



**14" (345mm)
Heavy Duty Bandsaw
BS-345C**

INSTRUCTIONS MANUAL

CARBATEC.COM.AU

carbatec®

3 YEAR
WARRANTY

THANK YOU FOR CHOOSING carbatec®

Carbatec has been a trusted brand for woodworking enthusiasts and professionals across Australia and New Zealand, since 1987.

Our quality woodworking products are designed and built to offer value and performance, making the latest features and technological advancements more accessible to Aussie woodworkers.

Backed by our no-fuss after-sales care and warranty support, you can trust Carbatec to keep you woodworking, as promised.

We look forward to sharing in your woodworking journey!

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WHAT'S IN THE BOX



BS-345C 14" BANDSAW

- | | | |
|----------------------------------|--|------------------------------------|
| A. Fence | G. Door Lock Keys | L. Cast table |
| B. Front fence rail | H. Mitre Gauge | M. Stand Cross Braces |
| C. Rear fence rail | I. Table Tilt Lock Knobs | N. Stand Left/Right Legs |
| D. Fence Hardware | J. Guard Height & Blade Tension Knobs | O. Fence Rule |
| E. Machine to stand bolts | K. 90° Table Stop Bolt | P. Manual (not shown) |
| F. Stand assembly bolts | | Q. Main Machine (not shown) |

This bandsaw will require a minimal amount of assembly.

1. Remove parts from all of the cartons and lay them on a clean work surface.
2. Remove any protective materials and coatings from all of the parts and the bandsaw. The protective coatings can be removed by spraying WD-40 on them and wiping it off with a soft cloth. This may need to be redone several times before all of the protective coatings are removed completely.
3. Compare the items to verify that all are accounted for before discarding the shipping box.

CAUTION

DO NOT USE ACETONE, gasoline or lacquer thinner to remove any protective coatings.

WARNING

If any parts are missing, do not attempt to plug in the power cord and turn "ON" the bandsaw. The bandsaw can only be turned "ON" after all the parts have been obtained and installed correctly.

IMPORTANT

DUST COLLECTION: All woodworking machines require effective dust extraction to ensure quality work and longevity of the machine itself. Failure to connect your machine to a suitable dust collector may affect your warranty. The collector required for your machine will depend on several factors including the type of machine and its dust port connection, distance between collector and machine, type & frequency of use and the material being worked. We recommend a dust collector that will provide you a minimum airflow of 500-CFM when measured at the machine connection.

4

Key information can be found on the inspection panel, found on the rear of the machine.

carbatec
 QUALITY INSPECTED

Model:
Voltage
Freq:
Phase:
Amp:
kW:
Speed:
Lot No.:
Serial No.:
Date:

Made for:
 CARBATEC PTY LTD
 Brisbane - Australia




Record the serial number and date of purchase in your manual for future reference.

SERIAL NUMBER:

.....

DATE OF PURCHASE:

.....

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NOTE: The specifications, photographs, drawings and information in this manual represent the current machine model when the manual was prepared. Changes and improvements may be made at any time, with no obligation on the part of Carbatec to modify previously delivered units. Reasonable care has been taken to ensure that the information in this manual is correct, to provide you with the guidelines for the proper safety, assembly and operation of this machine.

SAFETY INSTRUCTIONS

IMPORTANT! Safety is the single most important consideration in the operation of this equipment. The following instructions must be followed at all times. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury. There are certain applications for which this tool was designed. We strongly recommend that this tool not be modified and/or used for any other application other than that for which it was designed. If you have any questions about its application, do not use the tool until you have contacted us and we have advised you.

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols and the explanations with them deserve your careful attention and understanding. The symbol warnings do not, by themselves, eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

WARNING

Be sure to read and understand all safety instructions in this manual, including all safety alert symbols such as "DANGER," "WARNING," and "CAUTION" before using this tool. Failure to following all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SYMBOL MEANING



A safety alert symbol Indicates **DANGER, WARNING, or CAUTION.** May be used in conjunction with other symbols or pictographs.



Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, could result in minor or moderate injury.



(Without Safety Alert Symbol) Indicates a situation that may result in property damage.



Carbatec products bearing the Regulatory Compliance Mark (RCM) have been tested in accordance with applicable Australian/New Zealand Standards to ensure their compliance with all mandatory standards and regulations (applicable at time of original sale). Carbatec Pty Ltd are registered as a responsible supplier with relevant Australian government departments and our products are registered on the EESS & ACMA database.

GENERAL SAFETY

Operating a power tool can be dangerous if safety and common sense are ignored. The operator must be familiar with the operation of this machine. Read this manual to understand this machine. **DO NOT OPERATE** this machine **IF YOU DO NOT FULLY UNDERSTAND** the limitations of this tool. **DO NOT MODIFY** this machine in any way.

BEFORE USING THIS MACHINE

WARNING

To avoid serious injury and damage to the tool, read and follow all of the Safety and Operating Instructions before operating the machine.

WARNING

- SOME DUST CREATED BY USING POWER TOOLS CONTAINS CHEMICALS** known to cause cancer, birth defects, or other reproductive harm. Some examples of these chemicals are:
 - Lead from lead-based paints.
 - Crystalline silica from bricks, cement, and other masonry products.
 - Arsenic and chromium from chemically treated lumber

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

- READ** this entire manual. **LEARN** how to use the tool for its intended applications.

- GROUND ALL TOOLS.** If the tool is supplied with a 3-prong plug, it must be plugged into a 3-contact electrical receptacle. The third prong is used to ground the tool and provide protection against accidental electric shock.
- AVOID A DANGEROUS WORKING ENVIRONMENT.** Do not use electrical tools in a damp environment or expose them to rain.
- DO NOT USE** electrical tools in the presence of **FLAMMABLE** liquids or gases.
- ALWAYS KEEP THE AREA CLEAN,** well lit, and organized. Do not work in an environment with floor surfaces that are slippery from debris, grease, and wax.
- KEEP VISITORS AND CHILDREN AWAY.** Do not permit people to be in the immediate work area, especially when the electrical tool is operating.
- DO NOT FORCE THE TOOL** to perform an operation for which it was not designed. It will do a safer and higher quality job by only performing operations for which the tool was intended.
- WEAR PROPER CLOTHING.** Do not wear loose clothing, gloves, neckties, or jewellery. These items can get caught in the machine during operations and pull the operator into the moving parts. The user must wear a protective cover on their hair, if hair is long, to prevent it from contacting any moving parts.
- CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.

GENERAL SAFETY

- 11. ALWAYS UNPLUG THE TOOL FROM THE ELECTRICAL RECEPTACLE**
when making adjustments, changing parts or performing any maintenance.
- 12. KEEP PROTECTIVE GUARDS IN PLACE AND IN WORKING ORDER.**
- 13. AVOID ACCIDENTAL STARTING.** Make sure that the power switch is in the "OFF" position before plugging in the power cord to the electrical receptacle.
- 14. REMOVE ALL MAINTENANCE TOOLS** from the immediate area prior to turning "ON" the machine.
- 15. USE ONLY RECOMMENDED ACCESSORIES.** Use of incorrect or improper accessories could cause serious injury to the operator and cause damage to the tool. If in doubt, check the instruction manual that comes with that particular accessory.
- 16. NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to the "OFF" position. Do not leave the tool until it has come to a complete stop.
- 17. DO NOT STAND ON A TOOL.** Serious injury could result if the tool tips over, or you accidentally contact the tool.
- 18. DO NOT STORE ANYTHING ABOVE OR NEAR** the tool where anyone might try to stand on the tool to reach it.
- 19. MAINTAIN YOUR BALANCE.** Do not extend yourself over the tool. Wear oil resistant rubber soled shoes. Keep floor clear of debris, grease, and wax.
- 20. MAINTAIN TOOLS WITH CARE.** Always keep tools clean and in good working order. Keep all blades and tool bits sharp, dress grinding wheels and change other abrasive accessories when worn.
- 21. EACH AND EVERY TIME, CHECK FOR DAMAGED PARTS PRIOR TO USING THE TOOL.** Carefully check all guards to see that they operate properly, are not damaged, and perform their intended functions. Check for alignment, binding or breaking of moving parts. A guard or other part that is damaged should be immediately repaired or replaced.
- 22. DO NOT OPERATE TOOL WHILE TIRED, OR UNDER THE INFLUENCE OF DRUGS, MEDICATION OR ALCOHOL.**
- 23. SECURE ALL WORK.** Use clamps or jigs to secure the work piece. This is safer than attempting to hold the work piece with your hands.
- 24. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE WHEN OPERATING A POWER TOOL.** A moment of inattention while operating power tools may result in serious personal injury.
- 25. ALWAYS WEAR A DUST MASK TO PREVENT INHALING DANGEROUS DUST OR AIRBORNE PARTICLES,** including wood dust, crystalline silica dust and asbestos dust. Direct particles away from face and body. Always operate tool in well ventilated area and provide for proper dust removal. Use dust extraction system wherever possible. Exposure to dust may cause serious and permanent respiratory or other injury.

