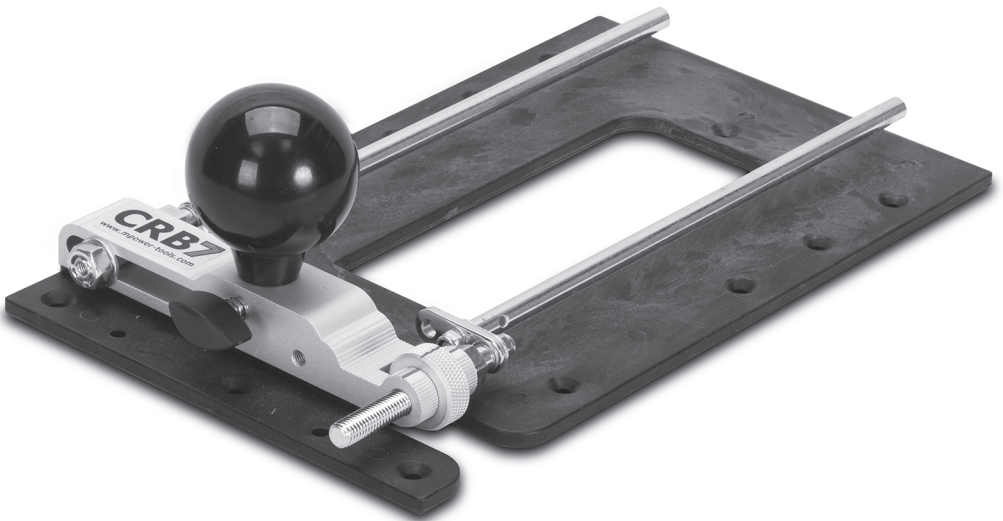




# **CRB7 - COMBINATION ROUTER BASE MK3**



## **INSTRUCTION MANUAL**



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Thank you for purchasing the MPOWER Combination Router Base Mk3 (CRB7). We hope you enjoy using it.

### 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.

### FEATURES

- Adjustable Dadoing with a Clamp Guide
- Adjustable Mortising for material 2" (50mm) > 5/16" (125mm)
- Adjustable Anti-tilt support
- Adjustable Groove Copier
- Offset Baseplate
- Small Circle Router Compass: Rad. 3/4" (19mm) > 8.13/16" (224mm)
- Large Circle Router Compass Rad. 7" (180mm) > 25" (635mm)

**Note:** All dimensions shown are based on a medium sized router being used with a 1/4" (6.3mm) router cutter.

### ITEMS REQUIRED

- Router with a suitable rod size and centers.
- Router cutter / Router bit.
- Clamps.
- 2 x 1/2" (13mm) A/F open ended spanner.
- 5/16" (8mm) A/F open ended spanner.
- Hand Tools.

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The following symbols are used throughout these instructions.

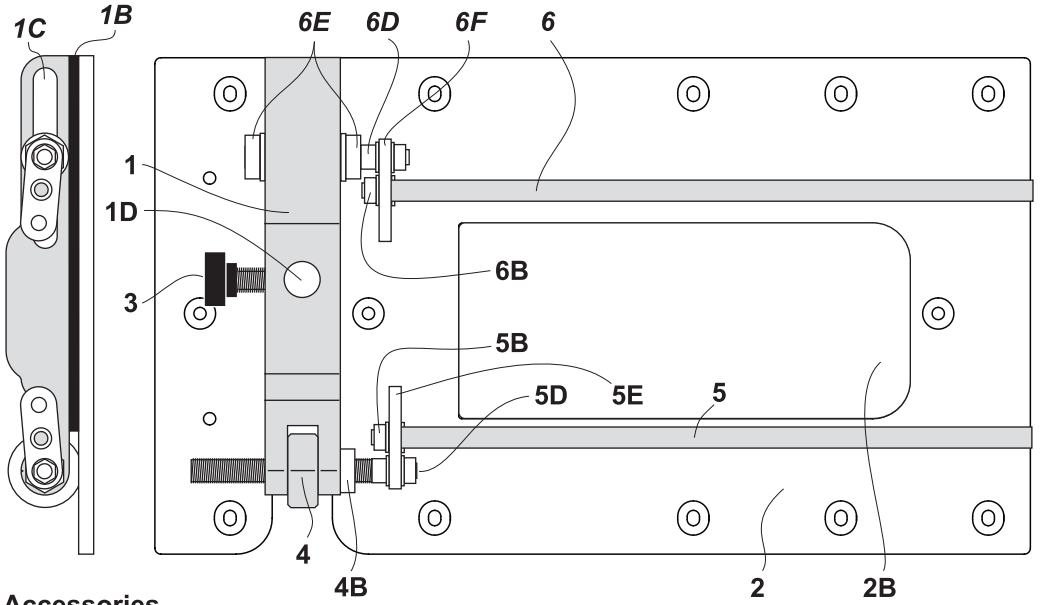


Denotes risk of personal injury, loss of life or damage to the tool in case of non-observance of the instructions.

