



CARBATEC ELECTRONIC VARIABLE SPEED
BENCHTOP MINI LATHE
WL-B1220H

INSTRUCTIONS MANUAL

CARBATEC.COM.AU

carbatec®

1 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!

If you have any questions about our products or service, please call us on 1800 658 111 or email us at info@carbatec.com.au

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WHAT'S IN THE BOX

The following items are provided in one shipping carton:



WL-B1220H CARBATEC ELECTRONIC VARIABLE SPEED BENCHTOP MINI LATHE

- | | |
|--|--|
| A. Lathe with Banjo and faceplate installed × 1 | E. Magnetic Belt Door Catch (Optional) × 1 |
| B. Tool Rest × 1 | F. Allen Keys suited to machine × 3 |
| C. Live Centre and Drive Centre × 1 each | G. Rubber Feet × 4 |
| D. Quill Handwheel Handle × 1 | H. Knock-out bar and Spindle Spanner × 1 each |

This machine 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 the machine and from all of the parts. 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 above to verify that all items 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 machine. The machine can only be turned "ON" after all the parts have been 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 and 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.

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



QUALITY INSPECTED

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

Made in China 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.

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SYMBOL MEANING



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



DANGER

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



WARNING

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



CAUTION

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

NOTICE

(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.

GENERAL SAFETY

- 9. 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.
- 10. CHILDPROOF THE WORKSHOP AREA** by removing switch keys, unplugging tools from the electrical receptacles, and using padlocks.
- 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 collection 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.

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 woodworking machines must be observed.



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!

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 LATHES

SPECIFIC TO LATHES

- This lathe is intended for **use in dry conditions**, and for **indoor use** only.
- **Wear a dust mask, safety goggles and ear protection.**
- **Do NOT wear gloves**, neckties or loose clothing.
- **Tighten all locks** before operating.
- **Do not mount a split workpiece.**
- **Never** turn your lathe **ON before clearing the table** of all objects (tools, scraps of wood, other obstructions etc.).
- Read the **warning label** attached to the wood lathe.
- Make sure there are **no nails or foreign objects** in the part of the workpiece to be turned.
- **Remove all loose knots** in the stock before mounting it between the centers or on the faceplate.
- Before attaching a workpiece to the faceplate, **rough it out to make it as round as possible**. This minimizes the vibrations while the piece is being turned. Always **fasten the workpiece securely** to the faceplate. Failure to do so could result in the workpiece being thrown from the lathe.
- Use the **lowest speed when starting** a new workpiece.
- When turning a workpiece, always rough the wood to **round form at slow speed**. If the lathe is run so fast that it vibrates, there is a risk that the workpiece will be thrown or the tool jerked from your hands.
- Always **rotate the workpiece by hand before turning on the motor**. If the workpiece strikes the tool rest, it could split and be thrown out of the lathe.
- **Do not allow the turning tools to bite into the wood**. The wood could split or be thrown from the lathe. Approach slowly with your tool and aim for fine shavings.
- Always position the **tool rest above the centerline** of the lathe when shaping a piece of stock.
- Reverse operation is for specific procedures only - do not use for general turning.
- Position **your hands so that they will not slip** onto the workpiece.
- Do not place your turning tools on the bench in a way such that you must reach over the revolving workpiece to select them.
- Keep a firm hold and **remain in control of the cutting tool at all times**. Take special precautions when shaping a section of stock in which knots or voids are found.
- Complete the **hand-sanding of workpieces before you remove them from the lathe**.
- **Do not perform layout assembly** or set up work on the table **while the lathe is in operation**.
- **Use the recommended speed** for any accessory and for different workpiece material.
- Make sure the lathe has come to a **complete stop before touching** the workpiece.
- **Leave** the work area only after the lathe's motor has **come to a full stop**.
- To avoid injury from accidental starting, always **turn the switch OFF and unplug** the wood lathe before installing or removing any accessory or making any adjustment.

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.

