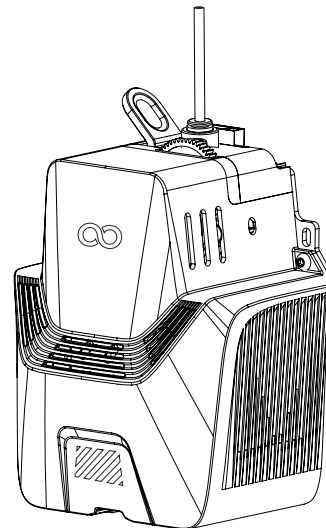




OrangeStorm Giga 3D Printer

Multi-Printhead Installation Instructions



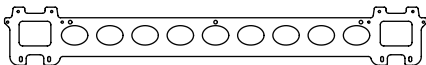
Pictures are for illustration purposes only. Actual production products may vary from images.

Multi-Printhead Installation (Optional)



Accessory List

Option 1



Dual-Printhead Mounting Plate (Compatible with Dual Printheads)



Slide



Printhead



Spool Holder Arm



Spool Holder



Filament Breakage Detector



Adapter Cable



(HM4*M3*3) 1pc



(HM4*25) 2pcs



(HM4*10) 2pcs

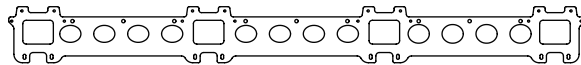


(HM3*10) 2pcs



(HM3*6) 2pcs

Option 2



Four-Printhead Mounting Plate (Compatible with Four Printheads)



Slide



Printhead*3pcs



Spool Holder Arm*3pcs



Spool Holder*3pcs



Filament Breakage Detector*3pcs



Adapter Cable*3pcs



(HM4*M3*3) 3pcs



(HM4*25) 6pcs



(HM4*10) 2pcs



(HM3*10) 6pcs

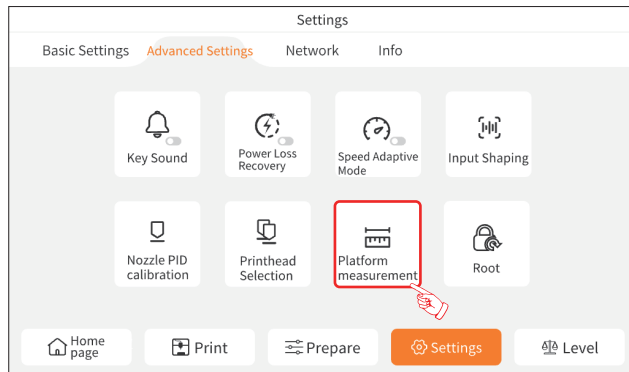
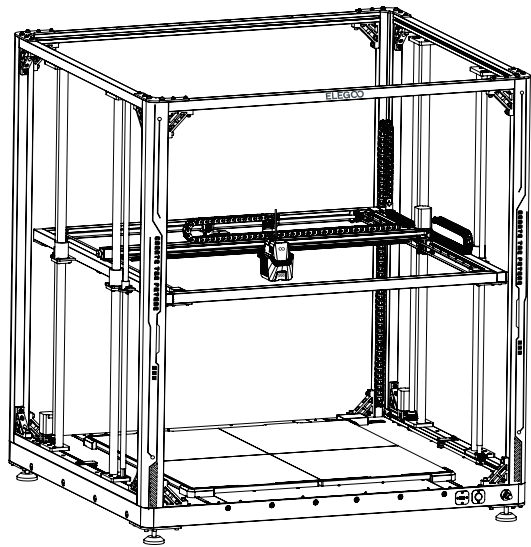


(HM3*6) 6pcs

Platform Calibration



If there is a significant height difference between the platforms, you can manually calibrate the platform plate, and you can use a single printhead for measurement and adjustment.

