

carbatec

AR-LM2 CARBATEC DRILL POWERED LOCK MORTICER

INSTRUCTIONS MANUAL

carbatec.com.au



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**

Find us on social media

- facebook.com/Carbatec
- instagram.com/Carbatec
- youtube.com/@CarbaTheHomeOfWoodworking

WHAT'S IN THE BOX







The following items are provided in the shipping box:

- A. 1" (25.4mm) cutter
 - 7/8" (22.22mm) cutter
 - 13/16" (20.63mm) cutter
 - 3/4" (19.05mm) cutter
 - 5/8" (15.87mm) cutter
- B. Drill jig
- C. Sturdy carry case

- D. Drill shaft for 1/4"router bits and mortise cutters
- E. Mortice length stop locking knobs
- F. Mortice height stop locking knobs
- G. 3 piece door hook/height set gauge
- H. Adjustment tools (Power drill NOT included)
 Manual (not shown)

If you are missing any of these items please contact your point of purchase immediately.

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.

CONTENTS

What's in the box	3
Safety instructions	5
Overview	6
Setting up	7
Operation	9
Maintenance	13
Parts diagram	14
Warranty	15

SPECIFICATIONS

BRAND	Carbatec
UNIT SIZE	500 x 200 x 200mm (Not including hanger bar)
MORTICING CAPACITY	200mm (L) x 100mm (D)
THREADED MORTICE CUTTERS SIZES	5/8" - 3/4" - 7/8" - 13/16 - 1"
ROUTER CUTTER SHANK SIZE	1/4" (6.35mm)
SPINDLE SHAFT DIAMETER	3/8" (9.5mm)

THE CUTTING WIDTH IS DETERMINED BY THE DIAMETER OF THE CUTTER.

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.

WHEN USING YOUR POWER DRILL TO OPERATE THE AR-LM2 CARBATEC MORTICE LOCK CUTTING JIG, TAKE CARE TO OBSERVE THE FOLLOWING SAFETY PRECAUTIONS.

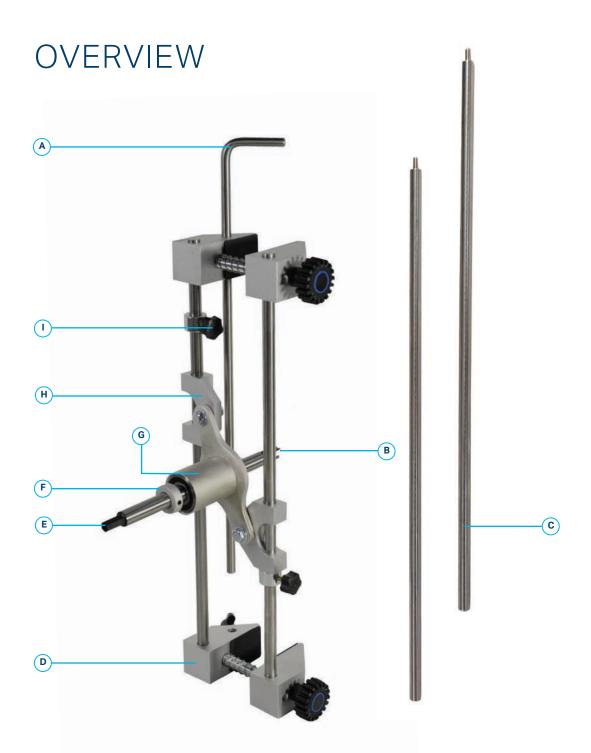


This list of do's and don'ts is not exhaustive and is not a substitute for common sense and best practices. Woodworking machines are potentially dangerous. It is important to observe all safety instructions while operating this machine.

BE SURE TO READ AND UNDERSTAND YOUR MANUAL FULLY BEFORE OPERATING MACHINE!

- Always wear eye and ear protection.
- Always unplug tools from the power source before making any adjustments or changing blades.
- Do not wear loose clothing, jewellery or other loose ornamentation.
- Long hair should be protected by netting or other means to prevent ingress into the machine's working parts.
- Ensure all adjusting keys, spanners and tools are removed before machine is switched on.
- Make sure all cutters are sharp and not chipped.
- Do not operate jig with one hand. Ensure you support and control both the drill and the jig spindle housing whilst in use.
- Keep children and all unauthorised persons away from machines even when not in use.

- Do not use this tool for any other purpose other than that for which it was designed.
- Do not use excessive force, or attempt to exceed the capacity of the tool.
- At no time should tool be unattended whilst in operation.
- Do not put hands onto the spindle shaft or cutter whilst it is running.
- This tool should be used in an area with good lighting.
- Keep the floor and adjacent areas around the machine dry and clean.
- Always maintain a balanced stance when operating this tool.
- Do not operate this tool whilst on medication or under the influence of alcohol.
- NOT TO BE USED WITH A ROUTER.



