

ABC-Calibration of ZellScanner One Quick Guide

Below are the guidelines for calibration of the ZellScanner ONE using an ABC-slide to identify a spatial reference frame for the ZKW ScanApp.

A. Calibration

1. Close ZKW ScanApp
2. Open application named 'Stage Calibration' from the Start Menu folder; ZELLKRAFTWERK>ZKW ScanApp Suite>Stage Calibration; as outlined in Fig. 1.
3. Insert the Stage Calibration Slide (Fig. 2) into stage insert.

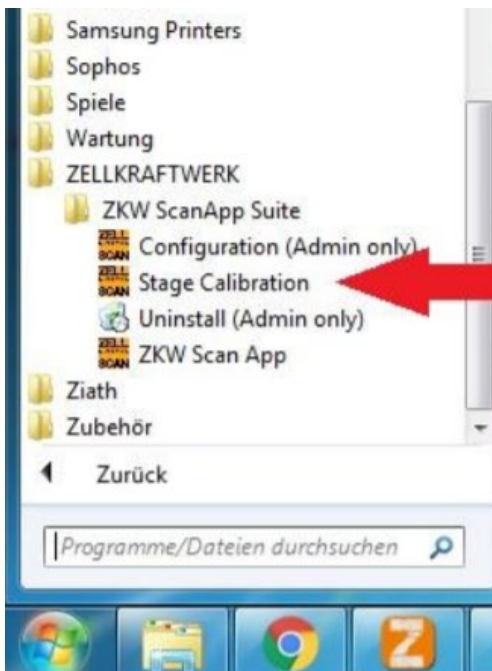


Fig. 1 | Locating the Stage Calibration App

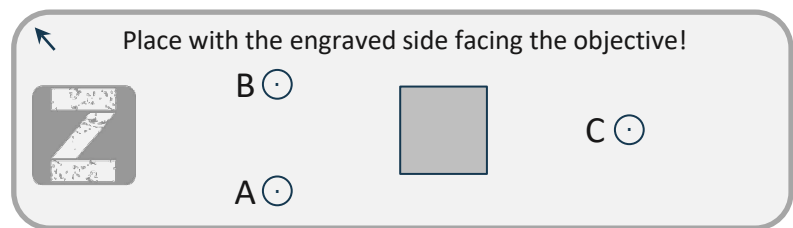


Fig. 2 | Stage Calibration Slide Representation

4. Click 'OK' in the 'Stage Calibration' prompt.
5. Once the Calibration App has been properly loaded, the calibration window will appear. Make sure 'Prior SingleChip' is selected.
6. Click 'Position A' in the upper left-hand corner of the screen (Fig. 3).
7. Adjust the focus until the black targeting lines and the letter of the position are visible in the live monitor. If the position is not visible, check the following:
 - i. The calibration slide is flush with the corner
 - ii. The circle marked 'A' should be directly above the lens of your microscope
 - iii. The transmission light is on and visible
 - iv. The menu in the upper left corner reads 'Prior SingleChip'
 - v. Reflector set to '43 HE DsRed'

ZellScanner Calibration Quick Guide

A. Calibration Continued...

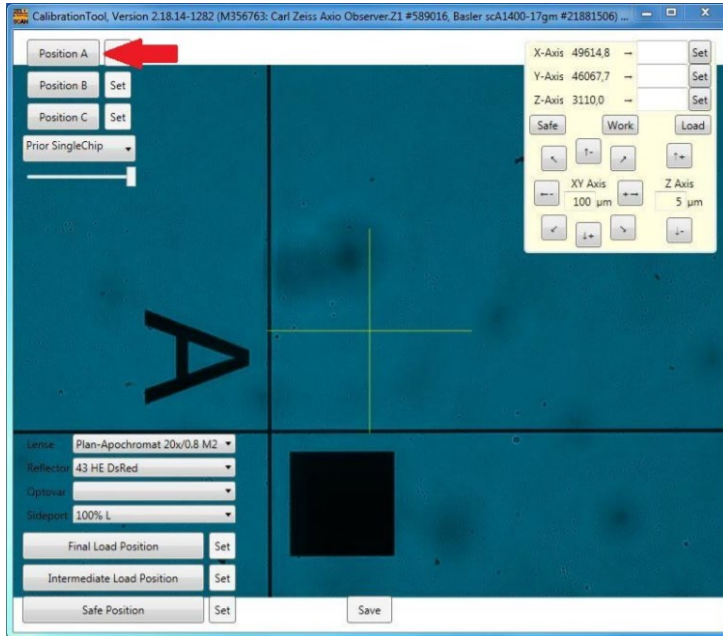


Fig. 3 | (Uncalibrated) Calibration Window

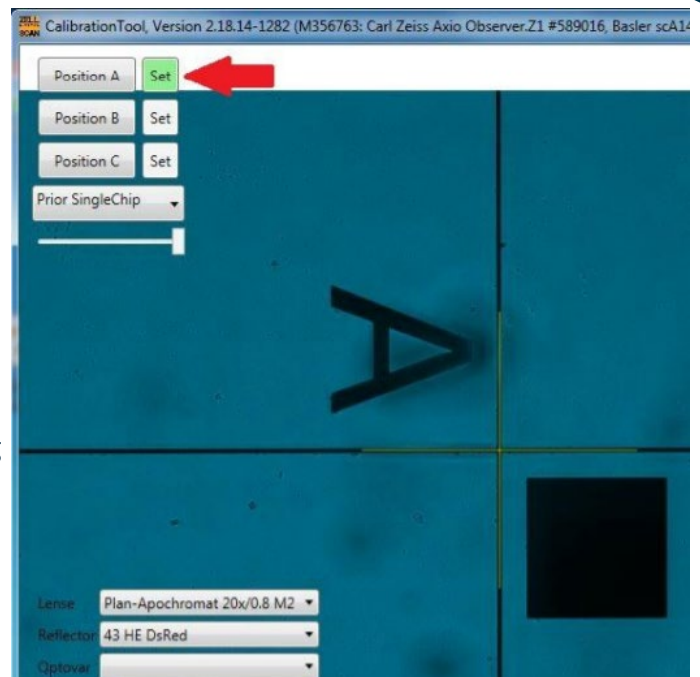
- Using the arrow buttons in the upper right-hand corner of the screen, move the slide until the yellow targeting cross matches the black targeting lines as closely as possible (Fig. 4).

Note: The size of the interval in movement can be regulated typing the desired size into the field in the middle of the arrow buttons for XY axis (moving the stage) or the Z axis (moving the lens/focusing). The default is 250 μ m for XY axis which shifts your view halfway across the field of vision.

- Once your yellow targeting cross matches the black targeting lines on the slide, click the button marked 'Set' to the right of the button 'Position A'. This button and the 'Save' button should switch colors from grey to green to indicate that 'Position A' is set to the current position.
- Repeat steps 7-10 for positions B and C respectively.
- When done with all three positions, click 'Save'. This button and the 'Set' buttons should switch from green to grey indicating that your settings are saved.

Note: The arrow buttons are rotated 90° clockwise relative to the direction of movement, i.e. \leftarrow - will move the stage downward relative to the yellow cross, \uparrow - to the left, \rightarrow downward, and \downarrow + to the right, respectively.

Fig. 4 | (Calibrated) Calibration Window



Note: When finished, close the window, but wait for 1 minute before opening the ZKW ScanApp to allow for changes to take effect.