



Setting Axis Travel Limits for Acorn

Setting the Acorn Axis Travel Limits

1. See what the axis travel distances are for each axis. This can be found on the Acorn Wizard page.
 - A. Click on “Utility F7” and then on “Acorn Wizard F10” (see Figures 1 and 2).

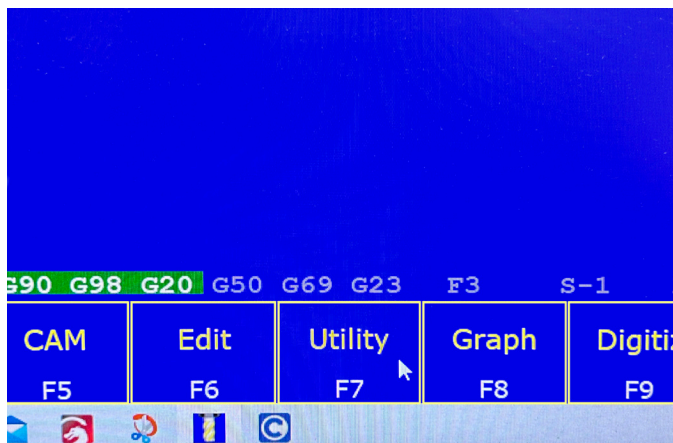


FIGURE 1

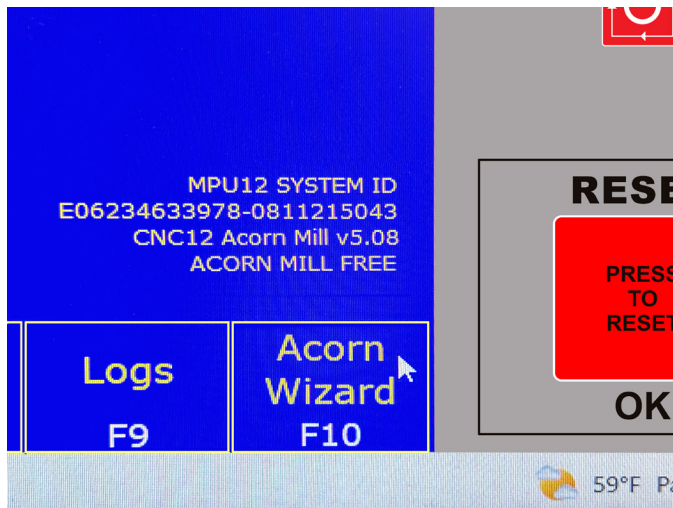


FIGURE 2

- B. When the Acorn Wizard page comes up, click on “Homing and Travel” (see Figure 3).

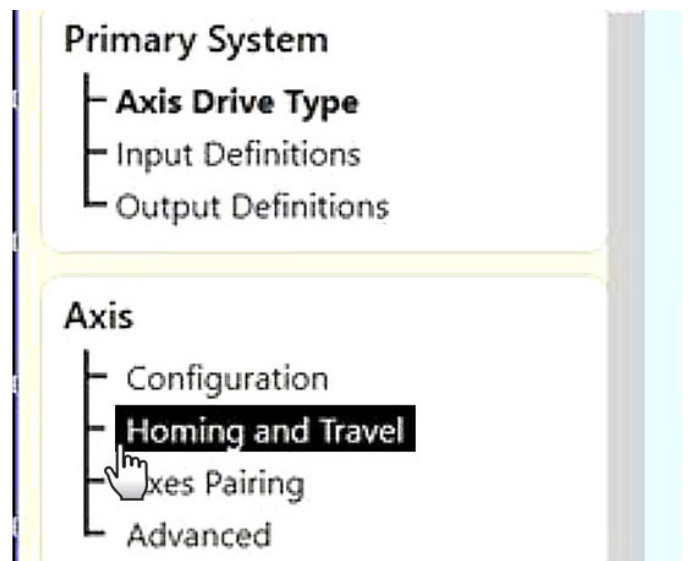


FIGURE 3

- C. Write down the limits for each axis that are on the “Software Travel Limits” area. For the mill, the axes are as follows: Axis 1 is the X-axis, Axis 2 is the Y-axis, Axis 3 is the Z-axis, and Axis 4 is the 4th-axis or rotary table. The axis values shown below are for our 5800 mill (see Figure 4). Write these values down.