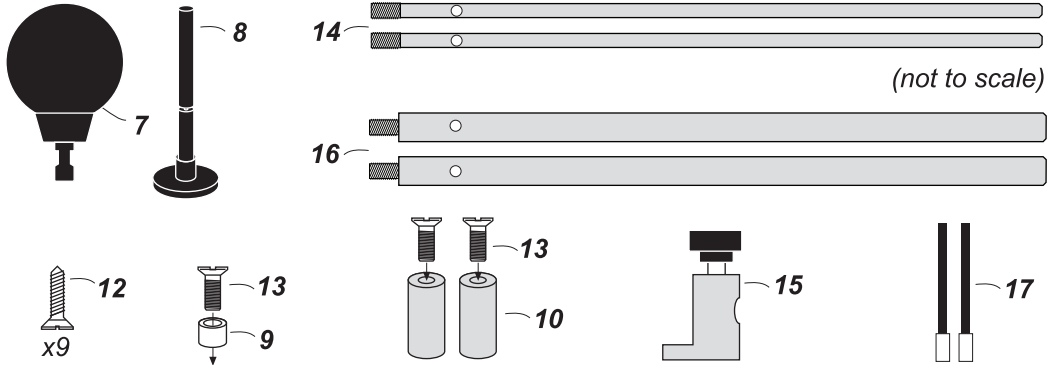


Refer to the instruction manual provided with your power tool.

# ITEMS ENCLOSED



## Accessories



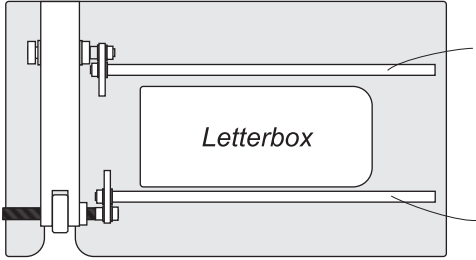
- |    |                                |    |                                |
|----|--------------------------------|----|--------------------------------|
| 1  | Bridge                         | 6B | Fixed Guide Rod M5 Locknut     |
| 1B | Bridge Spacer                  | 6D | Fixed Rod                      |
| 1C | Bridge Slot                    | 6E | Fixed Rod M8 Locknut x 2       |
| 1D | Bridge Pinchbolt hole          | 6F | Fixed Rod Crank Plate          |
| 2  | Baseplate                      | 7  | Offset Handle                  |
| 2B | Baseplate Letterbox            | 8  | Anti-tilt Leg (2-Part)         |
| 3  | Bridge Pinchbolt               | 9  | Pivot Pin                      |
| 4  | Micro Adjuster                 | 10 | Mortise Pillars                |
| 4B | Micro Adjuster Lock Nut        | 12 | No.6 x 1/2" Woodscrews x 9     |
| 5  | Adjuster Guide Rod 5/16" (8mm) | 13 | M4 x 25/64' (10mm) Screws x 3  |
| 5B | Adjuster Guide Rod M5 Locknut  | 14 | 9/32" (7mm) Guide Rods         |
| 5D | Adjuster Rod                   | 15 | Compass Pivot Hub              |
| 5E | Adjuster Rod Crank Plate       | 16 | 25/64" (10mm) Compass Rods x 2 |
| 6  | Fixed Guide Rod 5/16" (8mm)    | 17 | Lock Bars x 2                  |



### 3. Initial alignment

#### FITTING THE CRB7 TO YOUR ROUTER

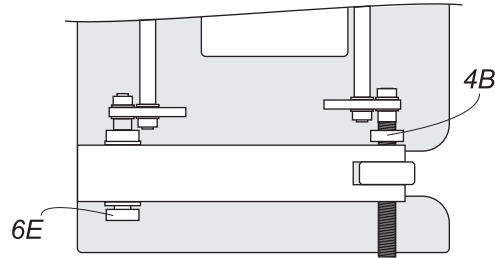
##### 1. Guide Rod selection



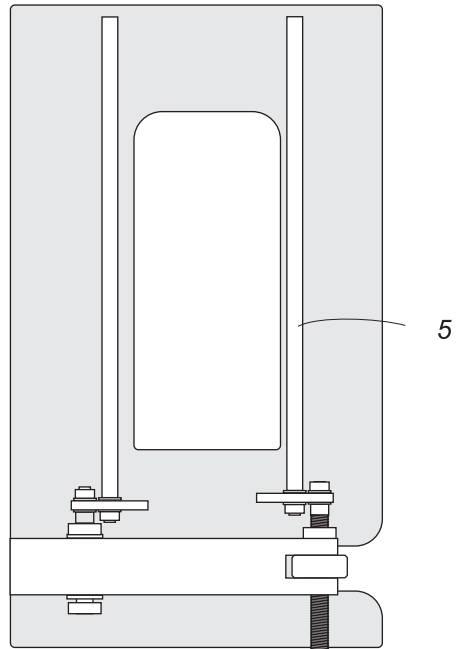
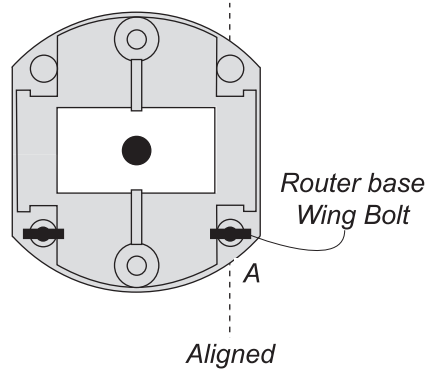
The CRB7 is fitted with 5/16" (8mm) diameter guide rods (5 & 6).

