

K1 Pro Y-Axis Limit Sensor Calibration Guide

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Description

The K1 series is shipped as an unassembled kit. After assembly, the Y-axis limit sensor must be calibrated before the machine is used for the first time. Otherwise, the machine will not be able to complete the homing process correctly.

1. Power On the Machine

1.1 After completing the assembly, connect the power supply and turn on the machine. The machine will automatically begin the homing process.

1.2 When the touchscreen displays the homing screen, tap "Stop" to interrupt the homing process.



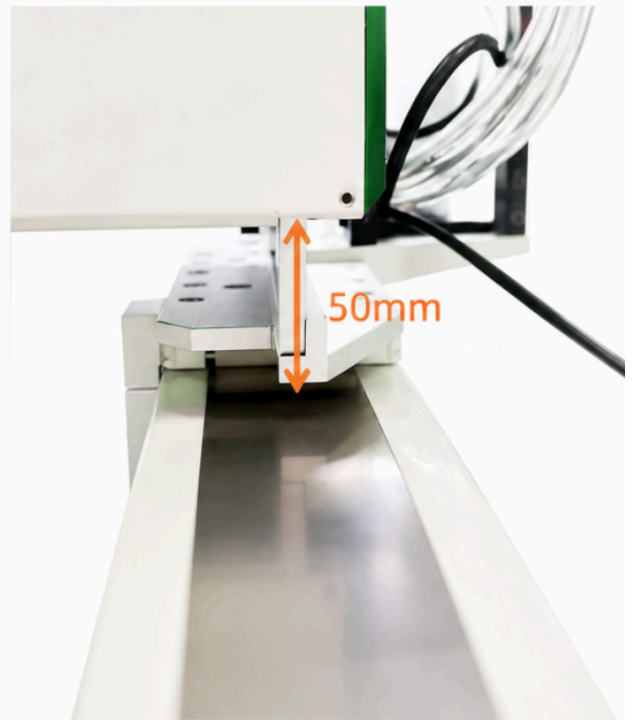
1.3 Wait for the machine to finish starting up. When "Power: 50%" appears on the screen, the machine is ready.



2. Y-Axis Limit Sensor Calibration

2.1 Tap "Manual" to enter the Manual Control interface.

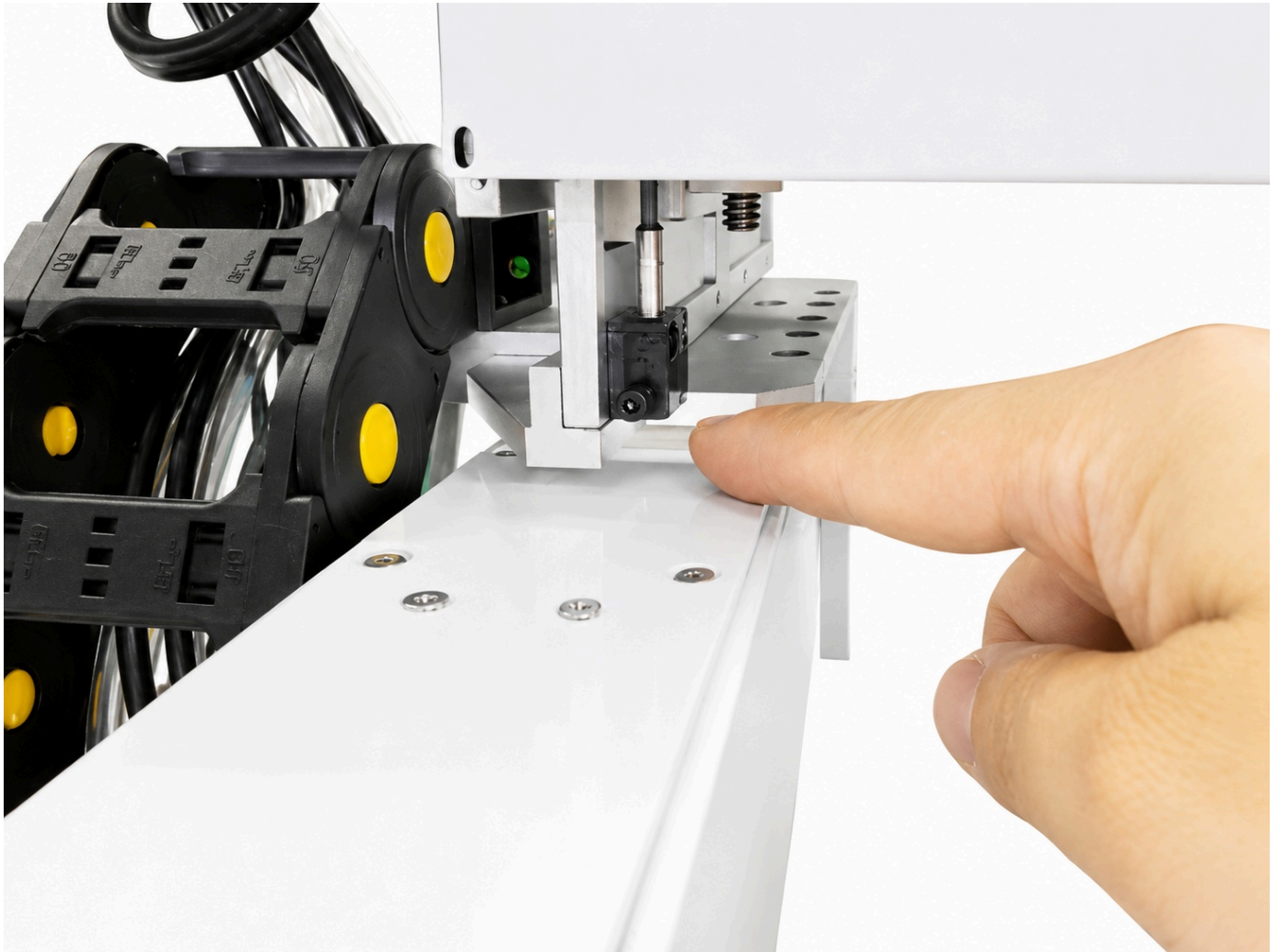
2.2 Tap "Z+" to raise the Z-axis until the laser head is approximately 50 mm (2 in) above the working platform.