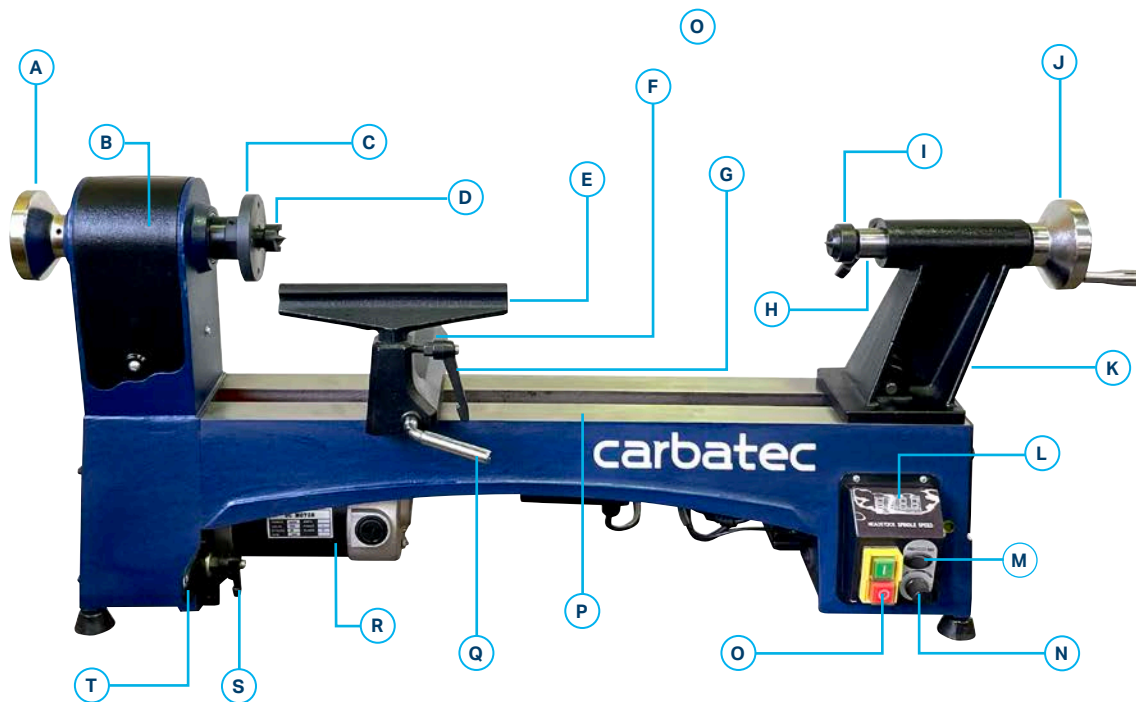
WARNING

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



OVERVIEW

WL-B1220H CARBATEC ELECTRONIC VARIABLE SPEED BENCHTOP MINI LATHE



- | | |
|------------------------------------|---|
| A. Spindle Handwheel | K. Tailstock |
| B. Belt Cover | L. Digital Speed Readout |
| C. Faceplate | M. Forward/Reverse Rotation Switch |
| D. Drive Centre | N. Variable Speed Adjustment Knob |
| E. Tool Rest | O. Lathe On/Off Switch |
| F. Banjo | P. Lathe Bed |
| G. Tool Rest Locking Handle | Q. Banjo Locking Handle |
| H. Quill | R. Motor |
| I. Live Centre | S. Belt Tension Locking Handle |
| J. Quill Feed Handwheel | T. Belt Tension Release Lever |

SPECIFICATIONS

CODE	WL-B1220H
BRAND	Carbatec
MODEL	Electronic Variable Speed with Digital Readout Benchtop Mini Lathe
MOTOR	1-¼ HP (950 W) universal
SPEED	EVS 250-3450 RPM
SPINDLE THREAD	1" × 8 TPI
SWING OVER BED CAPACITY	305 mm (12")
BETWEEN CENTER CAPACITY	530 mm (21")
MORSE TAPER	MT2
FACE PLATE	80 mm (3")
TOOL REST	200 mm (8")
DIRECTION	Forward and reverse rotation
OVERALL SIZE (LxWxH)	1010 × 410 × 300 mm
WEIGHT	37 kg nett / 39 kg gross
MATERIAL	Cast Iron

