

CONFIRMING DRILL CALIBRATION INSTRUCTIONS

E-Lens Drill is designed in a way that once it is calibrated correctly, barring any physical damage, it is highly unlikely the calibration will change. Following the directions of this document will allow you to easily and quickly confirm this.

Remove the chucks from the cradle one at a time and make sure that the chucks do not turn on the shaft, (you should not be able to move chuck without moving the shaft). When you confirm that the chucks are attached to the shaft securely, follow the instructions below. PLEASE READ THE ENTIRE DOCUMENT BEFORE STARTING AND DO NOT SKIP ANY STEP(S).

Part one – Ensuring Probe and drill are at the right height and aligned correctly.

1. Make sure the clamping bar is locked into place with no lenses in place.
2. Go to Settings and then click on the *Test* button.
3. Home the drill.
4. Click on the *Check drill height* button. Follow the directions on the screen.
5. Click on the *Probe height* button. Follow the directions on the screen making sure that the horizontal bar, (probe tip holder) is centered directly under the set screw.
6. Close out of the Test screen and Setting screen.

Part Two - Calibration and Hole test

1. Using the edger most often used for drill jobs, edge 2 pair of calibration lenses, (make sure to mark the lenses Right and Left upon removing them from the edger). When finished you should have two pair of blocked *calibration* lenses.
2. Use one pair of calibration lenses and complete a full calibration, DO NOT SKIP ANY STEPS.
3. After calibration is complete, place the other pair of calibration lenses in the drill and click on the Manual Button.
4. Set Mfg to Calibration, (If your data does not have Calibration listed under Mfg, create one.
5. Set Model to Chuck Height Compensation, (if your data does not have a Model named Chuck Height Compensation, create one).
6. Set Size to be Chuck Height Compensation Test (if your data does not have a Model named Chuck Height Compensation Test, create one, (see step 7).
7. Click on quick edit selected size to ensure the coordinates are set correctly. There should be 4 holes listed. The following are the correct coordinates; all not listed should be set to zero.
Temporal Type-Hole Start In - 3.00 Diam - 1.4
-Relative Type-Hole Start In - 3.00 Diam - 1.4
Nasal Type-Hole Start In - 3.00 Diam - 1.4
-Relative Type-Hole Start In - 3.00 Diam - 1.4
8. Use this data record to drill one pair of lenses with two sets of holes, one located on the Nasal zero line, the other set located on the Temporal zero line. DO NOT remove the blocks from the lenses when finished.
9. When drilling is complete, check to make sure the holes are drilled properly by holding them against the lens graphic showing on the monitor. Remember DO NOT remove the blocks from the pair of *calibration reference* lenses.
10. Once you have confirmed that the holes are correctly located, set these lenses in a secure place close to the drill to be referred to at a later date. Remember, DO NOT remove the blocks.

Part Three - Confirming the axis has not changed on your Drill.

1. Do not change any setting.
2. Load your pair of *calibration reference* lenses in the drill; make sure that they are correctly seated in the chucks.
3. Set Mfg to Calibration.
5. Set Model to Chuck Height Compensation
6. Set Size to be Chuck Height Compensation Test
7. Start drilling, when finished, the drill should have drilled into the holes that were drilled previously. If this is true, the drill is still in proper calibration and your problem is with another piece of equipment, which is most likely your blocker, edger or edger slippage. There is no need to recalibrate your drill, if you choose to do so, will should complete Part Two of this document.