including silicosis (a serious lung disease), cancer, and death. Avoid breathing dust, and avoid prolonged contact with dust. Allowing dust to get into your mouth or eyes, or lay on your skin may promote absorption of harmful material. Always use properly fitting AS/NZS approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

26. USE A PROPER EXTENSION CORD IN GOOD CONDITION. Use of extension cords should

be avoided where possible. When using an extension cord, be sure to have a cord heavy enough to carry the current your product will draw, and with compatible pin configuration and connections. **NEVER** use an extension cord rated at less than your machine. Longer run extensions will need heavier duty extension cords. Only connect your extension cord or machine to a receptacle that accepts your plug and never modify your plug to suit a receptacle.

BANDSAW SAFETY

 **WARNING**

The device and packaging materials are not toys! Children must not be allowed to play with plastic bags, film and small parts! There is a risk of swallowing and suffocation!

NOTE: According to the applicable product liability law the manufacturer of this device is not liable for damages which arise on or in connection with this device in case of:

- Improper handling
- Non-compliance with the instructions for use
- Repairs by third party, non authorised skilled workers
- Installation and replacement of non-genuine spare parts
- Improper use

RECOMMENDATIONS:

- Read the entire text of the operating instructions prior to the assembly and operation of the device. These operating instructions are intended to make it easier for you to get familiar with your device and utilise its intended possibilities of use.
- The operating instructions contain important notes on how to work safely with your machine and how to avoid dangers, and increase the reliability and working life of the machine.
- Retain and store these instructions near the machine. The instructions must be read and carefully observed by each operator prior to starting the work.
- In addition to the safety notes contained in the present operating instructions and the special regulations of your country, the generally recognised technical rules for the operation of wood working machines must be observed.

BANDSAW SAFETY

INTENDED USE

- The machine must only be used in technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine. Any functional disorders, especially those affecting the safety of the machine, should therefore be rectified immediately. The safety, work and maintenance instructions of the manufacturer as well as the technical data given in the calibrations and dimensions must be adhered to.
- Relevant accident prevention regulations and other, generally recognised safety-technical rules must also be adhered to.
- The machine may only be used, maintained, and operated by persons familiar with it and instructed in its operation and procedures. Arbitrary alterations to the machine release the manufacturer from all responsibility for any resulting damages.
- The machine may only be used with original accessories and tools made by or recommended by the manufacturer
- Any other use exceeds authorisation. The manufacturer is not responsible for any damages resulting from unauthorized use; risk is the sole responsibility of the operator.

SAFETY FOR BANDSAWS

- This bandsaw is intended for use in dry conditions, and for indoor use only.
- Do not cut pieces of material too small to hold by hand outside the blade guard.
- Avoid awkward hand positions where a sudden slip could cause a hand to move into the blade.

- Always use the blade guard to avoid possible injury due to blade breakage.
- Never leave the work area with the power connected, or before the machine has come to a complete stop.
- Do not perform layout, assembly or set up work on the table while the cutting tool is in operation.
- Never turn your bandsaw on before clearing the table of all objects: (tools, scraps of wood, etc) except for the workpiece and related feed or support devices for the operation planned.

REMAINING HAZARDS

The machine has been built using modern technology in accordance with recognised safety rules. Some remaining hazards, however, may still exist.

- Long hair and loose clothing can be hazardous. Wear personal protective gear such as a hair net and tight fitting work clothes.
- Saw dust and wood chips can be hazardous. Always wear AS/NZS approved personal protective gear such as safety goggles, dust mask and hearing protection.
- The use of incorrect or damaged mains cables can lead to injuries caused by electricity.
- Even when all safety measures are taken, some remaining hazards which are not yet evident may still be present.
- Remaining hazards can be minimised by following the instructions in Safety Precautions, Proper Use and in the entire operating manual.
- Do not force the machine unnecessarily: excessive cutting pressure may lead to rapid deterioration of the blade and a decrease in performance in terms of finish and cutting precision.

- Avoid accidental starts: do not press the start button while inserting the plug into the socket.

ELECTRICAL SAFETY

WARNING

This tool must be grounded while in use to protect the operator from electric shock. IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool may be equipped with an electric cord that has an equipment grounding conductor and a grounding plug. **The plug MUST Be plugged** into a matching electrical receptacle that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

DO NOT MODIFY THE PLUG PROVIDED.

If it will not fit the electrical receptacle, have the proper electrical receptacle installed by a qualified electrician.

IMPROPER ELECTRICAL CONNECTION of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. **DO NOT** connect the equipment grounding conductor to a live terminal if repair or replacement of the electric cord or plug is necessary.

CHECK WITH A QUALIFIED ELECTRICIAN

or service personnel if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.

Use only a 3-wire extension cord that has a 3-prong grounding plug and a 3-pole receptacle that accepts the tool's plug. Replace a damaged or worn cord immediately.

Power tools and machinery are intended for use on a circuit that has an electrical receptacle as shown in **FIGURE A** that shows a 10 Amp 3-wire electrical plug and corresponding electrical receptacle that has a grounding conductor.

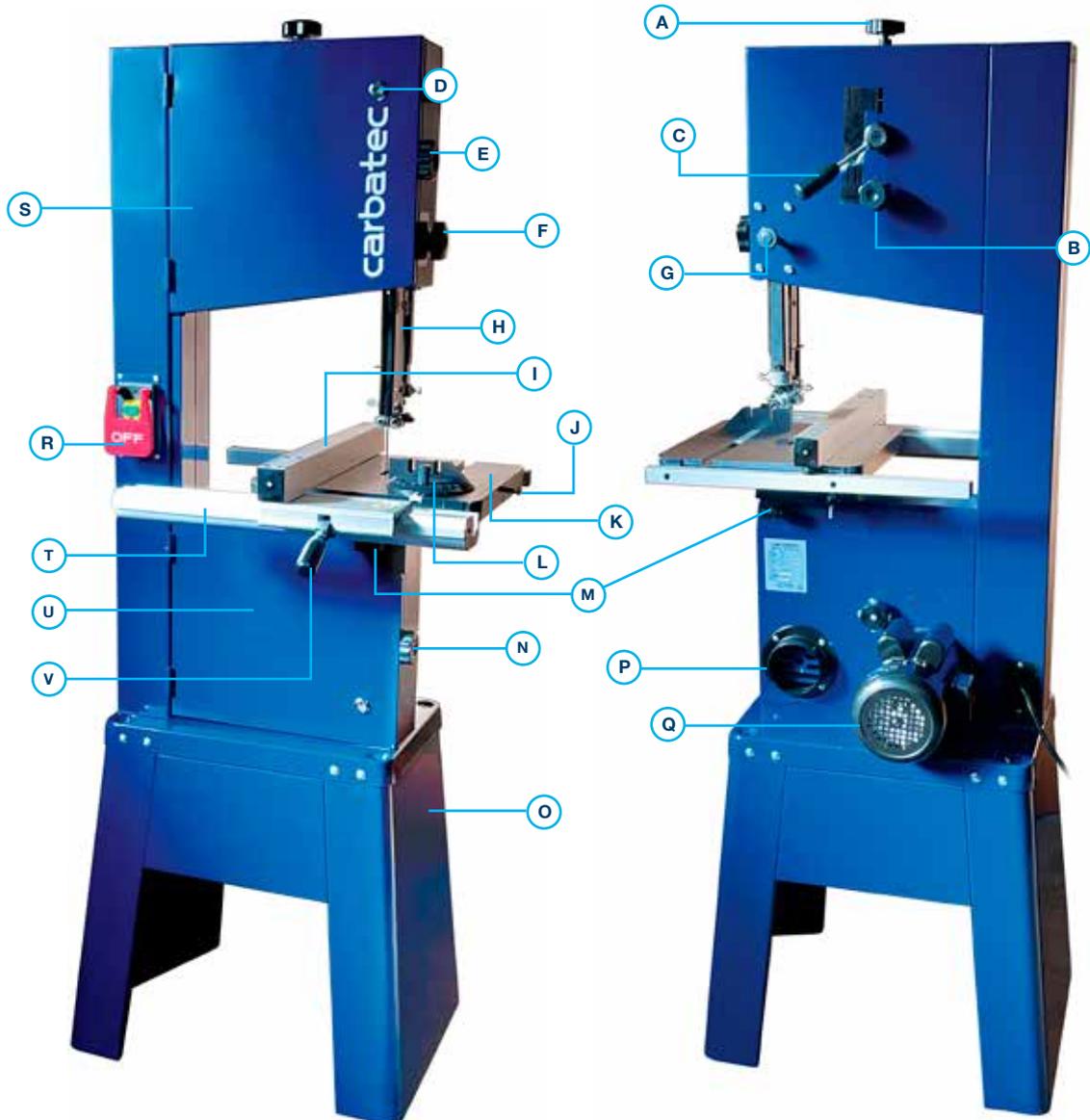
If this particular tool has been designed and fitted with a two prong electrical plug, ensure it displays the 'Double Insulated' logo shown in **FIGURE B**, before connecting to a 3-wire receptacle.