ASSEMBLY

A. ASSEMBLING THE WOOD LATHE

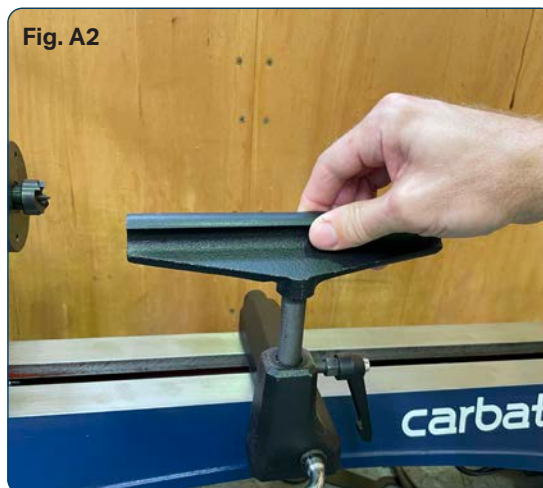
1. This lathe is predominantly pre-assembled. Remove the lathe from the carton with care. Remove all protective wrapping and clean all protective coatings from the lathe. You can use various products to do this, including Citrus Terpene, WD-40 and others. However, depending on the product used, take care around painted areas to avoid damage to the finish.

Fig. A1



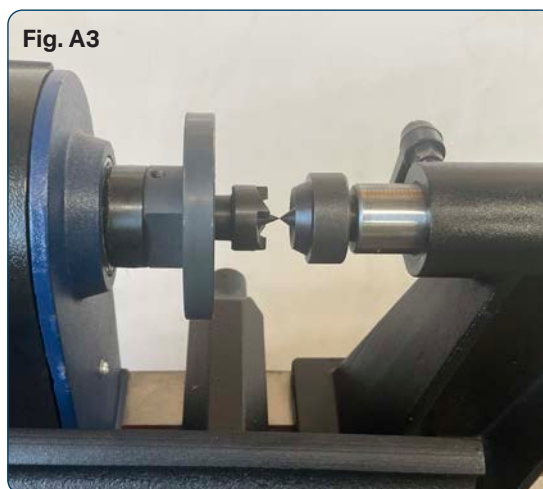
2. Your lathe has rubber feet included in the pack. Find these and install in the threaded holes under the machine. Release the banjo locking lever and slide the banjo to an appropriate location. Remove the tool rest from its packaging, clean as per the lathe bed and install the tool rest into the banjo, locking in lowest position for now.

Fig. A2



3. If you intend to keep the faceplate on the lathe, you can now install the drive centre and live centre included with the machine by simply cleaning, then sliding into the relative morse taper #2 positions. The drive spur goes into the headstock spindle, while the live centre is placed in the tailstock quill. If you want to remove the faceplate first, please proceed to step B, Removing Faceplate. At this point, your lathe is "effectively" set up and ready to operate! However, we recommend you finish reading this manual for tips on use, as well as follow our "Before First Use" guide to conduct a check over pre-installed components.

Fig. A3



ADJUSTMENTS

B. REMOVING THE FACEPLATE AND CENTRES.

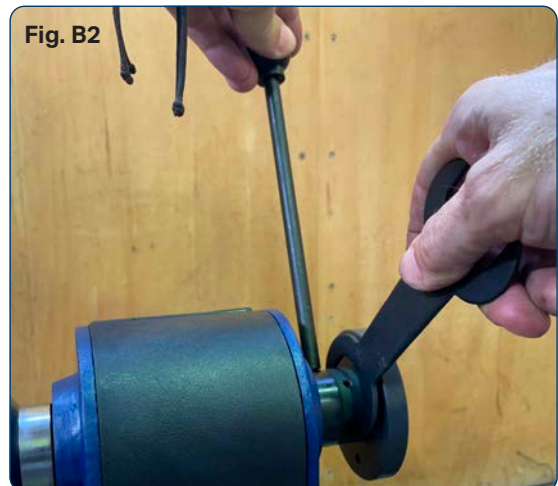
1. Ensure the lathe is turned off and unplugged. The faceplate features two grub screws that lock it onto the spindle. These **MUST** be loosened to remove the faceplate! Failure to do so, or to loosen adequately could **DAMAGE YOUR SPINDLE THREAD**. This would not be covered under warranty.