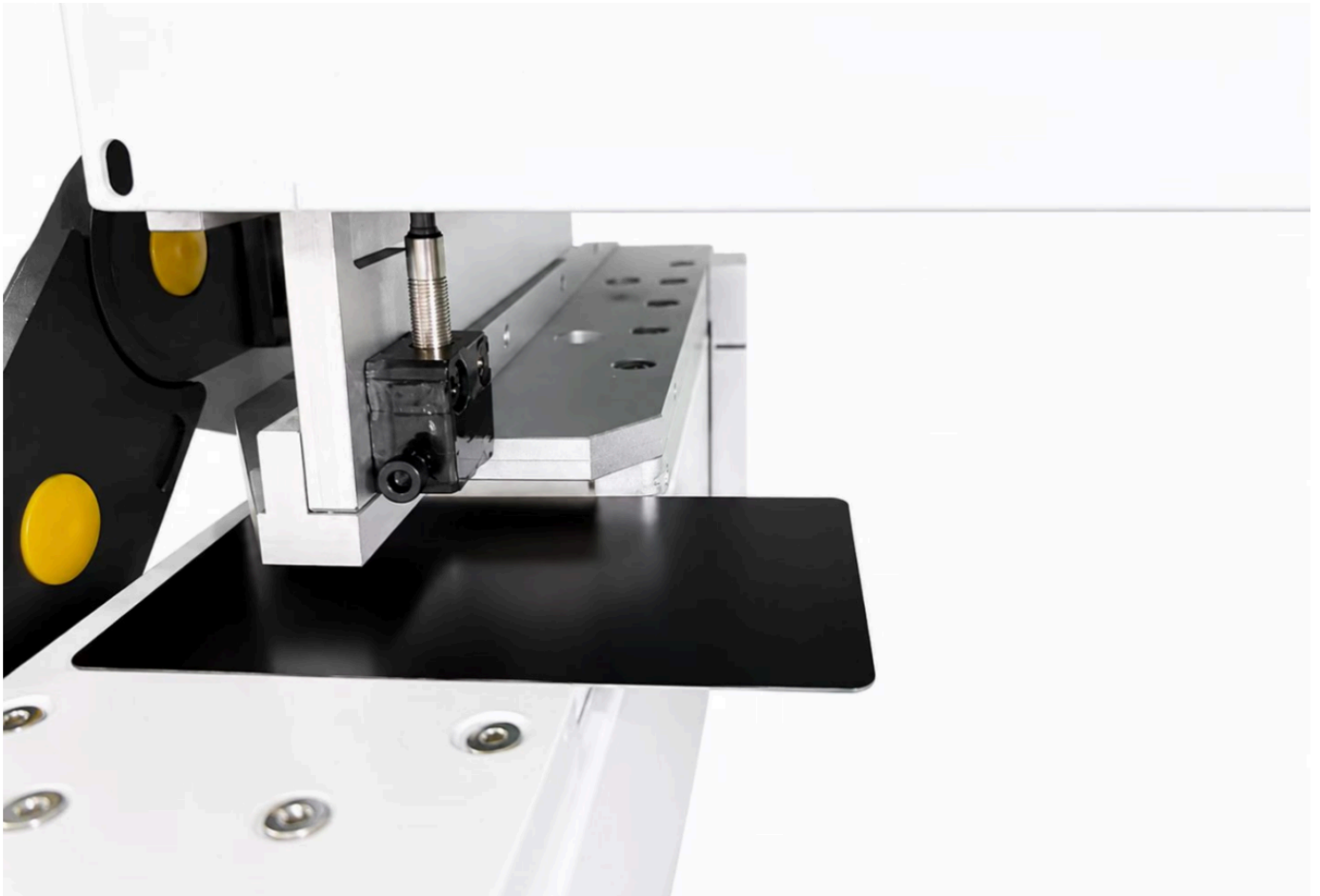
2.3 Press and hold "Y Up" until the Y-axis reaches the rearmost position.



