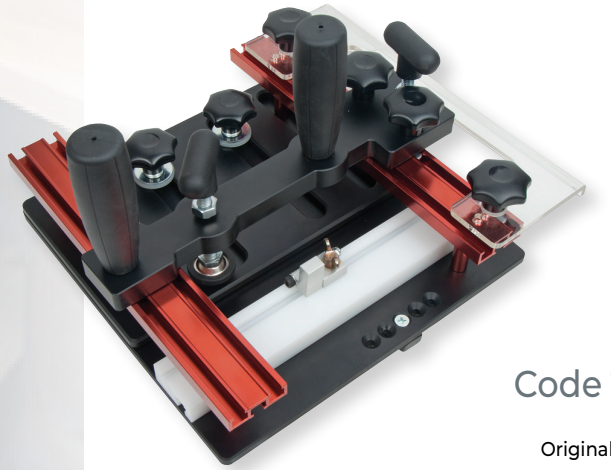
# Professional Coping Sled

**AT&M:** 12/7/2024
**BOOK REF:** 103833
**BOOK VERSION:** 04

- **Work safely, securely and achieve accurate results**
- **Low friction base allows for smooth gliding cuts**
- **19mm Mitre bar suitable for Tee or plain slot, adjustable for zero play**
- **Work pieces firmly held horizontally and vertically, eliminating kickback**
- **Vertical clamp close to the point of cut; minimises vibration**
- **Nylon rear fence prevents tear-out and will not damage router cutter**
- **Repeat stop for multiple work pieces**
- **Rubberised handles, safe and secure grip for complete control**
- **Max width 135mm, max thickness 40mm**
- **Designed for use on a Router Table**



Code **102946**

Original Instructions

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**The symbols below advise the correct safety procedures when using this machine.**

**Fully read manual and safety instructions before use**

**Ear protection should be worn**

**Eye protection should be worn**

**Dust mask should be worn**

**HAZARD**

## Introduction

When profiling the end grain of a narrow work piece on the router table, you need a way of holding the work piece. This is particularly relevant if your work piece is narrower than the gap in your router fence.

The UJK Coping Sled holds the key to working safely, securely and achieving accurate results. Developed and extensively tested by UJK, this Coping Sled will transform the way you make end grain cuts for rail and stile doors, tenons and many other joints. If you are intending to make cabinet doors on your router table, the Coping Sled is invaluable. It is by far the best way to secure your work piece, offering perfect results with a high degree of safety.

The Coping Sled takes the stress out of the process. It ensures your work piece is square to the table's mitre slot and that it guides smoothly across the router bit.

The Coping Sled secures your work piece both horizontally and vertically. A slotted top plate holds the work firmly against the sled's rear fence. This plate prevents kickback and easily adjusts for material up to 135mm wide. Two vertical clamps prevent the work piece lifting during the cut. The position of the foremost clamp, close to the point of cut, significantly reduces vibration. The maximum work piece thickness is 40mm.

To prevent tear-out at the end of the cut, the Coping Sled has a 45mm wide x 22mm deep nylon fence. Unlike aluminium, nylon will not damage your router cutter. You can use the fence as a spelcher if you wish or use an off-cut to prevent tear-out. The fence includes a sliding flip-stop for repeat cuts. A T-slot cutter is available should you wish to make areplacement or custom wooden fence).

On the underside of the 10mm thick, low-friction baseboard is a 19 x 9.5mm (3/4" x 3/8") mitre slot bar. It will fit both plain and T-slot mitre slots. Two grub screws, 150mm apart, allow adjustment for zero play in the slot. The bar has a choice of five positions to accommodate a wide variety of router tables.

Two large rubberised handles provide a firm safe grip for complete control. The design allows you to position the handles directly over the work. The sled's handles make sure both your hands remain a safe distance from the router cutter. A clear, full width Plexiglas shield acts as a chip deflector.