Fig. B1



2. Once the grub screws have been fully loosened or removed, use the included spindle spanner and knock out bar together, to loosen the faceplate on the spindle, then rotate the faceplate by hand anti-clockwise to remove it. If you feel any resistance while turning, double check you have loosened both grub screws adequately! **DO NOT FORCE IT!**

Fig. B2



3. You can now install a chuck with the appropriate spindle insert if you wish, or simply insert your drive centre in the morse taper #2 spindle. When installing your faceplate again, it is very important to install all the way until the shoulder of the faceplate meets the shoulder on the spindle, then ensure you lock into position using both grub screws.

4. The drive and live centres on this lathe are removed by using the "knock-out" bar. Both the headstock spindle and the tailstock quill have holes through them. Insert the knock-out bar into these holes and 'tap' out your centre carefully.

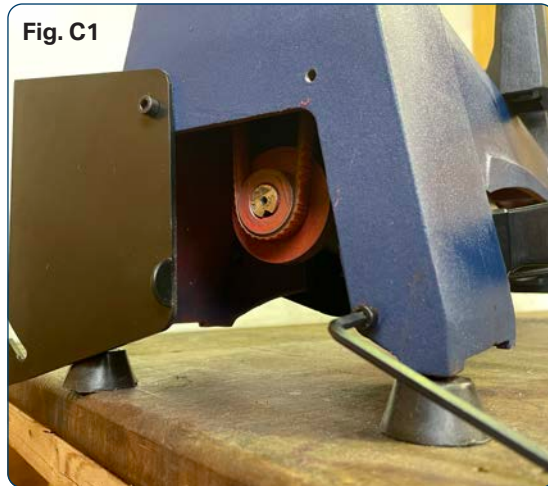
Fig. B3



C. CHANGING THE BELT SPEED RANGE.

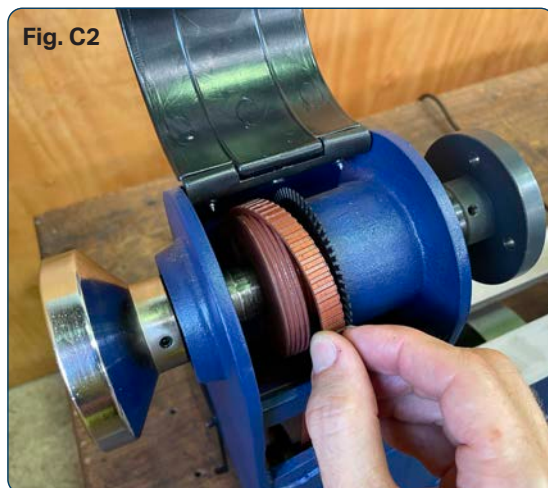
1. Ensure the machine is switched off and is unplugged. Using a 'Philips' head screwdriver, open the belt door on the headstock and using an 'Allen Key', the side panel to access the belt pulleys.

Fig. C1



2. Loosen the belt tension handle and lift the tension lever to release the belt tension. In this position, move the belt from one pulley to another. Always go from the larger pulley to the smaller pulley first and ensure you move the belt on the upper and lower pulleys so the belt is aligned vertically.

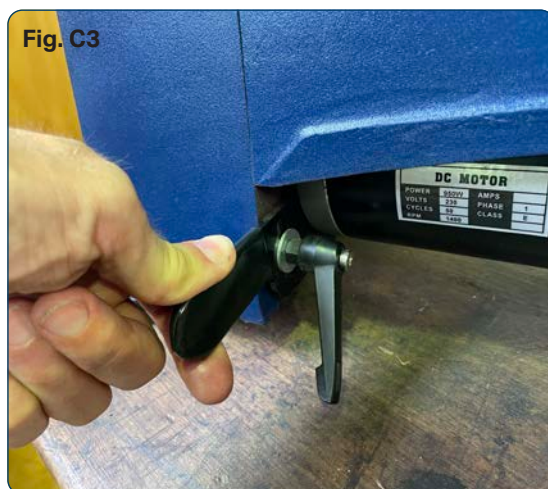
Fig. C2



3. After moving the belt, push the tension lever down to re-apply tension to the belt, then lock the tension locking lever. Hand turn the spindle head to ensure everything looks right and the machine turns smoothly.