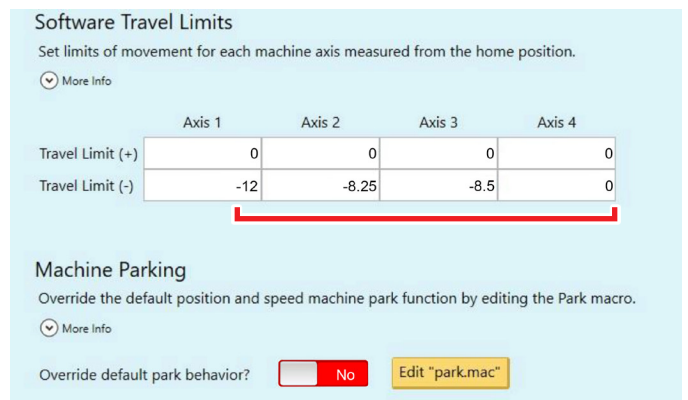


FIGURE 4

NOTE: For the mill the Travel Limit (+) will be (0) for all axis and the axis movement off of the limit switches will be in the negative direction.

However, if you are using a laser on the mill, then the Travel Limit (+) will be the positive of each negative value as shown in Figure 5. This is because the laser software does not move in the negative direction.

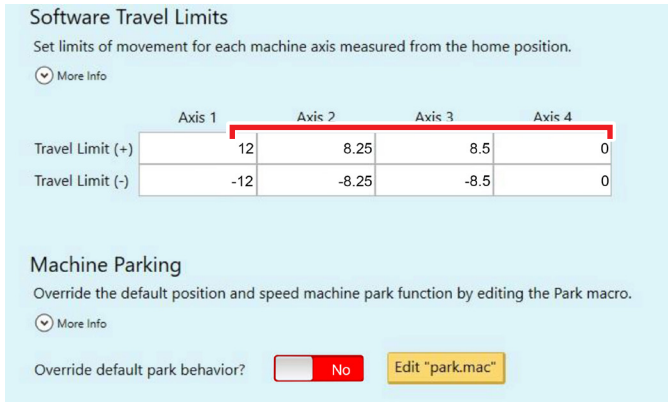


FIGURE 5

- D. After you have written down the axis travel values, close the Acorn Wizard page.
2. Home the machine and the “Machine Coordinate” will show Zero values for all axes (see Figure 6).

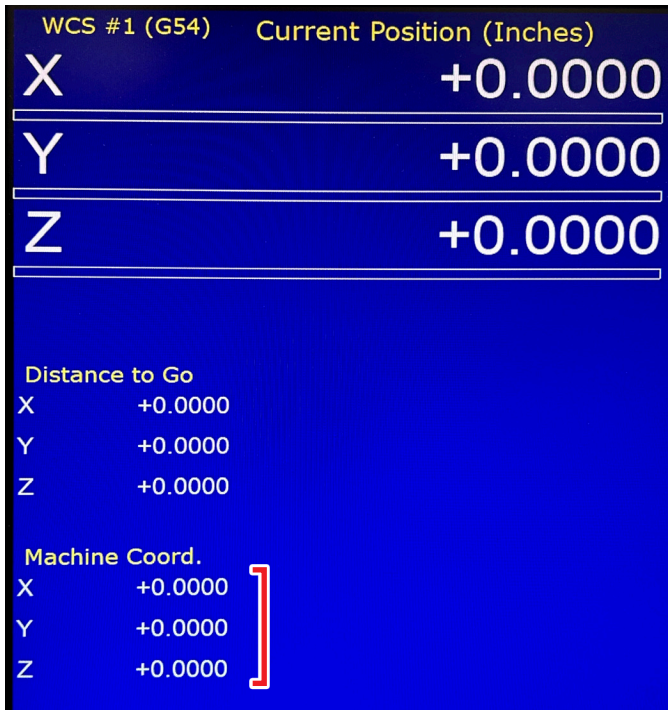


FIGURE 6

3. You will be using the “Machine Coordinates” to acquire the max travel distance for each axis.
4. Go to Jog, Fast, and Continuous and jog the axis as close as you can to the end of travel (or the hard stop). When you get close to the end of travel, change the jog mode to incremental and choose a step amount. Now step the axis as close as you can to the end of travel

(or the hard stop) (see Figure 7).