WARNING

Never modify the standard fitted electrical plugs to fit your receptacle.



OVERVIEW



BS-345C (345MM) HEAVY DUTY BANDSAW

- | | | |
|-------------------------------------|------------------------------------|-------------------------------|
| A. Blade tension knob | I. Rip fence | Q. 1.5 HP motor |
| B. Blade tracking knob | J. Table pin | R. NVR on/off switch |
| C. Quick tension lever | K. Cast table | S. Top access door |
| D. Top door key lock | L. Mitre gauge | T. Fence rail |
| E. Top door opening knob | M. Table tilt lock knobs | U. Bottom access door |
| F. Blade guard height adjust | N. Bottom door opening knob | V. Fence locking lever |
| G. Blade guard lock knob | O. Machine stand | |
| H. Top blade bearing guides | P. 4" Dust port | |

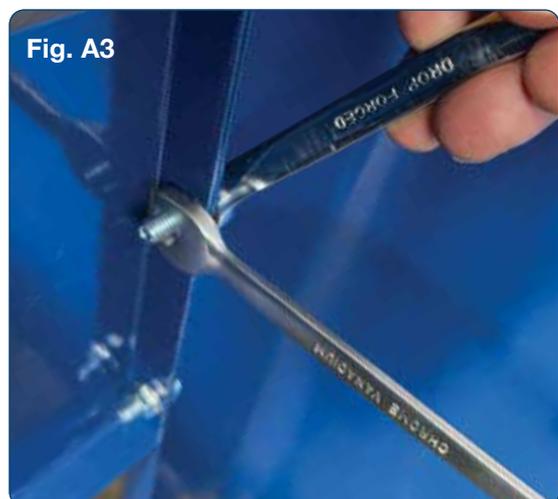
SPECIFICATIONS

CODE	BS-345C
MOTOR	1-1/2 HP (1100 W)
SWITCH TYPE	Magnetic NVR
BLADE GUIDES	Dual bearing
BLADE LENGTH	2553 mm
BLADE RELEASE	Quick release lever
BLADE SPEED	2200
DEPTH OF CUT	200 mm (8")
DUST PORT	1 × 100 mm (4")
MINIMUM BLADE WIDTH	3.2 mm (1/8")
MAXIMUM BLADE WIDTH	19 mm (3/4")
MAXIMUM RIP CAPACITY	345 mm (13.5")
POSITIVE STOPS	90°
TABLE HEIGHT	1070 mm
TABLE SIZE	360 × 360 mm (14" × 14")
TABLE TILT	-15° to +45°
WORKSHOP FOOTPRINT (W×D×H)	710 × 710 × 1760 mm
WHEEL DIAMETER	350 mm (14")
WHEEL TYPE	Cast alloy
WARRANTY PERIOD	3 years
SHIPPING WEIGHT	85 kg
NETT WEIGHT	77 kg

ASSEMBLY

A. ASSEMBLING THE STAND

1. This stand is simple to assemble. There are only four panels; the two legs and two cross support panels. **Fig. A1**
2. Stand the legs upright and spaced apart so you have room to install the cross panels. Each panel receives four M8 x 16 bolts (two each side) and corresponding washers and nuts. Hand tighten only at this point. **Fig. A2**
3. Once you have all panels of the stand together, ensure it is sitting flat on the floor before tightening the bolts, taking care to keep everything flat and aligned as you do so. For this you will require two 10 mm spanners. **Fig. A3**



B. MOUNTING THE MACHINE

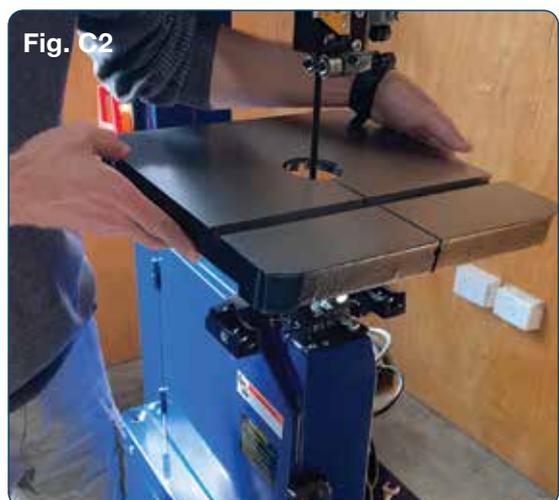
1. You can now lift the saw body onto the base. This is a (minimum) two person job. The machine will sit perfectly over the stand, located by the lip on the base. Take care to keep your fingers out of the way when placing the machine down onto the stand! **Fig. B1**
2. Using the bolts provided with the square locating shaft, insert these into the square locating holes from the outside, ensuring the square shank is aligned and firmly registers through the stand. There are four of these holes on each side of the machine, eight in total. **Fig. B2**
3. The appropriate washers and nuts can now be installed on the inside. A single 14 mm spanner or socket is required to tighten these home. **Fig. B3**



ASSEMBLY

C. INSTALLING THE TABLE

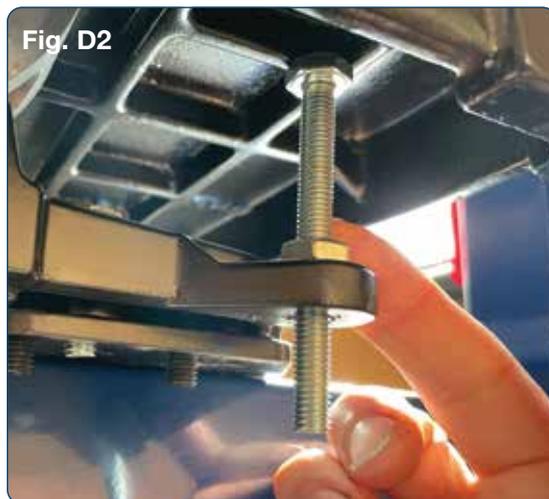
1. First, remove the table insert and pin. The insert can be pressed or tapped out carefully from below, while the pin is tapered and may require a spanner or vise grips to loosen and slide out.
2. Lift the table and align the pre-installed blade to the table slot. Slide the blade through the slot, then rotate the table 90° clockwise, so the slot now faces the outside right of the machine from the front. Lower the table into place, taking care to align the trunnion bolts below the table, into the corresponding slots on the trunnions. **Fig. C1 and C2**
3. Screw the two lock knobs onto the bolts through the trunnion brackets to secure the table, but leave a little loose. **Fig. C3** Congratulations - you now only have the rip fence left to install, but we'll do that after we set the table up.



