

## FlexPlate Installation Instructions<sup>1</sup>

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Thank you for purchasing the FlexPlate option for your STACKER 3D printer. Please be sure to read and understand all of the installation instructions and warnings before attempting to install the FlexPlate system.



**WARNING! THE FLEXPLATE IS A PERMANENT INSTALLATION!** Once the FlexPlate Magnetic Base is attached to your printer's aluminum build plate, the magnetic base cannot be removed. Please be sure you understand all of the benefits and drawbacks of the FlexPlate System before installing it to your printer. If have any questions, please contact our customer support team at [info@stacker3d.com](mailto:info@stacker3d.com).



**NOTE!** The FlexPlate System acts as an insulator and decreases the surface bed temperature of your print bed by approximately 10°C. After the FlexPlate System has been installed, you will typically need to increase your bed temperatures by 10°C. For example, if you wanted a bed temperature of 55°C, you should set the temperature to 65°C.

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**Step 1. Clean your printer's aluminum build plate.** Remove the BuildTak from your printer, then use rubbing alcohol and a clean rag to remove any adhesive, dust, or debris from the aluminum bed.

**Step 2. Peel backing from the magnetic base.**



**WARNING! THE MAGNETIC BASE PLATE USES A VERY STRONG ADHESIVE. YOU WILL ONLY GET ONE CHANCE TO ATTACH THE BASE PLATE TO THE ALUMINUM BED! MAKE SURE IT IS POSITIONED CORRECTLY BEFORE ATTACHING.**

**Step 3. Carefully position and attach the Magnetic Base Plate:** Align the base plate so that it is parallel and slightly back from the front edge of the aluminum bed (see image below). Attach only the front of the magnetic base plate first, then work slowly from front to back of the bed by pressing firmly with your hand to carefully remove any air bubbles.





Before attaching, align magnetic base plate with the front of the bed

To avoid trapping air bubbles beneath the magnetic base plate, press firmly with your hand and work slowly from side to side. Attach the front of the bed first and then work toward the rear of the bed.

In the image to the left, the installer uses their left hand to bend and slowly lay down the magnetic base plate while their right hand presses down on the adhesive and removes air bubbles.

#### Step 4. Attach the BuildTak to the FlexPlate:

Read, understand, then remove the warning sticker from the metal FlexPlate. Set the FlexPlate onto the magnetic base. Turn on the printer and allow the metal FlexPlate to warm to 50°C.



CAUTION! YOU CAN BURN YOURSELF ON A 50°C BED. FOLLOW THE NEXT STEP WITH CARE!

To attach the BuildTak to the heated FlexPlate, carefully peel the backing from the BuildTak sheet then starting at the front edge of the FlexPlate, slowly attach the sheet while using a plastic paint scraper to flatten the sheet and remove any air bubbles. Working slowly and methodically will ultimately prove the best and flattest printing surface.

#### Read and Remove Warning Sticker



**Step 5. Adjust Z-height:** Because of the added height of the FlexPlate System, you will need to adjust the Z-height of your printer. Please refer to the User Guide for instructions on adjusting the first layer height. You will need raise the Z-height adjustment screw approximately 3mm.



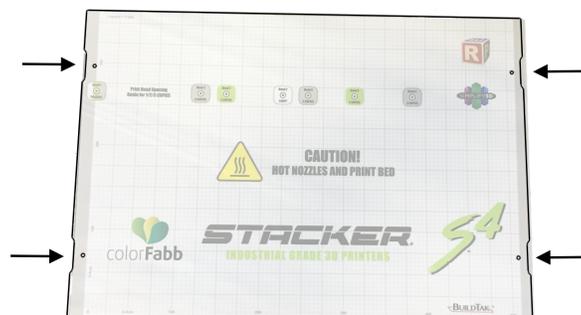
**As you make adjustments to the Z-height, always move the X-gantry fully forward before homing the Z-axis to avoid crashing the nozzles into the print bed.**

**Step 6. Turn off the heat bed:** After you have made changes to the Z-height of your printer, turn off the heat bed and allow it to cool before advancing to step 6.