If the router base rod drillings are smaller, fit the 9/32" (7mm) guide rods.

##### 2. Loosen the Lock Nuts 6E & 4B



Using 1 x 1/2" (13mm) spanner, slightly loosen fixed rod nut (6E) and micro adjuster nut (4B).

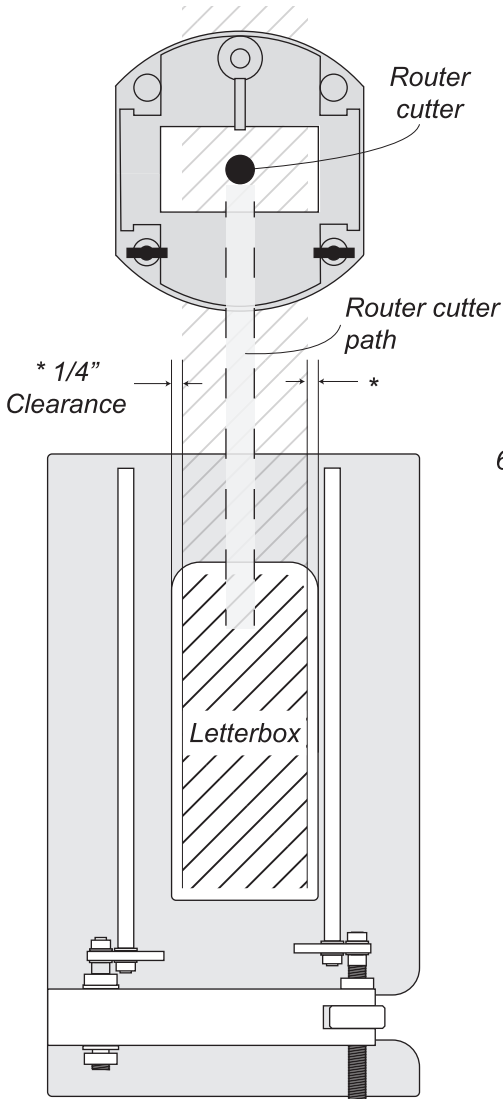


Position the router in front of the CRB7. Align the router base rod drilling (A) with Adjuster Rod (5).

#### 4. Cutter alignment

##### IMPORTANT

IT IS NOT ESSENTIAL TO CENTER THE ROUTER CUTTER PRECISELY WITHIN THE CRB7'S LETTERBOX FOR ANY OPERATION.

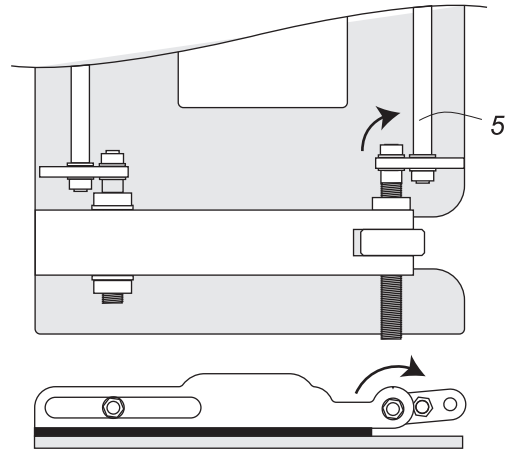


Check that the router cutter will safely align within the letterbox cross hatch area.

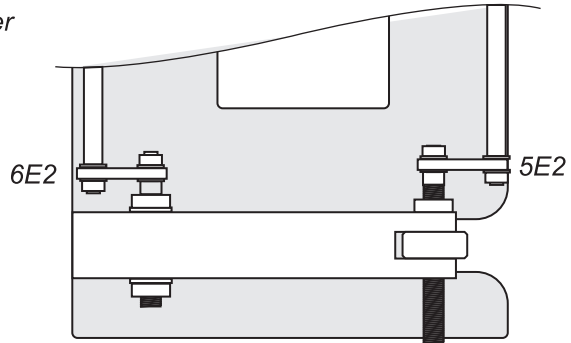
**IF IT WILL, GO TO STEP 7.**

**IF IT WILL NOT, GO TO STEP 5.**

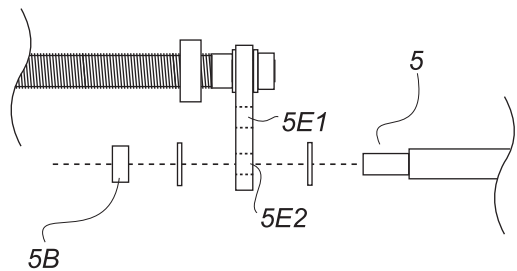
#### 5. Guide Rod adjustment



Flip cranked adjuster rod (5) to its outer position.