MACHINE SETUP

D. TABLE SETUP

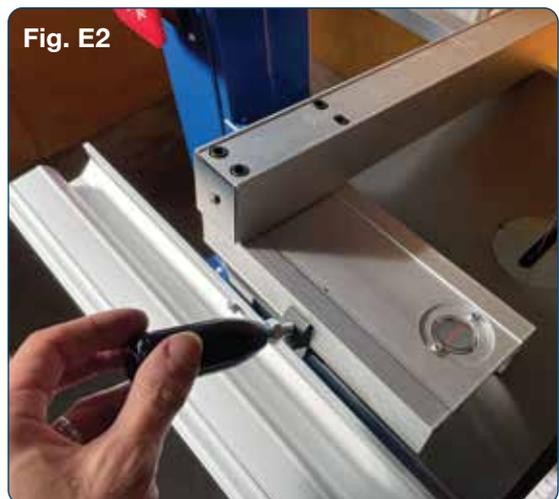
1. Place the table insert back in position, taking care to align the insert notches. Insert the table pin and firmly seat with a small hammer tap. **Fig. D1**
2. Tilt the table up to roughly 30° to 40°, or enough to insert the 90° table stop bolt. Thread the stop bolt into the threaded hole, with the nut above the bracket. **Fig. D2** Thread the bolt in until you can lower the table to 90°. The nut will need adjustment as you go to achieve this.
3. Place a square on the table up against the blade. Now adjust the tilt of the table until you have an accurate 90° table to blade angle. Lock the table in place by tightening the two trunnion tilt knobs. **Fig. D3**
4. Loosen the scale arrow marker on the front trunnion with a Philips Head screw driver and realign for zero if required, then re-tighten. This scale is a guide only; for accurate angle cutting, a digital angle finder (sold separately) is recommended.
5. Finally, with the table secured at 90°, 'unwind' the stop bolt below the table until the head sits firmly against the underside. Then tighten the loose nut down against the bracket with a 14 mm spanner to lock the stop in place. You now have a 90° reference to return to should you ever tilt the table.



MACHINE SETUP

E. INSTALLING AND SETTING UP THE RIP FENCE

1. Mount the front fence rail to the table using two hex head bolts (M6 x 20) and two spring washers. A 10 mm spanner is required. Leave the bolts just a little loose for now. **Fig. E1**
2. The fence handle can be screwed into place on the fence glide body, then lowered into position on the front fence rail. The nut is used to lock the handle into place, preventing it coming loose during use. **Fig. E2**
3. The fence itself, when positioned properly in the rail, should sit marginally above the table surface. Adjust as required, ensuring it is even on both sides then tighten the front rail home to the table. As these are slotted holes, aligning your bolts to the center will allow some adjustment either way later, if required.
4. The square tube rear rail can now be installed with the two Allen head bolts, ensuring you orient it so the excess rail hangs over the table toward the machine frame. Tighten the bolts home.
5. Now install the rear fence glide foot. Remove the fence end cap with a screwdriver. Remove the nut from the foot bolt and screw the threaded foot bolt into the hole on the underside of the fence. Adjust the height of the foot so the fence sits just above the table, as per the front. When done, screw the foot nut into place inside the fence to lock the position, then screw the fence cap back into place. **Fig. E3**



- Slide the fence across until it just barely touches the blade and push the handle down to lock in this position. Now slide the fence scale/rule in the channel on the front rail, under the fence. Align the zero reading with the magnified hairline on the fence - this should place the end of the rule close to the end of the fence on the front left. While held in this position, peel the backing off the tape and affix to the rail working from one side to the other, removing the fence when required. **Fig. E4**

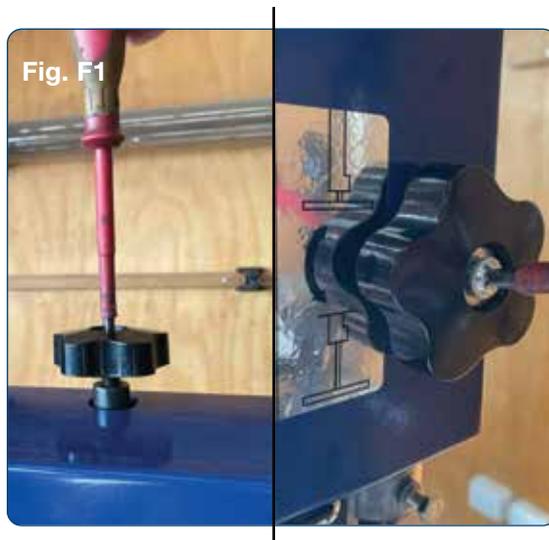


- With the tape affixed, place the fence back on the rail and check your zero position. If this moved during installation of the tape, you can correct this using the front rail slotted bolts. **Fig. E5**



F. FINAL DETAILS

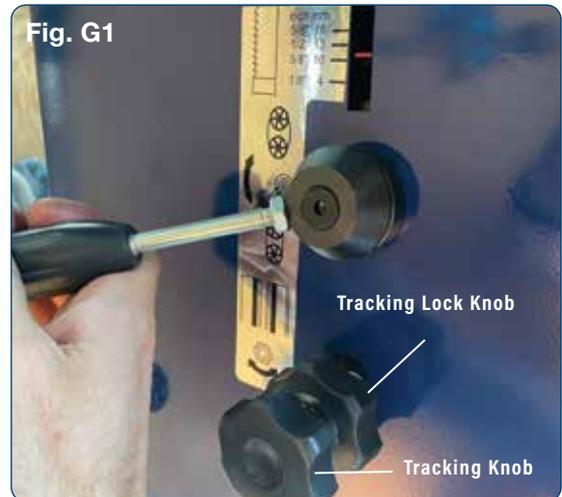
- Install the two remaining large knobs on the blade guard height adjustment position and blade tension position respectively, using the last two Phillips head screws and corresponding washers. **Fig. F1**
- Remove the protective plastic cover from the logo by peeling off slowly and carefully. If a letter starts to come off with the coating, press back into place and run your thumb nail over the letter through the coating, then continue your peel.
- The included mitre gauge simply drops into the standard 3/4" (19 mm) x 3/8" (9.5 mm) table slot.



ADJUSTMENTS

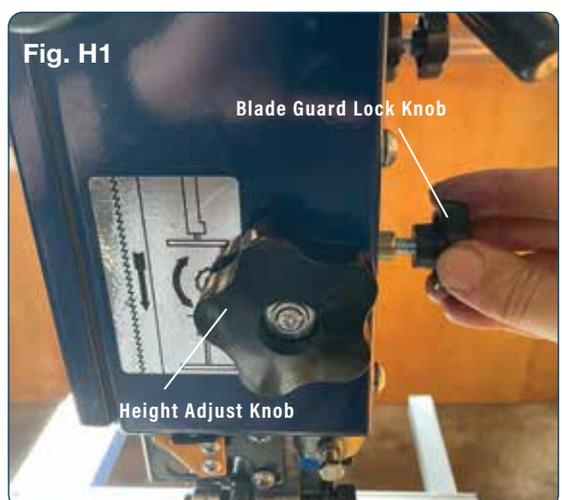
G. BLADE TENSION & TRACKING

1. This machine features a quick-release blade tension lever. **Fig. G1** Always ensure this is in the correct position before use and release tension after use. There is a blade tension indicator guide near the quick release, which provides a measure of reference for adequate tension by blade width, indicated by the red line. Overall tension (with the lever in the "under tension" position) can be increased or decreased by rotating the blade tension knob on the top of the bandsaw.
2. Blade tracking is achieved by releasing the tracking lock knob (**Fig. G1**) and turning the tracking knob incrementally, while hand turning the bandsaw upper wheel. This will shift the blade forward or back on the tyre - aim for the blade to sit centred on the tyre/wheel. Once it stays in this location while rotating by hand, lock this position by retightening the lock knob. **Fig. G2. CAUTION:** Ensure machine is unplugged from mains power whilst undertaking this action!



