FLASHFORGE Adventurer 4 Series UFP-FFSZAD4 Smart 3D Printer User Guide

Contents

FLASHFORGE Adventurer 4 Series UFP-FFSZAD4 Smart 3D Printer

Safety And Requirment

Work Environment Safety

- Keep your workplace tidy.
- Do not operate the device in the presence of flammable liquids, gases or dust, which will cause fire in the high temperature generated by the equipment.
- Keep devices out of children and untrained people’s reach.

Electrical Safety

- Always use the device with a properly grounded outlet. Do not refit the device plug. Ungrounded / improperly grounded/refitted device plugs will increase the risk of leakage of electricity.
- Do not use device in a damp environment or under the burning sun. A damp environment will increase the risk of leakage/exposure to the sun and will accelerate the aging of plastic parts.
- To avoid device damage, please use the power supply provided by Flashforge. Avoid using the device during a thunderstorm.
- In case of an uncertain accident, please unplug the device if you do not use it for long.
- When grounding, plug the power cord into the three-in-one socket and connect to the external grounding wire through the grounding terminal of the three-in-one socket.
- Check and replace the fuse: To prevent electric shock, please be sure to turn off the power switch and unplug the power cord before checking or replacing the fuse.
- Replace the fuse: Open the fuse box of the three-in-one socket and replace the fuse with the fuse of 5*20, T10AL250V specification.

Personal Safety

- Do not touch the nozzle and build plate during printing.
- Do not touch the nozzle and plate after printing to avoid high-temperature scald or mechanical damage!
- Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.
- Do not operate the device while you are tired or under the influence of drugs, alcohol or meditation.
- Keep body parts away from moving parts
- Warning crushing of hands
- Hot surface Do not touch
- Keep this area clear

Cautions

- Keep the inside of the device clean and tidy. Do not place metal objects into the chute at the bottom of the platform.
- Please clean up the remaining in time. It is recommended to operate outside the equipment.
- Any modifications to the device will invalidate the guarantee.
- Lower the build plate before loading/unloading filament. The distance between the nozzle and build plate should be kept for at least 50mm.
- Operate the device in well-ventilated environment.
- Never use the device for illegal activities.
- Never use the device to make any food storage vessels.
- Never put the prints into your mouth.

Environment Requirements

- Temperature: RT 15-30°C; moisture: 20%-70%.

Place Requirements

- The device must be placed in a dry and ventilated environment. The distance of the left, right and back side space should be at least 20cm, and the distance of the front side space should be at least 35cm. Device storage temperature: RT 0-40°C.

Filament Requirements

- It’s recommended to use the filaments offered by Flashforge, or from the brands accepted by Flashforge. Due to the different properties of filaments, you need to modify printing parameters when using those which are not offered by Flashforge.

Filament Storage

- All polymers degrade with time. Do not unpack filament until necessary. Filament should be stored in clean and dry conditions.

Legal Notice

- All the information in this document is subject to any amendment or change without the official authorization from Flashforge.
- FLASHFORGE CORPORATION MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS DOCUMENT, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- FCC Notice
  This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: [1] This device may not cause harmful interference, and [2] this device must accept any interference received, including interference that may cause undesired operation.
- Flashforge shall not be liable for errors contained herein for incidental consequential damages in connection with furnishing, performance or use of this material.
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Reference

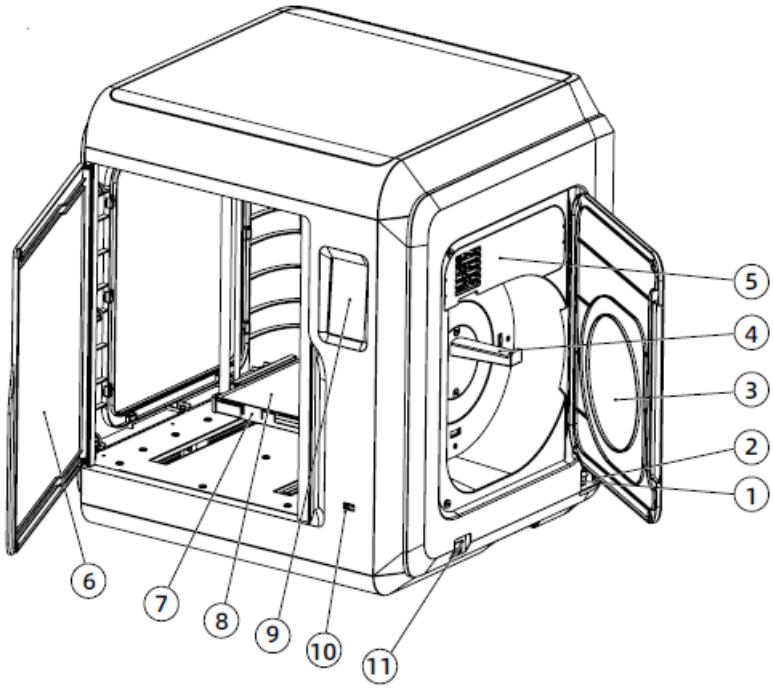
Name	Adventurer 4	Adventurer 4 Lite
Extruder quantity	1	1
Printing precision	±0.1 mm (test of 100mm cube)	±0.1 mm (test of 100mm cube)
Position precision	X/Y axis 0.011 mm Z axis 0.0025 mm	X/Y axis 0.011 mm Z axis 0.0025 mm
Layer thickness	0.1~0.4 mm	0.1~0.4 mm
Build volume	220 x 200 x 250 mm	220 x 200 x 250 mm
Nozzle diameter	0.4(default) 0.6/0.3 mm(optional)	0.4(default) 0.6/0.3 mm(optional)
Printing speed	10~150mm/s	10~150mm/s
Highest extruder temperature	265℃/240℃	240℃ (265℃ is optional)
Filament type	ABS/PLA/PC/PETG/ PLA-CF/PETG-CF	ABS/PLA (according to the nozzle)
Power supply	AC100-240V/DC 24V/ 13.3A,320W	AC100-240V/DC 24V/ 13.3A,320W
Device size	500(L)*470(W)*550(H)mm	500(L)*470(W)*550(H)mm
Printing connection	USB Disk/ Wi-Fi/ Ethernet	USB Disk/ Wi-Fi/ Ethernet
Filament running out remindi ng	√	√
Print bed	Flexible spring sheet	Glass plate
Remote camera watching	√	×
HEPA 13 Air filter	√	×

