, and the correct safety gear is being worn.

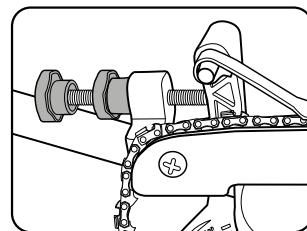
With the chain correctly aligned against the chain stop and the depth stop set (refer to **SETTING OF THE SHARPENER** instructions prior to the operation), start the tool whilst standing to one side of the sharpening wheel and allow the motor to run for several seconds (allowing the motor to get up to full speed).

Check the above settings by carefully lowering the sharpening wheel down the face of the tooth until the hand-piece comes to a stop.

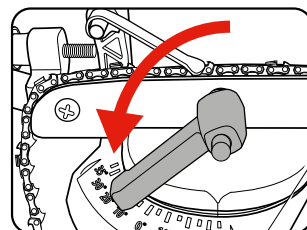
As the sharpening wheel passes down the face of the tooth, it should be a light even pass.



**DO NOT** attempt to try and make a heavy pass. It should be a very light "brush" of the front face of the tooth. If the cut is too heavy, stop and allow the hand-piece to rise back up, and turn the tool off. If the pass was too heavy, adjust the chain stop adjusting knob in an anti-clockwise direction slightly (suggest no more than 1/8 of a turn). Then tighten the chain stop adjusting knob lock nut.

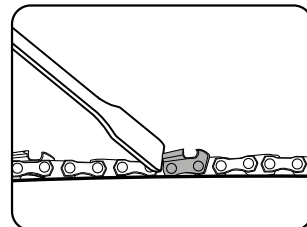


Once sharpening of the tooth completed, rotate the guide clamp lever fully to the left to unlock the chain clamp (sliding guide).



Slide the chain to the right, allowing the chain stop to ride over the links and teeth until the next tooth (orientated the same as the first tooth) rides under the stop.

When the tooth slides under the chain stop, gently slide the chain to the left so the stop engages and locates the tooth.



With the rear of the tooth firmly located, lock the clamping lever, and repeat the cutting test. If the sharpening wheel is not grinding a sufficient amount off the face of the tooth, repeat the above adjustment but rotate the chain stop adjustment knob clockwise.

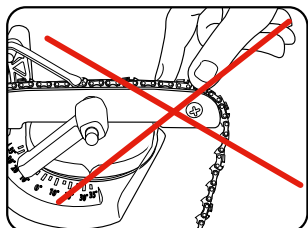
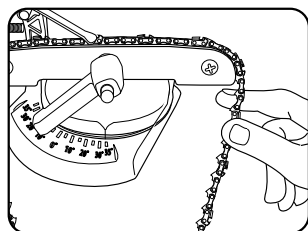
Lower the hand-piece (in effect lowering the wheel) fully until the wheel reaches the bottom of the tooth. Check to ensure the sharpening wheel has not cut into the chain link.

If the sharpening wheel touches the chain link, re-set the stop by adjusting the depth of grind knob in a clockwise direction (suggest 1/8 turn at a time). Re-test after each adjustment.



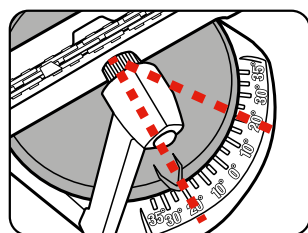
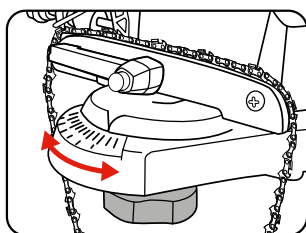
# OPERATION

**Note:** Movement of the chain through the guide should be from the HANGING chain as shown. Movement of the chain should NOT be from the top of the clamp area. To move the chain, the guide clamp lever should be loosened then gently pull downwards on the hanging chain. After the tooth to be sharpened has passed under the stop, gently pull the chain via the hanging chain to the left until the stop locates the chain tooth. Always select the correct orientated tooth for the set up for the table.



## Sharpening Teeth in Opposite Direction

1. Ensure the sharpener is turned off and the sharpening wheel is not rotating.
2. Check the angle of the table of the current setting, loosen the table locking knob, and rotate the table to the opposite side, but to the same corresponding angle.
3. Lock the table locking knob firmly.