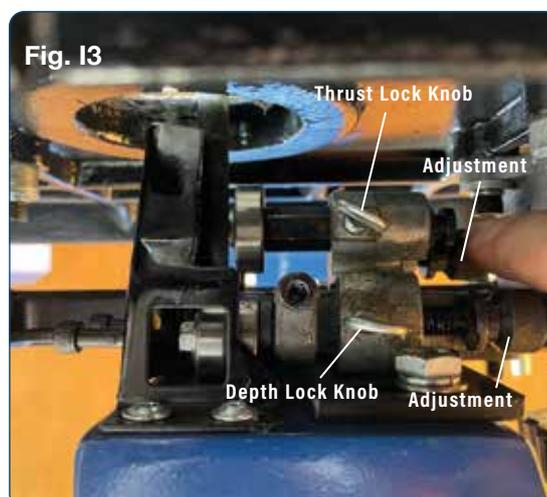
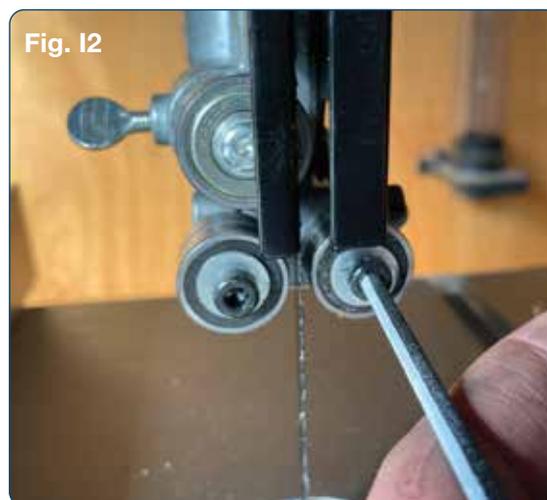
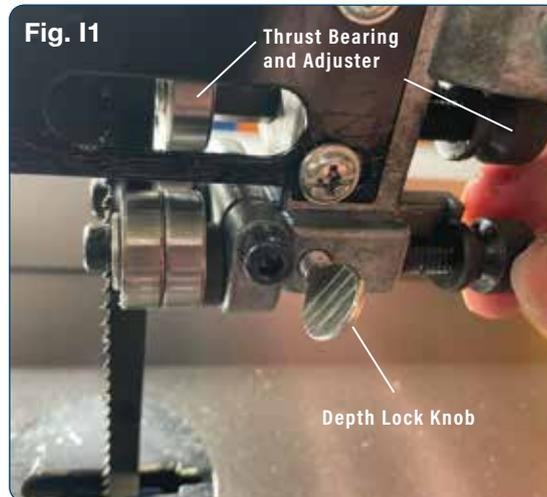
H. BLADE GUARD HEIGHT ADJUSTMENT

1. The blade guard's height adjustment is rack and pinion operated. Release the blade guard lock knob at the rear of the machine and rotate the blade guard adjustment knob clockwise for up, anti-clockwise down. You should always adjust the height of the guide to just clear the material being cut. When set for the job at hand, lock the guard in place with the lock knob once again. **Fig. H1**



I. BLADE BEARING GUIDE ADJUSTMENT

1. The bearing guide systems found on this machine are fully adjustable. Working from the side, release the depth lock knob and rotate the threaded adjuster, until the bearing sits approx. 2mm behind the set of the teeth on the blade. **Fig. I1**
2. Release the thrust bearing lock on the back side of the guide and set the Thrust Bearing so it sits just behind (no more than 1mm) the back of the blade.
3. The dual bearings' sideways adjustment is via an off-centre cam. Release the allen head locking bolt then 'swing' the bearings in or out by rotating from the front. Bring each side in until it just barely misses the blade, like a piece of paper thickness away. **Fig. I2**
4. The lower bearing guides are less accessible, but need to be set as per the top guides. There are lock knobs and adjustments for the thrust bearing behind the blade; the side bearings depth setting; and the side bearings pivot adjustment. Hint: Opening the lower door and removing the table insert will provide more visibility when setting the lower blade guides. Try your mobile phone's torch ability placed on the table and illuminating through the insert hole. Once set, ensure you retighten everything. If done correctly, you should not need to adjust this unless you change blades. **Fig. I3**



ADJUSTMENTS

J. CHANGING THE SAW BLADE

1. Remove the table pin and table insert. As this bandsaw's table slot faces the side, there is no need to remove your fence rail. Open both upper and lower doors of the bandsaw. Release the blade tension first via the quick release lever, then fully unwind via the tension knob on the top of the machine. Slide the blade off the upper and lower wheels (**Fig. J1**) and out of the blade guides and guards. Now manoeuvre it carefully around the fence rail, rotating the blade and remove through the table slot to the side.



2. Replacing the blade is simply the same procedure in reverse, understanding that the bearing guides may need adjustment to accommodate the new blade. **Remember to re-lock everything and adjust your tension and guides systems before use!**

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BEFORE FIRST USE

K. MACHINE TESTING

Once the assembly is complete, test run the machine to ensure it is properly connected to power and that the safety components are functioning correctly. If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again.



DO NOT start the machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

1. Clear all the setup tools away from the machine.
2. Connect the machine to power.
3. Press the button "ON" to turn the machine on.
4. Verify the motor starts up and runs smoothly without any problems or unusual noises.
5. Press the "OFF" button to turn the machine OFF.

OPERATION

L. WARNINGS

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used. **If you are not experienced with this type of machine, we strongly recommend that you seek additional training outside of this manual. Read books, watch videos or get formal training before beginning any projects.** Ensure you are wearing AS/NZS approved PPE (dust mask or respirator, eye protection and hearing protection). Remember to avoid placing your hands anywhere near the cutting area and make sure you have push sticks or push blocks in close proximity.

M. RIP CUTTING

Basic rip cutting operations are undertaken utilising the ripping fence. **Note - the bandsaw used in these images may not be the unit you have, but the practical application is the same.**

1. Set the desired width by aligning the fence to the markings on the front rail, or by measuring between the fence and the blade, then lock the fence in position. **Fig. M1**
2. Set and lock the blade guide to a height approximately 6 mm above your workpiece and ensure you have adjusted both the blade bearing guides (upper and lower) as shown in the setup instructions. **Fig. M2**
3. Start the machine, waiting until it is running at full speed, before presenting the timber to the blade.
4. Hold the timber positively against the fence, and push the timber slowly forward into and through the blade. If the machine slows or labours under the load, slow your feeding speed to allow the machine to keep its blade speed as high as possible.

Fig M3



OPERATION

M. RIP CUTTING

5. Continue feeding until your board is cut through. Controlling your cuts utilising feather boards will free up your hands, allowing you to safely reach around the rear to control the board exiting the blade.
6. Rip cutting can also be done with the table tilted to the required angle (as shown in setup and adjustments). Release the table tilt lock knobs, tilt to the desired angle and ensure you lock the knobs back into place before cutting. Ensure you have a steady grip on your workpiece. **Fig. M4**
7. Turn the bandsaw off immediately after completing your cut, and wait for the blade to come to a complete stop before making adjustments or reaching anywhere near the blade.



N. RESAW CUTTING

Resaw work is a common job undertaken on a bandsaw. Set up for this work is as per rip cutting.

1. Adjust the blade guard to the required depth for the piece at hand, then set the rip fence to the desired width.
2. Feed the piece into the operational blade slowly using push sticks, blocks and featherboards as required. For best results, ensure you have selected the appropriate blade for the task. **Fig. N1 and N2**



O. CURVE OR FREE HAND CUTTING

Curve cutting is usually done with the fence removed from the machine, or locked out of the way. Ensure you have enough room to perform all your cuts before starting. Remember to avoid placing your hands anywhere near the cutting area, and make sure you have push sticks, push blocks in close proximity.

Curve cutting is usually performed with a predefined pattern or shape drawn onto your workpiece. A good practice is to clearly identify your waste material, from your good work, to avoid incorrectly placed cuts.

Depending on the radius of your curves, you may need to plan and perform several clearance cuts around and through your waste material. This will allow you to remove small sections so you may gain access to tighter areas. **Selecting the right blade is also critical to successful curve cutting.**

1. Set and lock the blade guide to a height approximately 6 mm above your workpiece and adjust both the blade tension bearing guides (upper and lower) as shown in the setup instructions.
2. Start the machine, waiting until it is running at full speed, before presenting the timber to the blade.
3. Slowly advance the timber to the required line to begin cutting, slowly turning the timber to follow your pattern.



Fig. O1

4. With smaller radius cuts, slow the feed speed down, and rotate the timber, watching and listening for excessive blade twist and burning. Retract or reverse the rotation and slowly nibble away at tight radius and complex corners.

Fig. O2



5. If you find yourself in a difficult cut where you cannot continue, don't force the work through but switch off your saw, wait for it to stop and manually removing or reverse the board from the cut.