Adventurer 4 Series

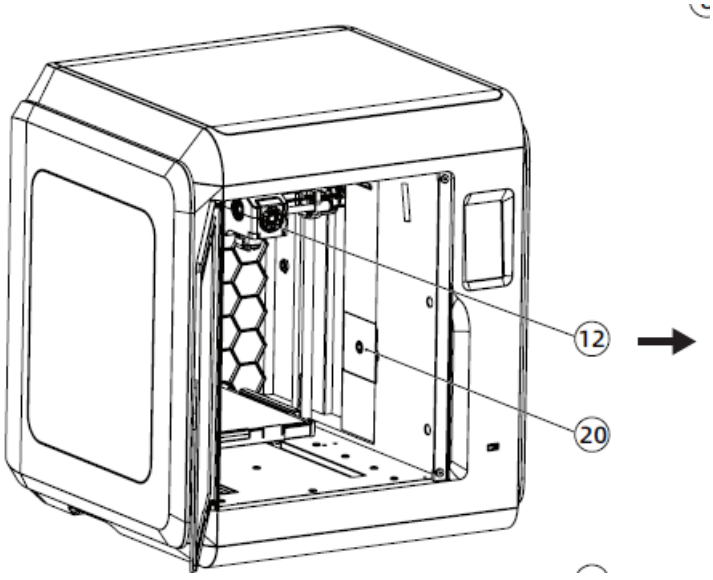
Component Introduction

1. Power switch
2. Power socket
3. Filament cover
4. Spool holder

5. Filament intake cover
6. Front cover
7. Platform base
8. Build plate
9. Touch screen
10. USB

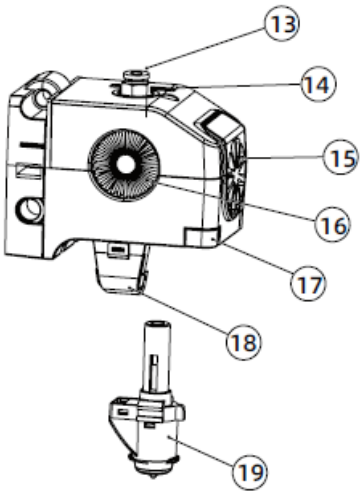


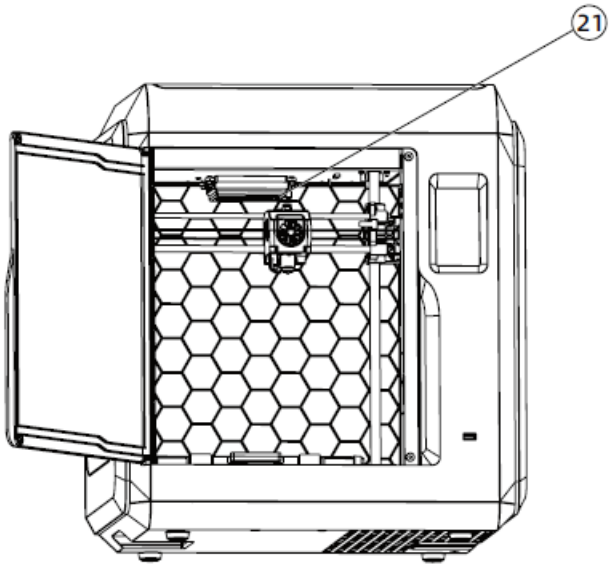
11. Ethernet input
12. Extruder
13. Filament guide tube joint
14. Cable slot
15. Fan for cooling extruder
16. Fan for cooling model



17. Buckle
18. Air duct
19. Nozzle

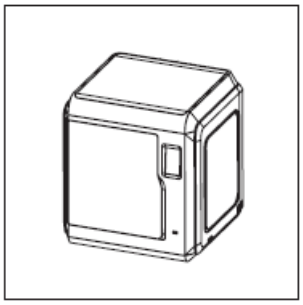
20. Camera(AD4)
21. Air filter(AD4)





Adventurer 4 lite features a glass platform with no camera and no air filter.

Packing Specification



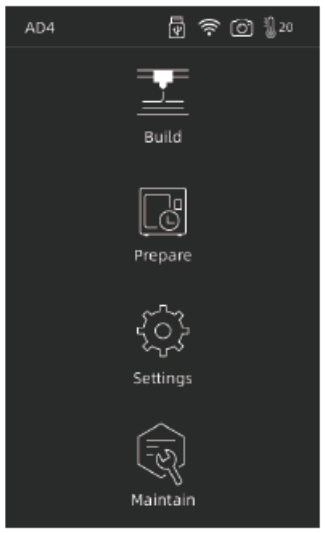
Introduction of User Interface

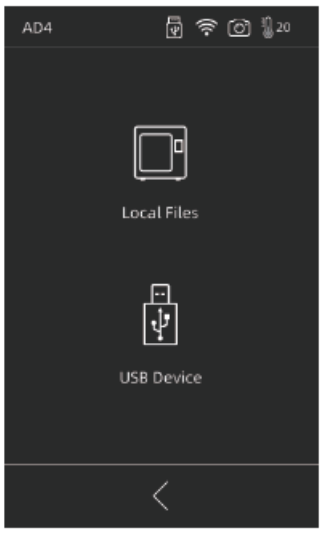
Note

The interface layout may change whenever there is an upgrade of firmware. The functions below are only for demonstration purposes. NOTE: There is no camera on AD4 Lite, This manual uses the interface screen of the Adventurer 4 as a reference.

Build

1. Click [Build], and then choose the path to read the print file.
2. File list



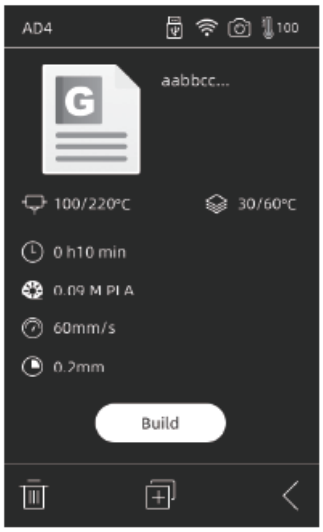


1. Tap model file for file details.

2. Long press model file multi-selecting mode on.

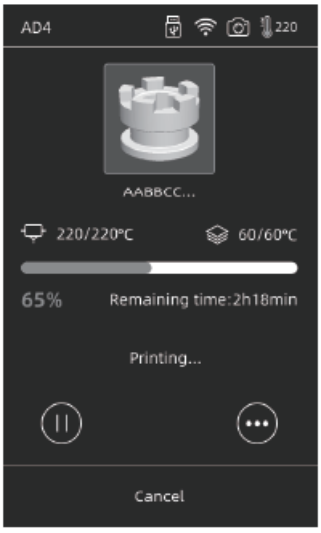
The finished prints will be marked.

Details



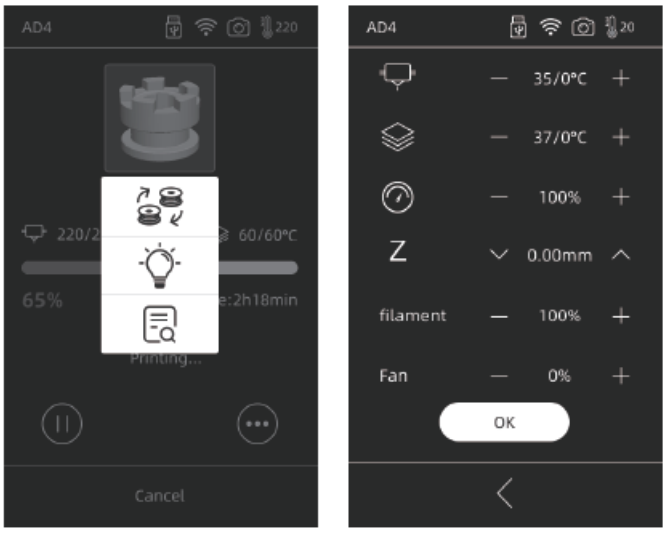
- Extruder temperature
- Time used
- Speed
- Copy the file to the local memory card
- Build plate temperature
- Amount and type of filaments required
- Layer thickness

Interface



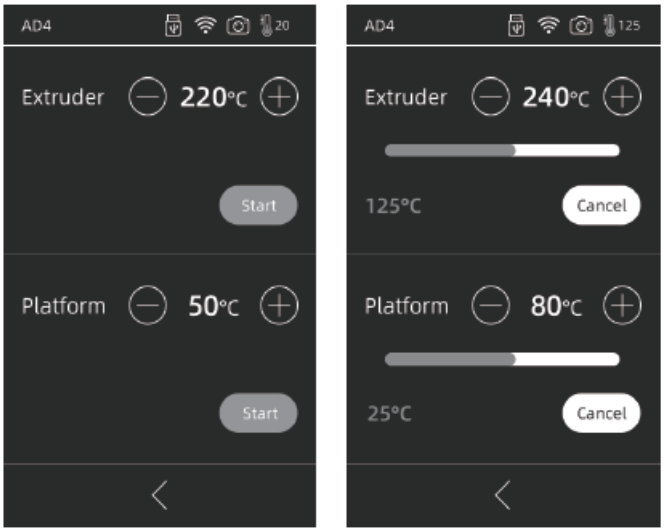
- Pause/Resume printing
- Check more parameter settings and details