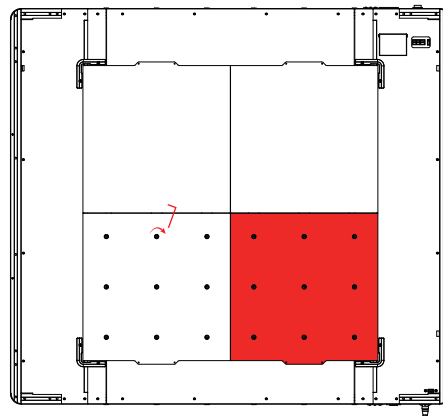
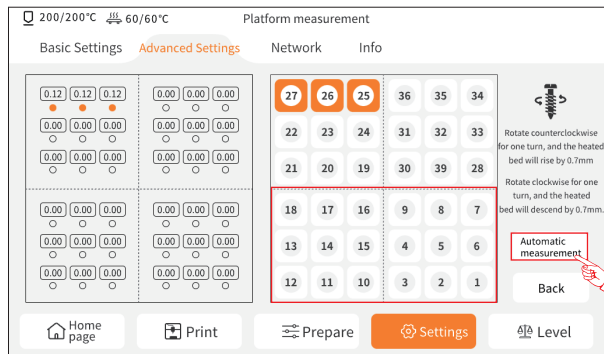


Platform Calibration



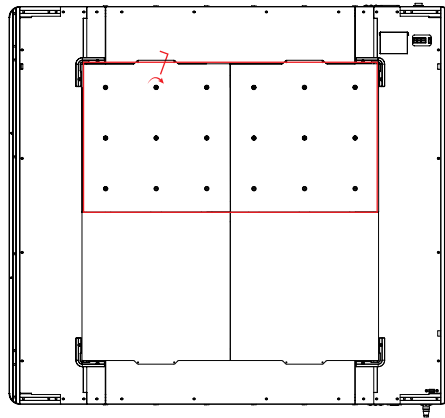
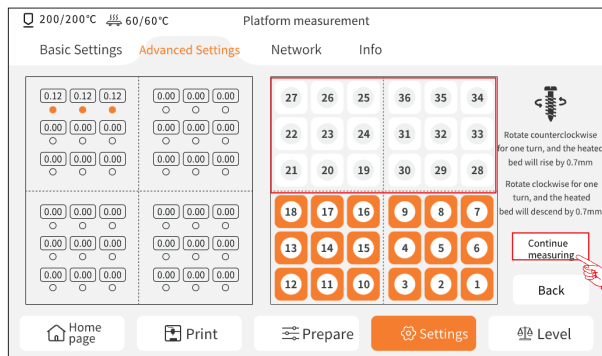
1. First, replace the two PEI plates in the front section with the leveling plate. The holes on the leveling plate should align with each screw hole on the heated bed plate.
2. Then navigate to "Settings", "Advanced Settings", and finally choose "Platform Measurement."
3. Next, click on "Auto Measurement" and wait for the printhead to measure the data of the 18 points on the platform one by one. (NOTE: Do not perform any other operations during the measurement process)
4. Based on the presented 18-point data, manually adjust the screw height for points higher or lower than [0.00]. Then, you can verify the adjusted values by manually selecting the corresponding position number. (Position 5 is the reference point [0.00] and does not require adjusting the screw. Adjust the remaining 35 points using the knob screws to approach the [0.00] data.)

NOTE: Turning the knob screw clockwise by one turn will lower the platform by 0.7mm, otherwise it will raise by 0.7mm.



Platform Calibration

5. Swap the two leveling plates in the front section with the two PEI plates in the back section.
6. Click [Continue measuring] and wait for the printhead to sequentially measure the 18-point values on the leveling plates. (NOTE: Do not perform any other operations during the measurement process)
7. Perform manual adjustment based on the presented numbers and adjust the 18-point values to be close to [0.00].
8. After manually adjusting the relative height of the four platform plates, swap out the printhead mounting plate that requires extension.

