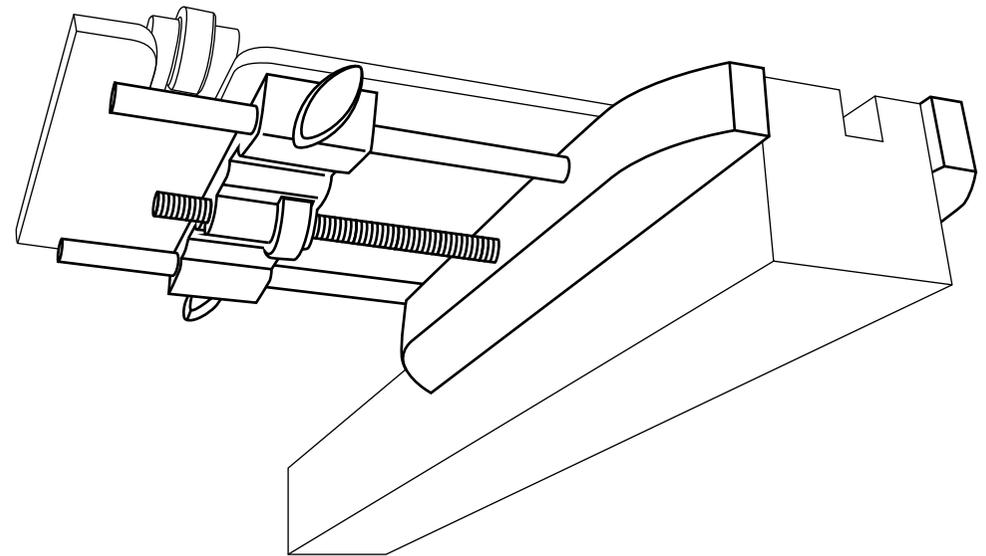




CRB7 - MHL MORTICE, HINGE, LOCK & FLUTE JIG



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INSTRUCTION MANUAL



CRB7 - MHL MORTISE, HINGE & LOCK JIG

Thank you for purchasing the M.POWER CRB7 Mortise, Hinge and Lock Jig (MHL Jig) we hope you enjoy using it.

The CRB7 MHL should give lasting performance if used in accordance with these instructions.

The following symbol is used throughout these instructions.

 Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions. Please refer to the instruction manual provided with your power tool.

SAFETY

Please read and understand the safety points at the end of these instructions as well as the power tool instructions before use.

Users must be competent in safe routing practices before using this product.

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1. INTENDED USE

This accessory is a retro fit jig for use with the CRB7 Combination Router Base. The MHL Jig is intended to:

- Increase stability when cutting mortises
- Reduce the possibility of error.
- Increase precision during routing Mortises, Hinge and Lock recesses.
- Increase the overall versatility of the CRB7
- Save set up time between tasks.

2. FUNCTIONS

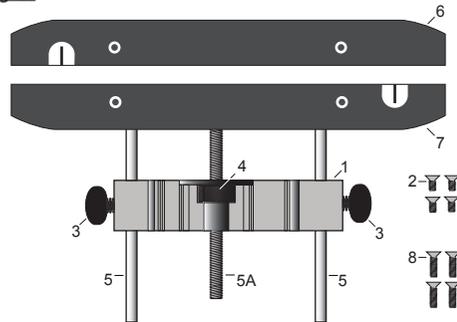
- Micro Adjustable Centered and Off Centered Mortising
- Adjustable Mortising for material between 1.½" > 7" (38 > 178mm).
- Adjustable Hinge and Lock rebates.

3. ITEMS REQUIRED

- Hand Tools – Posi drive – Philips screwdriver.
- 3/16th (4.5mm) Drill bit, Counter sink bit, Drill, Bradawl.

4. ITEMS ENCLOSED & DESCRIPTION OF PARTS

Fig 1.



1. Bridge - (SKU: 50013)
2. Fixing Screws x 4 - (SKU: 50027)
3. Bridge Pinch-bolts x 2 - (SKU: 50024)
4. Micro Adjuster - (SKU: 50024)
5. Jaw Guide Rods x 2 - (SKU: 50085)
- 5A. Jaw Adjuster Rod - (SKU: 50084)
6. Fixed Jaw - (SKU: 50063)
7. Adjuster Jaw - (SKU: 50063)
8. Fixed Cheek Screws x 4 - (Code: 50067)

Attach the 2 x Cheeks to the Jaws using the 4x screws (8).

