

## MRT-1122 (09/12/18) "SWAK-OS 4.0 – 3.0 Board Zero Calibration"

## **Tool List:**

Safety Glasses Glass Plate (Provided in ship away kit.) Piece of paper (Like a sticky note)

\*Always wear safety glasses when working on your selective solder machine. Please read through these instructions in its entirety before starting the procedure.

## **Understanding Board Zero:**

A properly calibrated "Z" zero will place the solder nozzle within a few thousandths of an inch from the PCB surface while the pump is off. What this does is make z height for programs universal between machines.

## Step 1:

Now you will want to raise or lower your nozzle so that a piece of paper gets stuck between the nozzle and glass plate without the nozzle being able to touch the glass plate or lifting the glass plate off the rails.



As you can see in this picture the nozzle is higher than the bottom of the glass and needs to come down. You will want to bring the nozzle down just below the glass to where you will miss the glass by 0.020" or so. Now move the nozzle just under the glass.

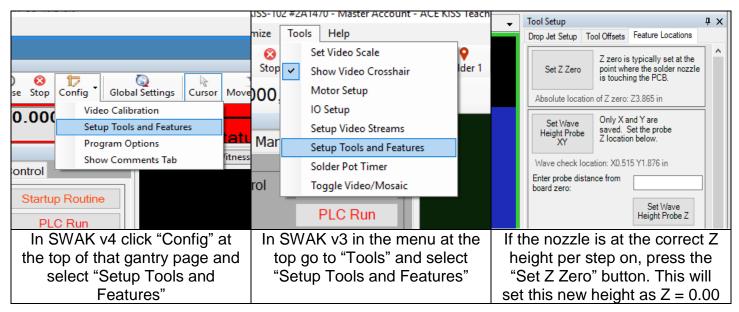
Now slowly raise the nozzle by pressing and holding the Ctrl (Control) key and then pressing the page up key repeatedly until the nozzle will touch the paper. Now try and slide the paper out from between the nozzle and glass plate. If the paper comes out easily then increase the height of the Z a bit more if the paper feels stuck, then move on to the next part of this step.

Now that the nozzle contacts the paper, move the nozzle to the right out from under the glass. Now move the nozzle left under the glass and see if the nozzle will contact the glass. If it contacts the glass adjust the nozzle height by a couple thousandths of an inch down so that it clears the glass.

Once the nozzle clears the glass and you can get tension on the piece of paper your nozzle height is now where you want it for board zero to be set.

Look at your Z DRO. If it says 0.00 or within +/- .002 then your Z zero is okay. If not, then move on to step 2.

**Step 2:**Now it is time to set board zero under the feature location tab.



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