


# 4. Printing

## 4.1 Filament Loading and Changing

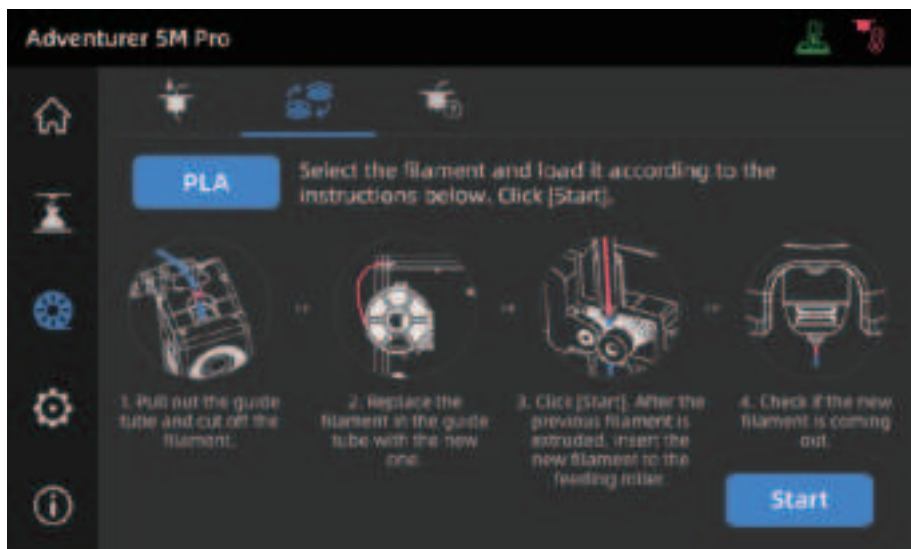
### 4.1.1 Filament Loading

Click [  ] to enter the filament loading interface and follow on-screen instructions to complete filament loading.

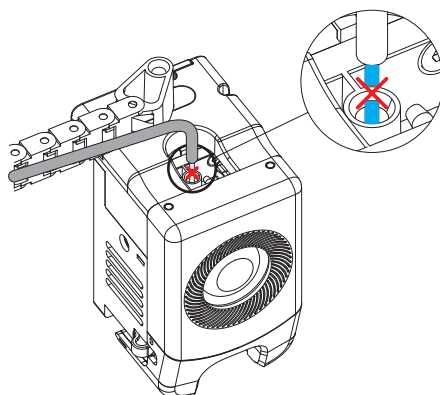


### 4.1.2 Filament Changing

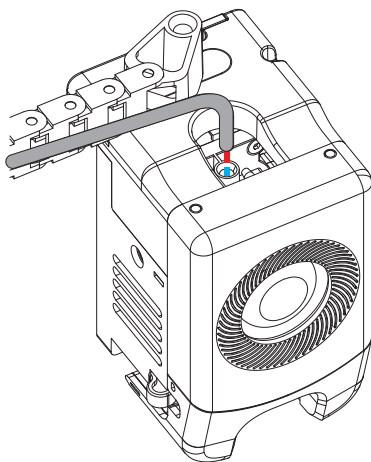
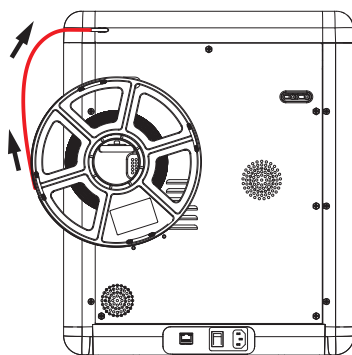
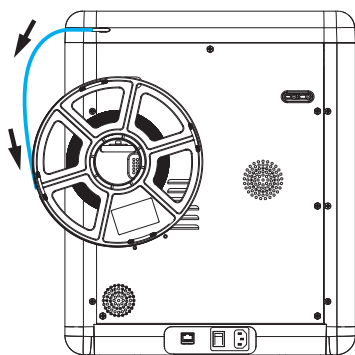
1. Click [  ] - [  ], and follow on-screen instructions to complete filament changing.