The Jaws can then be re-attached.

8. MAINTENANCE

Please use only MPOWER original spare parts. Continual satisfactory operation depends upon proper tool care and regular cleaning.

Cleaning:

Regularly clean accessory with a soft cloth.

Lubrication:

Your accessory requires no additional lubrication.

Storage:

Return accessory to its packaging after use.

9. ENVIRONMENTAL PROTECTION

Recycle raw materials instead of disposing as waste.

Packaging should be sorted for environmental-friendly recycling.

This product and its accessories at the end of its life should be sorted for environmental-friendly recycling.

10. GUARANTEE

All MPOWER products are guaranteed against any defects in either workmanship or material, except products that have been damaged due to improper use or maintenance.

11. Safety Points

- 1 Disconnect power tool and attachment from power supply when not in use, before servicing, when making adjustments and when changing accessories such as cutters. Ensure switch is in "off" position. Always ensure cutter has stopped rotating.
- 2 Read and understand instructions supplied with power tool, attachment and cutter.
- 3 Current Personal Protective Equipment (PPE) for eye, ear and respiratory protection must be worn. Keep hands, hair and clothes clear of the cutter.
- 4 Before each use check cutter is sharp and free from damage. Do not use if cutter is dull, broken or cracked or if any damage is noticeable or suspected.
- 5 The maximum speed (nmax) marked on tool or in instructions or on packaging shall not be exceeded. Where stated, the speed range should be adhered to.
- 6 Insert the shank into the router collet at least all the way to the marked line indicated on the shank. This ensures at least 3/4 of shank length is held in collet. Ensure clamping surfaces are clean.
- 7 Check all fixing and fastening nuts, bolts and screws on power tool, attachment and cutting tools are correctly assembled, tight and to correct torque setting before use.
- 8 Ensure all visors, guards and dust extraction is fitted.
- 9 The direction of routing must always be opposite to the cutter's direction of rotation.
- 10 Do not switch power tool on with the cutter touching the workpiece.
- 11 Trial cuts should be made in waste material before starting any project.
- 12 Repair of tools is only allowed according to tool manufacturers instructions.
- 13 Do not take deep cuts in one pass; take several shallow passes to reduce the side load applied to the cutter.

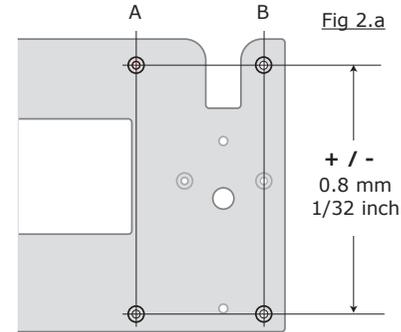
Our policy of continuous improvement means that specifications may change without notice. MPOWER Tools Limited cannot be held liable for any material rendered unusable, or for any form of consequential loss.



5. IMPORTANT COMPATIBILITY

We continuously try to improve the CRB7 and at the same time maintain compatibility for all new CRB accessories to fit all existing models. However some minor variations may occur.

1) If your MHL Bridge drillings don't align exactly with the CRB7 Baseplate Drillings.



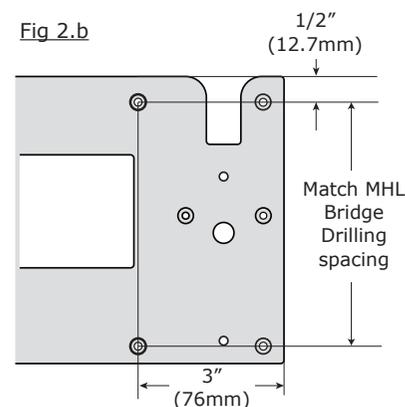
Increase the diameter of the 4x drillings shown along the lines of A & B. (Fig 2.a)

Use a 7/32" (5.6mm) drill bit to counter bore. This should allow sufficient clearance when attaching the MHL Bridge to the Baseplate.

2) If your CRB7 Baseplate does not have the MHL Bridge fixing drillings A & B. (Fig 2.a)

Some older models of the CRB7 do not have all fixing holes pre drilled.

