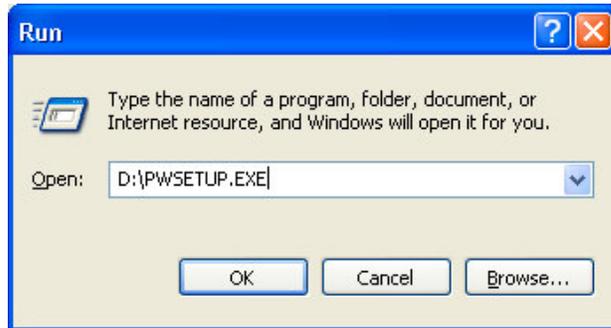


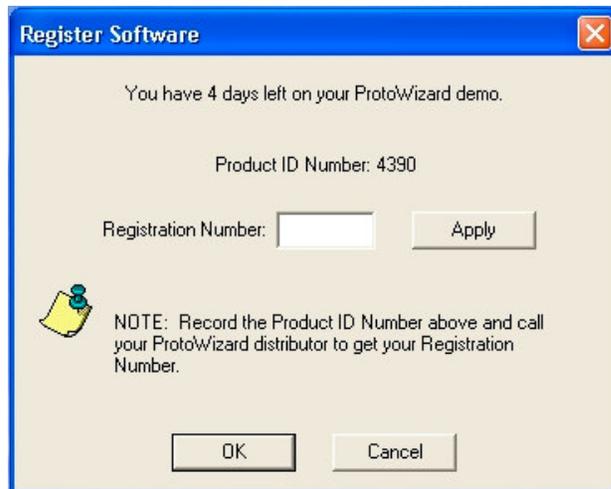
ProtoWizard Software

1



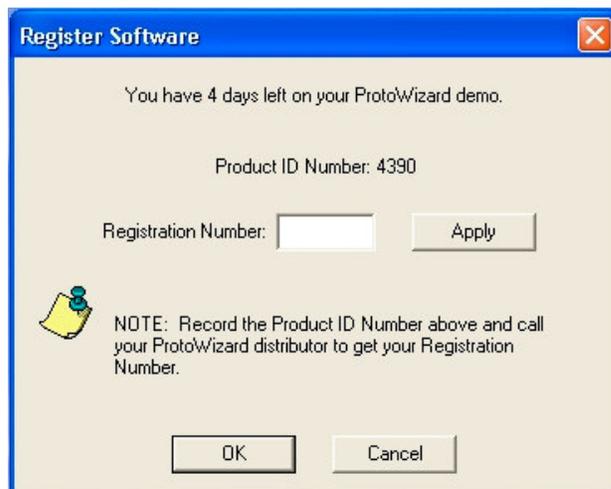
Before inserting the ProtoWizard CD, close all programs. Insert the ProtoWizard CD in your computer, wait for the set up menu to appear. If the set up menu does not appear, install ProtoWizard manually by selecting the windows START button and then RUN. Press the BROWSE button and select the PWSETUP.EXE from the CD. Press OK to run the installation and follow the instructions.

2



To register ProtoWizard, you must first obtain a registration number from your dealer. You must provide the dealer with the Product ID Number as shown in ProtoWizard's startup screen. You may also get this from CEAT directly by emailing your Product ID Number and proof of purchase to support@protowizard.com.

3



Using the Product ID Number, the dealer will obtain a Registration Number on your behalf. You may continue using ProtoWizard for 10 days before you MUST put in the correct Registration Number. Enter the Registration Number and press Apply, then OK to continue. You will not see this screen again provided the Registration Number is correct. If you have any problems, please call your dealer. If your dealer cannot assist you, contact support@protowizard.com.

ProtoWizard Hardware

1



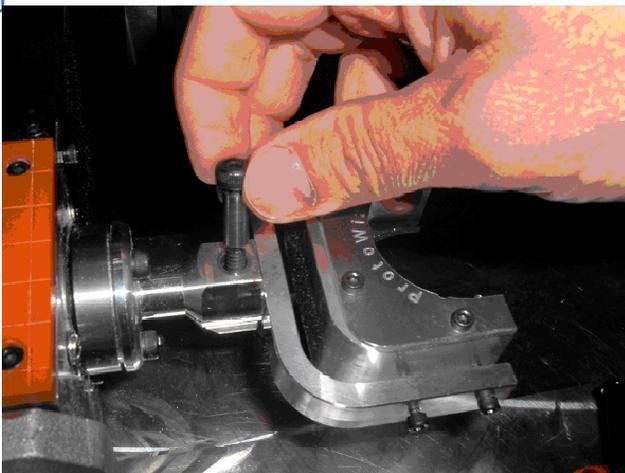
Using the three screws provided, carefully install the Rotary Adapter into the rotary table face. This should be a snug fit. Caution should be taken to not have this crooked. Gently rotating the adapter in the counter bore of the rotary table will help. Insert all three screw finger tight before tightening with the provided allen wrench.