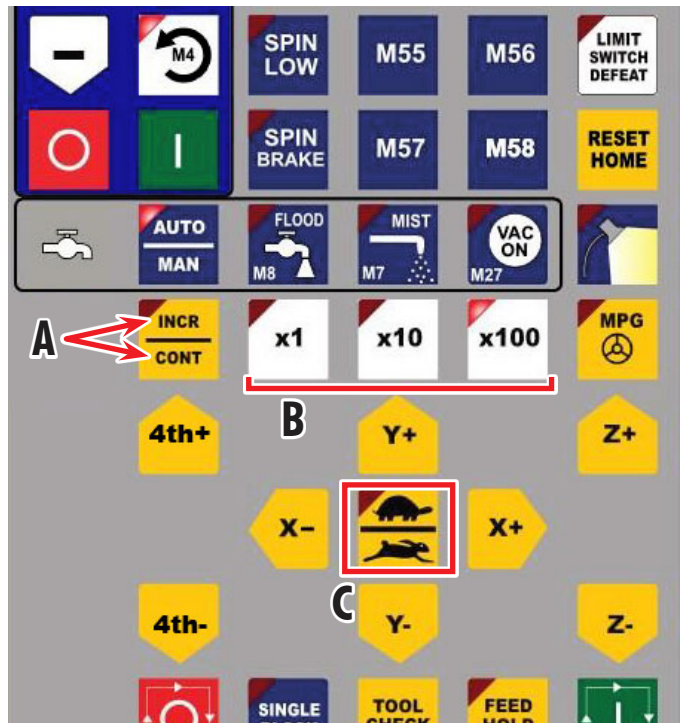


FIGURE 7—A=Jog Mode, B=Step Amount, C=Jog Speed.

NOTE: We advise you to leave about .050-.100" (1.3-2.5mm) space before you get to the end of travel (or the hard stop) as a safety margin.

5. Once you have reached the max travel distance, write down the value for that axis from the Machine Coordinate page. This will be the value that you put in the software travel limits for that axis. In this example, we are setting the Z-axis travel. When we reached the end of travel, the Z-axis amount on the Machine Coordinate page was Z=-8.5000 (see Figure 8).

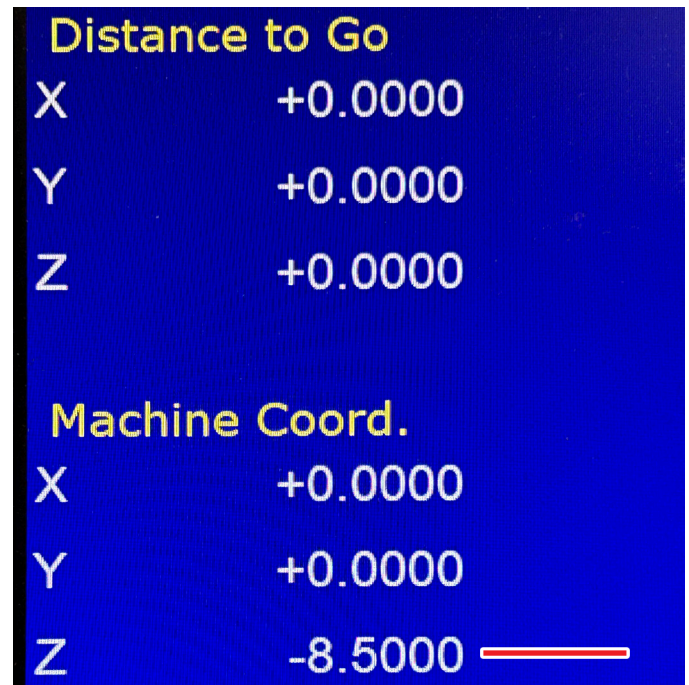


FIGURE 8

- Go back to step 1 to get back to the Homing and Travel page. Enter the new value for the axis. Then click on “Write Settings to CNC Control Configuration.” This will save the settings (see Figure 9).

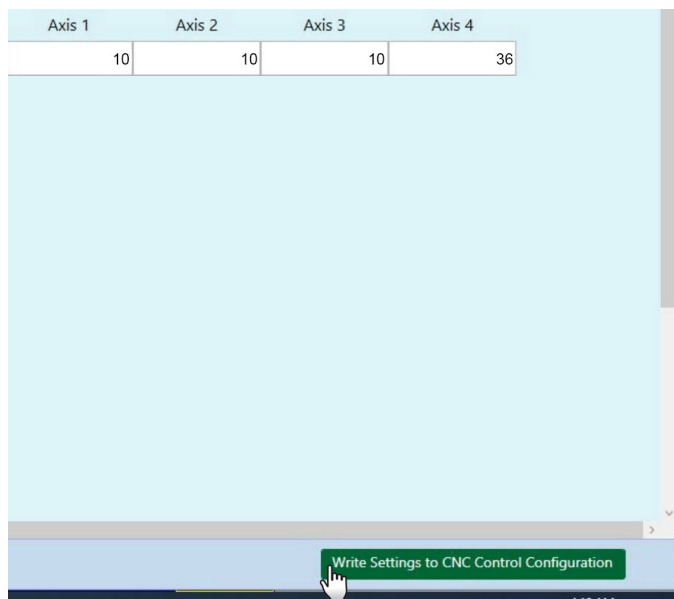


FIGURE 9

- If the value that was preset for the axis was too low and you need to increase the travel distance, increase the value for the given axis by more than the axis will need to be moved. Write the settings to CNC configurations. Then repeat steps 4-6 to acquire a new distance value to enter for the axis.

Thank you,
Sherline Products Inc.