



Electronica EL400 3 Axis Display - Center of Circle Function

Congratulations on the purchase of your Electronica EL400 series mill kit. The Center of Circle function allows the user to locate the center of a circle. This article addresses how to perform this function with a 3 axis EL400 display.

DRO PROS also recommends changing the Zero Beep settings. See the "EL400 Zero Beep" library article, which allows you to reduce the sensitivity of the display beeping as you approach each point.

Center of Circle:

1. To access the Center of Circle function, push the function or "fn" button. In the cluster of eight function buttons, it's the very right most button on the bottom row. Note that "fn" should light on the bottom of the display window in red.
2. The x axis display window will most likely read "CEntre". If it does not, push the #6 key until it does.
3. Push the "ent" key. The x axis display window reads "CirCLE".
4. Push the "ent" key. Note the extra trailing decimal point in the x axis window, and the z axis window reads "Point 1".
5. Move to the first point on the circle. For this first move, it's permissible to move the mill in both the x and y axis.
6. Push the "6" key to store the first point. Note how the z axis window now reads "Point 2", and the trailing decimal point has now moved from the x axis to the y axis window, indicating which axis is now 'active'. Write down the y axis value, which you will refer to in the next step.
7. Move to the second point on the circle. For this move, you must move in a straight line, and the y axis value must not change. If it does (refer to the value you wrote down in step 6 above), then move the mill so that the y axis value displays the same value, before proceeding to the next step.
8. Push the "6" key to store the point. Write down the x axis value, which you will refer to in the next step. If the display reads "invALid", it means the y axis value has changed, and the function must be re-accomplished. Regarding this error, it's highly recommended to review our "Center of Circle Error" cheat sheet in the DRO PROS library page, which specifically addresses this issue.
9. Move to the third point on the circle. Again, you must only move in a straight line, and the x axis value must not change. If it does (refer to the value you wrote down in step 8 above), then move the mill so that the x axis value displays the same value, before proceeding to the next step.
10. Push the "6" key to store the third point. Note how the z axis display window reads "CEntre", and there's an additional leading decimal point on both the x and y axis windows. At this point, both axis windows now display the 'distance to go' to the center of your circle. Simply move your mill such that the associated x and y axis windows "zero out".
11. To exit the Center of Circle function and return to ABS mode, push the "C" button.

Congratulations, you've now accomplished the Center of Circle function!