2



Carefully insert the 3-Sided Flip Fixture into the Rotary adapter making sure the holes align in the center of the 2 parts.

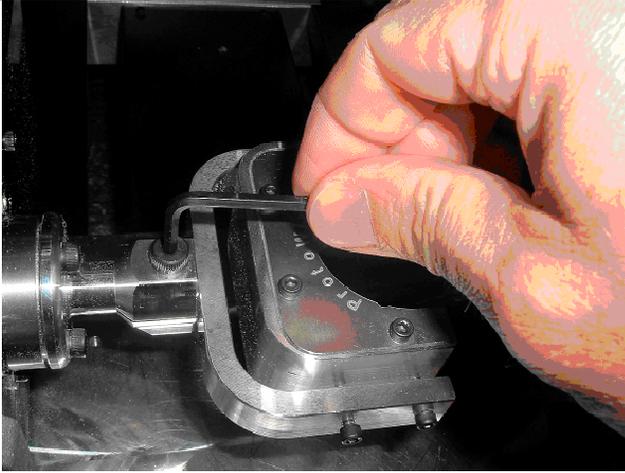
3



Next insert the shoulder bolt provided into the top hole of the adapter and though the hole in the flip fixture. Then thread the bolt into the bottom of the adapter.

ProtoWizard Hardware

4

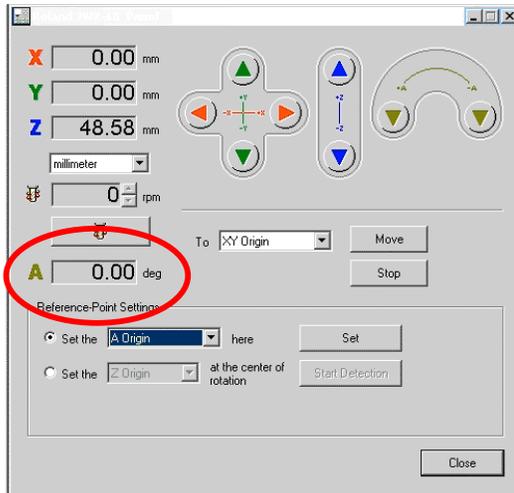


Finally, tighten the bolt with the allen wrench provided.

CAUTION: Do not over tighten the bolt. A gentle “snug turn” is all that is required.

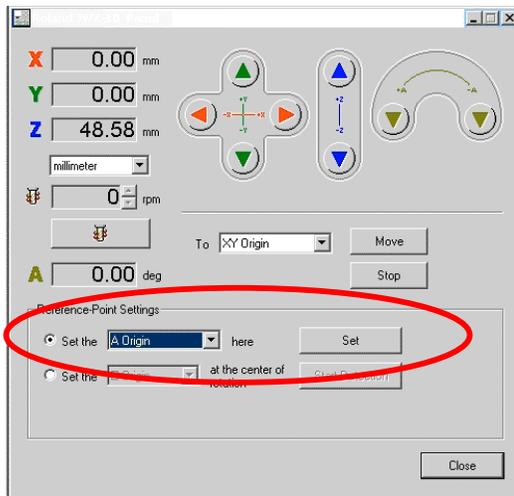
Roughly Align A-Origin

1



The object of this procedure is to set the fixture horizontally. If the fixture is set horizontally, then indicating Z on either edge should yield the same Z number. Therefore, what we will do is touch both edges of the fixture and then rotate the A axis a little until the Z values are the same on both sides.

