2.2 kW Spindle Tramming Mount Guide

Step 1:

Congratulations on your purchase of the CNC Router Parts CNC 2.2 kW Spindle Tramming Mount.

You should have the following parts in your CRP144 Kit (See below):

- 1. CRP144-01 Base Adapter,
- 2. CRP144-02 Spindle Plate,
- 3. CRP144-00-FAST Fastener kit.

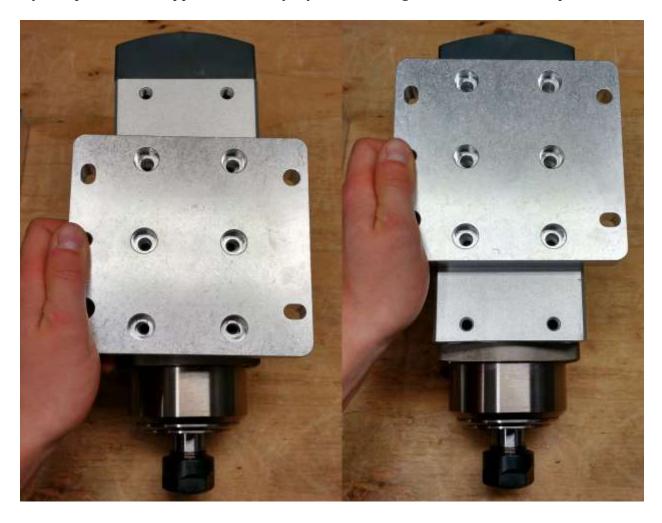


The first step in setting up your new Spindle mount will be to attach your spindle to the CRP144-02 plate.

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You can mount the CRP144-02 plate to the lower 6, or upper 6 holes in your spindle. The lower 6 hole mounting position is recommended as it allows for greater clearance below your Z-axis, when fully retracted.

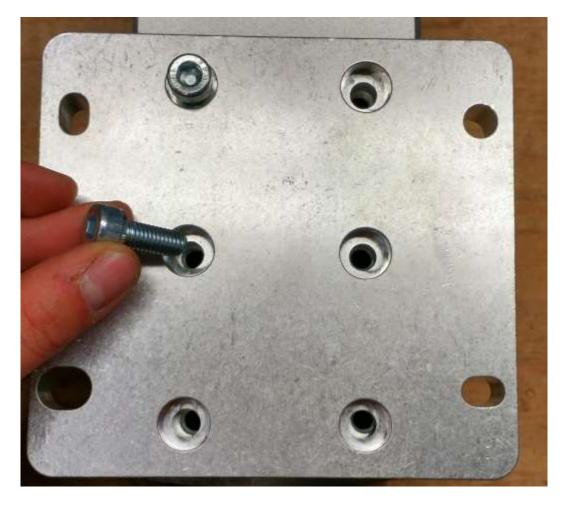
Mount your spindle in the upper 6 holes only if you are cutting into a recessed work piece.



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Now fasten the plate to your spindle with the included M8x20mm screws. There should be 6 in your fastener kit.

Note the counter-bored side of the CRP144-02 Plate should face out away from the body of the spindle.

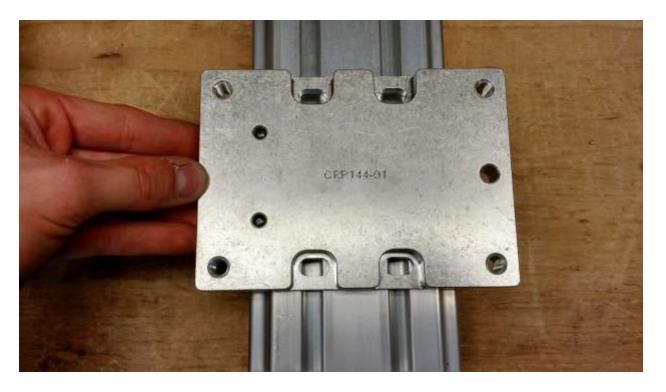


Once your Spindle is attached securely to your CRP144-02 plate the CRP144-01 base adapter can be mounted to your Z-axis.