Fig. C3

4. Close all belt cover doors and replace screws to lock closed. Turn your lathe's power on and make sure that the machine is operating smoothly. If not, power off, unplug and go through the steps again to assess where any problem may be. If all is well, you will now have a different set of speeds available through your electronic speed control knob.



ADJUSTMENTS

D. CHANGING THE BELT

1. Open the upper and lower belt access doors. Loosen the two set screws of the spindle handwheel adequately and remove the handwheel by turning clockwise - this is a reverse threaded coupling.

Fig. D1, D2

2. Release the belt tension by unlocking the belt tension lock lever, then lifting the tension lever up.

Fig. D3

3. Remove the belt from the lower pulley completely, so it is free to move up. Lift the belt from the top and feed it through the gap between the spindle and cast body. An Allen key works as a 'hook' should you have any trouble feeding it through.

Fig. D4

4. Reverse the procedure with a new belt, feeding it through and into the belt cavity; placing over the lower pulley onto the smaller of the two steps; then feeding it onto the matching upper pulley. Re-tension the belt and lock in position. Thread the handwheel back into place, remembering you will turn this anti-clockwise to do so. Screw all the way and lock the grub screws gently.

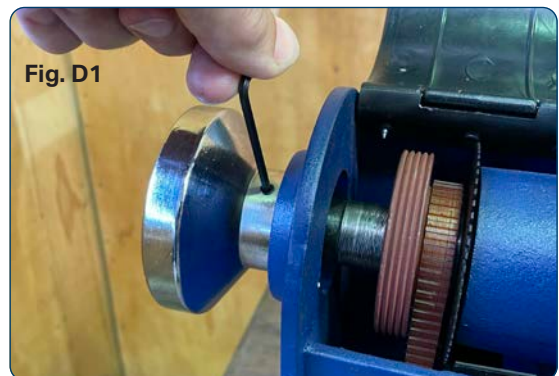


Fig. D1



Fig. D2



Fig. D3

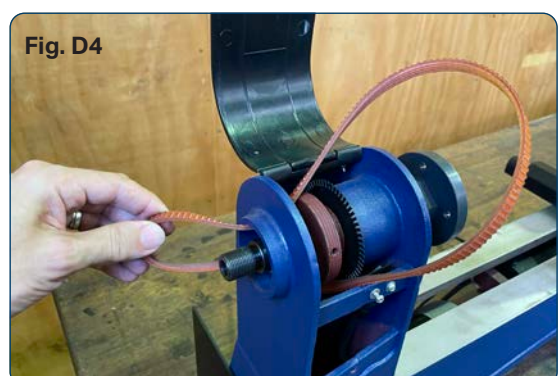


Fig. D4

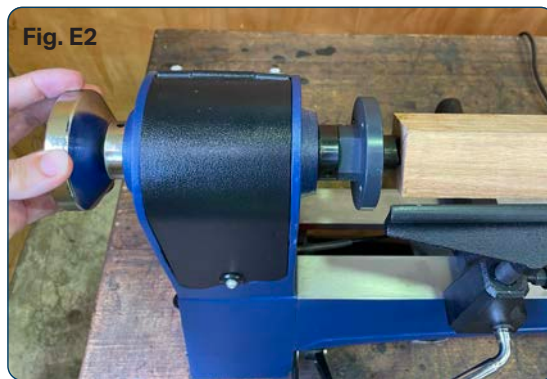
OPERATION

E. BEFORE FIRST USE!

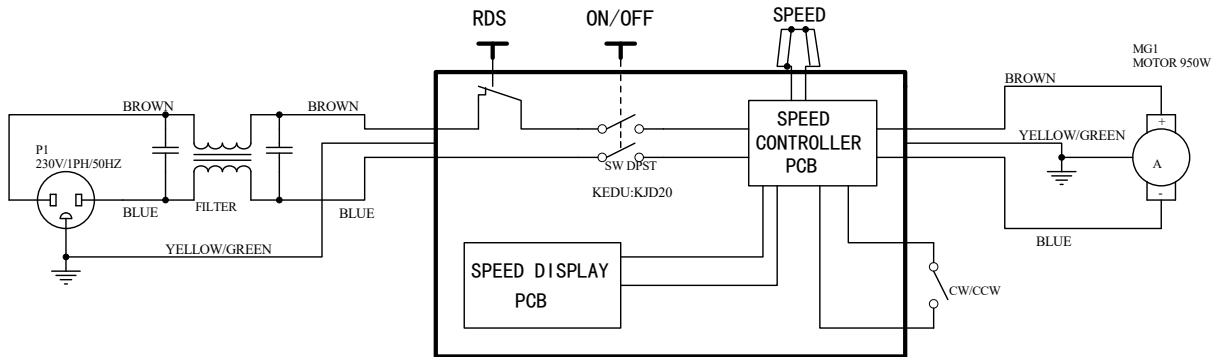
1. Before using your machine for the first time, conduct an inspection to ensure all is in order. Check that your faceplate/chuck/drive centre is properly installed and locked in place, where relevant. Turn the machine on without any timber mounted to ensure the motor is operating smoothly. Test adjusting the speed and if all is well, turn the machine off again. Check that your banjo lock lever secures the banjo firmly, so no movement would occur during use. If necessary, adjust the nut beneath the machine to toggle the banjo lock lever clamping force. Ensure your tool rest locks firmly in position and does not move. Check that you have installed your live centre in the tailstock if turning between centres. Check that your tailstock locks down to the bed adequately and adjust with the nut below if required.
2. Mount your timber in a manner appropriate to your equipment and the job at hand. Ensure it is secure. Position your banjo and tool rest so that they are close to the timber, but not touching. Rotate the spindle handwheel a full 360° to ensure the timber will not contact the tool rest. Adjust the height of the tool rest to be slightly above the centreline of the timber. Ensure the banjo and tool rest are now adequately locked in position.
3. On your control panel, ensure your direction switch is appropriately set (usually 'Forward') and turn your speed control knob all the way to the left or anti-clockwise, so you start your machine in the slowest possible speed for the belt setting. Ensure you have clear working space around you and your lathe and... you are ready to turn!