A
B
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E
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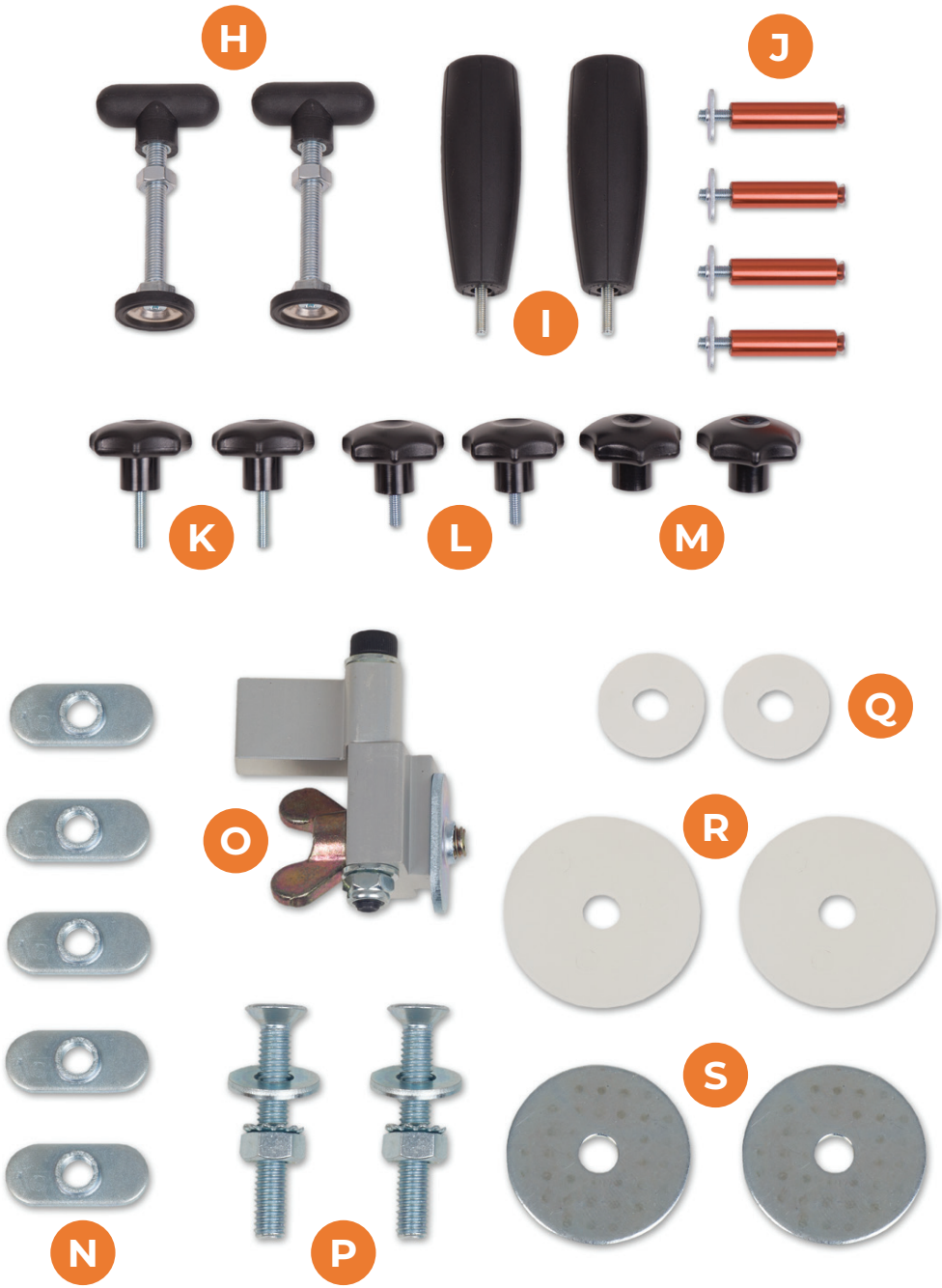
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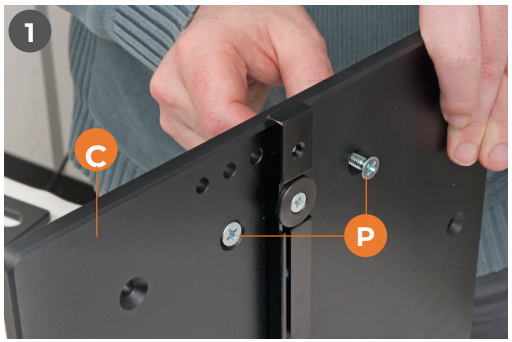
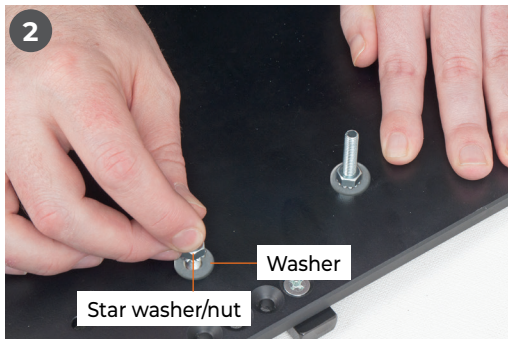



Remove the star washer/nut and washers from the countersink Phillips screws (P) and place safely aside. Insert the screws through the two countersink holes on either side of the 'T' bar and replace the star washer/nut and washer as shown above





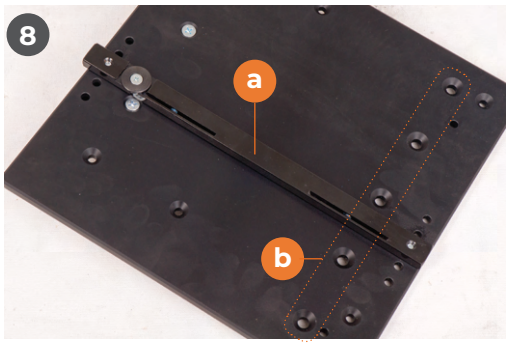
Tighten using a Phillips screwdriver and open ended spanner


Locate the top plate (A) and place it on top of the base plate (C) as shown

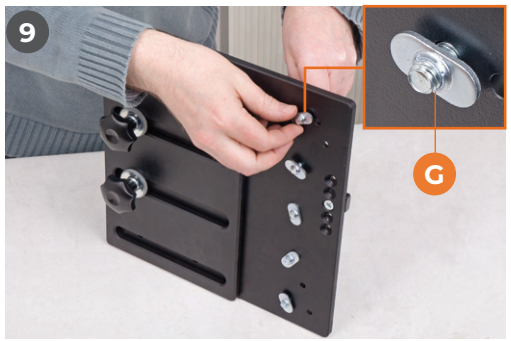

Find the two large nylon washers (R) and slot them over the two Phillips screw threads (P)


Repeat the procedure for the two large washers (S)

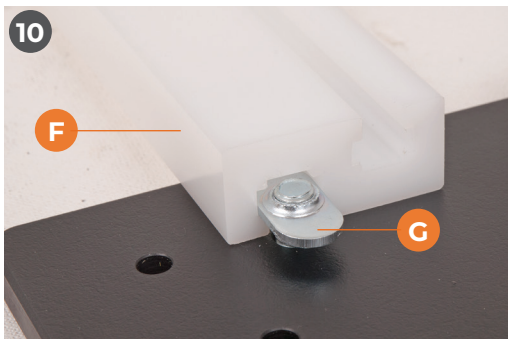

Locate the two top plate clamping knobs (M) and screw them onto the Phillips screw threads (P)




Move the 'T' bar (a) so the countersink holes (b) are not obstructed




Put to hand the five Phillips screw with oval nut (G). Remove the oval nuts, slot the screws through the countersink holes in the base plate (C) and reattach the oval nuts, see illustration above.