2

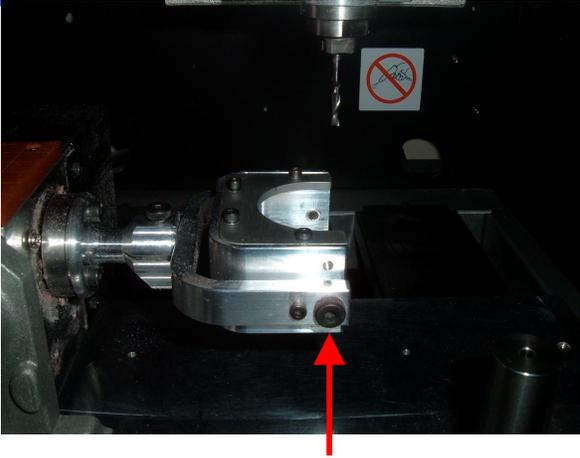


At this time, it is not totally necessary to perfectly align the rotary table. We mostly want to simply set the A Origin so the ProtoWizard Flip Fixtures in the horizontal position. This can be achieved by simply visually setting the A Origin horizontally.

Set the A Origin as shown.

Roughly Align X-Origin

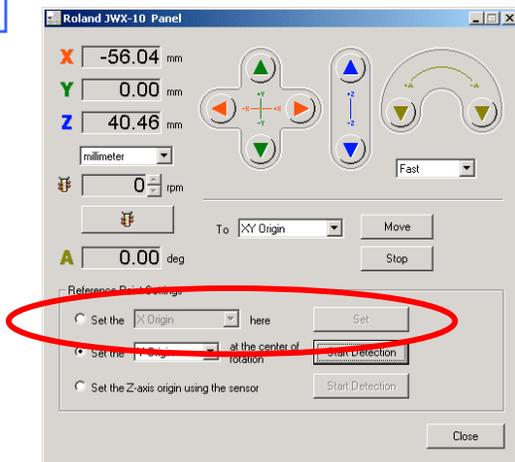
1



The objective of this step is to roughly setup the X Origin so we can run a test part. This test part will be used for the final calibration.

Jog the X axis out so that the tool is located between the two outer pivot screw heads as shown. Estimating this location is close enough.

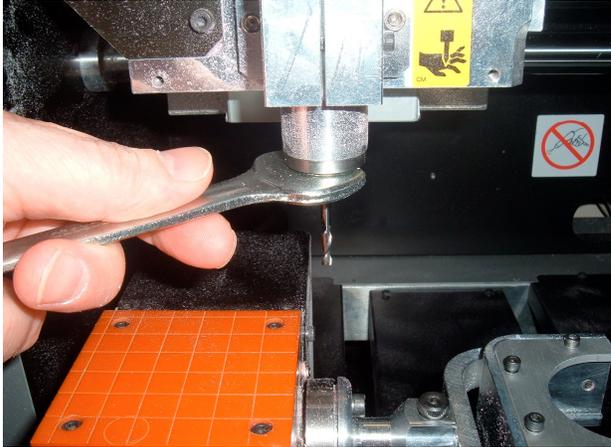
2



Set the X Origin as shown.

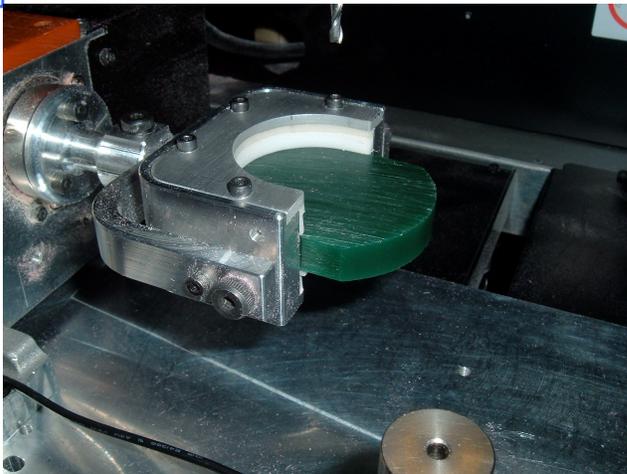
Running the Test Program

1



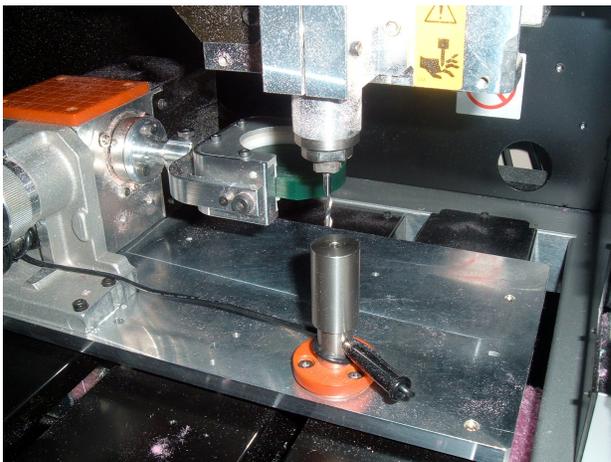
Insert the 1/8" Flat End Mill into the spindle. Always leave approximately 20mm of the tool exposed.