Measure the distance between the drillings of your MHL Bridge and use the positions shown in fig 2.b



Using a screwdriver, remove the CRB7 bridge from the CRB7 baseplate.

Mark the drilling locations on the baseplate. Using a 3/16th (4.5mm) twist bit and suitable drill - make 2 x through holes. Clean the edges of the holes if needed. Then counter sink both holes so that the screw heads sit flush or just beneath baseplate surface.

IMPORTANT NOTE: The retro fit position of the MHL bridge drillings does NOT allow the MHL jaws to line up with each other. - This does NOT in any way effect the performance or function of either the MHL or the CRB7.

6.ASSEMBLY

CUTTING A MORTISE or HINGE REBATE or LOCK REBATE

Mark out all of the rebates required in the usual way. Check the work piece dimensions and set up the MHL jaw and bridge accordingly

POSITION OF FIXED JAW AND BRIDGE

See Fig 3.a

For Stock width 0 > 1 1/2" (0 > 36mm) use Fixed Jaw position A - Bridge position A.

See Fig 3.b

For Stock width 1 1/4" > 4 1/2" (32 > 114mm) use Fixed Jaw position B - Bridge position A.

See Fig 3.c

For Stock width 4" > 7" (100 > 178mm) use Fixed Jaw position A - Bridge position B

Figures shown on next page.

Fig 3.a

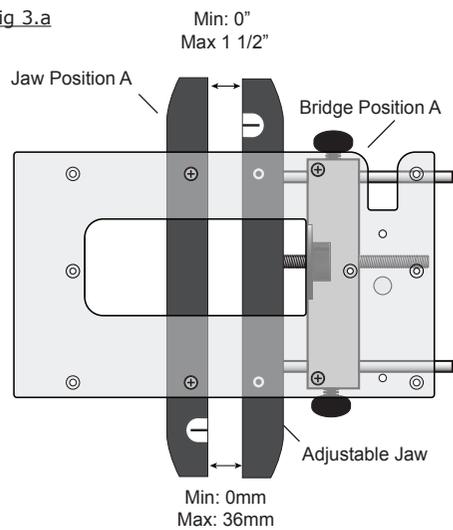


Fig 3.b

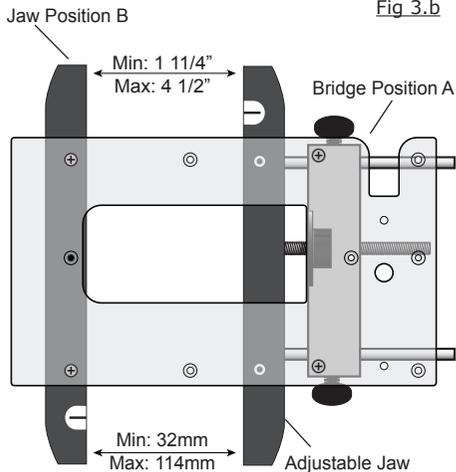
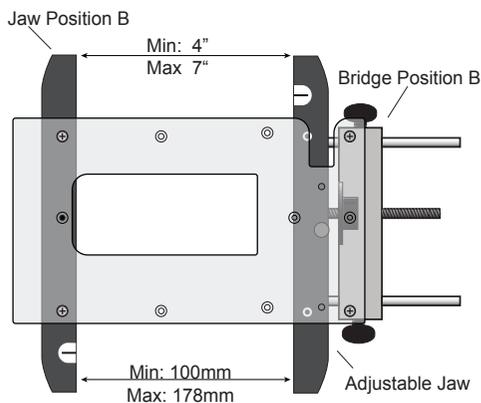


Fig 3.c



6. SETTING UP

FITTING THE BRIDGE ASSEMBLY

Lay the MHL Bridge assembly face down - flat side up and lay the CRB baseplate over it, countersinks up. Having chosen the location of the bridge; Align the baseplate drillings over the MHL bridge screw holes. Using 2 x fixing screws (2) attach the bridge through the baseplate, fit and tighten.