More Settings



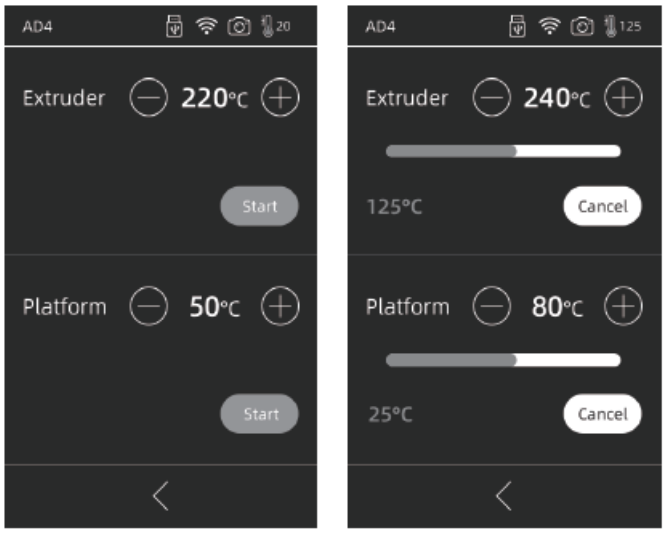
- You can change filaments
- The switch of LED light
- Adjust printing parameters: extruder temperature/platform temperature/printing speed
- Z Used when the distance needs to be adjusted between the first printed layer and the extruder. The up and down arrows indicate that the extruder moves upward or downward.
- Fan The fan for cooling the model. Wind speed can be adjusted for printing different filaments.
  Click OK to save and apply the changed parameters.

Prepare



- Preheat
- Filament

Preheat

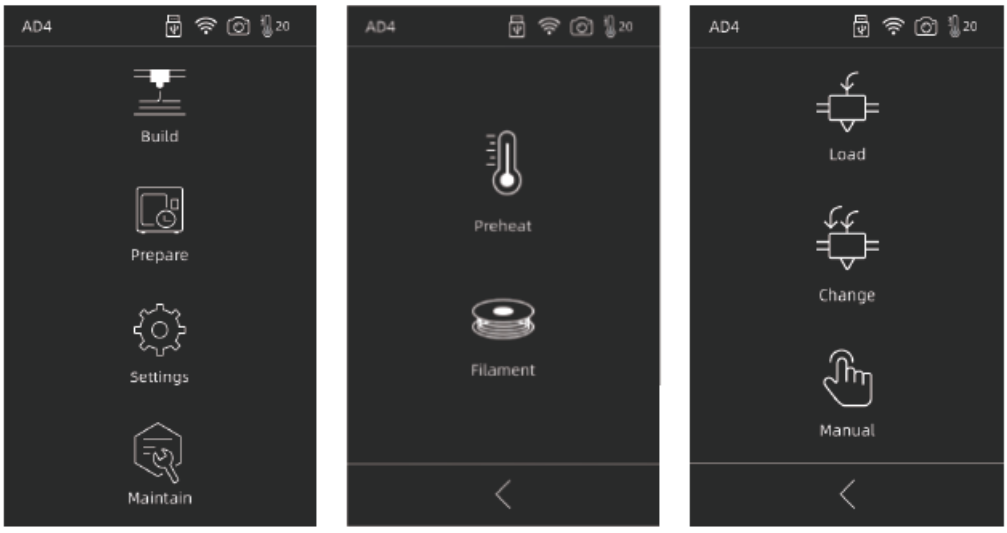


Tap to set preheat temperature.

Long press to set preheat temperature speedily.

Turn-ON/OFF the extruder or platform preheat Extruder highest preheat temperature: 265℃ It’s up to the chosen extruder Platform highest preheat temperature: 110℃ Temperature can be adjusted anytime during heating.

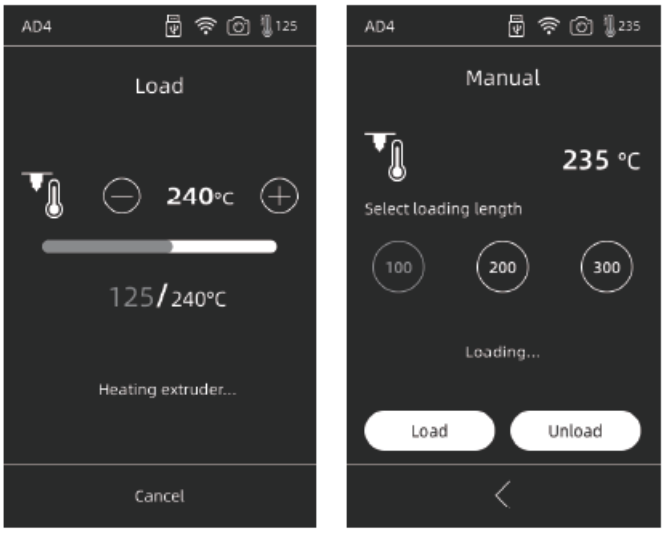
Filament



Load/Change/Manual

Load
Choose [Load], the extruder will be heated to set temperature, then follow the instruction to finish loading. Note that fast+slow loading is automatically applied, just place the filament in the extruder gear. Do not push the filament into the tube. You may hear noise when the loading is fast.

Change
Click on [Change], the extruder will be heated up to the preset temperature. Pull out the filament according to the instruction. Insert new filament in the filament intake until some resistance is felt. New filament coming out of the extruder indicates a successful replacement.

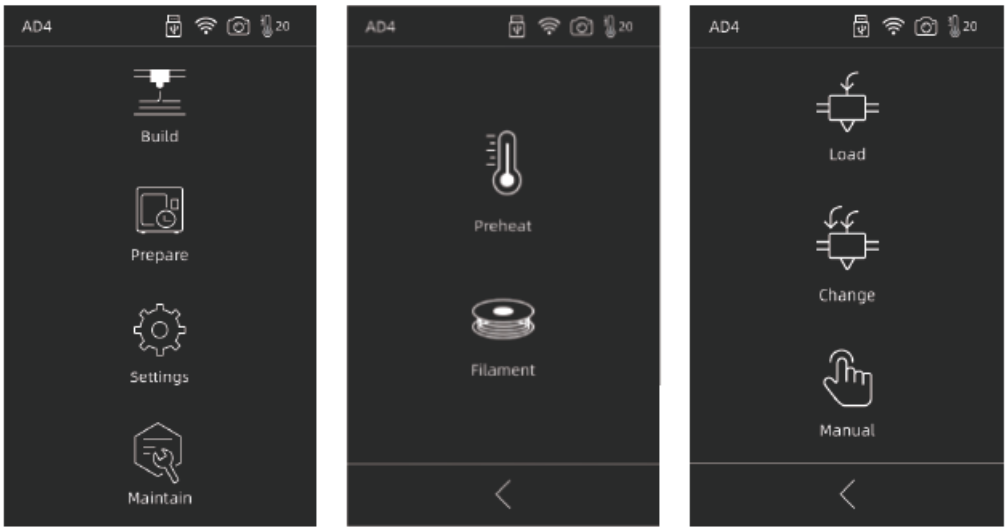


Manual
Click on [Manual], extruder will be heated up to preset temperature. Choose filament length, and choose [Load/Unload].

Note

Note that manual mode should be preferred when there is remaining filament in the tube.

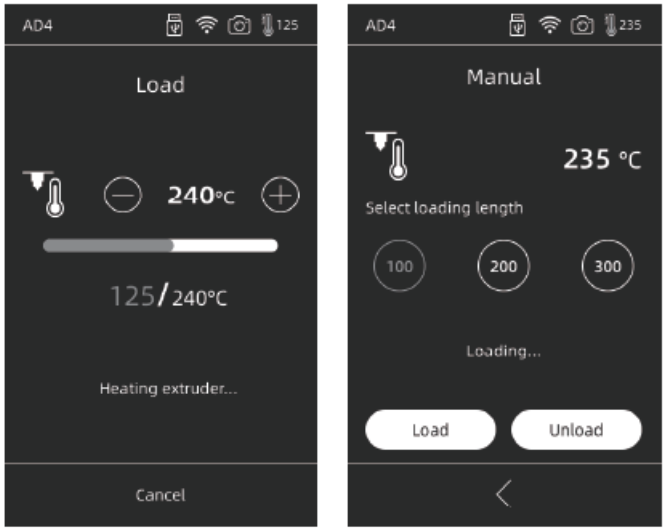
Settings



The following functions are included in [Settings]: Move, Network, Fan, Language, Status, Camera, Brightness, Light, FilamentDetect, Buzzer, PrinterName, About, factory reset.