CARBATEC DRILL POWERED LOCK MORTICER

- A. Door hook / Height set bar
- B. Mortice cutter
- C. Height rods
- D. Self centring clamps
- E. HEX drive

- F. Depth stop
- G. Spindle housing
- H. Housing guides
- I. Mortice length stops

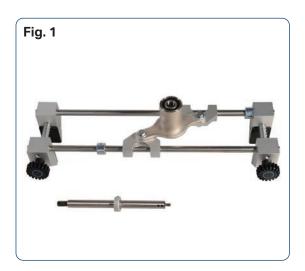
SETTING UP

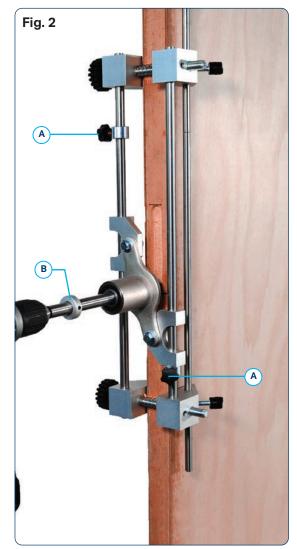
The Carbatec Drill Powered Lock Morticer AR-LM2 is designed to be used with a mains powered (corded) or heavy-duty cordless battery drill, either set at the highest speed possible.

Check the spindle shaft and morticing guide bars before use for any damage that may interfere with spindle shaft running smoothly in the spindle housing, or that would prevent a smooth sliding action along your mortice length. If there are any rough sections, they can be removed with a file or fine wet and dry sandpaper.

Fig. 1

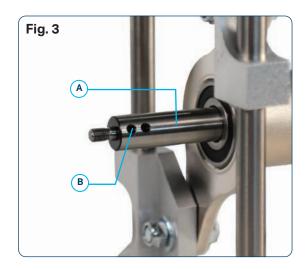
The mortice lock cutting jig is equipped with a self centring spindle housing system for easy positioning. You only need to set the stops to establish the length (Fig. 2A) and depth (Fig. 2B) of the mortice.



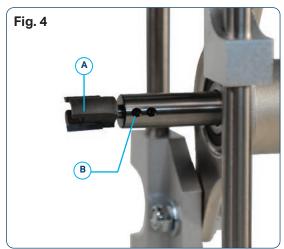


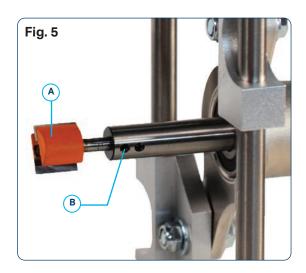
SPINDLE SHAFT

The spindle shaft (Fig. 3A) that comes with the AR-LM2, accepts Carbatec threaded mortice cutters (Fig. 4A) and 1/4" shank router bits (Fig. 5A) that are locked in with two grub screws (Fig. 3B). Before using the shaft, it is advisable to file a flat on the shank of the router bits to give the grub screws more purchase and to prevent spinning in the spindle.



NOTE: ROUTER BITS THAT HAVE FLATS ON THE SHANK SHOULD NOT THEN BE USED IN A ROUTER.





OPERATION

A. POSITIONING THE JIG

1. Mark out the exact position of the mortice on the door.

Fig. A8

2. Select required cutter and screw onto the threaded shaft.

Fig. A1

Install spindle shaft into the spindle housing.

Fig. A2

- 4. If using router bits, release the two grub screws, remove the threaded shaft and place shank of cutter into the bottom of the spindle shaft.
- 5. For both types of cutter, tighten the two grub screws firmly.

Fig. A3







OPERATION

6. Join the threaded height rods together to required length.

Fig. A4

Feed the height rods through the holes in the jig clamping feet and tighten the winged knobs.

Fig. A5 & A6

8. Hook the top of the height rod over the top of the door and set your required distance from the door top. Alternatively, invert the bar position in the jig to set the distance from the floor.

Fig. A7 & A8











AR-LM2 OPERATION

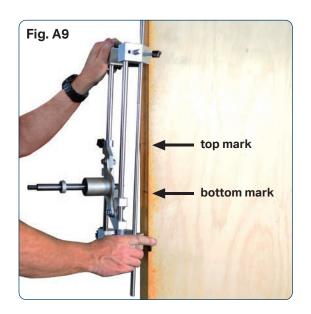
Clamp the mortice jig to the door, roughly in the position where the mortice is to be cut and tighten the two knurled handles.