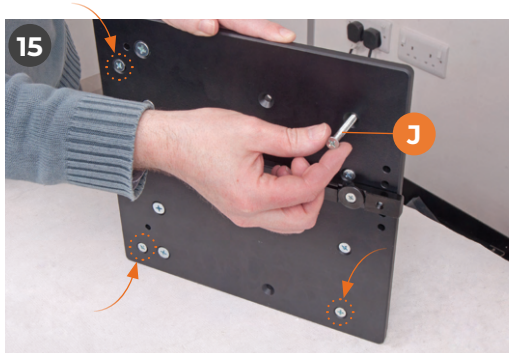

Locate the nylon sled fence (F), insert the first oval nut (G) into one of the machined 'T' slots in the nylon fence (F) and slide the fence on. Repeat the procedure for the remaining oval nuts until the nylon fence is in line with base plate (C) sides.



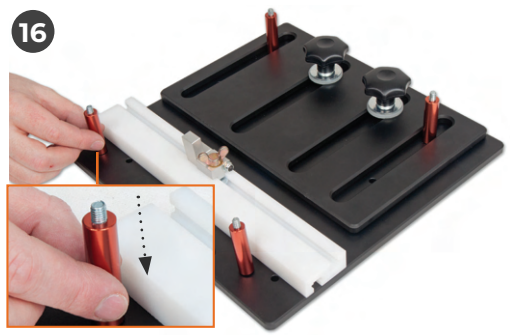
Turn the assembly over and tighten the five Phillips screws to secure the nylon sled fence in position


Insert the Adjustable Stop (O), 'T' bolt into the 'T' slot to the end of assmbly (F) and slide on


Manoeuvre the 'Adjustable Stop' (O) to the centre of assembly (F) and lightly tighten the butterfly nut



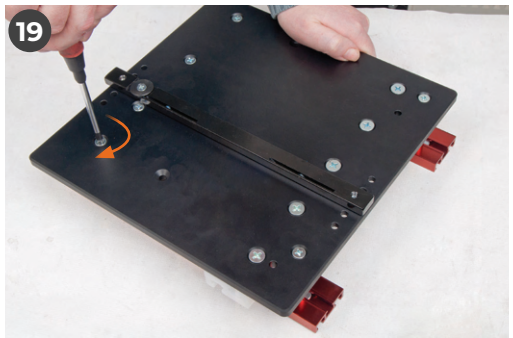

Locate the four height spacer tubes (J), dismantle and insert the Phillips screws into the four holes in the base (C)



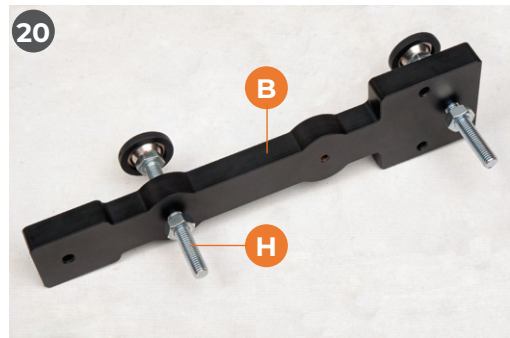

Introduce the height spacer tubes down over the four threads as shown


Locate the four oval nuts you removed earlier and reattach as illustrated


Line up the oval nuts in the height spacers (J) with the 'T' slots in the guide rails (E) and slide the guide rails on



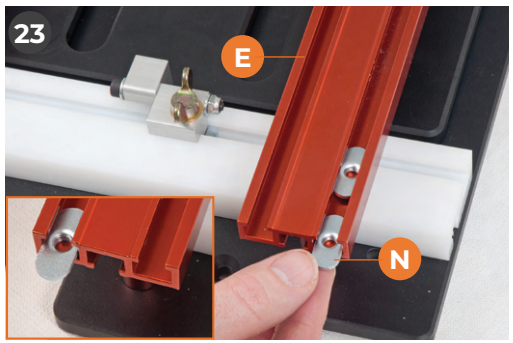

Turn the assembly over and tighten all the fixings



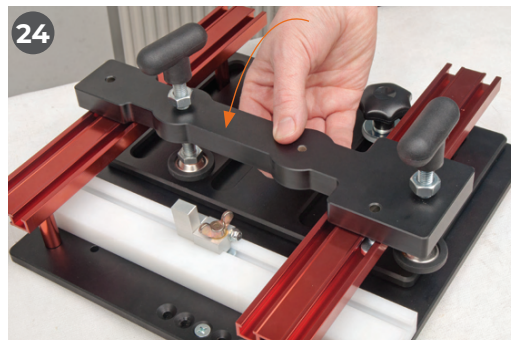

Remove the handles and the two nuts from assembly (H). Introduce the threads through the holes in assembly (B) as illustrated and replace the nuts


Holding the assembly (H) in place attach the threaded handles


Put to hand three oval nuts (N) and the two threaded knobs (K)




Insert two oval nuts (N) into the 'T' slot to the end of guide rail (E), see illustration above. Repeat for the remaining oval nut but to the opposite rail




Lower the clamping beam assembly (B) as shown, down over the two rails (E) and line up the threaded holes in oval nuts (N) with the three pre-drilled holes in the beam assembly