- Move move the extruder left or right, (note that the noise is normal if it moves past the farthest point of the left side), and to move the build plate back and forth, (note that the noise is normal if it moves past the farthest point of the front side);
- Network Connect the device to hot spot/WLAN/Flash Cloud/Polar Cloud
- Fan to turn on/off the fan
- Language select language
- Status including device temperature X/Y/Z position etc.

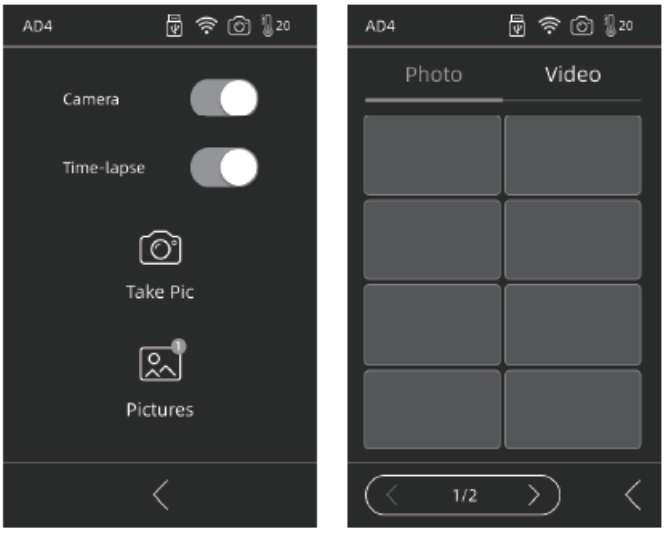
- Camera:



Remote monitoring. Turn on the camera during printing, and turn on time-lapse, and time-lapse video can be recorded in the memory disk; it can be found in
[Pictures]; choose [Take Pic], the live scene is saved as images;

- Brightness: Adjust the screen brightness;
- Light: turn on/off the light on the extruder;
- FilamentDetect: filament check sensor is on/off;
- Buzzer: Turn on/off the sounds of device startup and screen click; PrinterName: User can name the device;
- About: Information about this device;
- factory reset: this device is restored to factory setting.

Maintain

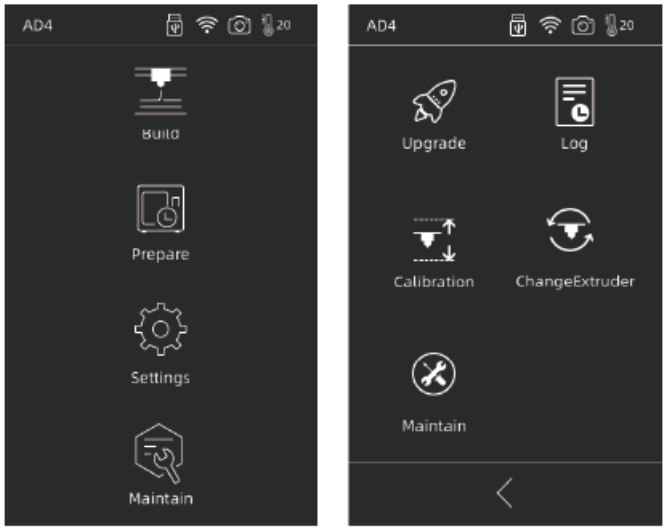


- Upgrade
- Log
- Calibration
- ChangeExtruder
- Maintain

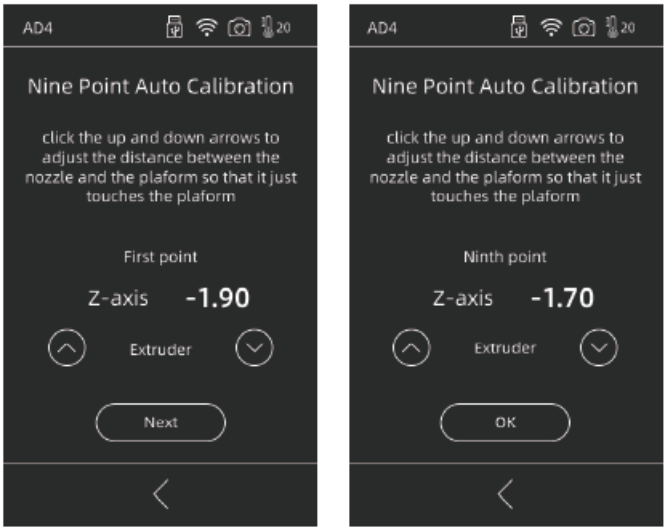
Upgrade
When the device is connected to the network, it will be prompted to upgrade when the new firmware is released;

Log
When the equipment has abnormal movements, the problem can be fed back to the official after-sales team of Flashforge by copying the log.

Calibration

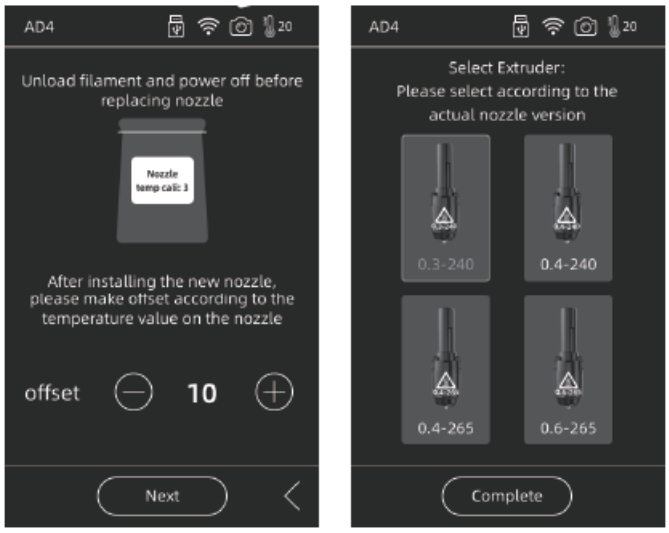


It is necessary to calibrate the distance between the nozzle and the platform after the first use or replacement of the nozzle;
Expert mode Expert mode is for experienced users to directly calibrate the distance. Click to make the extruder move upwards and Click to make the extruder move downwards.



Normal Mode extruder calibration and 9-point leveling offset are included.
Click on [Normal Mode] to start pre-calibration. The first point is to calibrate the initial distance between the extruder and the platform. Click on the up and down arrows to adjust the Z-axis deviation value. You can also sense if there is slight resistance by pulling A4 paper between them to decide the appropriate distance. In general, no further adjustment is needed. If a large size model still cannot be printed after extruder calibration, or failure occurs due to uneven platform, please finish 9-point leveling by calibrating all 9 points. After calibration, the software will automatically calculate a mean value for compensation; when calibrating each point, the user can also adjust the z-axis deviation by clicking the up and down arrows; after compensation, the value can be calculated and applied.