2



Insert a 10mm wax blank. Use both a thick and thin spacer on both sides to center the blank.

3



With the machine out of View mode (the View light should be off), start the Z Origin detection

Running the Test Program

4



Start the Dropout.exe program.

Open the RotaryAlignment.prn file. Press Output to run the program.

5



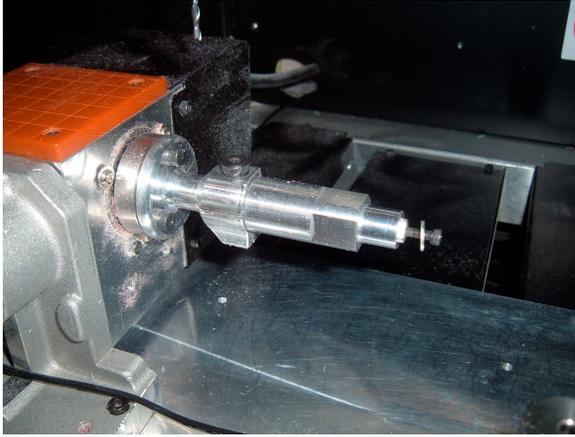
Once the program has completed and the spindle has stopped, remove the part from the wax by breaking it from the supports holding it in the blank wax

NOTE:

This program is used to setup the 8mm Core file. Therefore, you should be able to measure the thickness of this part after it has been removed from the wax blank. The thickness should be 8mm +/- 0.05. If you are not in this range, the Z Origin calibration has not been set properly. Contact Roland immediately and do not proceed until this problem has been corrected.

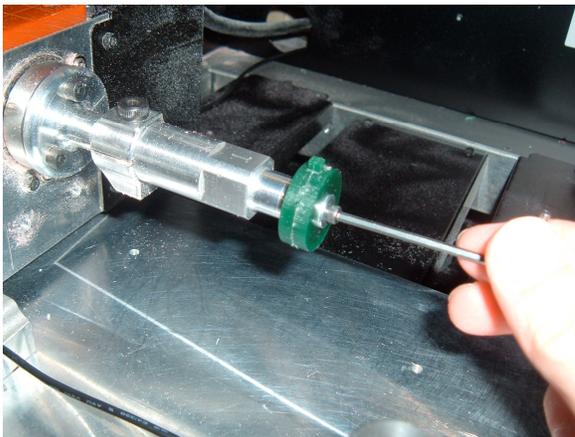
Align X and A Origins

1



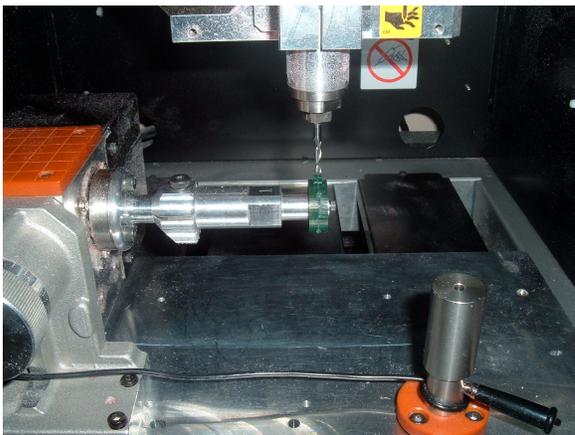
Remove the ProtoWizard Flip Fixture and install the ProtoWizard Ring Arbor.

2



Place the triangle cutout of the test part on the Ring Arbor's triangular nose and secure it with the washer and screw provided. Lightly tighten the screw with the hex wrench provided.

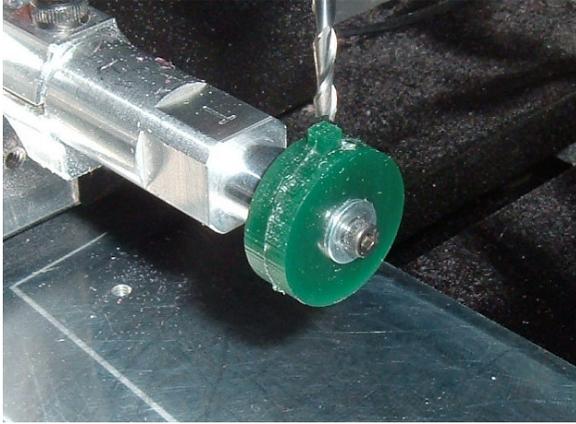
3



With the Y and A axis at 0.000, jog the X axis directly over the 1/8" square head on the sample part.

