## Safety Steps

- 1. Always wear eye protection such as goggles, ear protection and use effective respiratory protection.
- 2. Before making adjustments to the router, like changing the cutter, make sure the power is isolated correctly.
- 3. Before re-connecting to the mains supply, make sure the power switch on the router is in the 'off' position.
- 4. Do not switch on the router with the cutter in contact with the workpiece.
- 5. Before making adjustments always allow the cutter to stop rotating.
- 6. When routing keep your hands, hair and clothing clear of the cutter.
- 7. Make sure you follow the instructions which came with your router.
- 8. Ensure all visors, guards and dust extraction are fitted.
- 9. Trial cuts should be made in waste material before starting any project.
- 10. Always ensure that the router is held firmly in a stable manner, ideally, hold the router handles, as this will ensure that the router does not tilt or fall. If your position becomes uncomfortable when making a cut, stop the router and reposition for best control before continuing.

Our policy of continuous improvements mean that specifications may change without notice. Trend Machinery & Cutting Tools Ltd. cannot be held liable for any material rendered unusable, or for any form of consequential loss.

Manufactured by M•Power Tools Ltd™ Design Reg. 3003639



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# **N•COMPASS**<sup>™</sup>



Thank you for purchasing this Trend product which will allow a router to cut circles and arcs of diameter range 25mm to 200mm to high tolerances. The N-Compass™ is compatible with routers that have 8mm guide rod diameters and rod centres of between 75mm and 94mm.

## **Parts List**

1. Base plate

- 2. Bridge
- 3. Fixed Guide rails
- 4. Vernier guide rail
- 5. Fixed guide rod washer
- 6. Circlip
- 7. Lock nut
- 8. Countersunk pivot hole B
- 9. Countersunk pivot hole A with pivot pin & locking screw fitted
- 10. Micro adjuster
- 11. Bridge shim spacer 1.0mm
- 12. Bridge shim spacer 0.5mm

## **Description of Parts**

#### Base plate

The 3mm steel base plate offers great rigidity, its powder-coated finish gives a low friction durable surface.

#### Guide Rods

The router guide rods lie parallel to the base plate, and slot through your router base securing the router to the N-Compass<sup>TM</sup>.

#### Bridge

The aluminium bridge supports the two guide rods. The vernier guide rod passes through an 8mm circular hole. The fixed guide rod passes through an 8mm x 19mm slotted hole, this allows setting to the guide rod separation of different makes of router.

#### Bridge Shim Pieces

Not normally required, but to cater for different makes of router, the separation between the guide rods and the base plate may be increased by inserting the spacers provided. If these become lost, or for different thickness, plywood, thick card or similar sheet material may be used for this purpose.



#### Micro Adjuster

The aluminium micro adjuster can be rotated for precise positioning of the cutter. This aluminium adjuster is knurled for easy operation. One full rotation of this adjuster will move the cutter by 1.25mm.

#### Countersunk Pin Holes A & B

Hole A is the standard pivot point for the N-Compass<sup>TM</sup>, this is positioned close under the router base enabling circles to be cut from approximately 200mm to as small as 25mm in diameter. Hole B is an alternative position for larger circles and when using extension rods.



## Instructions for routing a Circle or Arc

- Mark out the desired dimensions of the circle/arc on your work piece.
- Drill a 6.35mm (1/4") hole at least 6.35mm (1/4") deep in the work piece at the geometric centre of the desired circle/arc.
- Place the N•Compass<sup>™</sup> and router assembly onto the work piece, ensuring that the pivot pin is located in the previously drilled hole.
- Slide the router along the guide bars to align the router cutter with the marked circle/arc dimensions and lock both router thumb knobs.
- To use the micro adjustment, loosen the router thumb knob holding the fixed guide rod and lock the router thumb knob holding the vernier guide rod.
- Rotate the micro adjuster to align the router cutter precisely with the marked circle/arc dimensions.
- Lock the router thumb knob on the fixed guide rod.
- Ensure all router thumb knobs are secure and the router depth stop is set appropriately.
- Proceed to cut by rotating the router around the pivot pin.

# Large Radius Cutting with N•Compass™ Extension Rods Ref. N/COMPASS/AEX

Simply screw the extension rods into the threaded ends of the N-Compass<sup>™</sup> guide rods to give the facility to rout larger circles.

When using the N-Compass<sup>™</sup> with the extension rods accessory, the pivot pin should be positioned in countersunk hole B. The radius of the cut will be limited by the number of extension rods you possess.

Please note: Inexpert use of even a small router is potentially dangerous. In some configurations, use of more than one set of extension rods may promote unstable cutting. Do not configure the N-Compass™ assembly such that the cutter is 'pulling in' or side loads are applied to the guide rods.

### **Cutting Small Radius**



## **Cutting Large Radius**



# **Handy Hints**

- If a centre hole must be avoided in the work piece, use a 6.35mm (1/4") thick overlay secured with double-sided adhesive tape or any similar method - e.g. cramps, screws etc - and drill a 6.35mm (1/4") diameter hole in the overlay.
- When using the supplied pivot pin, always ensure that it is secured firmly to the M4 screw through the base plate and that there is no tendency for it to 'lift' out of the drilled hole.
- Always ensure that the router is held in a stable manner; ideally, hold the router handles, as this will ensure that the router does not tilt or fall. If your position becomes uncomfortable when cutting a curve, stop the router and reposition for best control before continuing.
- For difficult or heavy cuts, the pivot pin may be replaced with a countersunk woodscrew secured into the work piece. This screw should be a snug fit in the base plate to avoid 'chatter'.
- Until familiar with the 'feel' of the N•Compass™ it is best initially to take several shallow cuts.
- If unsure of any cutting configuration, always seek advice from an expert router user.