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The CRP144-01 base adapter has two dowel pins protruding from one side.

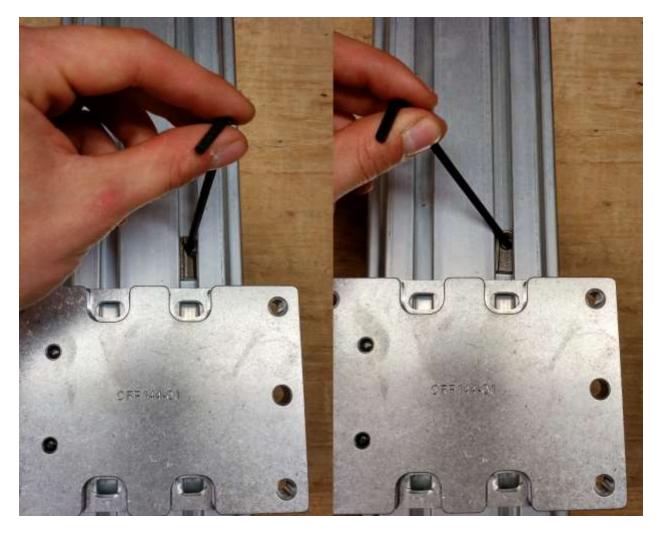
These dowel pins are used to align the plate with the z-axis extrusion. The pins should face in towards the extrusion.



You can now "roll in" the four provided M8 t-nuts from your fastener kit.

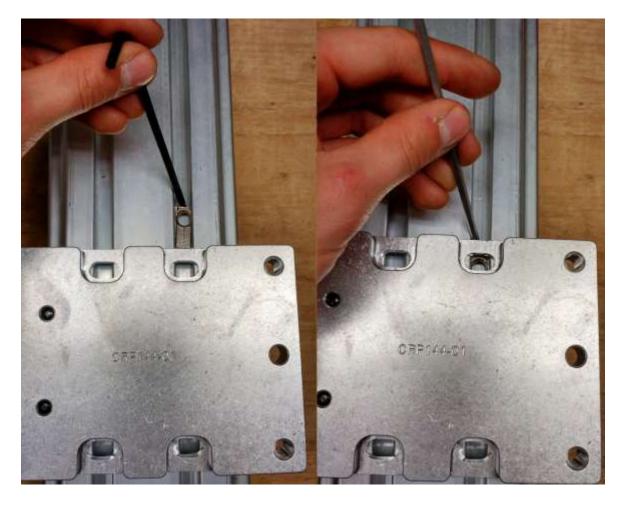
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Slide the M8 T-nuts into the two t-slots of your z axis (two per channel). They will most likely sit at an angle upon initial placement. If this is the case, use a small allen key to grab the nut and turn its flat side out towards the plate.



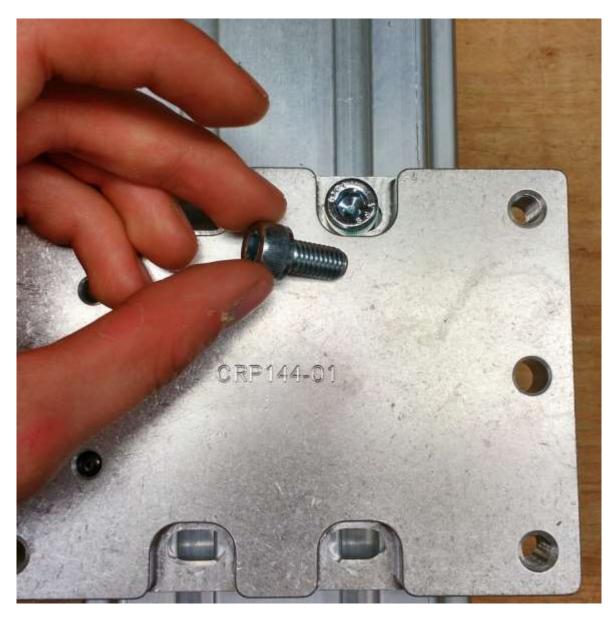
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Once the T-nut is seated properly, use the same allen key to push the nut into position behind your CRP144-01 plate.