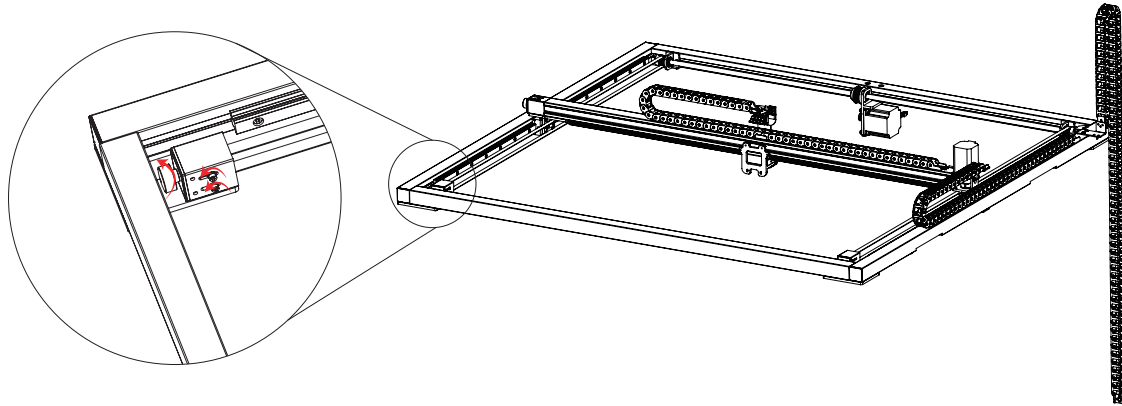


Printhead Installation

Step-by-step guide:

The instructions presented here demonstrate the installation of four printheads as an example. The installation of dual printheads follows a similar process, differing only in the number of printheads involved.

1. To start, install a slider onto the X-axis rail. Please follow the steps outlined below for the necessary operations.
2. Loosen the fixed screws and knob nut of the Y-axis tensioner until the timing belt becomes slack. (Diagram 1)

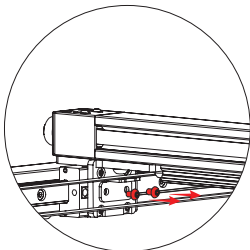


(Diagram 1)

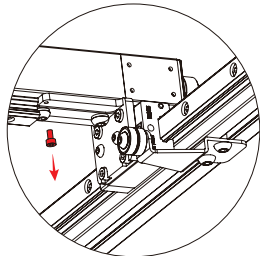
Printhead Installation

3. Remove the fixed screws of the Y-axis belt buckle. (Diagram 2)

4. Unscrew the limit screw and leave space for installing the slider on the X-axis. (Diagram 3)



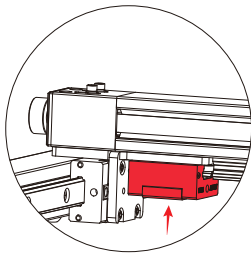
(Diagram 2)



(Diagram 3)

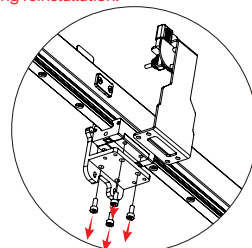
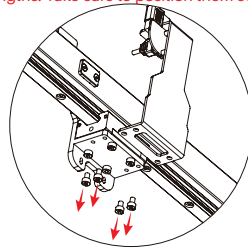
5. Take out the dummy rail from the slider and align the slider groove with the guide rail, then push it in. (Diagram 4)

6. Reinstall and secure the screws in their original positions, and tighten the Y-axis tensioner.

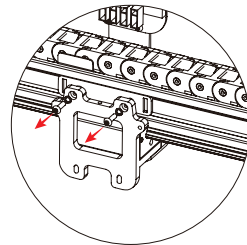


(Diagram 4)

7. Remove the existing printhead and replace it with the mounting plate. Disassemble the 8 screws at the bottom of the slider. (Diagram 5) **NOTE: The two types of screws have different lengths. Take care to position them correctly during reinstallation.**



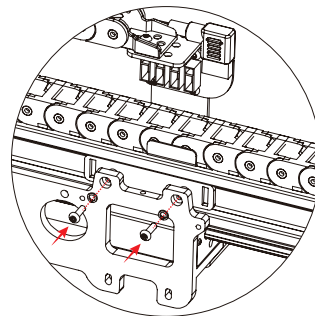
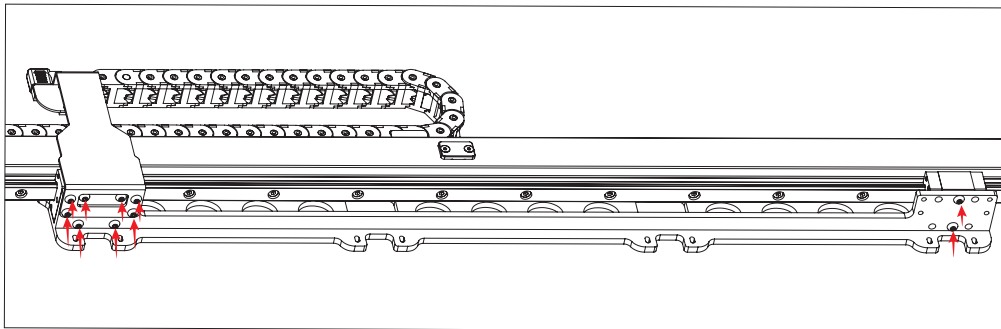
(Diagram 5)