For further adjustment fit the rods in the other crank plate drillings (5E2 & 6E2).

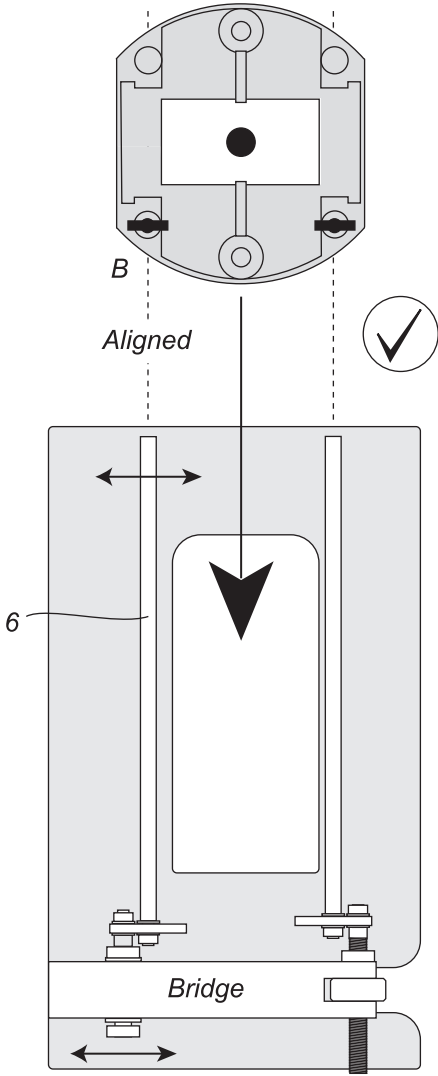


Loosen the M5 nut (5B) using a 5/16" spanner.

Move the adjuster rod (5) to the other crank plate drilling (5E2).

Replace washers and nuts and tighten.

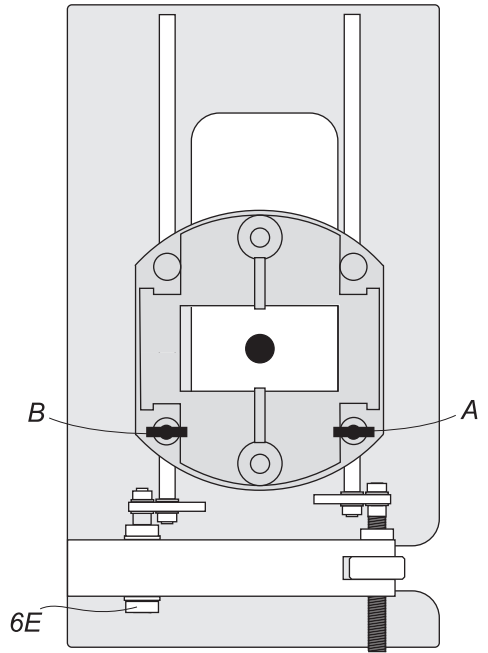
## 7. Fitting the router



Align fixed rod (6) with the router base rod drilling (B), so that both rods are aligned.

Slide the router onto both rods until it stops at the Bridge end of the CRB7 assembly.

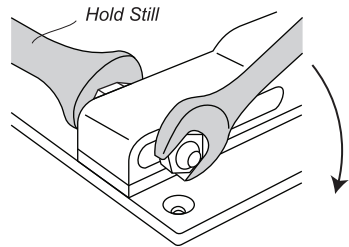
## 8. Setting the Fixed Rod



### IMPORTANT

Follow the below steps in order:

1. Tighten router base wing bolt (A).



Using 2 x 1/2" (13mm) open ended spanners, tighten both fixed rod nuts.

**Tip:** Using two spanners when tightening the fixed rod nuts will prevent the rod setting being disturbed.

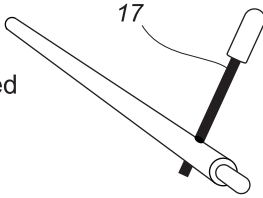
Both guide rod positions are now set.

**⚠ Important - Before attempting any machining pass.**

Ensure that the router is securely fitted to the CRB7 by checking ALL CRB7 fixings, including router base wing bolts and micro adjuster lock nut.