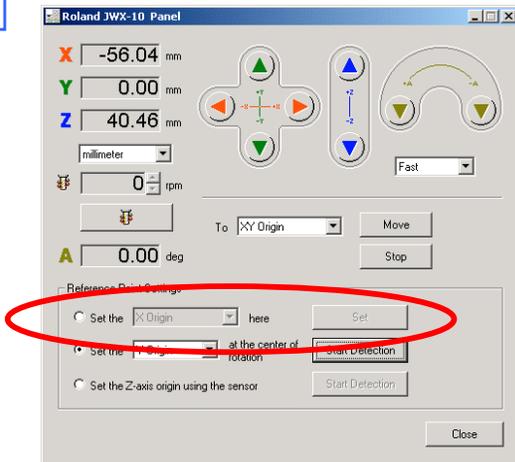
Align X and A Origins

4



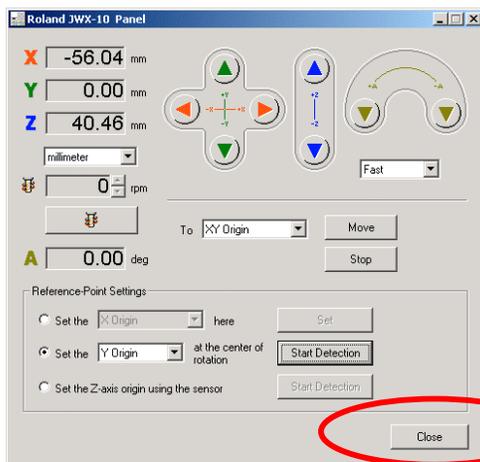
Jog the A axis to rotate the part to align the 1/8" square under the 1/8" tool.

5



With both the X and the A axis perfectly aligning the 1/8" tool over the 1/8" square, set the origins of both X and A as shown.

6

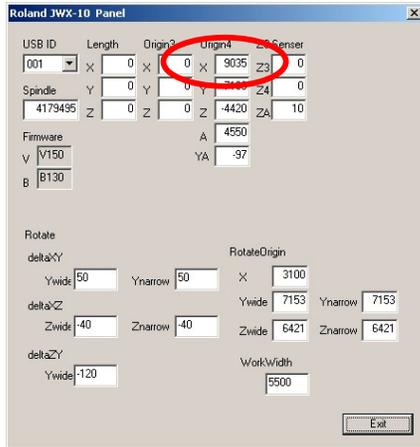


While holding down the ALT key on your keyboard, press the CLOSE button on the Panel.

A new window will popup on the screen.

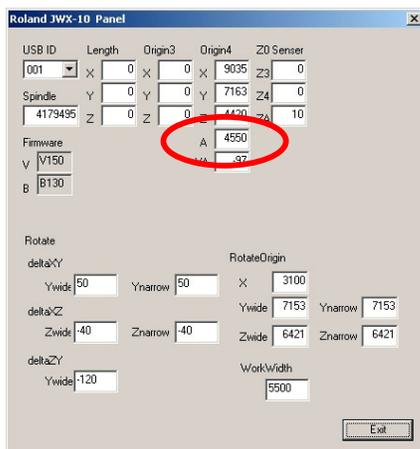
Align X and A Origins

7



This hidden panel contains all of the offsets stored on the machine's internal memory. The Column labeled "Origin4" contains our "X" origin number. Write this number down or printout this screen for safe keeping. This "X" origin is for the Ring Arbor when using a 8mm core.

8



Note the "A" origin as well so you can return to it at a later time if needed.

Now you are ready to make a full 3 sided ring.

NOTE:

If you remove the ProtoWizard Rotary Adapter for any reason, the alignment procedure should be redone from the start to insure proper alignment as the Rotary Adapter may have shifted from its original position.

Also, this alignment **MUST** be used only with 8mm core files. Although ProtoWizard supplies other core file sizes, the 8mm core is the most versatile and can be used for all ring applications. Should you switch to another core thickness, for example 10mm, an adjustment in the X origin will be required.