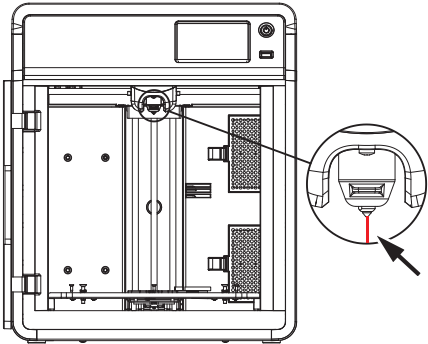
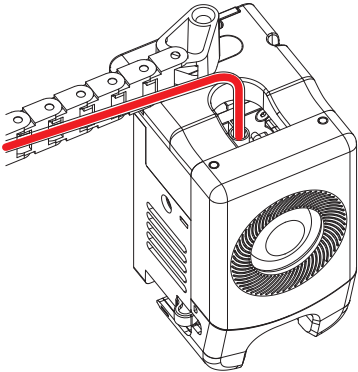
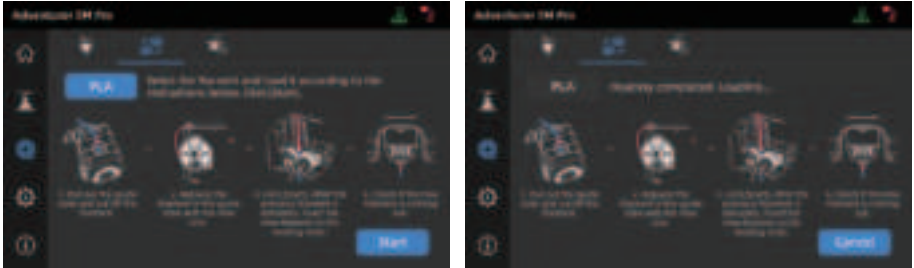
2. Pull out the filament guide tube as shown, and cut the filament.





3. Pull out the cut filament, and insert the new filament into the filament guide tube. If the material type is changed, click [PLA] to select the corresponding material type.



4. Click [Start], wait for the extruder to heat up and filament feeding will begin. When you see the previous filament is extruded, insert the new filament and observe its flow and the extrusion. If the new filament smoothly comes out of the nozzle, the filament change is successful. If not, hold the filament by hand, insert it into the inlet, and click [Again] to retry. Feel for filament movement until it is extruded. After successful loading, insert the filament guide tube into the inlet.



- 
**Note**
1. If the previous filament roll is completely used up and there is no filament in the guide tube, you can proceed with the loading process directly.
  2. When changing filament, try to clear out the old filament using the new filament.
  3. You can click  to view the nozzle usage guide on the screen.

## 4.2 Network Connection

Click [🔧] - [📶] to enter the network connection interface.



### 4.2.1 Wireless Network Connection

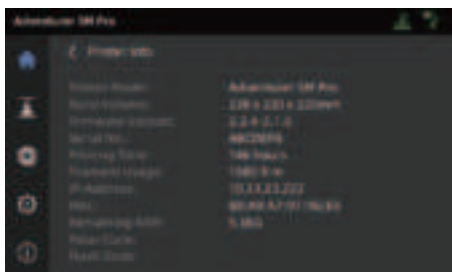
Turn on the Wi-Fi switch, and tap to connect to the corresponding wireless network. Once connected successfully, the network will be marked, and an [📶] icon will appear at the top right corner of the screen.

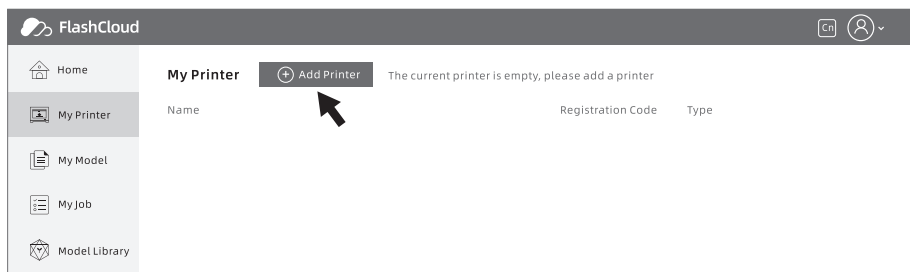


### 4.2.2 Wired Network Connection

1. Select [Ethernet] and plug the network cable into the Ethernet port on the back of the printer following on-screen instructions.
2. Once connected successfully, it will display as [Connected], and an [🖨️] icon will appear at the top right corner of the screen.