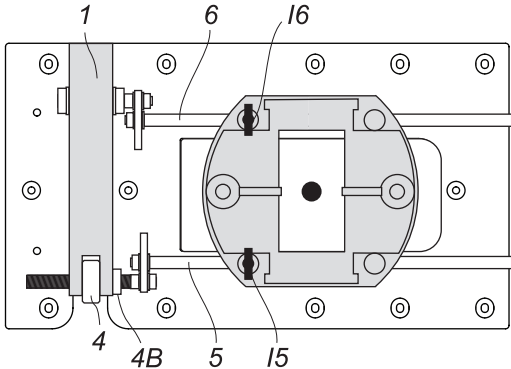
## LOCK BARS

Use the lock bars (17) to help tighten and loosed the guide rods.



## MICRO ADJUSTER

- Plunge the router cutter to a level just above the workpiece & lock in position.
- Loosen the router base wing bolt (16) on the fixed guide rod (6).
- Lock the router base wing bolt (15) on thetheadjuster guide rod (5).
- Rotate the micro adjuster (4) to move the router and cutter into position.
- Lock the adjustment in position by tightening the adjuster nut (4B) against the bridge (1).



**Tip:** Positioning the router base Wing Bolts towards the bridge end of the CRB7 will increase micro adjuster accuracy.

## Using the index markings

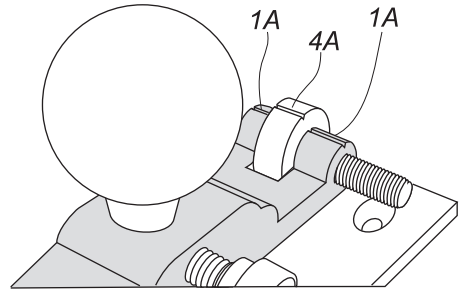
The micro adjuster and bridge have corresponding red index lines. (1A & 4A)

1 x Micro adjuster rotation =  $5/100''$  (1.25mm).

4 x Rotations =  $3/16''$  (5mm).

Removing the slack from the adjuster thread.

- Loosen both router base wing bolts and turn the adjuster (4) in the desired direction to engage the thread.
- Rotate until index markings (1A & 4A) align.
- Re-tighten the wing bolt on the adjuster guide rod.
- Should the router cutter need to be adjusted in the opposite direction repeat the above step.

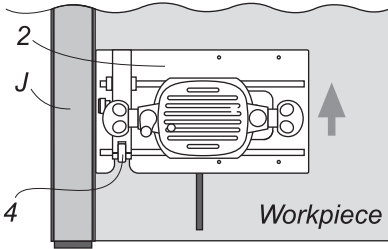
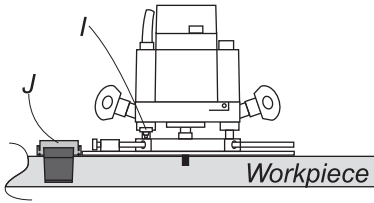


## OPERATION



### Adjustable Dadoing with a Clamp Guide

- Fix the clamp guide (J) on the workpiece.
- Butt the bridge end of the CRB7 up against the clamp guide.
- Slide the router along the guide rods to position the cutter.
- Use the micro adjuster (4) if required.
- Lock the router position on both guides rods using the router wing bolts (I)



**For a deep rebate, several light cutting passes may be preferred.**

**Before use, check that the router is firmly secured to the CRB.**

### Adjustable Mortising

**Material widths between:**

2" (50mm) > 4. 7/8" (125mm)

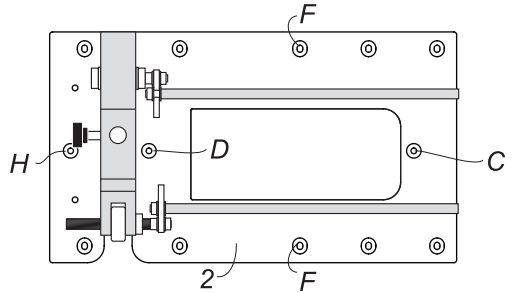
Fit the mortise pillars through holes F

**Material widths between:**

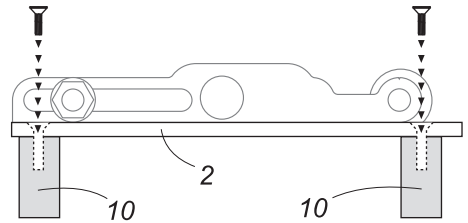
4 7/8" (125mm) - 8 5/8" (219mm)

Fit the mortise pillars through holes

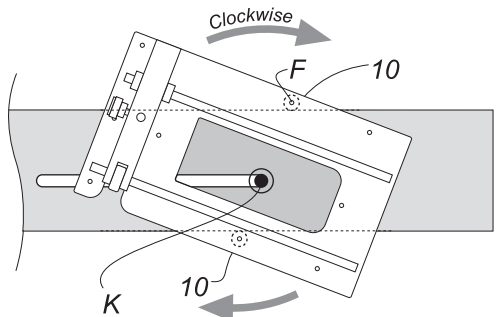
C-D or C-H



- Fit the mortise pillars (10) to the underside of the baseplate (2).