4. Using the same method above, release the guide clamp lever and move the chain to the right and locate the first chain tooth with the opposite orientation from the first sharpening process. The settings should be the same, however when making the first cut always take care and check the amount being cut off the tooth, and also the depth of the cut. Check both of these settings and adjust accordingly.

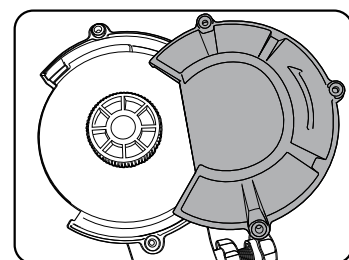
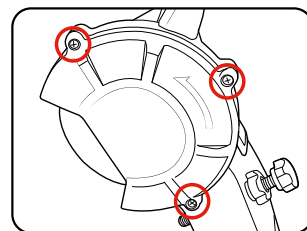
# MAINTENANCE



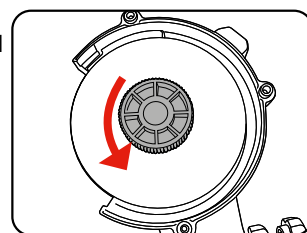
**WARNING!** ENSURE THE TOOL IS TURNED OFF AND DISCONNECTED FROM THE POWER SUPPLY BEFORE PERFORMING ANY OF THE FOLLOWING OPERATIONS.

## Wheel Change

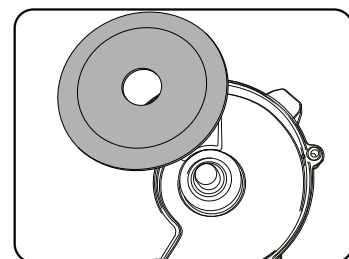
1. Disconnect the sharpener from the power supply.
2. Remove the 3 screws holding the sharpening wheel cover to the sharpener housing.
3. Lift off the sharpening wheel cover.



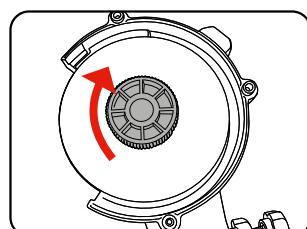
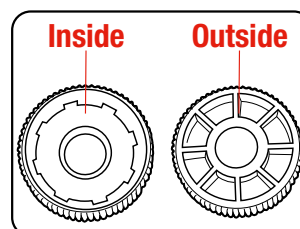
4. Hold the sharpening wheel with one hand and using the free hand turn the knob at the centre of the wheel anti clockwise. Remove the knob.



5. Remove the sharpening wheel and replace with a new one.



6. Re-fit the locking knob and screw clockwise with the inside of the knob facing down against the sharpening wheel. Hold the wheel with the free hand to ensure the locking knob can be tightened properly.



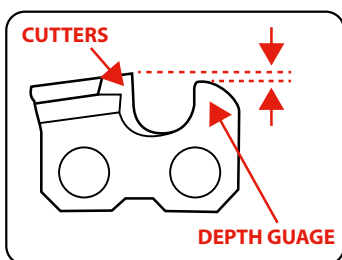
7. Re-fit the sharpening wheel cover.
8. Secure cover by fixing the 3 screws through the cover back into the sharpener housing.

## General maintenance

Keep the Sharpener clean and free of dust, metal debris and dirt. Check the sharpening wheel before each use to make sure it isn't damaged. Do not use a sharpening wheel if it is chipped, cracked, or worn. You can check if the wheel has cracks not visible to the human eye by hanging it up by the central hole and tapping it with a non metal object (ie. Screwdriver handle). If it is in good condition it will produce a metallic sound. A dull sound indicates a crack or break. Replace the sharpening wheel when it grinds down to a diameter of 75mm.

## Filing the Chain Depth

If the chain has been repeatedly sharpened, the chain depth limiting gauges (depth gauge) may need to be filed down with a flat file (not included). The depth of the depth gauges should be NO more than 0.5mm below the cutters.



Always disconnect the sharpener from the power supply prior to making any adjustments or performing any maintenance.

Ensure replacement wheels are rated at 5,800/min or higher. Using a wheel rated below the speed of the sharpener is a hazard.

Periodically check that all nuts, bolts and other fixings are properly tightened.