ChangeExtruder



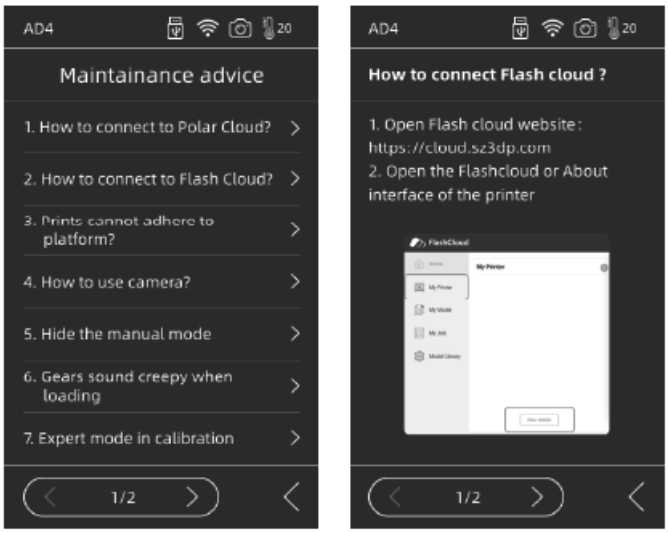
After installing a new nozzle, please set the compensation value according to the temperature the replaced nozzle adopts to; the actual deviation range of the extruder: -10 ~ 30. Click [next] to enter the extruder selection interface. Select the new nozzle to be installed and the maximum temperature during preheating will be set according to the selected nozzle. Please ensure that the installed nozzle is the same as the selected nozzle type, and click [Complete] to return to the maintenance interface.

Note

if a different nozzle is replaced, the default maximum temperature of preheating will change to the temperature of the replaced nozzle.

Maintain

In case of errors or unclear operation, please check and operate according to the maintenance suggestions first.

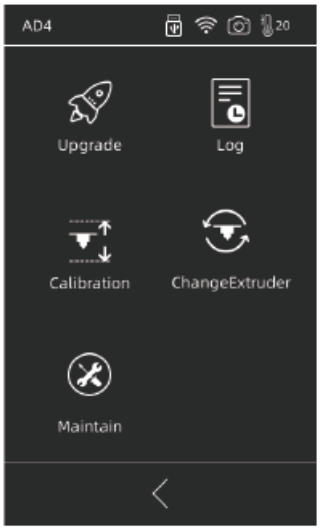


Software Installation

Find the FlashPrint installation package in the USB disk and select the version corresponding to your system to install. Or you can download it from **https://www.flashforge.com/download-center**.

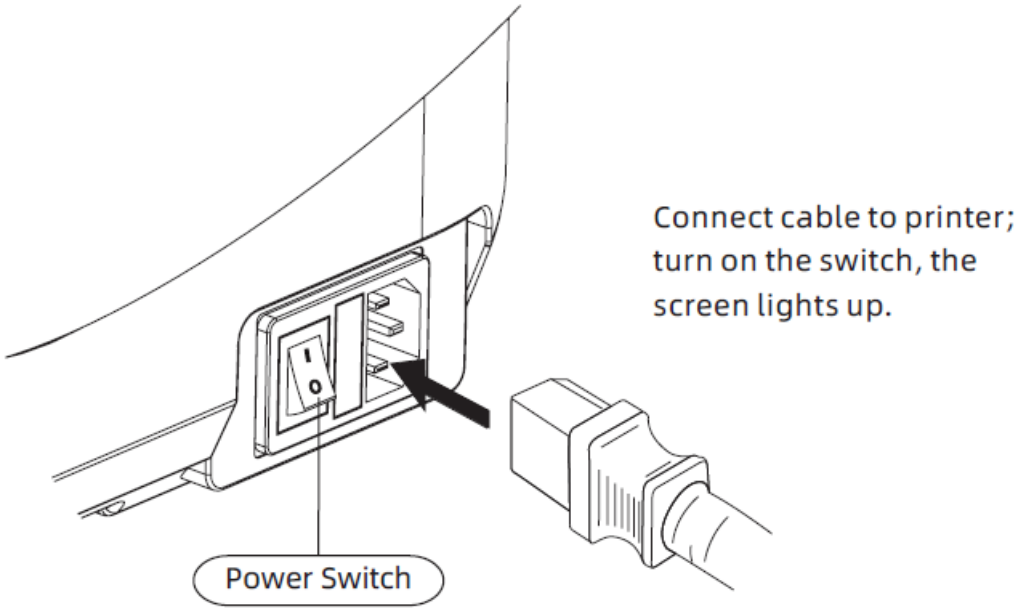
Preparation of Device

The equipment has been leveled and calibrated before delivery, but due to transportation or other influences, the distance between nozzle and platform may change. It is recommended to conduct [Calibration] after unpacking. This step is optional, please refer to the interface function introduction before operation.



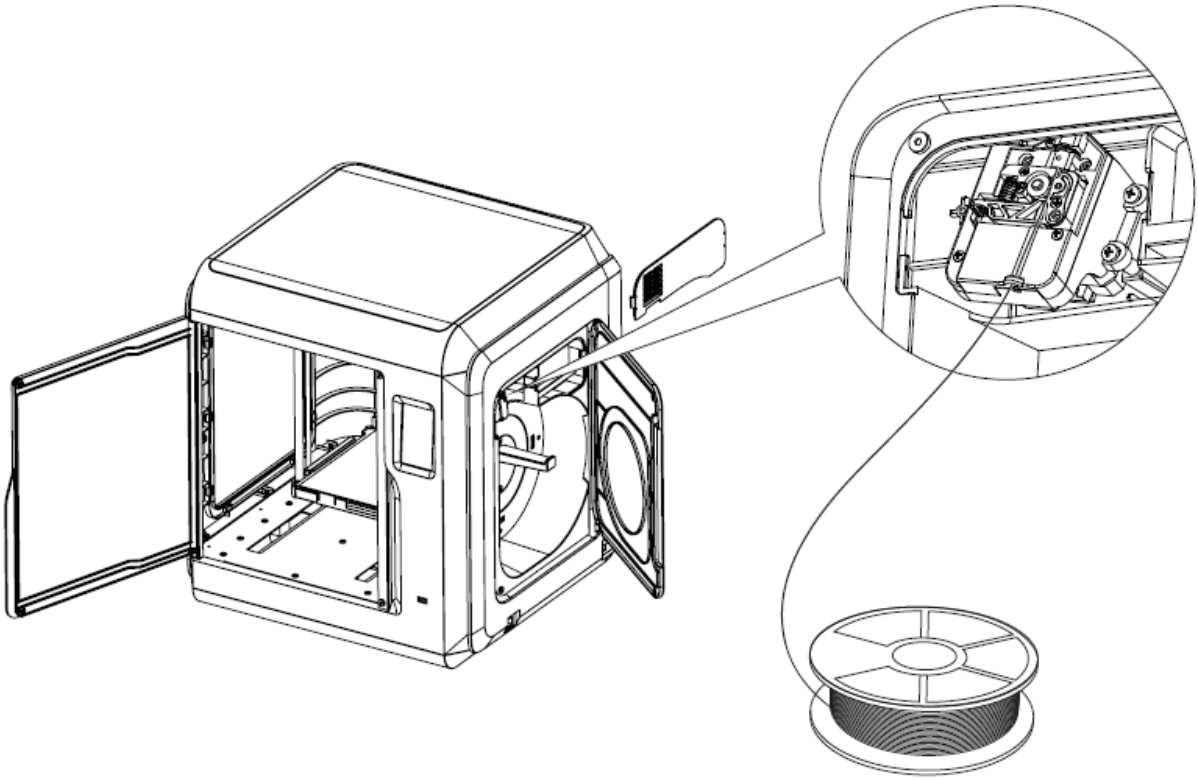
Print

Connect cable to printer; turn on the switch, the screen lights up.