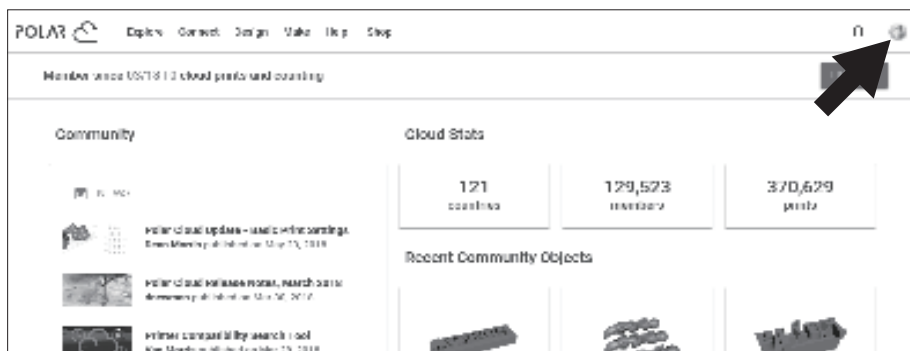
$$\uparrow - [\textcircled{i}].$$




**Printing via Polar Cloud** Open the Polar Cloud website and register an account.  
**Polar Cloud:** <https://polar3d.com>

Note: Polar Cloud service may not be available outside the United States.

After logging in, click the icon at the top right corner, click [Settings], and click [PIN Code] in the menu to find the PIN code.

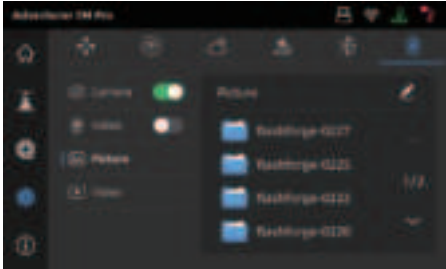


After connecting the Adventurer 5M Pro to the network, simply turn on the Polar Cloud switch and enter your account and PIN code.



## 4.4 Camera Connection

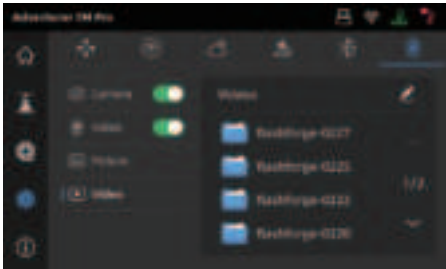
1. Click [🔧] - [📷] to turn on the camera switch.



2. After the printer is connected to FlashPrint 5, you can view real-time images via FlashPrint 5 - [Multi-Machine Control].



3. Turn on the video switch, and video files will be generated after the model is printed. You can export them to a USB flash drive for viewing.





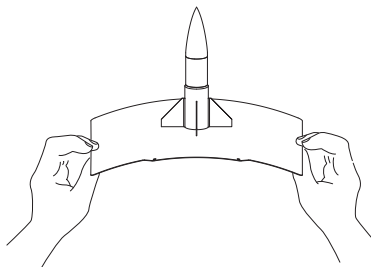
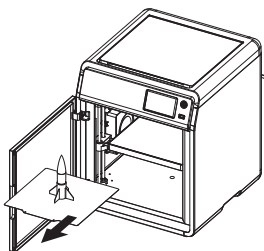
## 4.5 Model Removal After Printing

**Note** When printing is completed, the nozzle and build plate may still be at a high temperature. It is recommended to allow them to cool down before removing the model.

After printing is completed, directly take out the flexible steel plate and bend the platform to remove the model. Ensure there is no residual filament on the platform before the next print.

Tips on Model Removal:

1. Please take the platform plate outside the printer for model removal to prevent model debris from accumulating inside the printer. It's recommended to keep the chamber clean.
2. For models printed with TPU or other flexible materials, it is recommended to use a scraper for removal, which ensures you can remove the flexible model from the bed without causing damage.



# 5. Introduction to Auxiliary Functions

**Note** The interface layout may change whenever there is an upgrade of firmware.

## 5.1 Leveling and Calibration



During the first startup, equipment calibration will be performed. During subsequent use, choose leveling or vibration compensation as needed.