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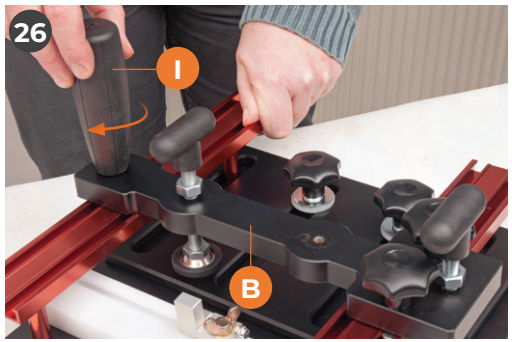
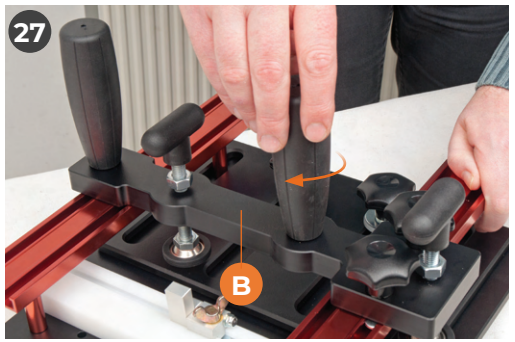
Insert the two clamping knobs (K) down through the holes in assembly (B), into the oval nuts (N), see above

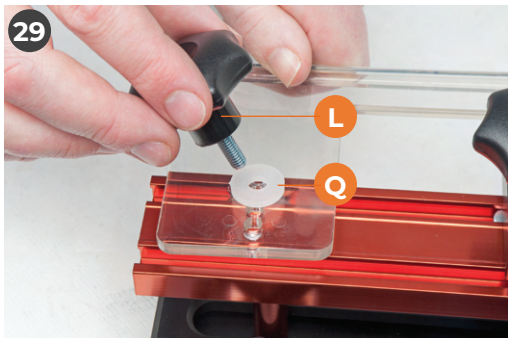


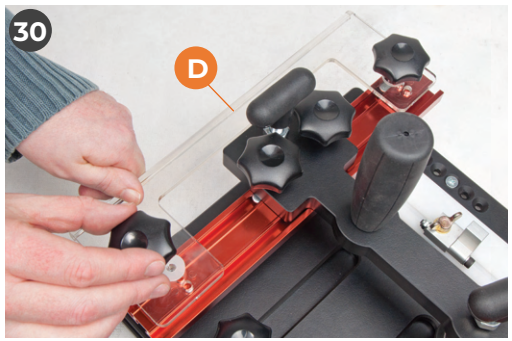

Locate the two handles (I), insert the handle with the longest thread through the hole in assembly (B) into the oval nut (N)



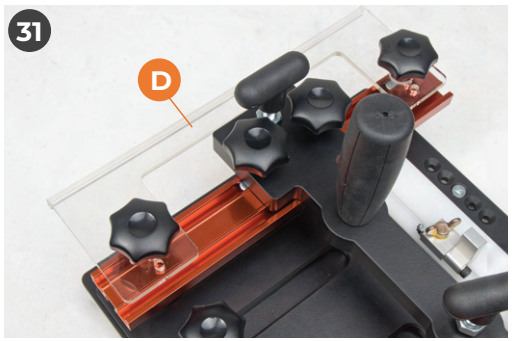

Screw the other handle (I) into the remaining hole in the assembly (B) and lightly tighten


Insert the two remaining oval nuts (N) as described in step 23 on either side of assembly (B) as shown above