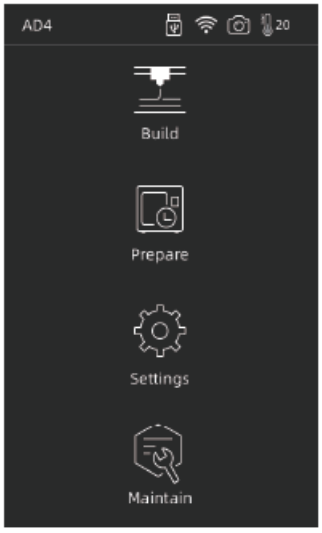


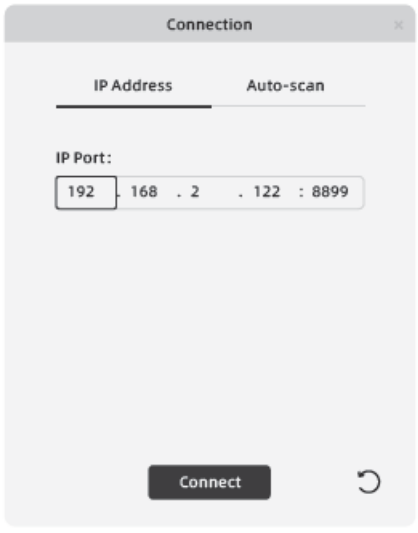
1. Connect to power.
2. Load Filament: open the filament cover on the right side, insert the filament into the filament intake, push filament into the feeding wheel until some resistance is felt. Please make sure filaments are in the feeding wheel. Tap [Prepare]-[Filament]-[Load]. Follow the instruction, filament coming out of the nozzle indicates a success.

   Note When the user wants to use the browser to view images, the printer and PC must be in an intranet (that is, the printer and PC connect to the same router).
3. Model File Transfer



Method 1: Wi-Fi Connection





4. Tap [Settings]-[Network]-[WIFI], operate according to the instruction. Open FlashPrint, click [Print], then click [Machine Type], select [FlashForge Adventurer 4 / 4 Lite]. You can try to enter the IP address or scan it automatically. The IP address can be viewed in [settings] – [about].

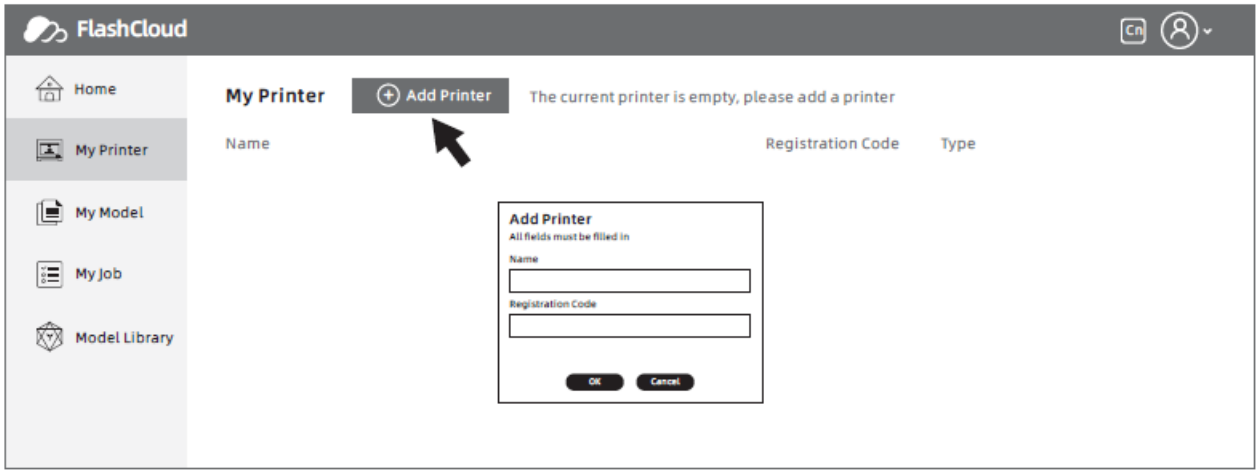
Import stl or obj file into the slicer; after slicing, the printer will heat up and start printing automatically.

Method 2: USB Device

Files can be read in a USB disk. Insert a USB disk and select the files to print.

Method 3: Cloud

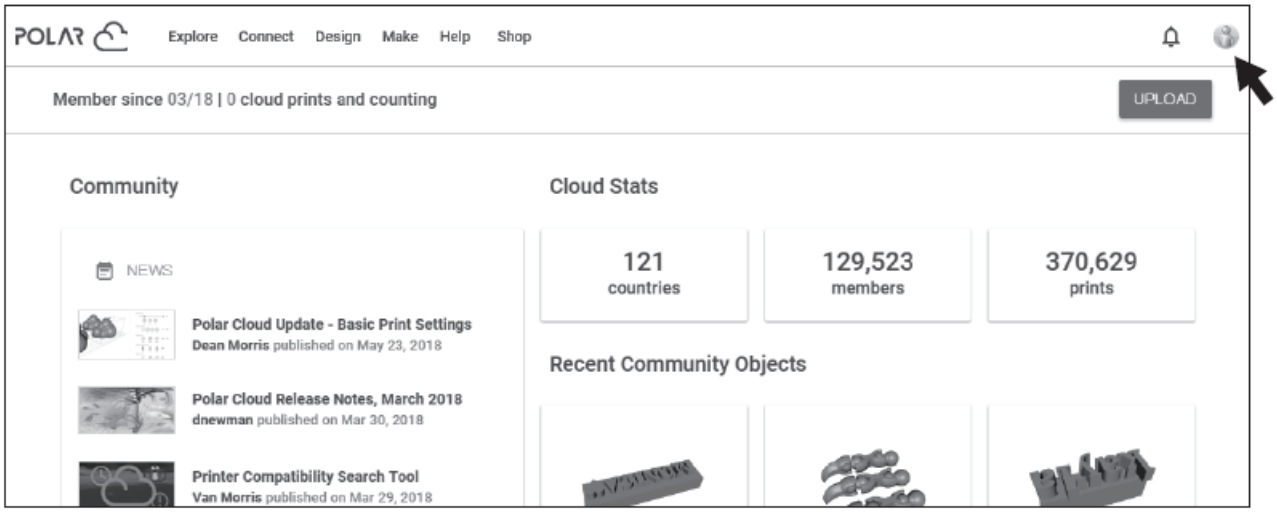
FlashCloud



1. Open the FlashCloud website (https:cloud.sz3dp.com) to register an account. After the mailbox is activated, you can log in and use it; after logging in.
2. Click [My Printer] – [Add Printer]. Fill in the registration number (Registration Code) on the
3. page and name the printer. After clicking OK, the information will appear in the FlashCloud interface of the printer.

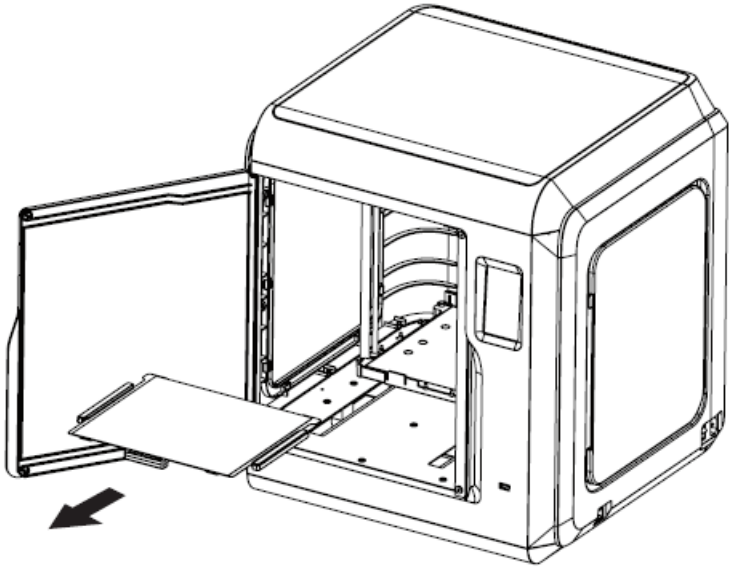
Polar Cloud

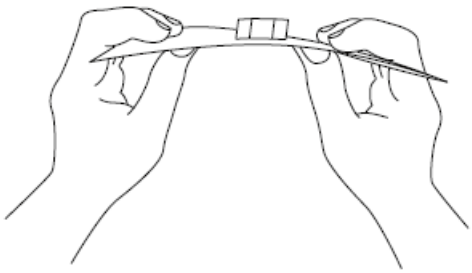
Register the Polar Cloud account at https://Polar3d.com.