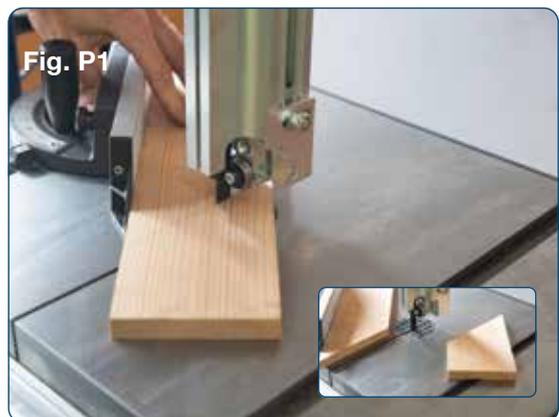
OPERATION

6. Turn the bandsaw off immediately after completing your cut, and wait for the blade to come to a complete stop before making adjustments or reaching anywhere near the blade.
7. Complex curve cutting can also be done with the table tilted to the required angle (as shown in setup and adjustments). Ensure you follow these same principles for bandsaw setup and use. **Fig. O3**



P. MITRE CUTTING

1. Mitre cutting can be undertaken utilising the included miter gauge. Simply place the timber against the miter gauge in its track and slide through. **Fig. P1**



Q. REPLACEMENT BLADES

Blade length on this machine is **2553 mm**. A wide variety of blades to suit this machine are available from Carbatec - check them out online. The machine accepts blades from 3.2 to 19 mm ($\frac{1}{8}$ " to $\frac{3}{4}$ " wide). For best results it is important to understand how to select the right blade.

The amount of Teeth Per Inch (TPI) relates to the thickness of timber it is capable of cutting, and the finished surface. The fewer the teeth, the more sanding will be needed to clean up the surface, yet it will cut quite quickly. The more teeth the cleaner the cut will be, yet will cut more slowly. Thicker timber is going to require a blade with less teeth to effectively clear waste and cut efficiently.

The width of the blade, which is measured from the back of the blade to the tip of the teeth, will determine the radius the blade is capable of cutting, the smaller the blade width, the tighter the radius possible. Likewise, the larger the size, the more it is designed for ripping in straight lines and less capable of cutting arcs and curves, to the point where only straight cutting will be done.

For example, a 3 mm x 14TPI blade will do very tight curves, in material up to approximately 12 mm in thickness. It will leave a good edge, though will cut slowly. A 19mm x 3TPI is ideal for resaw work.

MAINTENANCE

R. MAINTENANCE SCHEDULE

Maintenance of all woodworking machinery is important to keep them operating at their best, ensuring a long machine life, accurate machining and unexpected (or potentially dangerous) breakdowns.

 **WARNING**

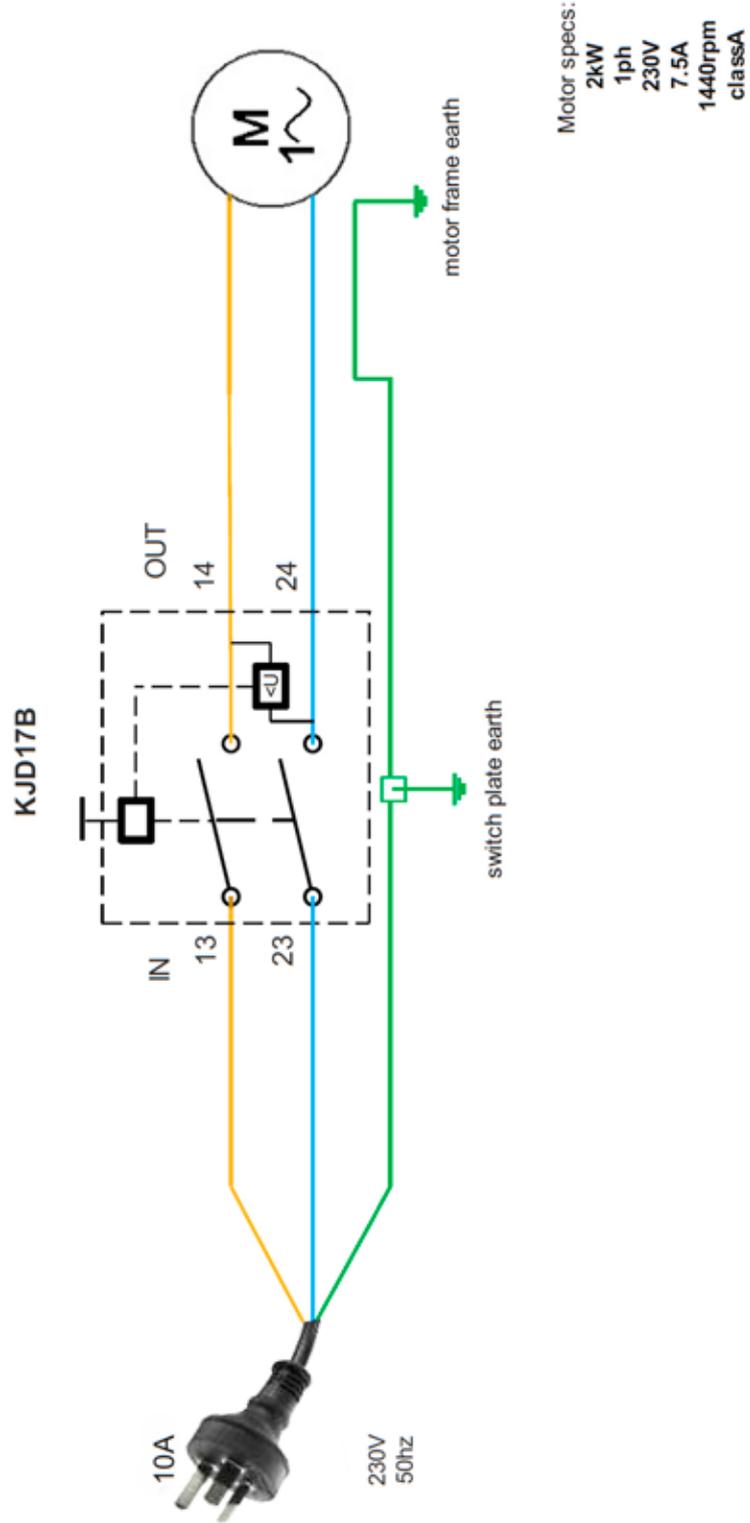
Start by turning the machine off, removing from the power source to prevent accidental restarting.

- If you have an air compressor, carefully blow any sawdust and other debris away from the band saw. Ensure you are wearing AS/NZS approved PPE (dust mask or respirator, eye protection and hearing protection).
- Remove rust from the cast iron table areas using a liquid rust remover, or other cleaning product (avoid silicone based products that may cause issues with wood finishes later on). Take a clean cloth to wipe any cleaning residue, dirt or dust off the table. When it's dry, apply a surface protectant. Carbatec offer many products for machine cleaning and care.
- Check the cutting edges of the blades and replace if dull. Thoroughly clean the blades clean with either steel wool or a firm bristle brush if they are rusty or pitch covered, using a rust or pitch remover if required. Depending on the machine, it may be easier to remove the blade/s to do this. Clean any areas that hold or contact the blade (blade guides, tyres, blade seats, bearings and arbor etc). Replace worn components immediately.
- Check drive systems and drive belts or chains for wear or adjustment. Replace worn or cracked belts. If your machine has multiple belts, remember to change them all at the same time.
- Check all manual or automatic guards, doors, switches and machine interlocks for correct and safe operation. Replace as required.
- Check machine stability and ensure all bolts are tight.