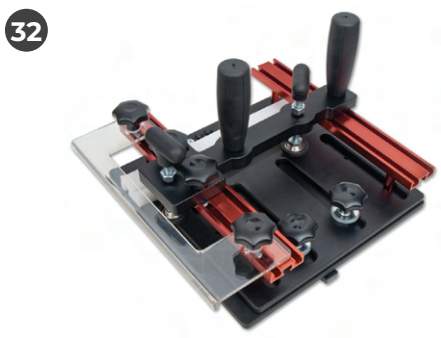


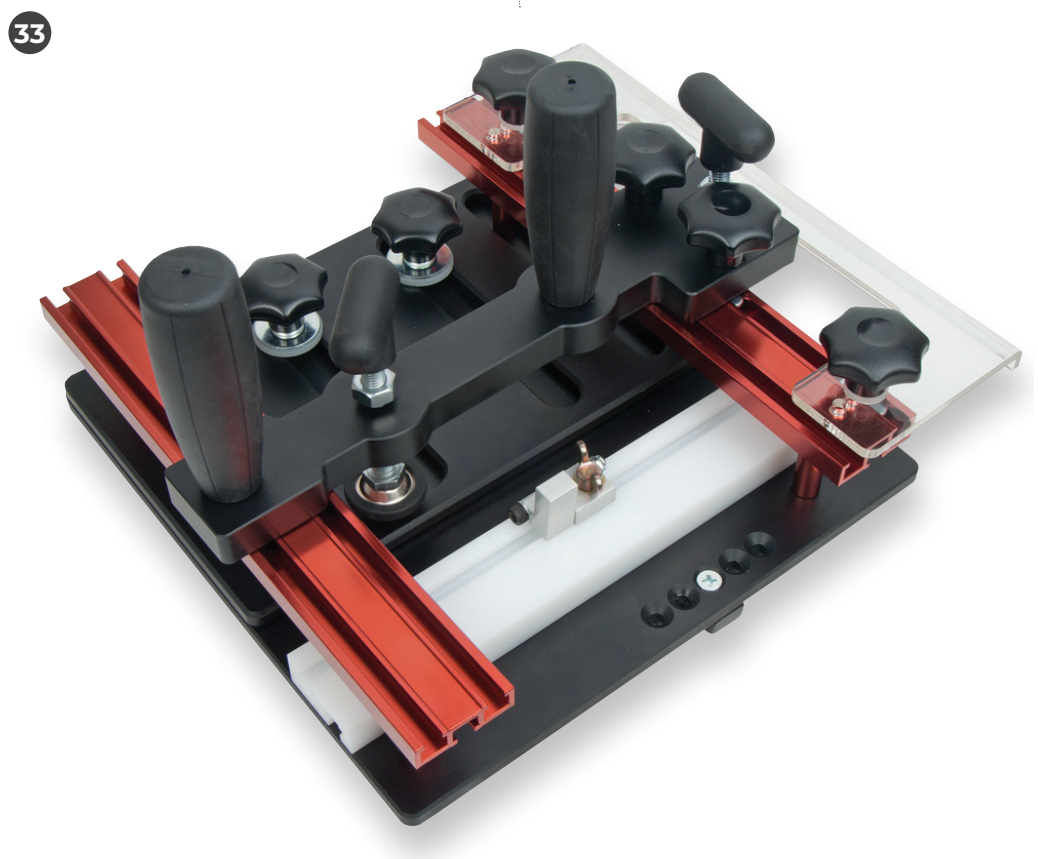

Place a nylon washer (Q) over each threaded knob (L). Line up one of the three holes to either side of Perspex chip guard (D) with the threaded oval nuts (N) and introduce the threaded knobs (L) down through assembly (D) and into the oval nuts (N). lightly tighten the chip guard (D), but not too tight to avoid cracking the Perspex