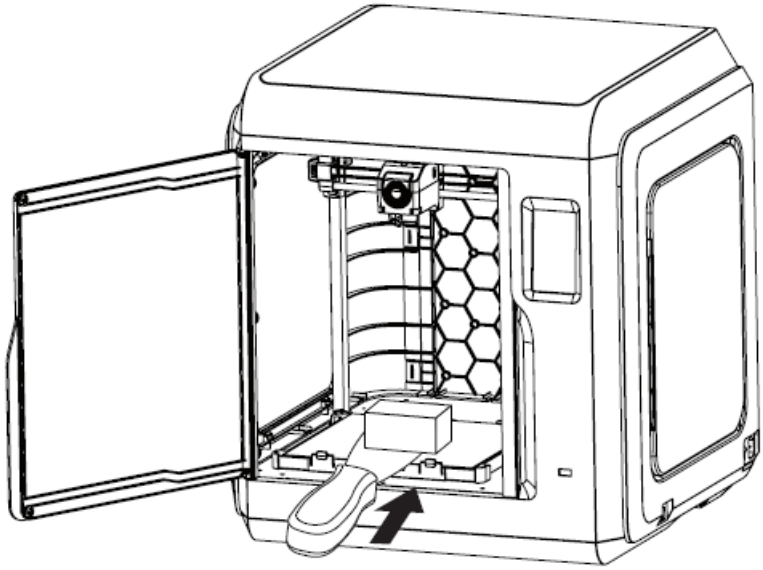
Inquire Polar Cloud PIN code. Turn on the Polar Cloud switch and enter your account number and PIN after connecting Adventurer 4 / 4 Lite to the network.

4. Model Removal





Adventurer 4: Take out the removable build plate, and bend the plate to get the model



Adventurer 4 Lite: Use the Scraper to take out the model

Note

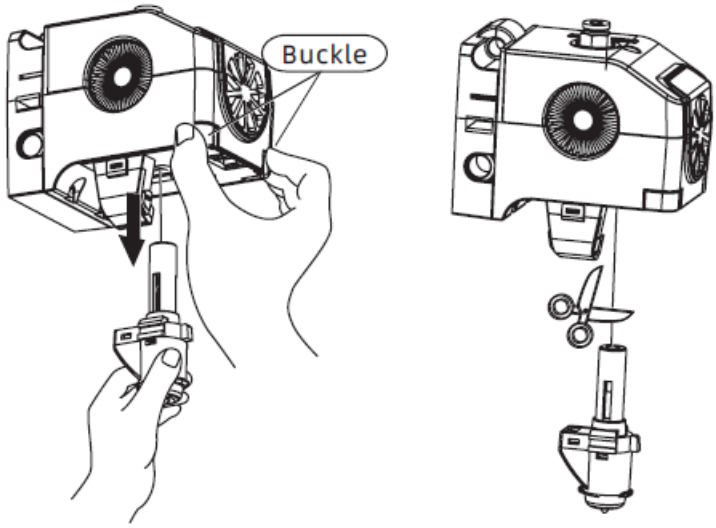
Nozzle and build plate are still hot after finishing printing, please wait for them to cool down before you operate. It is recommended to take the plate to the outside of the equipment for model removal, otherwise, the model debris will remain in the equipment. Please keep the inside of the printer clean.

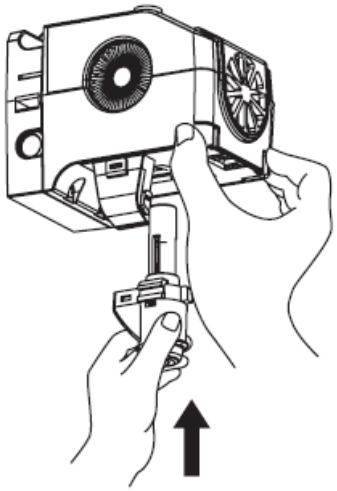
Q&A

- Q1. How to unclog the nozzle?
    1. Method1 Tap [Preheat], heat up the nozzle to the set temperature. Once completing heating, press the filament guide tube joint and pull out the filament guide tube. Check to see whether the filament is bent or the filament’s cross-section is smooth. If not, cut it smooth, install the guide tube, and filament back. Tap [Load].

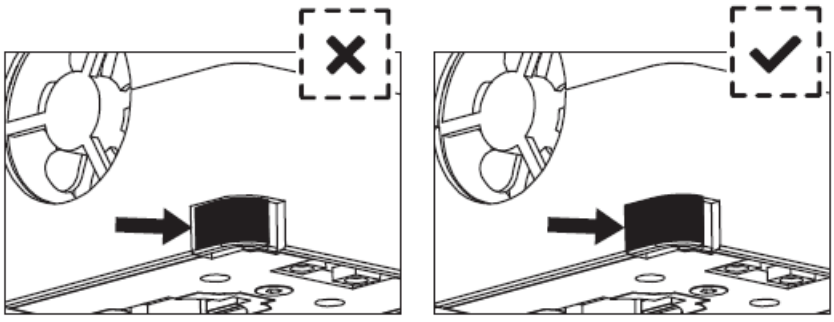
2. Method2 If method 1 does not work out, use an unclogging pin tool to unclog the filament.
3. Method3 If method 1&2 does not work out, please replace the nozzle.

- Q2. How to replace the nozzle?
  1. Press the left and right clips and pull out the nozzle.
  2. Push in the filament through the filament intake manually, making it long enough to be cut off;
  3. Rotate the filament spool anti-clockwise manually, making the filament retreat a little;
  4. Press the left and right clips, and install the new nozzle. Make sure the nozzle slot and bottom of the extruder are on the same level.
  5. Tap [Prepare] — [Load], filament coming out of the new nozzle indicates successful replacement.





- **Q3. Do we need to calibrate the extruder after replacing the nozzle?**



Yes, small errors may occur because of the calibration. To keep the best printing quality, you need to calibrate it again.

- Q4. What can I do if no filament comes out of the extruder after I choose the file and the extruder moves normally?
    1. Check the filament guide tube, and make sure the filament has been pushed into the extruder; if not, please tap [Load] till the filament comes out;
    2. check whether the extruder is clogged, if so, please refer to Q1.
- Q5. How to solve if the distance between nozzle and platform is too large(far away) or too small(that they collide)?
    1. Tap[Maintain]–[Calibration]
    2. The printer starts pre-calibrating. The first point is to calibrate the initial distance between the extruder and the platform (see Z-axis deviation value). Click the up and down arrows to adjust the Z-axis deviation value. With the help of the leveling card, you can feel if there is any slight resistance to decide the appropriate distance.
    3. When the extruder is still unable to properly print a large size model after calibration, or when the model fails to be printed due to uneven platforms, please continue using this function. The machine will calibrate the remaining 8 points. After calibration is completed, the software will automatically calculate a compensation mean to compensate. When each point is being calibrated, the user can also adjust the Z-axis deviation by clicking the up and down arrows. After compensation is completed, the value is memorized and the extruder goes back to zero.
- Q6. Can we use another brand filament which is not produced by Flashforge?
  Adventurer 4 Series supports ABS, PLA, PC, PETG, PLA-CF, PETG-CF, etc., which have different ingredients. Adventurer 4 Series tests out default settings like temperature and filament output to ensure the best printing quality. Other brands of filaments can be used with the parameters adjusted. Because the required temperature between different materials is slightly different, it is recommended to clean the previous filaments before using new filaments, otherwise it is easy to cause extruder blockage.
- Q7. Is Adventurer 4 Series compatible with all kinds of AC power input? Adventurer 4 Series is equipped with a built-in 24V/13.3A power supplier, suitable for 100V-240V input voltage.
- Q8. Is Adventurer 4 Series capable of turning itself off automatically after the printing job is finished?
  No.
- Q9. What kinds of file formats does Adventurer 4 Series support?
  Input: 3MF/STL/OBJ/FPP/BMP/PNG/JPG/JPEG Files.
  Output: GX/G files.
- Q10. Does Adventurer 4 Series support other cloud platforms besides FlashCloud?
  Yes, Adventurer 4 Series interface is open up to all other cloud platforms.
- Q11. Is the ABS printing safe?
  ABS filament will give off certain poisonous gas when heated up, please put the printer in well-ventilated condition when printing ABS. We suggest using non-toxic PLA filament when the printer is near children.
- Q12. How to solve edge warping and weak adhesion?
    - Method1 Heating up the platform can increase adhesion between platform and model.
    - Method2 Adding raft to model when slicing in FlashPrint.