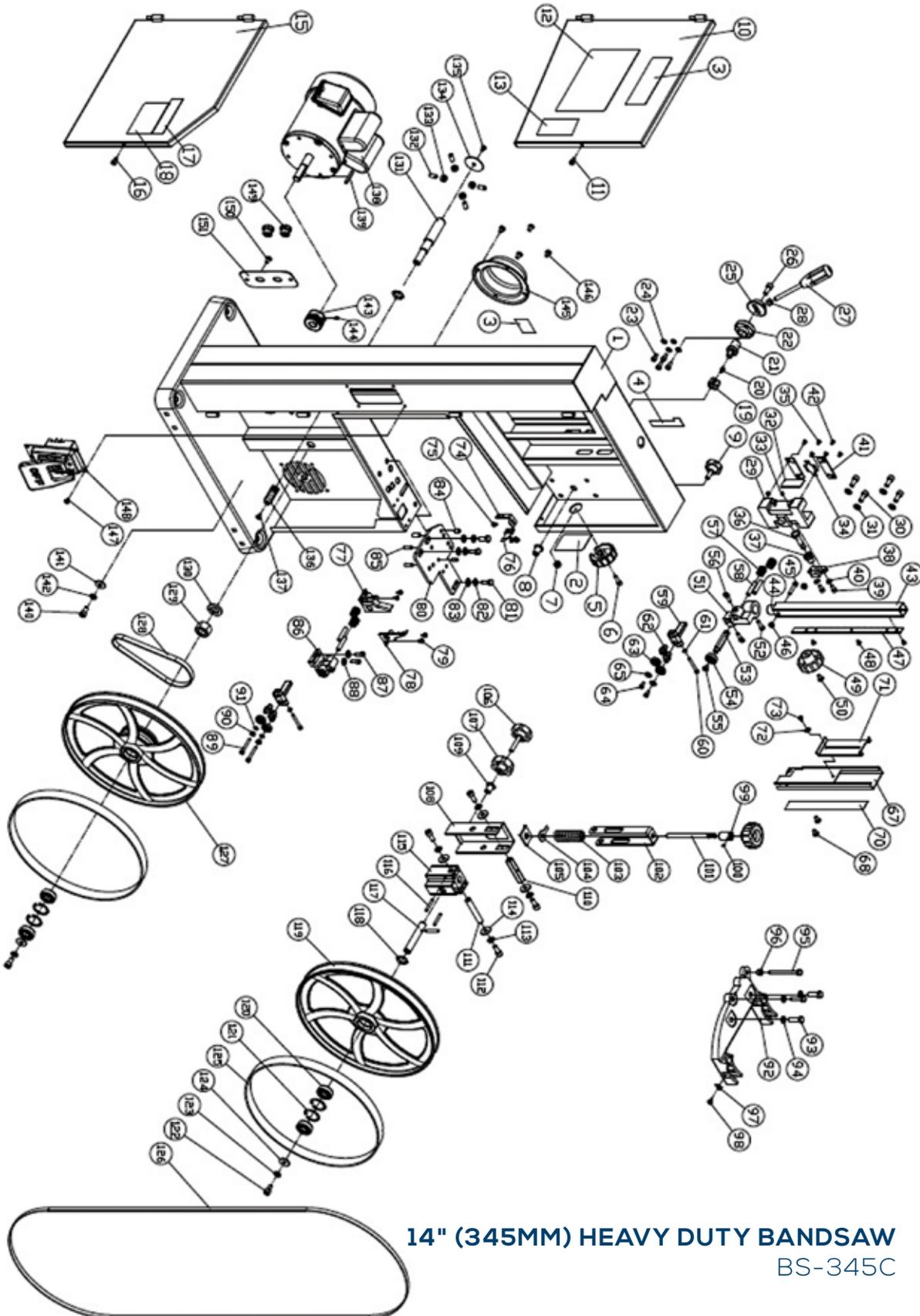
 **WARNING**

Dust exposure created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Always wear goggles and a AS/NZS 1716:2012 compliant approved respirator when working with the dust collection bags or canisters.

WIRING DIAGRAM



PARTS DIAGRAM - BODY



14" (345MM) HEAVY DUTY BANDSAW
BS-345C

PARTS LIST-BODY

PART REF.	DESCRIPTION	PART REF.	DESCRIPTION
1	Body	31	8mm spring washer
2	Guide bar up/down label	32	Adjust piece
3	Model no. label	33	M6 x 6 hex soc set scr
4	Saw blade tension label	34	Spring piece
5	Knob	35	M4 x 8 cross hd countersunk scr
6	M6 x 20 Hex soc cap scr	36	Adjust gear
7	M6 Nylon nut	37	Bushing
8	M8 Pull nut	38	Gear fixed plate
9	Guide bar lock knob	39	M6 x 12 hex soc cap scr
10	Upper door	40	6mm spring washer
11	M6 x 10 Hex soc cap scr	41	Guide shaft cover plate
12	Warning label A	42	M4 x 8 cross hd countersunk scr
13	Anti-dust label	43	Guide shaft
14	Nameplate	44	Guide shaft connect rod
15	Down door	45	M6 x 30 hex soc cap scr
16	M6 x 10 Hex soc cap scr	46	M6 hex nut
17	Warning label B	47	Gear row
18	Warning label C	48	M4 x 8 cross hd countersunk scr
19	Cam	49	Adjust knob
20	M5 x 12 Hex soc cap scr	50	M6 x 10 cross pan hd scr w/ft washer
21	Bias shaft	51	Upper support bracket post
22	Bias shaft clamp seat	52	M6 x 20 hex bolt
23	M6 x 12 Hex soc cap scr	53	Spacer sleeve
24	6mm spring washer	54	Double end sealed ball bearing
25	Adjust shoes	55	M6 x 8 cross pan hd scr w/ft washer
26	M8 x 20 Hex soc countersunk scr	56	Thumb scr
27	Adjust handle	57	Adjust nut
28	M8 hex nut	58	M8 x 40 hex soc set screw
29	Upper support bracket	59	Support bracket
30	M8 x 20 hex soc pan hd scr	60	M5 x 40 hex soc cap scr

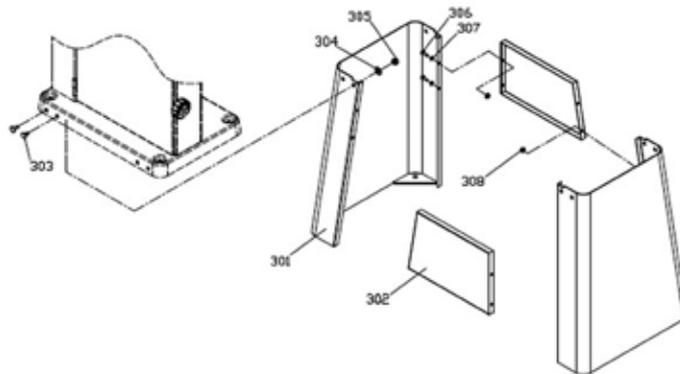
PART REF.	DESCRIPTION	PART REF.	DESCRIPTION
61	5mm spring washer	93	M8 x 30 hex bolt
62	Bias shaft	94	8mm spring washer
63	Double end sealed ball bearing	95	M8 x 80 hex bolt
64	M5 x 10 hex soc cap scr	96	M8 hex nut
65	5mm flat washer	97	Scale pointer
67	Saw blade cover	98	M5 x 8 cross pan hd scr w/ft washer
68	M6 x 8 cross pan hd scr w/ft washer	99	Fixed ring
70	Guide shaft scale	100	M5 x 5 hex soc set scr
71	Free board	101	Adjust shaft
72	Plastic flat washer	102	Shaft seat
73	Step scr	103	Spring
74	Pointer fixed plate	104	Blade tension pointer
75	M5 x 6 cross pan hd scr w/ft washer	105	Free square plate
76	Pointer	106	Blade adjust knob
77	Left cover	107	Handle lock knob
78	Right cover	108	Upper wheel adjust frame
79	M5 x 8 cross pan hd scr w/ft washer	109	M8 pull nut
80	Fixed plate	110	Square shaft
81	M8 x 20 hex bolt	111	Revolving spindle
82	8mm spring washer	112	M8 x 20 hex soc cap scr
83	8mm flat washer	113	8mm spring washer
84	Pin	114	Flat washer
85	M8 x 20 hex soc set scr	115	Upper wheel jump seat
86	Low support bracket post	116	5 x 35 spring pin
87	M6 x 16 Hex flange scr	117	Upper wheel shaft
88	6mm flat washer	118	15 wave washer
89	M5 x 40 hex soc cap scr	119	Upper wheel
90	M5 hex nut	120	Double end sealed ball bearing
91	5mm flat washer	121	35mm retaining ring
92	Trunnion support bracket	122	M8 x 16 hex hd bolt

PARTS LIST - BODY

PART REF.	DESCRIPTION	PART REF.	DESCRIPTION
123	8mm spring washer	138	Motor w/switch
124	Flat washer	139	5 x 30 key
125	Wheel tire	140	M8 x 20 hex soc cap scr
126	Saw blade	141	Flat washer
127	Lower wheel	142	8mm spring washer
128	V belt	143	Motor pulley
129	M18 x 1.5 hex nut	144	M6 x 8 hex soc set scr
130	18mm spring washer	145	Dust outlet
131	Lower wheel shaft	146	M6 x 8 cross pan hd scr w/ft washer
132	M8 x 20 hex soc set scr	147	M5 x 8 cross pan hd scr w/ft washer
133	M8 hex nut	148	Switch assy
134	Lower wheel shaft cover	149	Strain relief 6n-4
135	M5 x 8 cross pan hd scr w/ft washer	150	M5 x 8 cross pan hd scr w/ft washer
136	Brush	151	Cord fixed plate
137	M5 x 8 cross pan hd scr w/ft washer		