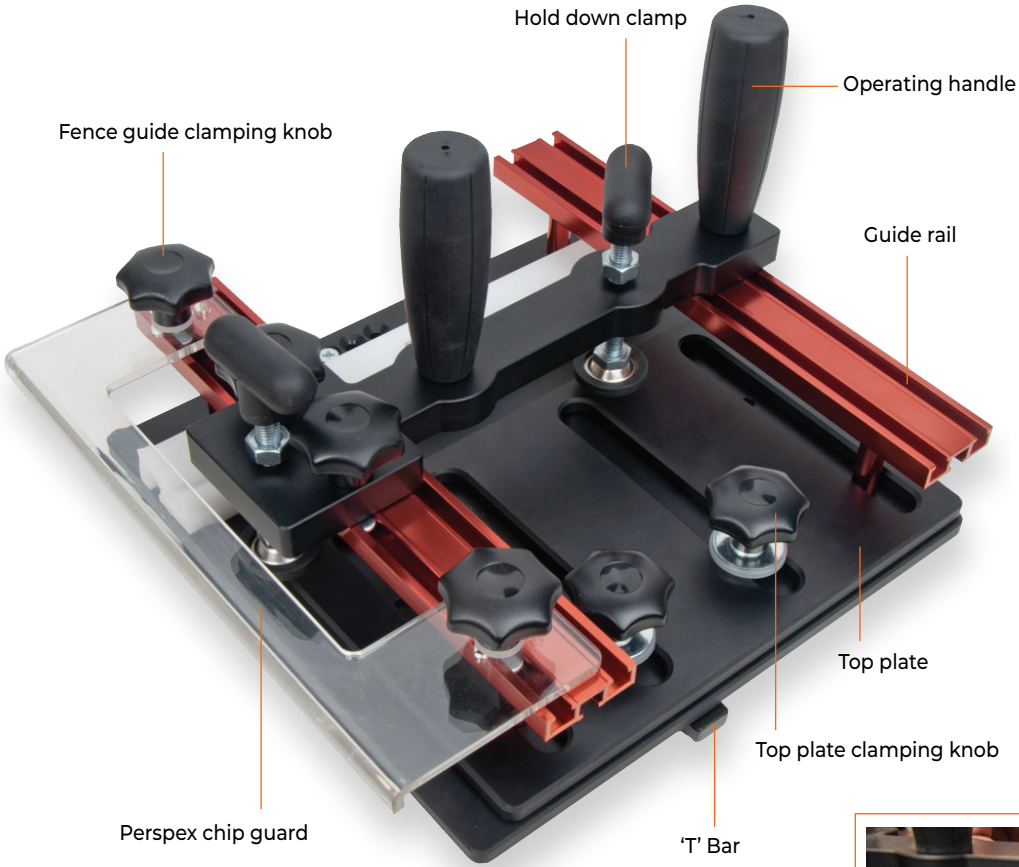


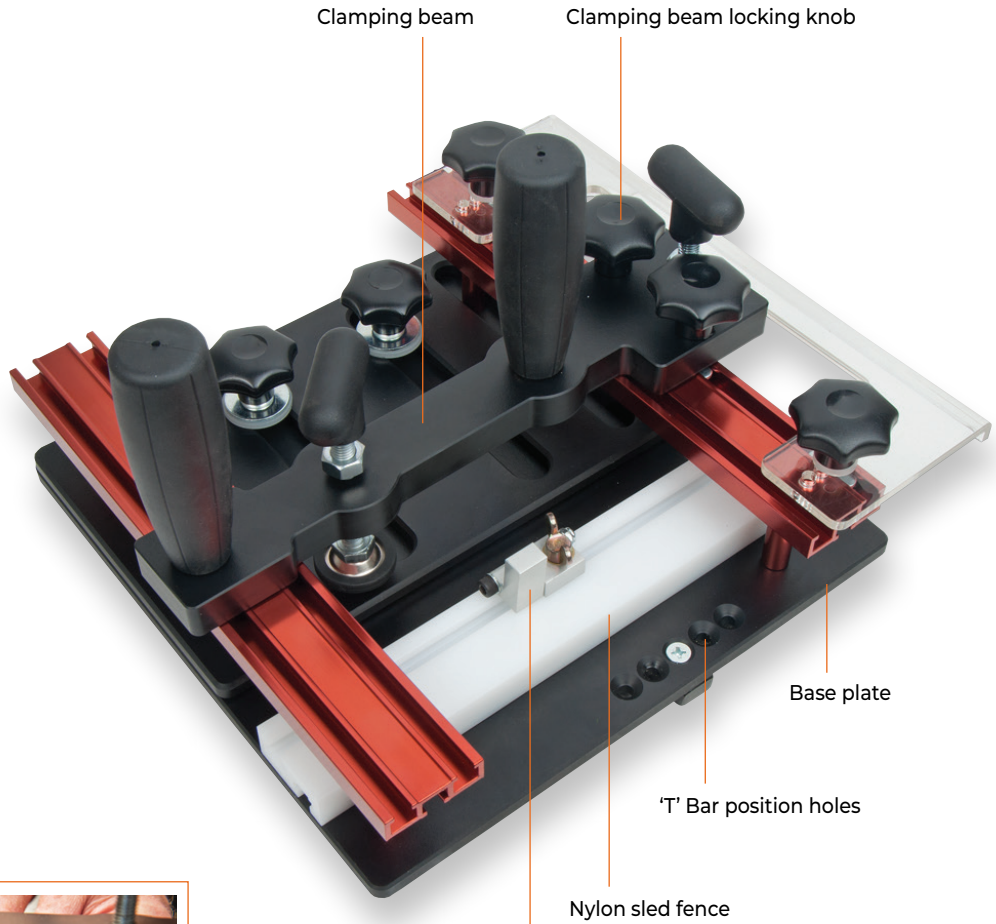

Perspex assembly (D) assembled

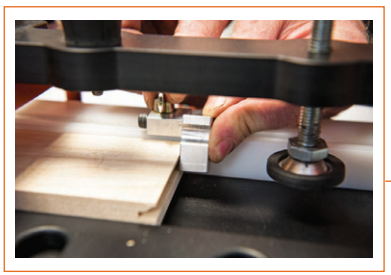



Professional Coping Sled assembled

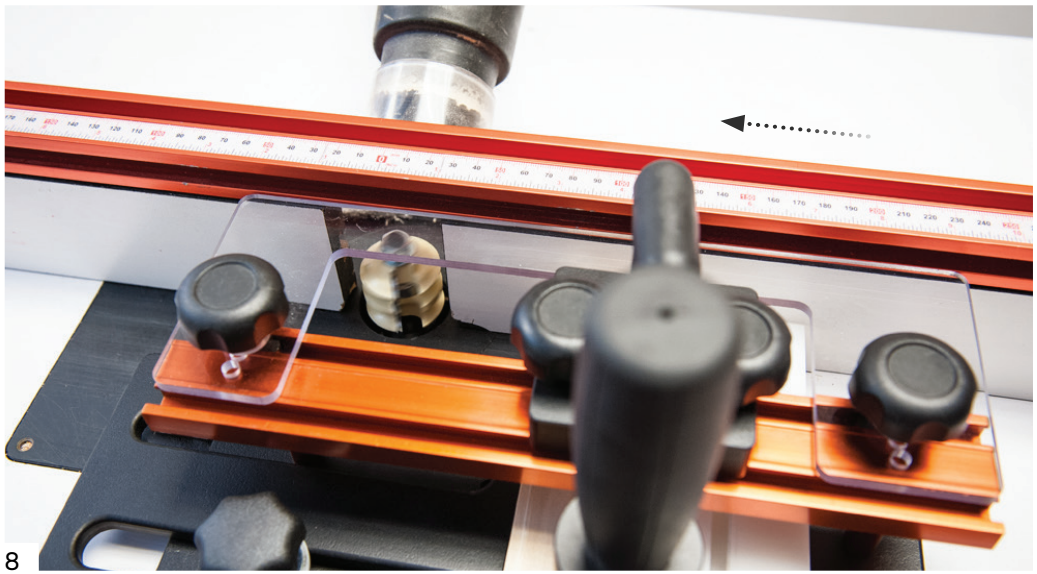




Adjustable stop



## Introduction

The UJK professional coping sled has been designed toease the cutting of difficult end grain timber sections on the router table, from short lengths that are tricky to hold through to longer lengths that become a problem to balance and support. The unique design of the UJK sled solves these problems allowing the safe cutting of end grain sections. The sled is ideal for the cutting of components that have tenons and scribe interlocking joints. It makes them easier and more accurate to produce, but also provides support and control making this task safer for the user.

## Setting up & operating your sled

Ensure that the router is disconnected from the power supply until total set up. Check that everything is assembled and tighten before using:

**1.** Load the router cutter to be used into the router, ensure that the power is disconnected, position the assembled sled into the T track on the router table. The guide washer will need to locate into the T track, the washer needs to be positioned at the front of the base board. Check the position of the main base ensuring that this clears the diameter cutter. It is possible to adjust the position of the base board by undoing the two screws that hold the T bar in place, and reposition parallel using the 5 pre drilled countersunk fixing holes on either end of the base board. The aim is to get the base board as near to the cutter to add support to the workpiece, but ensure that the board does not make contact with the cutter by revolving the cutter by hand. Ensure the screws are re tightened.

**2.** Remove the sled from the table. Set up the main fence on the router table; this needs to be set to the depth of cut required (this might need more than one pass). It is important that the fence is parallel to the T slot in the table. If using a cutter with a bearing, set up the fence in line with the bearing, and ensure that the fence is parallel to the T slot. Reposition the sled on the table and check the position of the clear Plexiglas guard. This may also need to be adjusted by repositioning on the set of pre drilled holes; ensure that it clears the fence.

**3.** To load and hold a workpiece, ensure the length stop is not obstructing by pivoting out the way. Wind up the hold down clamp heads so that the workpiece can be slid through the body of the sled lining up parallel to with the nylon fence. The fence on the router table acts as a length stop. The end grain face of the workpiece should hit the router fence squarely, with no gaps. This visual check allows the user to check the set up. If there is a gap, check that the router table fence is parallel to the T slot or the grain face of workpiece is cut square.

**4.** To hold the workpiece within the sled, slacken off the pressure of the two knobs securing the top clamping plate. Slide the top plate back to make contact with the workpiece. The timber section is in positioned and secured between the top plate and the nylon fence. Tighten the two top plate clamping knobs to hold the clamping plate in place.