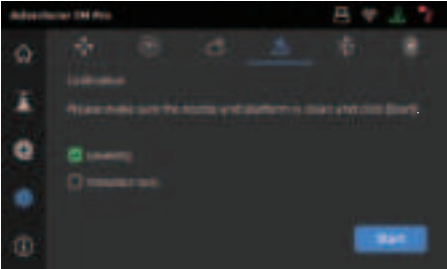
**When to perform leveling:**

- ◆ If continuously printing with PLA material, perform automatic leveling once with no need to do so before each print. However, performing leveling can inevitably improve the printing success rate;
- ◆ When switching between different materials (e.g., from PLA to ABS), please perform leveling before each print;
- ◆ If the platform-nozzle distance is too far (poor adhesion) or too close (no filament extrusion), please perform automatic leveling;
- ◆ After replacing the build plate or nozzle, please perform automatic leveling.

**When to perform vibration compensation:**

- ◆ When there is noticeable ghosting and ringing on 3D prints;
- ◆ After adjusting the tension of the synchronous belt;
- ◆ When the printer has been unused for a long time and is now being restarted.

Instructions:  
Click [  ] - [  ] to enter the leveling and calibration interface. Choose [Leveling] or [Vibration test], click [Start], and the printer will automatically perform the corresponding operation.  
(Note: Before calibration, ensure there are no foreign objects on the platform or at the nozzle tip.)



## 5.2 Air Filtration

The printer has internal&external circulation air filtration mechanisms for different materials.  
During printing, the printer can automatically choose between internal circulation filtration or external circulation filtration based on the detected printing material. **(Note: Files exported from third-party slicing software cannot be automatically recognized and require manual selection.)**



## 5.3 Other Function Settings

In the information interface, you can enable or disable sound, filament detection and auto shutdown, and perform firmware updates.

- ◆ When [Filament detect] is enabled, the printer will stop printing if filament runs out mid-print.
- ◆ When [Auto shut down] is enabled, the printer will power off automatically 30 minutes after completing a print job.
- ◆ When connected to a wireless network, click [Firmware update] to view the current version, check for updates, and perform online firmware updates.



## 6. Maintenance

---

### 6.1 Suggestions on Platform Plate Usage

1. Powder coated PEI plate requires glue and is suitable for printing PLA/PETG/PLA-CF/PETG-CF/ABS/ASA. TPU printing does not require glue. This plate comes with the printer.
2. PEI film plate is suitable for printing PLA/TPU without glue. For PETG, it's recommended to use glue. This plate can be purchased separately.
3. PC sticker platform plate is suitable for printing PC/ABS/ASA. This plate can be purchased separately.
4. After applying glue to the platform plate, it can be cleaned with water.
5. If the platform plate gets oily, it can be cleaned with a dish detergent.
6. If the platform plate deforms significantly after long-term use, it's recommended to replace it with a new one.

### 6.2 Suggestions on Nozzle Usage

1. Please use one nozzle for the same type of material to avoid clogs and extend nozzle lifespan, especially when working with fiber-reinforced materials and PETG. Please avoid mixing them with other materials.
2. When switching to a different material with the same nozzle, if the new material's printing temperature is lower, adjust the setting to a higher temperature for filament extrusion to purge old filament from the nozzle.
3. When switching to a different material with a higher printing temperature, just load the new filament.
4. To clean residual filament inside the nozzle, you can perform multiple filament loading or manually clear any remaining filament using the unclogging pin tool.
5. After replacing the nozzle, please perform leveling again.

### 6.3 General Maintenance

1. Please apply lubricating oil to the guide rails after 200 hours of printing.
2. Please replace the filter cotton every 300 hours of printing or when it appears darker in color.
3. Please clean the filament residue inside the equipment chamber in time.

## 7. Q&A

### Q1. How to unclog the nozzle?

Method 1: Click [Load] and heat the nozzle to the printing temperature of the used filament. After heating, remove the filament guide tube, and check if the filament is bent or filament tip is not smooth. If so, trim and insert the guide tube and filament into the nozzle, then click [Load] and check.