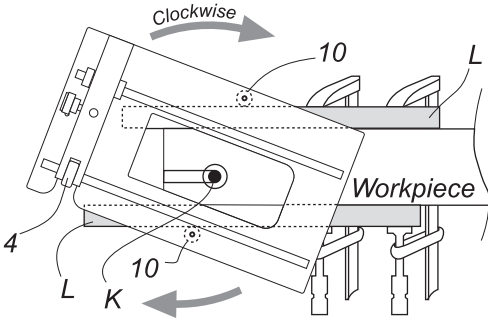
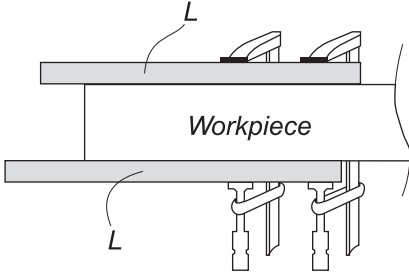
- Fit the cutter to the router and re-fit the router onto the CRB7.
- Position the CRB7 with a mortise pillar (10) either side of the work piece.
- Rotate CRB7 clockwise until both pillars contact the sides of the workpiece.
- Adjust cutter position to the mortise markings, use micro adjuster if required.
- Lock the router position on both guides rods using the router wing bolts.





When cutting the mortise, ensure an even pressure is maintained between the mortise pillars and workpiece.

If the mortise is positioned at the end of the work piece, clamp extended battens (L) to either side.

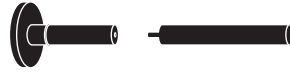


Check that the mortise pillars can complete the mortise without running off the end of the battens.

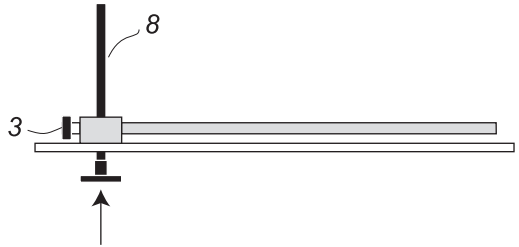
For a deep mortise, several light cutting passes may be preferred.

## Anti-Tilt Support

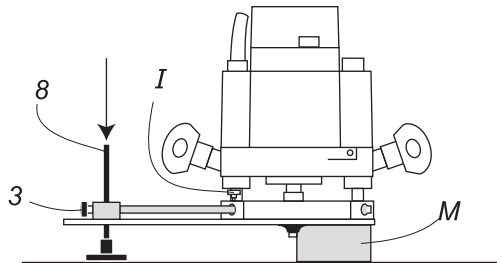
The Anti tilt leg is a two part assembly.



- Slide the anti-tilt leg (8) into the bridge from the underside.
- Tighten the bridge pinch bolt (3) to lock it in position.



- Slide the router onto the CRB7 rods and lock in position using the wing bolts (I)
- Rest the CRB7 and router on the work piece (M), then release the bridge pinchbolt (3) to set the anti-tilt Leg depth.
- Lock the anti-tilt Leg in position.



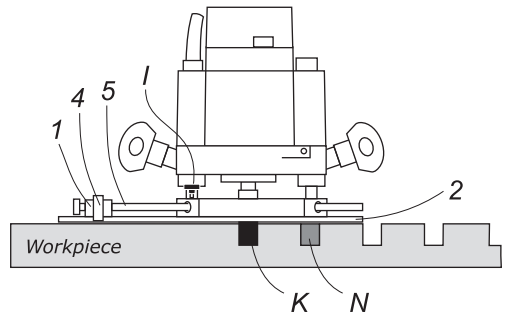
Before routing, check that the bench surrounding the workpiece is smooth, even and clear of obstacles.

## Adjustable Groove Copier *Fig 22*

- Make copy batten (N)  
Min. Length 6. 5/16" (160mm) in timber or solid plastic i.e. nylon or polyethylene.

**Note:** The batten profile should copy the size and shape of the router cutter.

- Test the batten in a sample groove to ensure a good but not over-tight fit.
- Rout the first groove into the workpiece. Use a clamp guide or side fence.
- Using 2 x No.6 woodscrews (12) fix the batten to the underside of the baseplate via your chosen mounting holes.



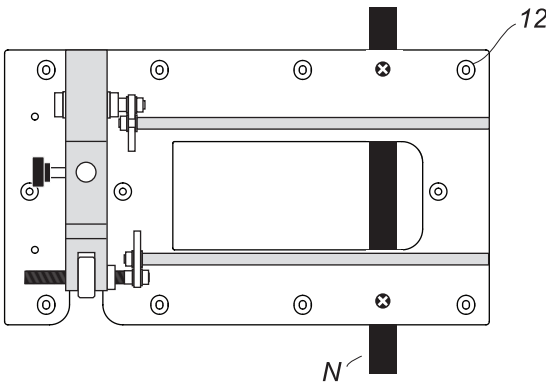
### Offset Baseplate

- Slide the router onto the CRB7 guide rods.
- Position the router at the opposite end from the Bridge (1).
- Lock the router in position using the wing bolts (I)

**The router cutter should just sit safely within the baseplate 'letterbox'.**

- Fit the offset handle (7) into the bridge and lock in position using the bridge pinchbolt (3).