- Method3 Apply solid glue to a platform before printing.
- Method4 Use extruder calibration in expert mode or leveling calibration to reduce the distance between the nozzle and the platform.
- Method5 Make sure the platform is flat. Complete 9-point leveling suggested.
- Method6 Apply extruder calibration to reduce the gap.

- **Q13. Is it a must to add a raft before printing the model?**

  Not necessarily. More filaments come out of the nozzle when printing the raft, the higher the success rate there will be. When the plate is heated, the adhesion between the model and the platform increases, which makes the model adhere to the platform well when printing, and also increases the success rate.

  Q14. After replacing the nozzle, the printer's status indicates that the extruder temperature is 300°C, and the fan is also working. Why is this happening?

  Note:

  Note that the temperature setting in the slicer file might not match the highest temperature of the replaced nozzle.

  Errors:

  Errors in the temperature display indicate that the new nozzle is not properly installed, and the extruder temperature cannot be read by the sensor. Please plug out and install the extruder again, make sure that the extruder is pushed to the end, and the buckle and bottom of the extruder are on the same level. Refer to Q2.

- **Q15. The extruder makes out chug noise and no filament comes out of the extruder, what is the problem and how to solve it?**

  Filament has not loaded into the extruder, which is most likely because the extruder is clogged or the filament guide tube is not properly installed. Check the guide tube joint first, if it's normal, refer to Q1 for resolution.

  Q16. What is the difference between filament loading, filament replacement and manual mode?

  Load: only load filament into the extruder Change:first unloading and then loading filament, from fast to slow; Manual: slow loading.

- **Q17. Adventurer 4 Series starts printing when the distance between the extruder and build plate is still large, causing filament unable to stick to plate.**

  Calibrate the printer again or finish Homing again before giving it another go.

  Q18. Printing files cannot be found when using a USB drive?

  The USB driver file is not correct. Adventurer 4 Series only supports the FAT32 file system, please format USB driver into the FAT32 file system.

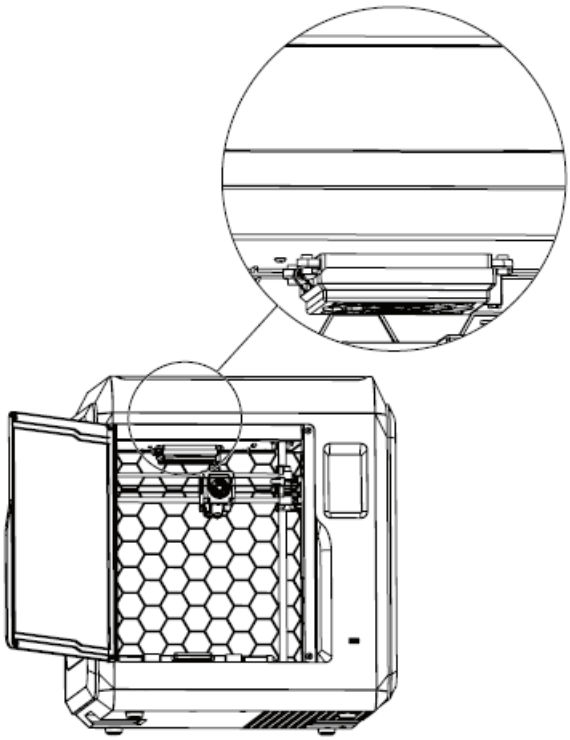
- Q19. How to connect to Polar Cloud?
  - Open Polar Cloud website, and log in account. https://polar3d.com;
  - Click in Cloud Account on the right top corner, roll down the page to find PIN code;
  - Open Polar Cloud on the printer, enter the account number and PIN code;
  - Turn on the switch and connect to Polar Cloud.
- **Q20. How to connect to FlashCloud?**
  - Open FlashCloud website: h**ttps://cloud.sz3dp.com/login.html;**
  - Open FlashCloud interface or about on the printer;
  - Add the printer on the FlashCloud website, enter name and registration code of printer;
  - Turn on the FlashCloud switch to connect the printer.
- **Q21. How to use a camera?**
  - Turn on the camera to watch live video on the Cloud

- The time-lapse function will take 100 pictures during printing and makes a video.

- **Q22. Operation of movement**
  - When the length is not selected, press the button to start the movement, and release the button to stop the movement;
  - When the length is selected, press to start the movement, release will not stop the movement until the corresponding length is reached.
- **Q23. Noise in the gear when loading filaments?**
  The printer adopts fast-slow loading, make sure there is no remaining filament in the guide tube.
- **Q24. What is expert mode in calibration?**
  In expert mode, the distance can be adjusted directly for experienced users. Details can be found in the calibration instructions for expert mode.
- **Q25. How to set printing parameters during printing?**
  Set printing parameters in the printer. Note that adjustments might be delayed to take effect, or improper adjustments will affect printing quality, please set it with caution.
- **Q26. Wi-Fi connection failure?**
  - Please check if there are any special characters in the Wi-Fi hotspot name, if there are any, please modify them and try again;
  - Check your password for special characters, and if so, try again after you have modified it.
- **Q27. Firmware update**
  Please do not disconnect the network during download or update to prevent update failure.
- **Q28. Turn on the printer with white screen and no firmware**
  - If you hear the power-on sound, change the screen or the wiring;
  - If you cannot hear the power-on sound, please contact the supplier.

Daily Maintenance Instructions

When the printer is not used for a long time, apply grease on the guide rail, do it regularly every other month. Put filaments in the drying box to prevent moisture. If it is used frequently, it is recommended to replace HEPA filter cotton once every 2 weeks.
Replace as follows:



1. Open the front door of printer, and find the air filter device indicated in the picture.
2. Open the air filter cover, put in a new cotton filter, and close the filter cover.

Support and Service

The Flashforge team is on standby and ready to help you with any challenges you may have with your 3D printer. If the issues or questions are not covered in this User Guide, you can seek solutions on our official website or contact us via telephone. There are solutions and instructions to common issues that can be found in our knowledge base. Have a look first as most basic questions are answered there. **http://www.flashforge.com** The Flashforge support team can be reached by e-mail or phone between the working hours of 8:00 a.m. to 5:00 p.m. PST Monday through Saturday. In case you contact us during the off-duty time, your inquiry will be answered the following business day.
Note: Because of changing different filament the extruder may be blockaded. It's not owing to quality issue, and outside the scope of 400 hours life. If users encounter this problem, please contact our after-sale department and finish clean work according to their instructions. Facebook Official Group Address: Flashforge Official User Group
Email **support@flashforge.com**
Address: No.518 XianYuan Road, Jinhua City, Zhejiang Province, China

Documents / Resources

	**FLASHFORGE Adventurer 4 Series UFP-FFSZAD4 Smart 3D Printer** [pdf] User Guide Adventurer 4 Series, UFP-FFSZAD4, Smart 3D Printer

References

- **We are the 3DEXPERIENCE company | Dassault SystÃ¨mes**

- Apache2 Debian Default Page: It works
- Flashforge Professional 3D Printer Manufacture -
- - 3d - 3d - 3d
- Flashforge 3D Cloud Login
- Polar Cloud
- download center 3d printer software