

LC Reindication



WARNING!

BEFORE REINDICATING THE MACHINE; TURN THE SPINDLE POWER OFF.

LEVEL BEAM

MATERIALS NEEDED FOR REINDICATION

- M5 Allen Wrench
- Mallet
- Dial Indicator
- Precision Square
- Level Beam
- Jack (a car jack is perfect)



DIAL INDICATOR

PRECISION SQUARE

Indicating The Precision Square

Step 1: Fix the **dial indicator** to the Z-Axis.

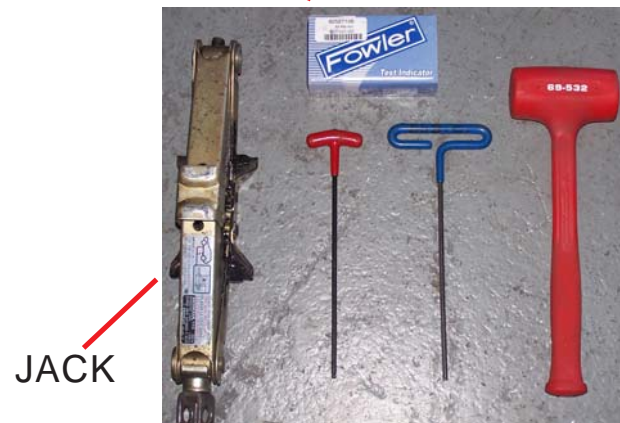
Step 2: Place the **precision square** onto the exact center of the table surface. The square should be at least 18" x 18" or larger.

Step 3: Using the "Step" function in the CNC Interface menu, jog the machine until the **dial indicator** reads zero.

Step 4: Jog the Y-Axis so that the dial pin runs along the inside perimeter of the **precision square**, until the **dial indicator** reads zero.

Step 5: Jog the Y-Axis along the inside perimeter of the **precision square**, so that from one end of the square to the other remains a constant zero. If not then you must adjust the **precision square** so that it is zeroed correctly.

NOTE: Once you zero the **precision square**, you can begin the ReIndication of the machine.



JACK

M5 ALLEN WRENCH

MALLET



DIAL INDICATOR READING ZERO

Indicating the X-Axis to the Y-Axis

Step 1: Turn the Indicator so that you can read the dial, making sure that the pin is running along the end of the Precision Square.



Step 2: Jog the X-Axis from the one side of the Precision Square to the other. Keep watch and make sure the dial indicator reads zero. If not you will have to make adjustments:

Making Adjustments:

A. Loosen all eight M6 Screws on both sides of either Upright.



NOTE: Keep slight tension on the lock washers, so that you do not tip, the X-Axis off the Lower Beam. These washers are designed to close when tension is applied, keep them closed, but loosen them enough so that you can shift the Uprights on the Lower Beam.

B. Using the mallet, tap the Uprights on the inside, or outside of the Uprights, so that they shift accordingly to achieve a zero Reading on the dial indicator.



C. Jog the X-Axis along the square, in between tapping the Uprights so that you get an accurate zero.

D. Tighten up the M6 Screws once you achieved an accurate zero reading. Re-check your zero after tightening, to ensure the Uprights did not shift.

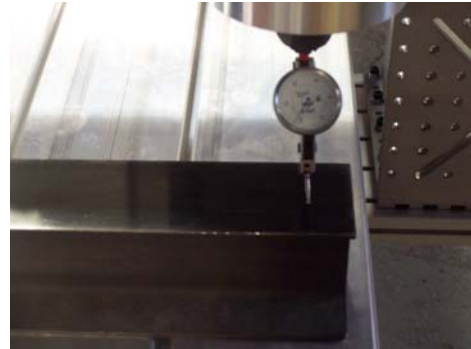


Step 3: Once the X-Axis is indicated continue with indicating the X-Axis to the Table Surface.

Indicating the X-Axis to the Table Surface

Step 1: Remove the Precision Square from the Table surface and replace it with a straight Level beam that is the width of the table.

Step 2: Align the Dial Indicator to the top of the level, and make sure it reads zero. Jog the X-Axis along the Level from one side of the table to the opposite. Watch the dial indicator keeping note which side might need to be adjusted.



Making Adjustments:

- A. Place a jack, a car jack is perfect for this adjustment, under the side that needs to be lifted.
- B. Loosen the four M6 Screws on either Upright, that connect the X-Axis to the Uprights. Remember to keep slight tension on the lock washers.
- C. Raise the jack until the dial indicator reads zero. (This means you have to constantly jog the machine in between raising the jack.)
- D. Once the Indicator reads zero re-tighten the M6 Screws, and jog the machine again to check that the axis did not shift during the tightening.



Step 3: Once you have indicated the X-Axis to the table surface continue on with **Squaring the Spindle**.



Squaring the Spindle

Step 1: Jog the X-Axis to the center of the level. Once is centered, jog the Z-Axis so that the pin of the Indicator is centered, and creating tension on the level.

Step 2: Set the Indicator to zero. "Sweep" a half circle with the indicator pin, from one side of the level to the other. Both sides should read zero.



Making Adjustments:

A. Slightly loosen the cap screw on either side of the spindle.

NOTE: On some machines there might be two cap screws, others their might be six. Both are pictured for this step!

B. Using the mallet, tap the slide in the direction that needs to be zeroed.

C. Sweep the indicator pin around again to ensure zero, re-tighten screws and repeat sweep.



IMPORTANT: In some cases the Spindle may need to be adjusted in the front to back position. In this case shim stock may be used behind the Spindle Mounting Plate to achieve a zero reading. Use the Level Beam to check if this adjustment is needed, jog the Z-Axis front and back on the middle of this beam to determine whether you need to add shim stock.