### Step 7. Install the Build Plate Glass Clips (optional but recommended)

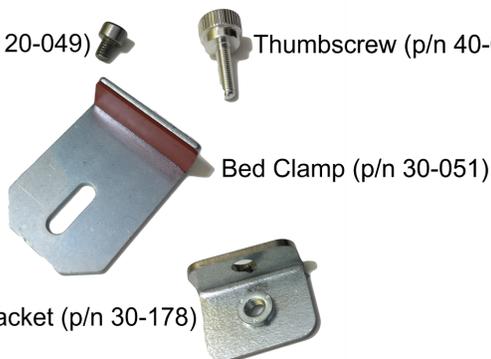
**Required Tools:** 3mm Hex Key

**Overview:** The four glass clips can be used to secure either glass or the FlexPlate to the magnetic base. Although the FlexPlate is typically held in place by the magnetic base, it is possible for the FlexPlate to slip during a print. To avoid the possibility of FlexPlate movement on larger prints, the FlexPlate can be secured at four locations using the glass clips. The installation locations for the four clips can be identified by a small indent along the edge of your aluminum build plate and a threaded screw hole underneath your print bed. The arrows on the image indicate the four locations.



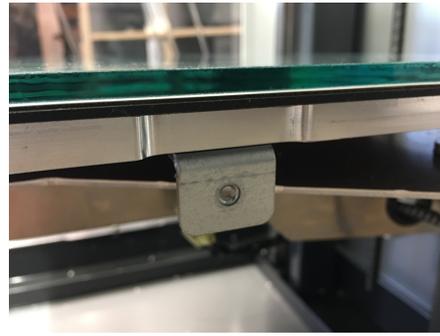
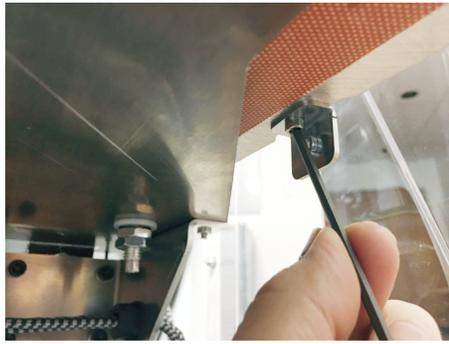
**Hardware:** Each of the four glass clips is assembled with the following hardware:

M4 x 5mm SHCS (p/n 20-049)      Thumbscrew (p/n 40-008)



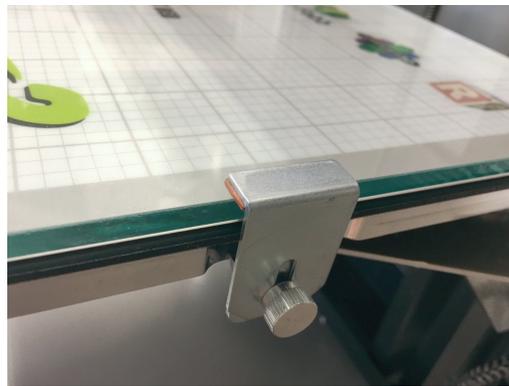
Glass Clamp Holding Bracket (p/n 30-178)

**Step 7A.** Use the 3mm hex key to attach the four Glass Clamp Holding Brackets (p/n 30-178) to the underside of the bed using the M4 x 5mm SHCS. Face the threaded side of the Glass Clamp Holding Brackets outward as shown in the images below.



**Step 7B.** Place your FlexPlate onto magnetic base plate.

**Step 7C.** Securs the four Bed Clamps to the Glass Clamp Holding Brackets using the Thumbscrews. The glass clamp holding brackets will prevent your FlexPlate from shifting during a print. **Read the warning below!**



**WARNING!** The thumbscrews must be fully tightened during printer operation. If the thumbscrews are not fully tightened, they can get caught on the power supply bracket when the bed moves up or down. **ALWAYS BE SURE TO FULLY TIGHTEN THE THUMBSCREWS TO AVOID DAMAGING YOUR PRINTER.**

**Step 8. Start Printing:** You are ready to print. To remove printed parts, remove the entire FlexPlate and flex it. Most parts literally 'pop' off the plate.

In time, the BuidTak may tear or lose its adhesive properties. To attach a new sheet of BuildTak, simply peel and remove the BuildTak sheet from the FlexPlate, use rubbing alcohol and a clean rag to remove any adhesive, dust, or debris from the FlexPlate, and attach the new BuildTak sheet using the same process described in Step 4.

You can purchase additional FlexPlates and BuildTak from our website <http://www.stacker3d.com>.