Fig. E1, E2

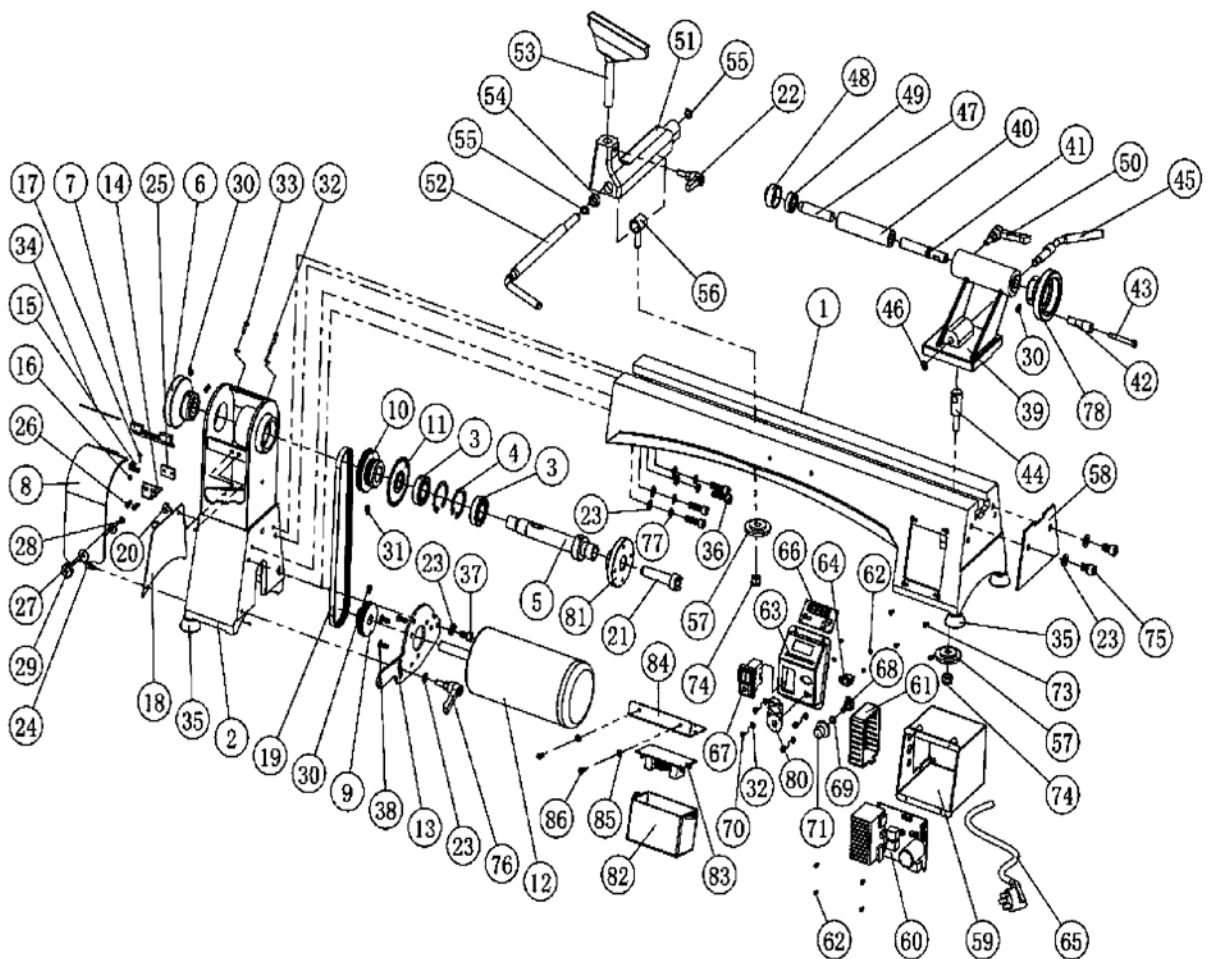
Fig. E3, E4



WIRING DIAGRAM



PARTS DIAGRAM



PARTS LIST

PART #	DESCRIPTION	QTY	PART #	DESCRIPTION	QTY
01	Bed	1	43	Bolt	1
02	Headstock	1	44	Cam follower tailstock	1
03	Ball bearing 6005	2	45	Eccentric axis	1
04	Retaining ring	2	46	Retaining ring 10	1
05	Headstock spindle	1	47	Taper rod	1
06	Hand wheel	1	48	Cup center	1
07	Hinge	1	49	Ball bearing 6202	1
08	Cover plate of box body	1	50	Lock the handle	1
09	Motor pulley	1	51	Tool rest base	1
10	Drive pulley	1	52	Lock handle for tool rest base	1
11	Speed plate	1	53	Tool rest	1
12	Motor	1	54	Tool rest bushing	1
13	Motor plate	1	55	Retaining ring 12	2
14	Digital connection board	1	56	Tool rest cam follower	1
15	Optocoupler	1	57	Lock plate	2
16	Nut M3	1	58	Baffle	1
17	Cruciform head M3×10	1	59	Switch box	1
18	Retaining plate	1	60	Line board	1
19	Drive belt	1	61	Shield	1
20	Moving knob	1	62	Self tapping M3×8	4