FITTING THE FIXED JAW

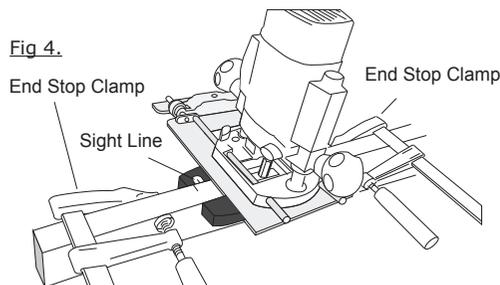
Having chosen the location of the Fixed Jaw; Using 2 x screws (2) Align the Fixed jaw screw holes with the holes in the baseplate, fit and tighten. The MHL is now fitted - Re-fit the router to the CRB7

7. OPERATION:

Firmly clamp the work piece to the bench - rebate markings up. Loosen the MHL Bridge pinch bolts and position the Adjuster Jaw (using the Micro Adjuster) slightly wider than the size of the work piece. Place the CRB7/MHL assembly onto the work piece. Adjust the jaws together; So that the assembly comfortably slides up and down on the work piece without binding or without play. Lock the Adjuster Jaw in position with the 2x Pinch Bolts.

REBATE LENGTH: Set the depth of the router bit to just above the work piece surface. Slide the MHL assembly until the router bit is just touching the end mortise markings. Transfer the Jaw Sight Line onto the workpiece or Use a G-clamp as a physical end stop and clamp so it's touching the MHL Jaw. Slide the MHL assembly to the other end of the mortise markings and repeat.

Fig 4.



REBATE WIDTH: If the rebate is wider than the router bit; complete all the routing passes on one side of the mortise until the correct depth has been reached. Then adjust the router cutter position to the other side of the mortise markings (using the Micro adjust on the CRB7) and complete another set of machining passes down to the matching depth. If the rebate is very large, More sets of machining passes may be required

REBATE DEPTH: Depending on the depth of mortise required and the power of the router; several cutting passes maybe required to complete the rebate depth.

TESTING: Trial the cutting pass (router turned off) several times. Checking that the markings or end stops are in the correct position.

CUT THE MORTISE

FINISHING: Should you require square cornered rebates, use a sharp chisel to remove the waste from the corners of the rebate.

IMPORTANT NOTE: The MHL Jaws are fitted with Sight Lines, so it's easy to see and control the length of each routing pass length. However for ease of use and repetitive accuracy; We recommend using 2 x clamps, 1 at either end of the mortise. The MHL jaw will abut the clamp head itself, giving a physical stop to the length of the rebate; removing the guess work from the process. The MHL can only be used on stock that has machined flat parallel sides. To ensure accurate positioning and a smooth cutting pass; Both mating surfaces of the jaws are machined flat to a tolerance of +/- 0.05. When machining mortises, leave the work pieces as long in length; for as long as you can. Only after the mortises have been completed should the work pieces be cut to the finished length.

FITTING ABLATIVE CHEEKS TO JAWS

IMPORTANT NOTE: We strongly recommend fitting Ablative Cheeks when working on narrow pieces E.g. the edge of a door.

They'll protect the jaws from router bit damage

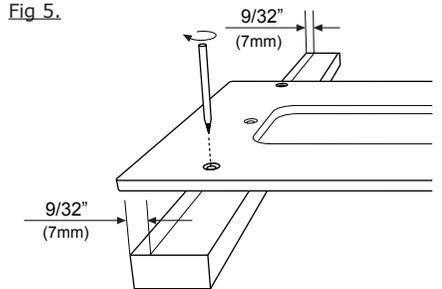
and further increase the stability of the MHL on narrower stock.

Making the Ablative Cheeks from solid hardwood is preferable, however ply or MDF will work. Cut and machine the 2 x Cheeks to 12 x 1.1/2 x 3/4" (300 x 35 x 20mm), (Dimensions can vary according to the users needs or preference).

Ensure the Ablative Cheeks are machined flat then lightly and finish with glass paper.

Accurately mark out the drilling locations for the 2 x fixing holes by: Marking a parallel line 9/32" (7mm) in from the top edge of each cheek. Measure and mark the centre point mid way down the parallel line. Then place it under the baseplate end drillings. So the parallel line can be seen through the drillings. Using a sharp pencil mark through the drillings (see Fig 5).

Fig 5.



Using a 3/16" (5mm) bit - through drill the 2x fixing holes.

Using a 3/8" (10mm) drill bit - counter bore the top surface so the screw heads sit 11/16" (17.5mm) below the surface.

The depth must allow the screw to locate fully into the Jaw thread. 13/64" (5mm). (see fig 6)

Fig 6.