**Ozito Industries will not be responsible for any damage or injuries caused by repair of the tool by an unauthorised person or mishandling or mistreatment of the tool. This tool is designed for Domestic Home Use only. Use in commercial or industrial environments will void the warranty.**

## DESCRIPTION OF SYMBOLS

<b>V</b>	Volts	<b>Hz</b>	Hertz
<b>~</b>	Alternating Current	<b>W</b>	Watts
<b>/min</b>	Revolutions or reciprocations per minute	<b>n<sub>0</sub></b>	No load speed
	Regulatory Compliance Mark (RCM)		Wear hearing & eye protection
	Warning		Double insulated
	Read Instruction Manual		Wear non-slip heavy duty gloves

## CARING FOR THE ENVIRONMENT



Power tools that are no longer usable should not be disposed of with household waste but in an environmentally friendly way. Please recycle where facilities exist. Check with your local council authority for recycling advice.



Recycling packaging reduces the need for landfill and raw materials. Reuse of recycled material decreases pollution in the environment. Please recycle packaging where facilities exist. Check with your local council authority for recycling advice.

## SPARE PARTS

Spare parts can be ordered from the Special Orders Desk at your local Bunnings Warehouse.

Most common spare parts listed below

Spare Part	Part No.
Sharpening Wheel	PXCSWA-108 (accessory)

For further information, or any parts not listed here, visit

[www.ozito.com.au](http://www.ozito.com.au) or contact Ozito Customer Service:

Australia 1800 069 486

New Zealand 0508 069 486

E-mail: [enquiries@ozito.com.au](mailto:enquiries@ozito.com.au)

## CHAINSaw CHAIN SHARPENER SAFETY WARNINGS

- Always disconnect the sharpener from the power supply prior to making any adjustments or performing any maintenance.
- Always wear eye protection.
- Ensure replacement wheels are rated at 5,800/min or higher. Using a wheel rated below the speed of the sharpener is a hazard.
- Rags, clothes and other loose catch-able objects should be kept away from the work area.
- If interrupted whilst operating the tool, complete the process and switch the tool off before looking away from the machine.
- Periodically check all nuts, bolts and other fixings are properly tightened.
- Always turn the sharpener off when it is not in use and never leave it unattended without first switching off and disconnecting the tool from the power supply. Never leave the sharpener until the sharpening wheel has come to a complete stop.
- When using the sharpener, use safety equipment including safety glasses, ear protection, dust mask and protective gloves.

### Kickback and Related Warnings

Kickback is a sudden reaction to a pinched or snagged rotating wheel. Pinching or snagging causes rapid stalling of the rotating wheel which in turn causes the uncontrolled cutting unit to be forced upwards towards the operator.

For example, if a cut-off wheel is snagged or pinched by the work piece, the edge of the wheel that's entering the pinch point can dig into the surface of the material causing the wheel to climb out or kick out. Cut-off wheels may also break under these conditions.

Kickback is the result of power tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below.

- Maintain a firm grip on the power tool and position your body and arm to allow you to resist kickback forces.** The operator can control upward kickback forces, if proper precautions are taken.
- Do not position your body in line with the rotating wheel.** If kickback occurs it will propel the cutting unit upwards toward the operator.
- Do not attach a saw chain, woodcarving blade, segmented diamond wheel with a peripheral gap greater than 10mm or toothed saw blade.** Such blades create frequent kickback and loss of control.
- Do not 'jam' the wheel or apply excessive pressure.** Do not attempt to make an excessive depth of cut. Overstressing the wheel increases the loading and susceptibility to twisting or binding of the wheel in the cut and the possibility of kickback or wheel breakage.
- When the wheel is binding or when interrupting a cut for any reason, switch off the power tool and hold the cutting unit motionless until the wheel comes to a complete stop. Never attempt to remove the wheel from the cut while the wheel is in motion, otherwise kickback may occur.** Investigate and take corrective action to eliminate the cause of wheel binding.
- Do not restart the cutting operation in the work piece. Let the wheel reach full speed and carefully re-enter the cut.** The wheel may bind, walk up or kickback if the power tool is restarted in the work piece.
- Support any oversized work piece to minimise the risk of wheel pinching and kickback.** Large work pieces tend to sag under their own weight. Supports must be placed under the work piece near the line of cut and near the edge of the work piece on both sides of the wheel.



# ELECTRICAL SAFETY



**WARNING!** When using mains-powered tools, basic safety precautions, including the following, should always be followed to reduce risk of fire, electric shock, personal injury and material damage.

Read the whole manual carefully and make sure you know how to switch the tool off in an emergency, before operating the tool.

Save these instructions and other documents supplied with this tool for future reference.

The manufacturer cannot accept any liability for damage or accidents which arise due to a failure to follow these instructions and the safety information.