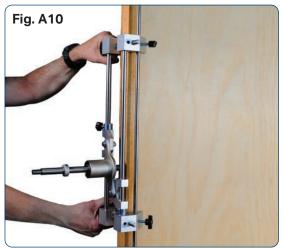
Fig. A9 & A10

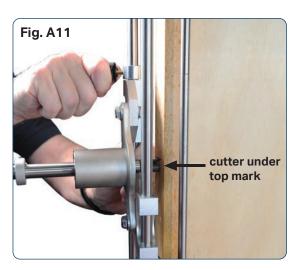
10. To set the length of the mortice, slide the spindle up so the edge of the cutter is in line with the top mark. Slide the stop down to make contact with the spindle housing guide and tighten. Slide the spindle down so the cutter is in line with the bottom mark, then move the bottom stop into place and tighten.

Fig. A11

If you are cutting several mortices the same you will not have to adjust the setup. Just make sure the jig is mounted on each door in the same position and use the provided height set bar.



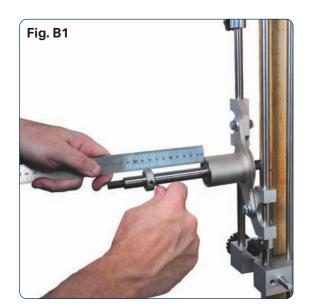




OPERATION

B. SETTING THE DEPTH

- 1. To set the depth of the mortice, slide the spindle so the cutter is in contact with the door.
- Loosen the grub screw on the depth stop and adjust it so the distance between the top of the spindle housing and the depth stop is the same as the required depth.
 Fig. B1
- Tighten the grub screw on the depth stop.



C. CUTTING THE MORTICE

Ensure drill is running at maximum speed. The amount of material you will be able to remove in one pass depends on the hardness of the timber. Cutting is performed best by making shallow passes to clear the waste material, moving the mortice guide and spindle shaft housing up and down (from top to bottom length stops), while gently feeding the spindle shaft inwards until the depth stop is reached.

Fig. C1 & C2

NOTE: Most router bits and the standard Carbatec lock mortice cutters do not allow straight plunge cutting. Do not attempt to plunge or drill a straight hole with such cutters. Optional plunge morticing bits are available.





D. EXAMPLES

Figure D shows examples of mortice cuts and various mortice locks.

E. MAINTENANCE

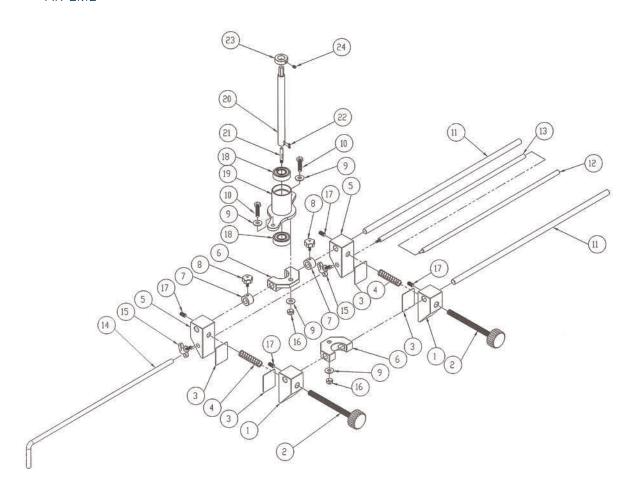
There should be no maintenance required on the Carbatec Drill Powered Lock Morticer AR-LM2 as the bearings are sealed. Keep all cutters sharp and free of chips in the carbide tips or damage to the shank if using router bits.



The following Carbatec screw on mortice cutters are available to purchase separately:

PARTS DIAGRAM

Carbatec Drill Powered Lock Morticer AR-LM2



KEY No	DESCRIPTION	QTY
1	LH CLAMPING JAW	2
2	CLAMP MECHANISM ROD	2
3	RUBBER PAD	4
4	SPRING	2
5	RH CLAMPING JAW	2
6	SLIDE	2
7	STOP COLLAR	2
8	KNOB	2
9	WASHER	4
10	BOLT	2
11	SLIDE ROD	2
12	TOP HEIGHT ADJ. ROD	1

KEY No	DESCRIPTION	QTY
13	MIDDLE HEIGHT ADJ. ROD	1
14	LOWER HEIGHT ADJ. ROD	1
15	KNOB	2
16	NUT	2
17	GRUB SCREW	4
18	BEARING	2
19	MAIN SLIDE HOUSING	1
20	CUTTING SHAFT	1
21	MORTICE CUTTER SHAFT	1
22	GRUB SCREW	2
23	STOP COLLAR	1
24	GRUB SCREW	1

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;
 - 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;
 - 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;
 - 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.
 - 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
- iii. 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



Carbatec Pty Ltd

E info@carbatec.com.au AU: 1800 658 111

NZ: 0800 444 329

1/364 New Cleveland Rd,

Tingalpa QLD 4173,

Australia

ABN 84 010 706 242

carbatec.com.au