2.4 Move to the rear of the machine and locate the Y-axis limit sensor.



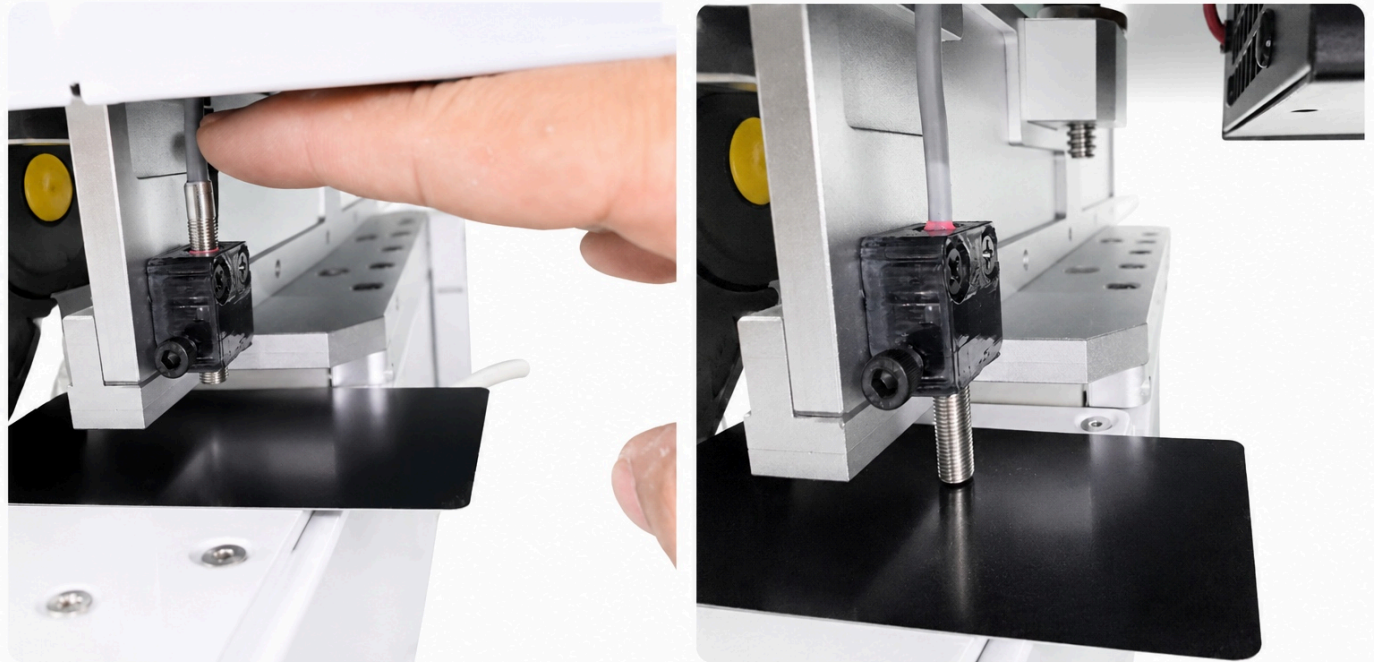
2.5 Place the included black Y-axis calibration card beneath the sensor. If the calibration card is unavailable, a sheet of A4 paper can be used as a temporary substitute.



2.6 Use the included Allen key to loosen the Y-axis limit sensor mounting screws.



2.7 Slide the Y-axis limit sensor downward until it contacts the black calibration card. Verify that the red LED indicator is on.



2.8 Tighten the Y-axis limit sensor mounting screws, then remove the black calibration card. Verify that the red LED indicator remains on.



Calibration Check

☒ Too Tight: If the calibration card is difficult to remove, readjust the sensor position.