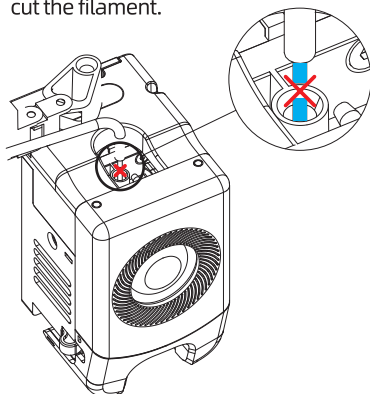
Method 2: If Method 1 doesn't work, use the unclogging pin tool.

Method 3: If Method 2 doesn't work, please replace the nozzle.

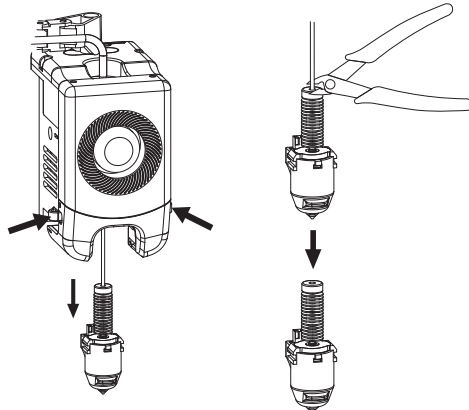
### Q2. How to replace the nozzle?

**⚠ Note** Please power off the printer before replacing the nozzle!

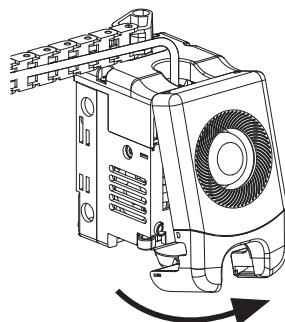
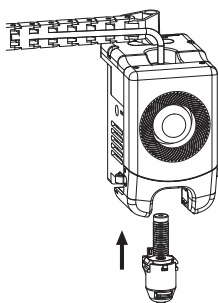
1. Remove the filament guide tube and cut the filament.



2. Press the left and right buckles and remove the nozzle. Trim the filament along the nozzle top.



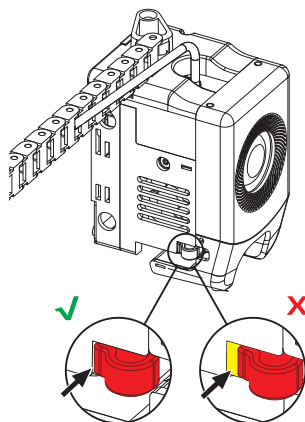
3. Insert the new nozzle into the extruder and you can hear a "click" sound indicating the buckle position has changed. Ensure that the nozzle slot aligns flush with the bottom of the extruder. Note: If you have trouble aligning the nozzle, you can press the buckles during installation or remove the front cover of the extruder (grab the lower part of the front cover with your hand and lift it upward slightly) to check the position.



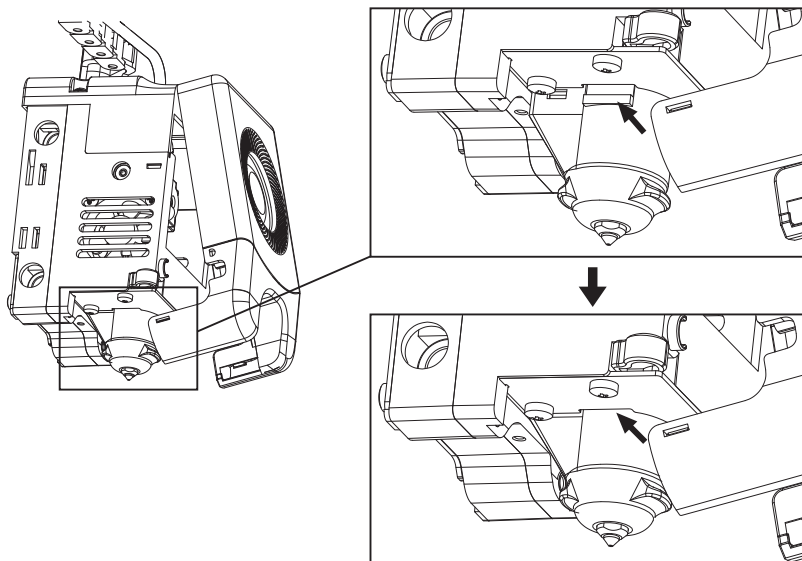
Whether it is installed in place is judged as follows:


1. Ensure the nozzle is pressed to the bottom firmly during installation.
2. Check if it is properly installed:

- a. Check the red buckle positions on the left and right.