(Diagram 6)

Printhead Installation

9. Secure the four-printhead mounting plate. Reinstall and secure the 8 screws at the bottom of the slider, as well as the front screws of the timing belt buckle. Then, connect the second slider by firmly securing it to the mounting plate with 2pcs of (HM4*10) screws threaded through the holes on the mounting plate. (Diagram 7)

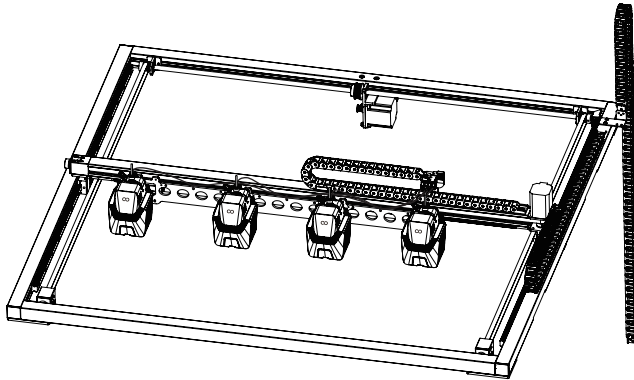


(Diagram 7)

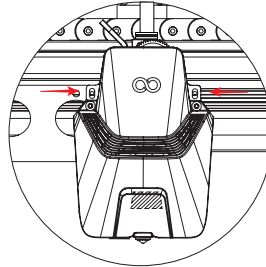
Printhead Installation



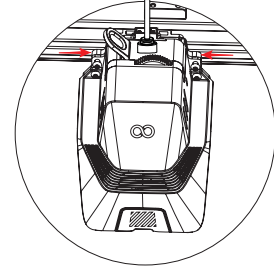
10. Install the printhead. Use (HM3×6) 6pcs to secure the front holes of the printhead (Diagram 8) and use (HM3×10) 6pcs to secure the rear holes of the printhead. (Diagram 9)
11. Connect the printhead using adapter cables and use cable ties to organize the cables. (Diagram 10)



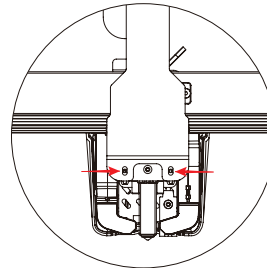
(Diagram 10)



(Diagram 8)



- Align the printhead with the mounting plate before tightening the screws.

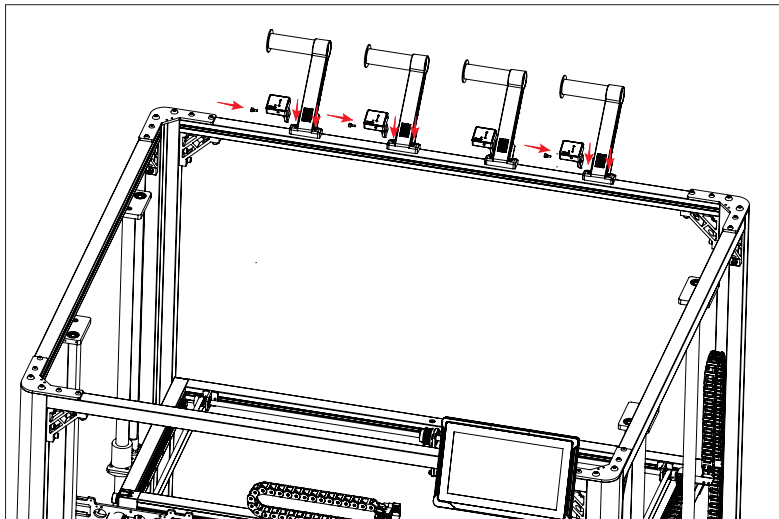


(Diagram 9)