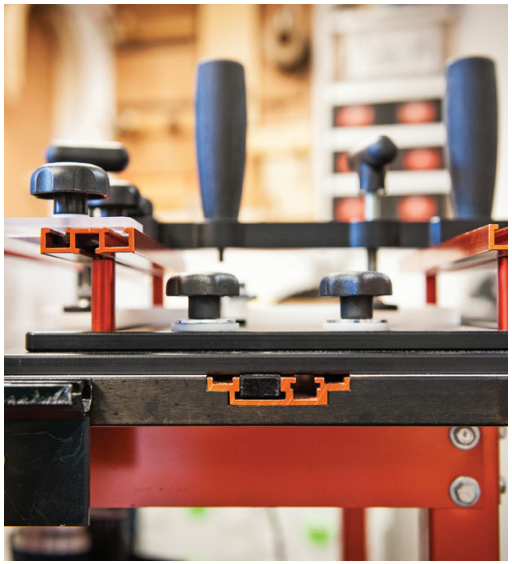
**5.** With the hold down clamps not screwed down on the timber, it is possible to adjust the position of the clamping beam. The aim is to adjust the position of the clamping beam so that the pressure is central to the workpiece. This is done by slackening off the two clamping beam locking knobs and the operating handle on the opposite side of the sled, this allows the clamping beam to slide along the length of the sled. Once centralised on the workpiece, re tighten the handle and knobs. When the clamping beam is positioned, the workpiece can be held in place by gently tightening down the clamp head onto the workpiece, securing this in place within the sled. This will not require a lot of pressure as this will only distort the base board.

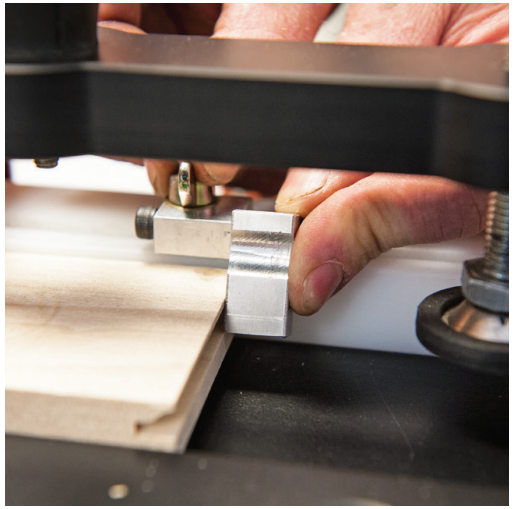
**6.** The nylon fence can be used to help reduce the splintering and break out on the back edge of the workpiece. To do this slacken off the pressure on the workpiece; on the underside of the base board are the 5 screws that hold the nylon fence in place. Slacken off all of these just enough to allow the fence to slide, reposition on the table pushing the nylon fence in towards the router table fence. Once set, re tighten the screws to hold in place. The nylon fence can be cut with the cutter, and will not damage the router cutter; the nylon will get worn away doing this.It is possible to make a replacement wooden fence using a key hole cutter.

**7.** To set up the cutting height of the router cutter, ensure that the workpiece is held in position within the sled and positioned on the in feed side of the router cutter. To view what is going to be cut away with the router cutter, look in from the far end of the out feed fence of the router table, raise or lower the cutter height using the height adjustment of the router. Ensure power to the router is still off.

**8.** Do a test cut to check that everything is set up correctly. Use an off cut to check the correct setting up of the cutter and router table fence. Ensure that the work is held within the sled, connect the power, load sled onto the T slot on the right hand side of the table, connect power supply and ensure PPE is used. start the router and extractor. Push the sled gently along the T Slot line, working from the right to left across the router table. Work at an even pace, giving the cutter time to remove the timber. Stop the router and check the results. If another cut is needed, lift off the sled from the left hand side of the table and reload on the right hand side. Do not drag back through the cutter as this can damage the cutter.

**9.** Once happy with the set up of the cutter height, the position of the router table fence and sled, the workpieces can now be cut.





## Tips

If using shorter lengths of timber, then the length stop can be used. This is adjustable on the nylon sled fence by undoing the wing nut, slide the length stop into position and re tighten in place.

If the workpiece is too short to be held by both clamp heads, use an offcut that is the same thickness as the workpiece. Place this under the front clamp and use a piece of plywood to bridge over the top to of both pieces. Clamp down in place using both clamps allowing equal pressure across the sled. The length stop can also be used within this set up.

The hold down clamps do not need over tightening. The work is held in place with the top plate, so a gentle twist is all that is required on the lock knobs.