21	Headstock spur center	1	63	Digital display box	1
22	Lock the handle	1	64	Forward and reverse switch	1
23	Flat pad 8	8	65	Power cord	1
24	Hexagon socket screw M5×16	1	66	Digital display panel	1
25	Nut plate	1	67	Switch	1
26	Cruciform head M4×22	2	68	Speed control knob	1
27	Magnet	1	69	Hexagon nut	1
28	Cruciform sunken head M4×12	1	70	Button head screw M4×10	4
29	Stationary knob	1	71	Speed control knob	1
30	Hex socket screw M6×12	5	73	Self tapping M4×12	4
31	Hex socket taper screw M6×12	1	74	Nut M10	2
32	Flat pad 4	6	75	Hexagon socket bolt M8×12	2
33	Self tapping M4×16	2	76	Lock the handle	1
34	Steel wire	1	77	Spring washer 8	4
35	Rubber washer	4	78	Tailstock handwheel	1
36	Hexagon socket bolt M8×30	4	80	Switch label	1
37	Hexagon socket bolt M8×16	1	81	Faceplate	1
38	Countersunk screw M6×16	3	82	Shield	1
39	Tailstock	1	83	Wave filter	1
40	Tail axis	1	84	Fixed plate	1
41	Tailstock quill	1	85	Flat pad 5	2
42	Quill crank handle	1	86	Countersunk bolt M5×12	2