- b. Check if the nozzle slot is flush with the bottom of the extruder (if your view is obstructed, you can remove the front cover of the extruder to observe).



4. Power up the printer, click [  ] to enter the loading interface, and follow the on-screen instructions to complete filament loading (refer to 4.1.1). Filament coming out of the new nozzle smoothly indicates a successful nozzle replacement.

### Q3. Is leveling required after nozzle replacement?

Yes. It is recommended to perform automatic leveling to ensure high print quality as slight errors may occur during nozzle installation. The equipment defaults to the leveling operation before each print.

#### **Q4. What to do if the extruder moves but doesn't extrude filament at the beginning of printing after clicking the model for printing?**

1. Observe the filament guide tube to check if filament has entered the nozzle. If not, please click [Load] until filament comes out.
2. Check if the nozzle is clogged. If so, please refer to the solution of Q1.

#### **Q5. What to do if the nozzle position is too high (far from the platform) or too low (hitting the platform) during printing? How to level it?**

Please check if the platform is properly installed and there is no excessive residue on the nozzle. If these issues exist, address them first. Then, go to the settings interface, select the leveling option, and perform automatic leveling or enable automatic leveling before printing.

#### **Q6. Can filaments from other brands be used?**

Yes. You can use filaments from other brands, but certain parameter adjustments are required due to slight temperature differences in different filaments.

#### **Q7. Is it safe to print with ABS material?**

ABS can release toxic gases during heating. It is recommended to enable internal-circulation air filtration during or after printing. If conditions permit, consider printing in a well-ventilated area. It is recommended to print non-toxic materials such as PLA in children's activity places.

#### **Q8. What to do if the printed model warps or doesn't adhere well?**

- Method 1: Increasing the platform temperature can improve the adhesion between the platform and the model.
- Method 2: Adding a brim during model slicing can alleviate the issue.
- Method 3: Apply glue.
- Method 4: Clean the platform to remove any oil or dirt.
- Method 5: Check if the platform is level. The leveling and calibration function can be used.

#### **Q9. What to do if print files can not be found and the screen displays only folders after inserting the USB flash drive?**

The USB flash drive format is incorrect. The printer supports the FAT32 file system. Please format the USB flash drive to FAT32.

#### **Q10. What to do with the Wi-Fi connection failure?**

1. Please check if the Wi-Fi name contains special characters. If so, modify it and try again.
2. Please check if the password contains special characters. If so, modify it and try again.

### Q11. Firmware update precaution.

Do not power off the printer or disconnect from the network during firmware download or update to prevent update failures.

### Q12. Why is the boot screen white?

If the startup sound can be heard, please replace the screen or cable. If not, please contact our after-sales personnel.

## 8. Help and Support

---

Flashforge's professional after-sales service personnel and salesmen are on standby for you at any time and are ready to help you with any problem you may have with the printer. If the issues or questions are not covered in this User Guide, you can seek for solutions on our official website or contact us by phone.

There are instructions and solutions to common issues that can be found on our official website. Many questions are answered at Flashforge's English official website - [www.flashforge.com](http://www.flashforge.com).

The Flashforge after-sales service team can be reached by phone from 8:00 AM to 5:00 PM, from Monday to Saturday. In case you contact us during off-duty time, your inquiry will be answered the next working day immediately. We apologize for any inconvenience this may cause.



#### Note

Changing different filaments may leave minor impurities in the nozzle, leading to clogs. As this can be solved by just unclogging it, it's not owing to a quality issue. If you encounter this problem during use, please contact customer support and follow their guidance for unclogging.

After-sales Service Tel: 400-886-6023

E-mail: [support@flashforge.com](mailto:support@flashforge.com)

Address: 3rd Floor, Building 2, No. 8 South Daxing Street, Tangxia Town, Dongguan City, Guangdong Province

Note: Please provide the product serial number which can be found on the barcode at the back of the printer when contacting customer support.



S/N: FFAD\*\*\*\*\*

## **FCC Caution.**

(1)§ 15.19 Labelling requirements.

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.

§ 15.21 Changes or modification warning

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

RF warning for Mobile device:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.