**Ensure that the CRB7 handle end remains over the work piece.**

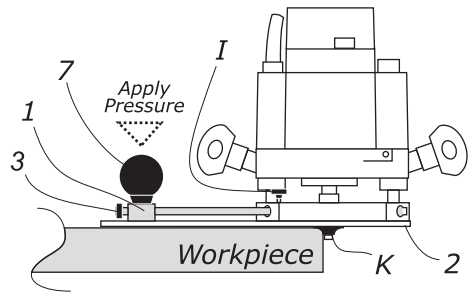


### To avoid splitting the batten, pilot drill and screw into position by hand.

- Fit the CRB7 to the router.
- Check that the batten (N) slides into the first groove and moves smoothly along its length.
- Set the required distance between the router cutter and batten.
- Use the micro adjuster (4) to finely adjust cutter position if required.
- Lock the router in position using the router base wing bolts (I)

The second groove can now be routed.

- Slot the batten into the second groove to rout the 3rd groove. (see fig 22)



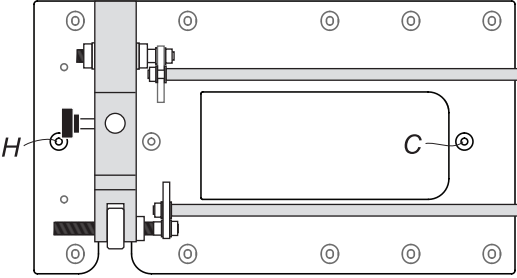
## Cutting Small Circles.

### Circle Sizes:

Maximum Radius 8. 13/16" (224mm)

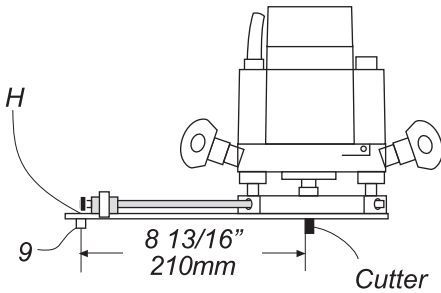
Minimum Radius 3/4" (19mm)

### Pivot Pin Locations H and C:



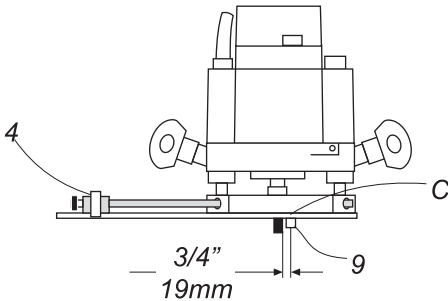
### Maximum Radius Setup:

8.13/16" (224mm) Hole H

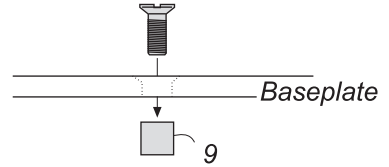


### Minimum Radius Setup:

3/4" (19mm) Hole C



- Mark out the circle on the work piece.
- Drill a 1/4" (6mm) hole, a 1/4" (6mm) deep at the center of the circle.
- Fit the pivot pin (9) to the underside of the baseplate.



**You can replace the pivot pin (9) with a No.6 woodscrew (12).**

- Attach the router to the CRB7.
- Position the CRB7 so that the pivot pin (9) fits in the center drilling.
- Position the router and cutter as required.
- Lock in position using the router wing bolts.

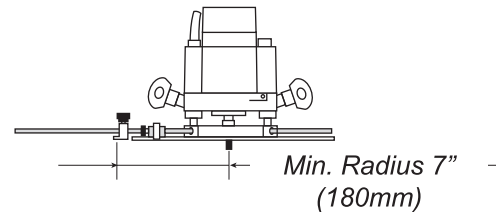
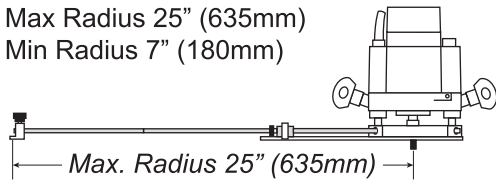
**Tip:** To avoid a central drilling in the workpiece, use a 1/4" (6.35mm) thick overlay secured by double sided tape. Rout through the overlay and into the workpiece beneath.

## Cutting Large Circles

### Circle Sizes:

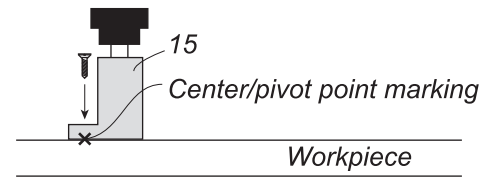
Max Radius 25" (635mm)

Min Radius 7" (180mm)

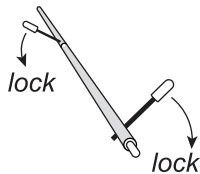


- Measure and mark out the position, size and center point of the circle.
- Line up the Compass Hub (15) drilling with the center point of the circle.
- Screw the Hub into position.