TROUBLESHOOTING AND MAINTENANCE

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

- Maintenance for lathes is minimal and primarily based around dust control. A dust collector should be used when operating your lathe, with appropriate catching shrouds according to the job at hand. Your machine will however, require cleaning after use to prevent dust incursion into sensitive electronics, bearings and the like. Wipe down your machine as required. Periodically check the belt is intact and in good condition, that all locking handles are operating correctly and that the bearings in the headstock are not excessively noisy when belt tension is released and the spindle turned by hand. Stop use if you find any problem and consult a service technician.

PROBLEM	POSSIBLE CAUSE(S)	SOLUTION(S)
Noisy operation.	<ol style="list-style-type: none"> Belt tension incorrectly set. Dry spindle. Loose motor pulley. 	<ol style="list-style-type: none"> Test tension adjustment. Lubricate spindle. Tighten set screw in pulley.
Excessive Vibration.	<ol style="list-style-type: none"> Stock out of balance. Failed Bearings. Lathe not fully supported. Tool rest loose. Belt misaligned. 	<ol style="list-style-type: none"> Adjust stock position. Replace bearings. Adjust feet of lathe. Ensure tool rest is locked in place Loosen and adjust belt.
Poor cuts.	<ol style="list-style-type: none"> Dull or low quality tools. Wrong tool for the job.. Not enough torque.. Wrong speed for job. 	<ol style="list-style-type: none"> Ensure you use high quality sharp tools. Study a book on turning to understand what tool to use Ensure you are using the correct belt position and take lighter cuts. Again, study a book for advice on what speed for your job.
Machine won't start.	<ol style="list-style-type: none"> Not plugged in Electrical failure. Broken or disengaged belt. 	<ol style="list-style-type: none"> Check cable is correctly inserted in power point and switched on. Have the item inspected by a service technician. Check belt and reinstall or replace if required.
Machine Running Backwards	<ol style="list-style-type: none"> Forward/Reverse switch is in reverse position 	<ol style="list-style-type: none"> Toggle the switch to forward.
Banjo/Tool rest/ Tail Stock Moving in use	<ol style="list-style-type: none"> Inadequate locking Inadequate clamping force 	<ol style="list-style-type: none"> Ensure you have looked the relevant part securely Adjust clamping force nut under machine for the relevant part

1 YEAR WARRANTY

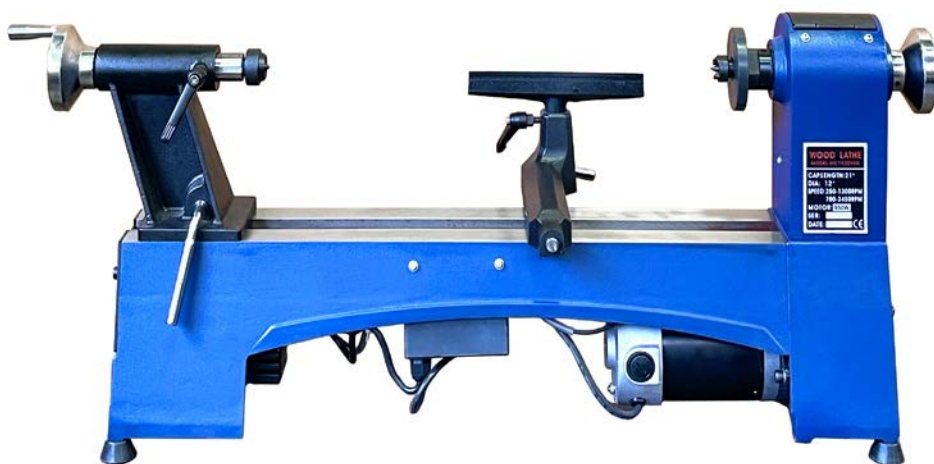
WARRANTY

- A. We warrant that this Carbatec product will be free from defects caused by faulty workmanship or faulty materials for a period of 1 year 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.

carbatec®



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1 YEAR
WARRANTY