☒ Too Loose: If the red LED indicator turns off after removing the calibration card, readjust the sensor position.

⚠ Warning

Operating the machine with an incorrectly adjusted sensor may damage the sensor or prevent the machine from completing the homing process. Ensure the sensor is properly adjusted before operating the machine.

2.9 Once calibration is complete, tap "Return" to return to the previous screen.

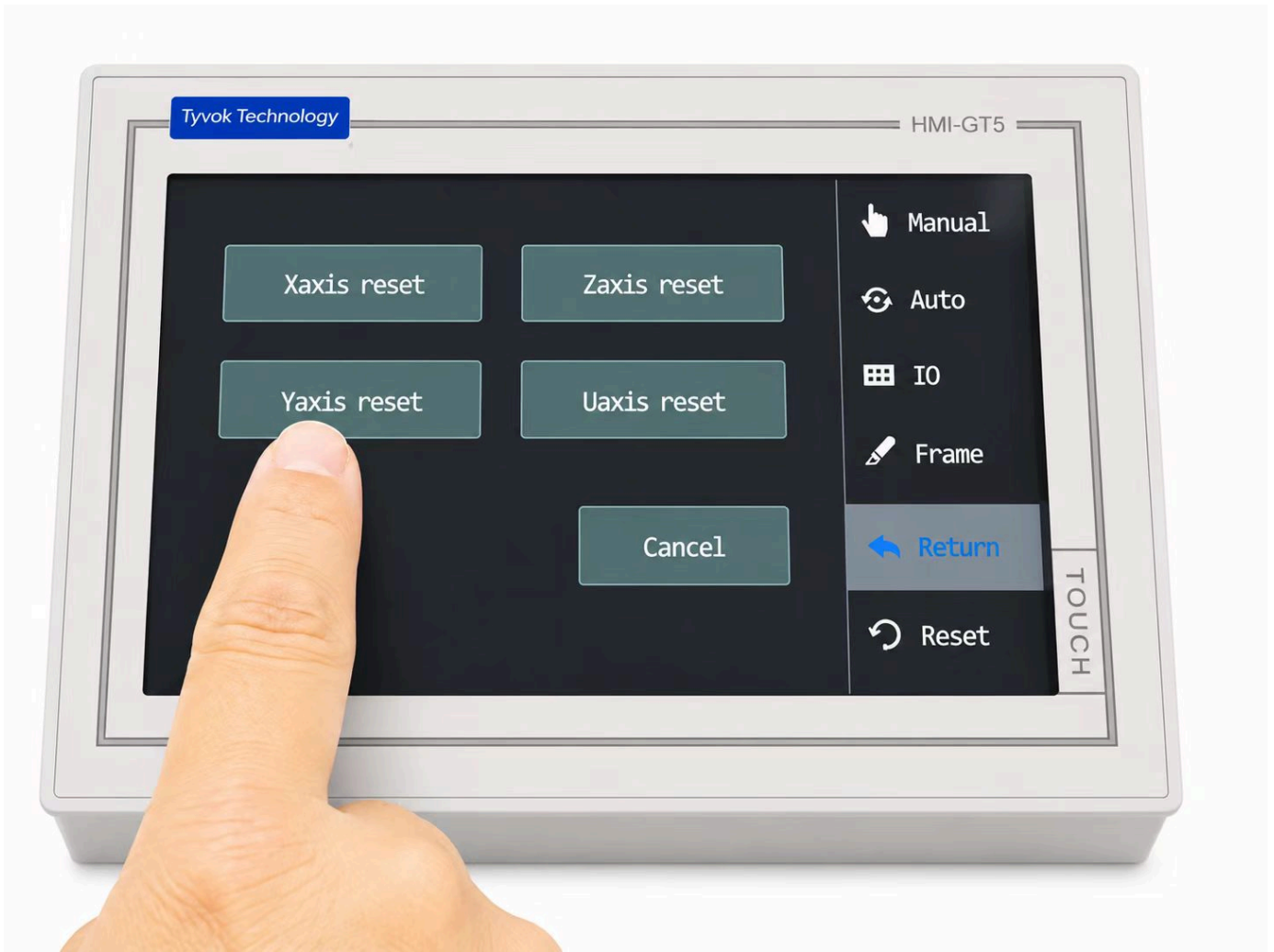


3. Homing Test

3.1 Tap "Axes Reset" to start homing all axes.



3.2 Tap "Y-Axis Reset" to home the Y-axis only.



3.3 The screen displays "Homing in progress. Please wait..." Wait until the homing process is complete.



3.4 When "Homing Complete" is displayed, the machine is ready for normal operation.