



Anycubic Dial Indicator Mounts for Kobra 2 Max , Kobra 2 Pro , Kobra 2 Plus , Kobra 2



FreshPrintsofBelair

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Summary

This will help you dial in your 3d Printer. Making sure your 3d printer is true.

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Tags: [calibration](#) [3dprinter](#) [anycubic](#) [kobra2](#) [kobra2pro](#) [kobra2max](#) [kobra2neo](#)

These Dial Indicator Mounts are specifically designed for the Clockwise Dial Indicator and rebranded variants of it. May work with others untested.

Here is Amazon link to purchase Clockwise Dial Indicator

1. [Clockwise Dial Indicator with Magnetic Base](#). I recommend buying this one with magnetic base will allow you to take more measurements.
2. [Clockwise Dial Indicator Without Magnetic Base](#)

Confirm working other dial indicators by users

1. HDLNKAK Dial Indicator
2. Neoteck Electronic Digital Dial Indicator

- This is for tramming your 3d printer.
- Well calibrated machine will be able to travel faster produce better quality parts and save wear and tear on the machine from gross misalignment. Leading to mechanical failure in the future.
- Also allows you to check your E-Steps on X and Y Axes.
- Using Dial Indictors is currently the best method of fixing a warped bed using this in conjunction with silicone mod.
- Since the Klipper based firmware is locked down. We don't have the ability to see Mesh data. Unless you have Marlin based printer like the Kobra 2 and Kobra 2 Neo.
- Best practice is to mechanically adjust your machine to be true. Bed Mesh & Auto Leveling can only do so much.

How to Use:

Prerequisites

- **Put your printer on a nice flat level surface while doing these procedures.**
- **Make sure your printers frame is square and true. (Videos at the bottom of this post to show you good examples on how to do this.)**

Step 1:

- **After you have verified your frame with square and true. You can now Square the X-Gantry to the frame. Do this step before using X- Gantry to Bed or Extruder Head to bed Mounts.**

Option 1. Using Frame to X Gantry Mount

1. The Arrow indicates the Top of the Dial Indicator.
2. Auto Home your printer
3. Raise your X Gantry to a height you can fit mount and dial indicator under or alternatively if you have two same sized objects Machinist Squares or 1-2-3 Blocks you can use this as well.
4. Disable Stepper Motors
5. (MAX and PLUS) Pull the Heated bed all the way forward. Skip if any other model
6. Place 2 bolt on mounts on either side of the X-gantry. Bolt them down M3x8 bolts and T-Nuts

7. Do not install dial indicators yet to mount. The mount is a mastering fixture.
8. Lower your X- Gantry on top of the Flat of the mounts. go till it stops it ok if one side hasn't made it down.
9. Now that gantry is resting on top of the mount. Loosen the two grub screws on left and right idlers located at the top of both Z-rods. Take note spacing of idlers both sides should be the same.
10. Now you will be able to lower your X- Gantry perfectly level on top of mount by turning the z-rods the direction desired.
11. Tighten the 2 grub screws on each side back.
12. Now raise the X-gantry up and install dial indicator in mount. This is for fine adjustment if needed,
13. Zero Dial Indicator Before lowering X- gantry on to it.
14. Go about halfway on the stroke of the dial indicator take reading adjust according using same steps above.

Step 2:X-Gantry to Bed and Extruder Head to Bed Mount.

***Note if you decide to use Extruder head to bed mount. Please verify that the extruder head is not loose and is properly tensioned to the X-Gantry by adjusting the eccentric nut located at the bottom of print head.**

Leveling your bed.

1. The Arrow indicates the Top of the Dial Indicator.
2. Take off PEI Sheet
3. Heat up printer bed to 60c. (Best practice is to allow your bed to heat soak for 30 min to allow the thermal expansion of build plate to settle for best accuracy)
4. Disable stepper motors.
5. Move Extruder Head to Center of Bed. Center of bed should be your 0 Point. Point of reference to level the rest of bed if you're doing silicone mod.
6. Manually Lower your x gantry down till touching bed then go a little lower to take slack out of dial indicator.
7. Zero the Dial Indicator.
8. Move your extruder head around the bed in X Y direction to all mounting bolts.
9. Adjust your bed mechanically accordingly to what you find. Silicone mod is currently best option. If your bed is not to far out you can also use Kapton or Aluminum tape to fix small problematic areas. Here is a post on where to buy and instructions on how to do. <https://www.printables.com/model/753702-anycubic-silicone-mod-bed-spacer-mod-parametric-sh>

10. Extreme cases you will need to take the heated bed off and square the Heated bed carriage mounting plate. repeat step with dial indicator. Adjust accordingly.

Print Instructions:

- 100 % infill
- PLA will work.

Installation Instructions for all the different style mounts.

Bolt On Frame to X Gantry: (2 Pair) Four M3x8 bolts and Four M3 T-nuts

Holder Versions: Just follow arrow and snap your dial indicator in holder.

Extruder Dial Indicator (Replacement Cap Version) :

- This is a replacement end cap for dial indicator. Just swap the back cap use existing hardware.
- Just simply slide in Extruder Cover.
- Goes on right side of extruder cover as your facing the printer.

X-Gantry Bolt-On Version v1 (Extreme Edition)

- x2 8mm Spacers
- x1 Eccentric nut 8mm height
- x3 M4 25mm Shoulder Cap Bolts
- x3 SG15 U-Grove Bearings

Information of Squaring and Trueing your 3D printer's frame

Information for Silicone mod:

Here is a post with instructions on how to do. Also, with shims if needed to complete the task. <https://www.printables.com/model/753702-anycubic-silicone-mod-bed-spacer-mod-parametric-sh>

Kobra 2 Max Stock Bed Spacer Size:

- 2 Middle 19mm
- 6 Outside 17mm

Kobra 2 Pro Stock Bed Spacer Size:

- 14mm

Buy Silicone Spacers for Silicone Mod :

- **18mm Silicone Spacers for Kobra 2 Max**
- **16mm Kobra 2 Pro , Kobra 2 , Neo**

1. 18mm Brown
2. 18mm Black
3. 18mm Blue
4. Use Silicone Tube Make your own custom length silicone spacer:
<https://amzn.to/4czxNJV>
5. 16mm Brown

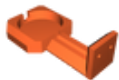
Silicone Mod Video:

Model files



Frame to X Gantry Bolt On Bolt On Version

1 file



bolt-on-frame-to-x-gantry-v11.stl

☐ Print out 2 Put on both side of printer level x-gantry to frame. Flat Top to make it easier



X-Gantry To Bed Snap-On Version

4 files



x-gantry-clockwise-holder-v15.stl

☐ v1.5 added ability to check E-steps on X Axis and Y Axis



tight-fit-x-gantry-dial-indicator-holder-v15.stl

☐ For some reason you find the original to loose on the rail this is a tighter fit.



snap-on-cap-x-gantry-replacement-cap-version-v1.stl



tight-fit-snap-on-cap-x-gantry-replacement-cap-vers... .stl

☐ For some reason you find the original to loose on the rail this is a tighter fit.



X-Gantry Bolt-On Version v1 (Extreme Edition)

1 file



x-gantry-bolt-on-version-v1-extreme-edition.stl

☐ For Use with Amazon Listed Sourced U Grove Bearing.



Extruder Head to Bed Snap-On Version

1 file



extruder-dial-indicator-holder-version-v11.stl

☐ Print in place no supports



Extruder Head to Bed Bolt-On Version

1 file



extruder-dial-indicator-replacement-cap-version-v11.stl

☐ Change the Cap on the Back of your clockwise dial Indicator

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