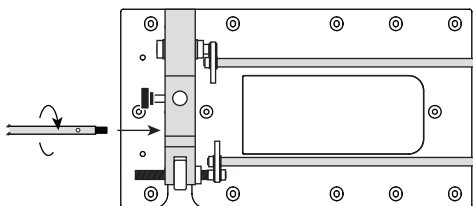
**Ensure that the Hub is secured tightly but still free enough to rotate.**



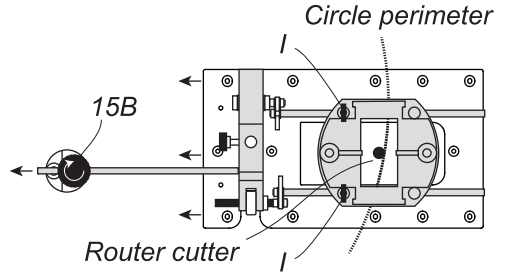
- Assemble the 10mm compass rods and tighten using the lock bars.



- Screw the rod assembly into the threaded hole in the back of the bridge. Tighten using 1 x lockbar.



- Slide the CRB7 rod assembly through the hub.
- Position the router and cutter using the micro adjuster if required.
- Lock the router in position using the router base wing bolts (I).
- Lock the hub pinchbolt (15B)



**Before routing the circle ensure that:**

**The hub and rods are securely fastened.**

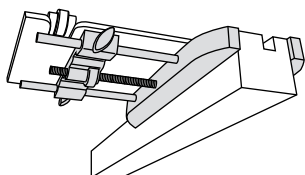
**The center and outer section of the workpiece are supported.**

**Tip:** To ensure a consistent cutting path always apply a slight pressure away from the Compass Hub when routing. If it helps, imagine the rods are a piece of string and you need to keep the string tensioned to maintain the distance between pivot point and router.

## CRB7 ACCESSORIES

Please only use MPOWER original accessories.

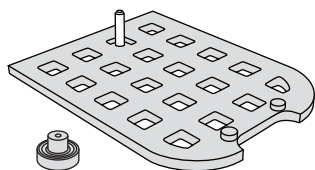
### MORTISE, HINGE, LOCK & FLUTE



The solution to the serious issue of controlled cutter access into board edge.

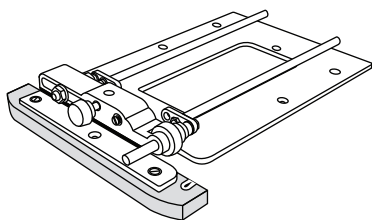
Cutting Mortises, Hinges, Lock Rebates and Fluting is now safer, quicker and more accurate than before.

### EDGING AND DOWEL TRIM KIT



A fast and accurate method of consistently trimming solid hardwood and iron on edging flush to its core panel. The kit can also be used to trim off the excess wood when using dowel plugs.

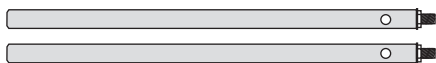
### EDGE GUIDE PARALLEL SIDE FENCE



Combines with the fine adjustment of the CRB7 to improve router control and offer greater edge to rebate range.

### 13/32" (10mm) GUIDE ROD PAIR

For router bases with 13/32" rod drillings.



## MAINTENANCE

The accessory has been designed to operate over a long period of time, with the minimum amount of maintenance. Continual satisfactory operation depends upon proper tool care and regular cleaning.

### Cleaning

- Regularly clean jig with a soft cloth.

### Lubrication

- The CRB7 requires no additional lubrication.

### Storage

- The CRB7 can be stored in its packaging, or can be hung on a wall hook.

## ENVIRONMENTAL PROTECTION

Recycle raw materials instead of disposing as waste.

Packaging should be sorted for environmental friendly recycling.

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

## 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.

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.

## SAFETY POINTS

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.

Read and understand instructions supplied with power tool, attachment and cutter.

Current Personal Protective Equipment (PPE) for eye, ear and respiratory protection must be worn. Keep hands, hair and clothes clear of the cutter.

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.

The maximum speed (n<sub>max</sub>) marked on tool or in instructions or on packaging shall not be exceeded. Where stated, the speed range should be adhered to.

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.

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.

Ensure all visors, guards and dust extraction is fitted.

The direction of routing must always be opposite to the cutter’s direction of rotation.

Do not switch power tool on with the cutter touching the workpiece.

Trial cuts should be made in waste material before starting any project.

Repair of tools is only allowed according to tool manufacturers instructions.

Do not take deep cuts in one pass; take several shallow passes to reduce the side load applied to the cutter.





**Manufactured by MPOWER Tools Ltd**

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