This product has been designed for 230V and 240V only. Always check that the power supply corresponds to the voltage on the rating plate.

If the supply cord is damaged, it must be replaced by an electrician or a power tool repairer in order to avoid a hazard.



**Note:** The supply of 230V and 240V is interchangeable for Australia and New Zealand. This tool is double insulated in accordance with AS/NZS 62841-1; therefore no earth wire is required.

The power supply for this product should be protected by a residual current device (rated at 30mA or less). A residual current device reduces the risk of electric shock.

If the supply cord is damaged, it must be replaced by an electrician or a power tool repairer in order to avoid a hazard.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

**Note:** Double insulation does not take the place of normal safety precautions when operating this tool. The insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

## Using an Extension Lead

Always use an approved extension lead suitable for the power input of this tool. Before use, inspect the extension lead for signs of damage, wear and ageing. Replace the extension lead if damaged or defective. When using an extension lead on a reel, always unwind the lead completely. Use of an extension lead not suitable for the power input of the tool or which is damaged or defective may result in a risk of fire and electric shock.



# GENERAL POWER TOOL SAFETY WARNINGS



**WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

**Save all warnings and instructions for future reference.**

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

## 1. Work area safety

- Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

## 2. Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply.** Use of an RCD reduces the risk of electric shock.

## 3. Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection.** Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.

- Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
  - Dress properly. Do not wear loose clothing or jewellery. Keep your hair, clothing and gloves away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
  - If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.
  - Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.
- ## 4. Power tool use and care
- Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
  - Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
  - Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
  - Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
  - Maintain power tools. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
  - Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
  - Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
  - Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.
- ## 5. Service
- Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.
  - If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.**



# CUT-OFF SAW SAFETY WARNINGS



**WARNING!** The appliance is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction.

Young children should be supervised to ensure that they do not play with the appliance.

- Position yourself and bystanders away from the plane of the rotating wheel.** The guard helps to protect the operator from broken wheel fragments and accidental contact with wheel.
- Only use bonded reinforced cut-off wheels for your power tool.** Just because an accessory can be attached to your power tool, it does not assure safe operation.
- The rated speed of the accessory must be at least equal to the maximum speed marked on the power tool.** Accessories running faster than their rated speed can break and fly apart.
- Wheels must be used only for recommended applications. For example: do not grind with the side of a cut-off wheel.** Cut-off wheels are intended for peripheral grinding, side forces applied to these wheels may cause them to shatter.
- Always use undamaged wheel flanges that are of correct diameter for your selected wheel.** Proper wheel flanges support the wheel thus reducing the possibility of wheel breakage.
- The outside diameter and the thickness of your accessory must be within the capacity rating of your power tool.** Incorrectly sized accessories cannot be adequately guarded or controlled.
- The arbour size of wheels and flanges must properly fit the spindle of the power tool.** Wheels and flanges with arbour holes that do not match the mounting hardware of the power tool will run out of balance, vibrate excessively and may cause loss of control.
- Do not use damaged wheels. Before each use, inspect the wheels for chips and cracks. If the power tool or wheel is dropped, inspect for damage or install an undamaged wheel. After inspecting and installing the wheel, position yourself and bystanders away from the plane of the rotating wheel and run the power tool at maximum no load speed for one minute.** Damaged wheels will normally break apart during this test time.

- Wear personal protective equipment. Depending on application, use face shield, safety goggles or safety glasses. As appropriate, wear dust mask, hearing protectors, gloves and shop apron capable of stopping small abrasive or work piece fragments.** The eye protection must be capable of stopping flying debris generated by various operations. The dust mask or respirator must be capable of filtering particles generated by your operation. Prolonged exposure to high intensity noise may cause hearing loss.
- Keep bystanders a safe distance away from work area. Anyone entering the work area must wear personal protective equipment.** Fragments of work piece or of a broken wheel may fly away and cause injury beyond immediate area of operation.
- Position the cord clear of the spinning accessory.** If you lose control, the cord may be cut or snagged, and your hand or arm may be pulled into the spinning wheel.
- Regularly clean the power tool's air vents.** The motor's fan can draw the dust inside the housing and excessive accumulation of powdered metal may cause electrical hazards.
- Do not operate the power tool near flammable materials. Do not operate the power tool while placed on a combustible surface such as wood.** Sparks could ignite these materials.
- Do not use accessories that require liquid coolants.** Using water or other liquid coolants may result in electrocution or shock.