Printhead Installation



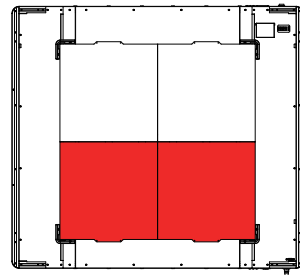
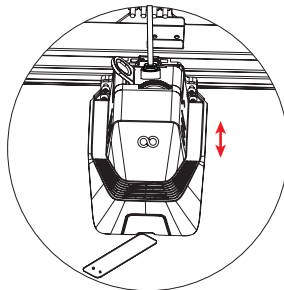
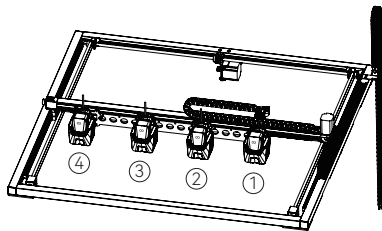
12. Install spool holder arm assembly & filament breakage detector. Use (HM4*25) 6pcs to install the spool holder arm; Use (HM4*M3*3) 3pcs to install the filament breakage detector onto the spool holder arm.



Printhead Installation

After installing the extended printheads, it is essential to use a leveling card to calibrate the distance between the platform and the printhead.

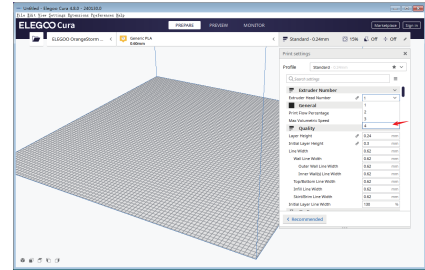
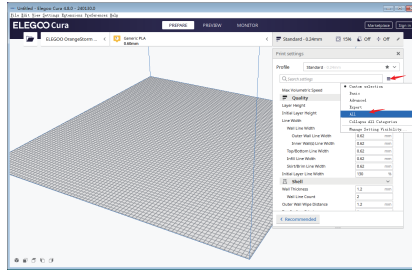
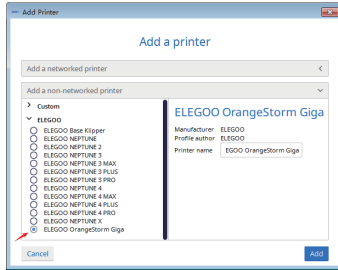
- Click [Settings] - [Advanced Settings] - [Printhead Selection] on the screen, switch to the "Four printheads" mode. After the switch is completed, turn off and restart the machine.
- After the machine restarts, revisit the [Printhead Selection] menu and click Z-offset. Wait for the printhead to return to the home position, and set the compensation value for printhead 1. Place the leveling card between the nozzle and the platform. When there is resistance while moving the leveling card, the setup is complete. Exit the Settings interface, click Unlock Motors.
- Place a leveling card between the nozzle and the platform to adjust the installation height of printhead 2. Loosen the fixed screw of the printhead with an Allen wrench. When there is resistance while moving the leveling card, tighten the fixed screw. Repeat the same procedure to fine-tune the height of the other printheads.



Slicing and Printing

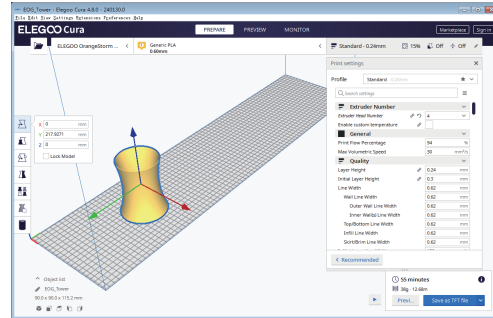
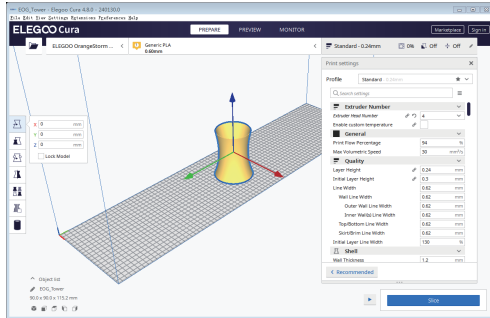


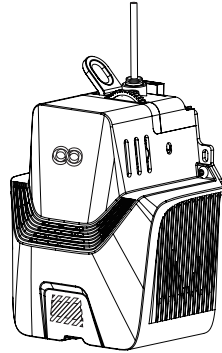
Open ELEGOO Cura slicing software and choose OrangeStorm Giga as the machine model. Adjust the number of printheads accordingly.



Slicing and Printing

Import the printing model for slicing and printing.





ELEGOO official website: www.elegoo.com