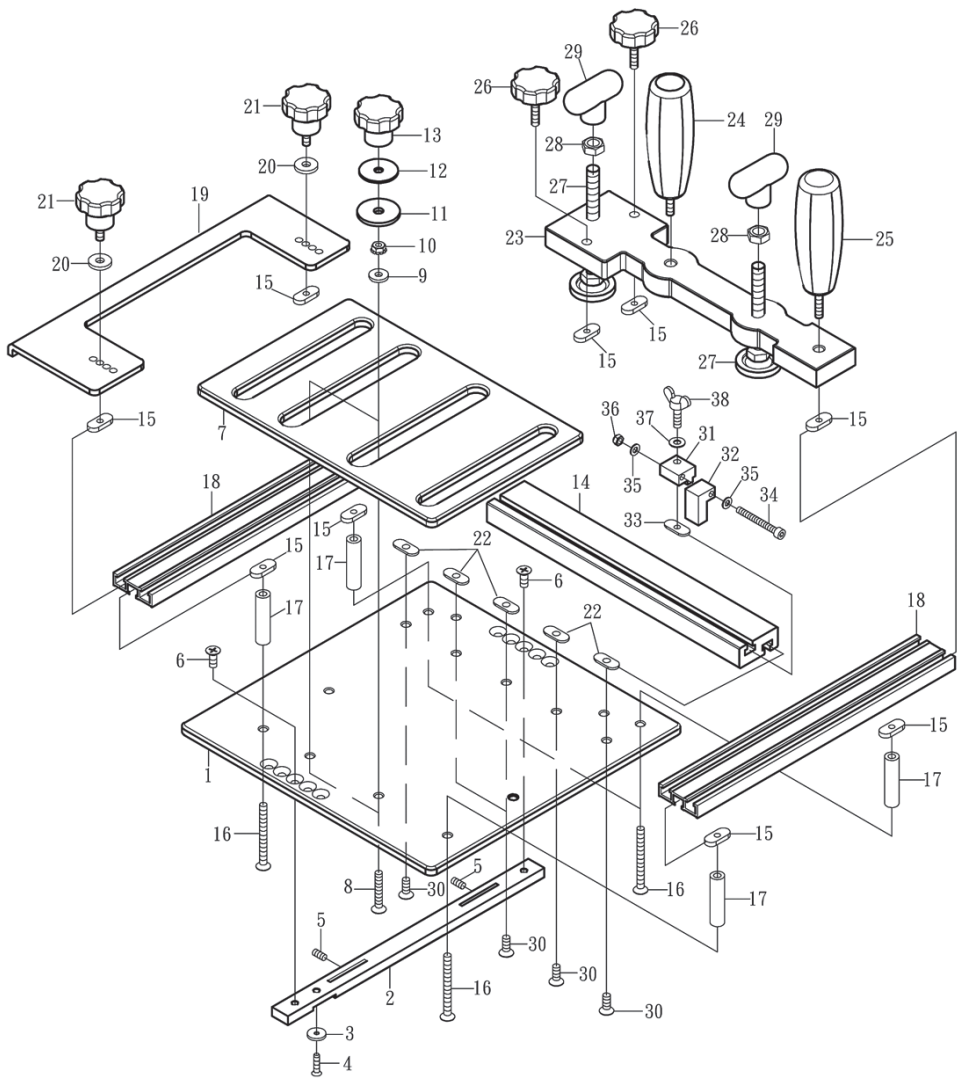
Ensure that the timber is well prepared, cut square and flat. On wider boards warping can be a real problem; to try to reduce this from happening, G clamp these boards together as soon as they have been machined.

## Accessories

T slot cutter to make replacement wooden breakout fence boards.

T slot track will allow the sled to be use if you are making your own table.


Axcaliber 1/2inch key hole cutter
Code 101972




| Index | Part No | Description | Size | Qty |
|---|---|---|---|---|
| 1 | 21310001 | Base | | 1 |
| 2 | 21310002 | Guide Bar | | 1 |
| 3 | 10100206 | Guide Washer | | 1 |
| 4 | 905M06008 | Flat Head Screw | M6x8 | 1 |
| 5 | 908M06008A | Set Screw | M6x8 | 2 |
| 6 | 905M06015 | Flat Head Screw | M6xl5 | 2 |
| 7 | 21310003 | Top Plate | | 1 |
| 8 | 905M06040 | Flat Head Screw | M6x40 | 2 |
| 9 | 914M061602 | Flat Washer | M6 | 2 |
| 10 | 910M06000A | Nut With Star Washer | | 2 |
| 11 | 21310004 | Large Nylon Washer | | 2 |
| 12 | 914M063202 | Flat Washer | M6 | 2 |
| 13 | 939M06000B | Lock Knob | M6 | 2 |
| 14 | 21310005 | Fence | | 1 |
| 15 | 21310006 | Oval Nuts | | 9 |
| 16 | 905M06065 | Flat Head Screw | M6x65 | 4 |
| 17 | 21310007 | Spacers Tubes | | 4 |
| 18 | 21310008 | Top Tracks | | 2 |
| 19. | 21310009 | Guide | | 1 |

| | | | | |
|---|---|---|---|---|
| 20 | 21310010 | Nylon Washer | | 2 |
| 21 | 940M06016 | Lock Knob | M6xl6 | 2 |
| 22 | 21310011 | Fence Oval Nuts | | 5 |
| 23 | 21311001 | Clamp Beam | | 1 |
| 24 | 938M06020 | Handle Knob | M6x20 | 1 |
| 25 | 938M06025 | Handle Knob | M6x25 | 1 |
| 26 | 940M06025A | Lock Knob | M6x25 | 2 |
| 27 | 2131-27# | Leg Foot | | 2 |
| 28 | 910M10008A | Hex Nut | M10 | 2 |
| 29 | 939M10000B | Lock Knob | M10 | 2 |
| 30 | 905M08020 | Flat Head Screw | M8x20 | 5 |
| 31 | 21312001 | Clamping Bracket | | 1 |
| 32 | 21312002 | Clamping | | 1 |
| 33 | 21312003 | Clamping Bracket Oval Nuts | | 1 |
| 34 | 901M05045 | Hex Socket Cap Screw | M5x45 | 1 |
| 35 | 914M051001 | Flat Washer | M5 | 2 |
| 36 | 912M05000 | Nylon Nut | M5 | 1 |
| 37 | 9140141403A | Flat Washer | 1/4 | 1 |
| 38 | 913M06020 | Wing Bolt | M6x20 | 1 |

Please dispose of packaging for the product in a responsible manner. It is suitable for recycling. Help to protect the environment, take the packaging to the local recycling centre and place into the appropriate recycling bin.

**Only for EU countries**

Do not dispose of electric tools together with household waste material. In observance of European Directive 2002/96/EC on waste electrical and electronic equipment and its implementation in accordance with national law, electric tools that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

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**ujktools.com**