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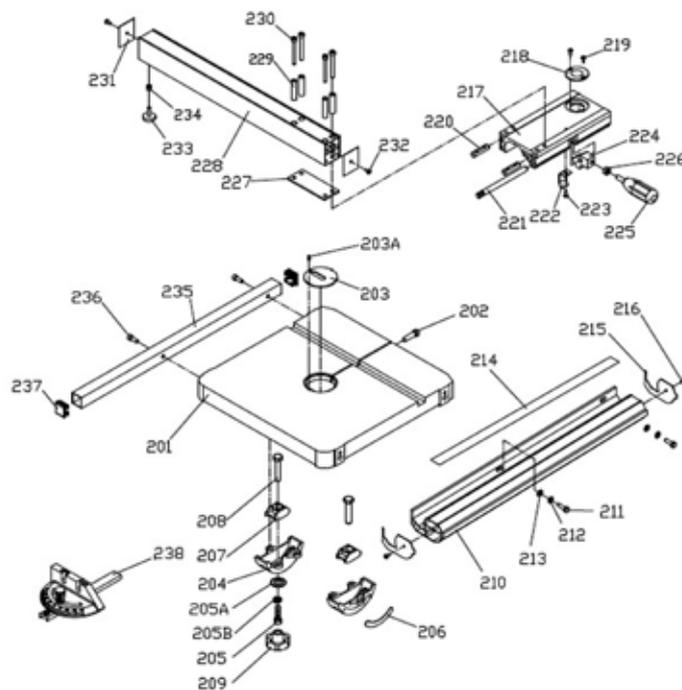
PARTS DIAGRAM & LIST - STAND



PART REF.	DESCRIPTION	PART REF.	DESCRIPTION
301	Stand	305	Nut
302	Side panel	306	M6 x 16 hex hd bolt
303	Stand carriage bolt	307	6mm flat washer
304	Flat washer	308	M6 hex flange nut

PARTS DIAGRAM - SAW TABLE

PART REF.	DESCRIPTION
201	Table
202	Table pin
203	Table insert
203A	3 x 10 spring pin
204	Trunnion
205	M6 x 16 hex soc cap scr
205A	Flat washer
205B	6mm spring washer
206	Scale
207	Trunnion clamp shoes
208	M10 x 50 hex hd bolt
209	Table fixed knob
210	Clamp frame
211	M6 x 20 hex hd bolt
212	6mm spring washer
213	Flat washer
214	Straight ruler
215	End cover
216	St3.5 x 8 cross pan hd self tapping
217	Adjust bade
218	Convex
219	M4 x 6 cross pan hd scr w/flat
220	Fixed shaft
221	Fixed spindle
222	Fixed lump
223	M4 x 10 cross pan hd scr w/flat
224	Lock cam
225	Lock handle
226	M8 hex nut
227	Liner plate
228	Support tube



229	Spacer bushing
230	M6 x 60 hex soc cap scr
231	Support tube end cover
232	St3.5 x 8 cross pan hd self tapping scr
233	Adjust scr
234	M6 hex nut
235	Square tube
236	M6 x 16 hex soc cap scr
237	Square tube end cover
238	Mitre gauge
238A	Mitre gauge body
238B	Mitre gauge guide bar
238C	Mitre gauge fixed handle
238D	Handle washer
238E	Pointer
238F	M5 x 6 cross pan hd scr

TROUBLESHOOTING

TO PREVENT INJURY TO YOURSELF or damage to the bandsaw, turn the switch to the **"OFF"** position and unplug the power cord from the electrical receptacle before making any adjustments.

PROBLEM	LIKELY CAUSE(S)	SOLUTION(S)
The machine does not work when switched on.	1. No power supply.	Check the cable for breakage. Check the fuse.
	2. Defective switch.	Return the machine to your local dealer for repair.
The blade does not move with the motor running.	1. The blade tension knob has not been tightened.	Switch off the motor, tighten the blade tension knob.
	2. The blade has come off one of the wheels.	Open the hinged door and check. Check tension and blade alignment.
	3. The saw blade has broken.	Replace the blade.
	4. The drive belt has snapped.	Replace the belt.
The blade does not cut in a straight line.	1. Fence for cutting not used.	Use a fence.
	2. Too fast feed rate.	Put light pressure on the workpiece. Make sure the blade does not bend.
	3. The blade teeth are dull or damaged.	Try a new blade.
	4. Blade guides not suitably adjusted.	Adjust the blade guides (see assembly instructions.)
The blade does not cut, or cuts very slowly.	1. The teeth are dull, caused by cutting hard material or long use.	Replace the blade.
	2. The blade was fitted the wrong way round.	Fit the blade correctly.
Sawdust builds up inside the machine.	1. This is normal, though is alleviated with use of suitable dust extraction.	Clean the machine regularly. Open the hinged door and remove the sawdust with a vacuum cleaner. Use the machine with an appropriate dust extractor.
Sawdust inside the motor housing.	1. Lack of adequate workshop dust control.	Clean the ventilating slots of the motor with a vacuum cleaner. From time to time remove the sawdust to prevent it from being sucked into the housing.
The machine does not cut at 45° or 90° angles.	1. The table is not at right angles to the blade.	Adjust the table.
	2. The blade is dull or too much pressure was put on the workpiece.	Replace the blade or put less pressure on the workpiece.
The blade cannot be properly positioned on the pulley.	1. The wheels are not in alignment. Defective bearing.	Return the machine to your local dealer for repair.
	2. The wheel alignment knob hasn't been properly adjusted.	Adjust the knob (see instructions.)
	3. Inferior blade	Replace the blade.
There is a worrying noise on start up or prior to cutting.	1. Bearing guides may require new bearings or are incorrectly set.	Check the bearing guides. They should not be running against blade when cutting is not taking place. With the machine removed from power source, check bearings rotate freely and are not seized. Replace if required.

3 YEAR WARRANTY

WARRANTY

- A. We warrant that this Carbatec product will be free from defects caused by faulty workmanship or faulty materials for a period of 3 years from date of sale.
- B. This warranty is in addition to other rights and remedies you may have under a law in relation to the goods.
- C. This warranty does not apply in any of the following cases:
- i. Defects arising from:
 1. fair wear and tear;
 2. corrosive atmosphere;
 3. damage or injury caused by deliberate act, lack of care or failure to comply with the recommended care and maintenance for the goods;
 4. improper use of the goods;
 5. alterations or repairs (not made by us) to the goods;
 - ii. defects arising from an event outside of our control such as fire, flood, earthquake or other natural calamity, motor vehicle or other accident, strike, civil unrest, terrorism or war;
 - iii. to accessory items such as after-market jigs, accessories or other items which are not sold or serviced by us and which are not sold with or were not included with the main unit purchased; or
 - iv. to wearable parts such as drive belts/shafts, bearings, bandsaw tyres, motor brushes, blades or abrasive belts/discs or other cutting or machining implements.
 - v. damage caused to any electrical component, where connected to a power supply outside the country for which it was designed (namely Australia or New Zealand).
- D. If this warranty applies and you have complied with the procedure below for making a claim, we will, at our election, either repair the goods (or those parts of the goods recognised as defective) or will provide a replacement within a reasonable time at our expense.
- E. If this warranty applies, the procedure for making a claim is:
- i. you must contact us by email;
 - ii. you must include in the email the following information:
 1. a copy of the order or receipt for the goods;
 2. the serial or batch number printed on the machinery manufacturing plate; and
 3. a detailed description of the fault and how and when it arose; and
 4. If the fault is a type covered by this warranty, we will then make arrangements with you for the return of the goods to us (for repair or replacement) at our cost using our transport providers or we may decide to attend at your premises to repair or replace the goods.
- F. Our liability (and that of our resellers) under this warranty is wholly limited to repair or replacement of the goods (or those parts of the goods recognised as defective) in accordance with the procedure above and you have no right to other compensation, costs or damages under this warranty. But this does not mean that you may not have other rights under a law in relation to the goods.
- G. If following our inspection of goods returned by you under this warranty it is found that this warranty does not apply and you are not otherwise entitled to repair or replacement by us, you must, if requested by us, reimburse our costs including parts, labour and freight.
- H. This warranty is not transferable and only the person who purchased the goods may make a claim.
- Where the goods have been exported outside Australia or New Zealand, the Company may not require the Purchaser to return any allegedly faulty or defective Product for evaluation. However, the Company has the right to request the return for evaluation at purchasers cost.

STATUTORY NOTICE

Our goods come with guarantees that cannot be excluded under the Australian Consumer 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.



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3 YEAR
WARRANTY