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Now use the $4\,M8x16$ screws included in your fastener kit to fasten the CRP144-01 plate to the T-nuts previously installed in your Z-axis.



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Now press the dowel pins of the CRP144-01 plate up against the edge of your Z-axis extrusion to align the base adapter, and fasten all bolts.



The Spindle and CRP144-02 plate can now be mounted to the CRP144-01 plate.



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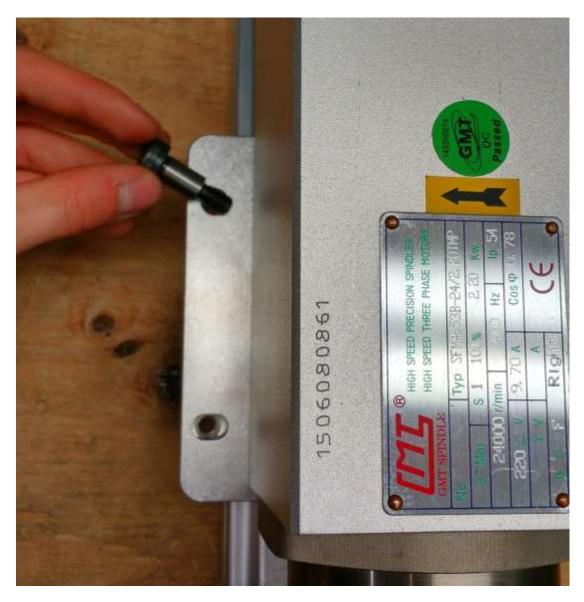
The two plates should line up such that all 5 accessible holes in the CRP144-02 plate correspond with holes in the CRP144-01 plate.



Note: Do not completely tighten any fasteners which hold the two plates together until the end of installation.

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The first fastener to be installed should be the M8x10 shoulder bolt, into the top left corner (when facing the spindle).



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The top plate will pivot, with respect to the lower plate, around this shoulder bolt.



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The next fastener to be installed is the B3X bushing in the lower right slotted hole. The longest M8 bolt in the kit (M8x35) will be installed through the B3X bushing.



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Now install the two remaining M8x30 screws into the bottom left and top right slotted holes.



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With all fasteners installed **but not fully tightened** you should be able to install the included M8 dowel pin, to force the tramming mount into its baseline position. With the dowel installed, fasten all bolts. This position should be square to your spoil board, however, if after completing your initial test cuts the spindle is out of tram, proceed to Step 2.



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Step 2:

If your spindle is out of tram with the base of your machine, you should adjust its position to square with the CRP144 tramming mount.

First, loosen the 4 fasteners holding the CRP144-01 plate to the CRP144-02 plate and remove the alignment dowel pin.

Next, turn the B3X eccentric bushing using an open end wrench. As the B3X moves through a full rotation, the 144-02 plate will pivot with respect to the CRP144-01 plate.

By rotating the B3X busing, you can bias the angle of the spindle to either the left or the right to compensate for the tram of your base with respect to your gantry.



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As the B3X bushing turns a lip is visible, first on the left edge of the mount, then the right. This lip is an indication there is an angular difference between the CRP144-01 and 144-02 plates.

Once you have found the ideal angle for your spindle, you can re-tighten all fasteners. Your spindle is now square and ready for use!

If you are unable to square up your spindle using our tramming mount, or if you have any questions about its installation and adjustment, please contact us at: support@cncrouterparts.com