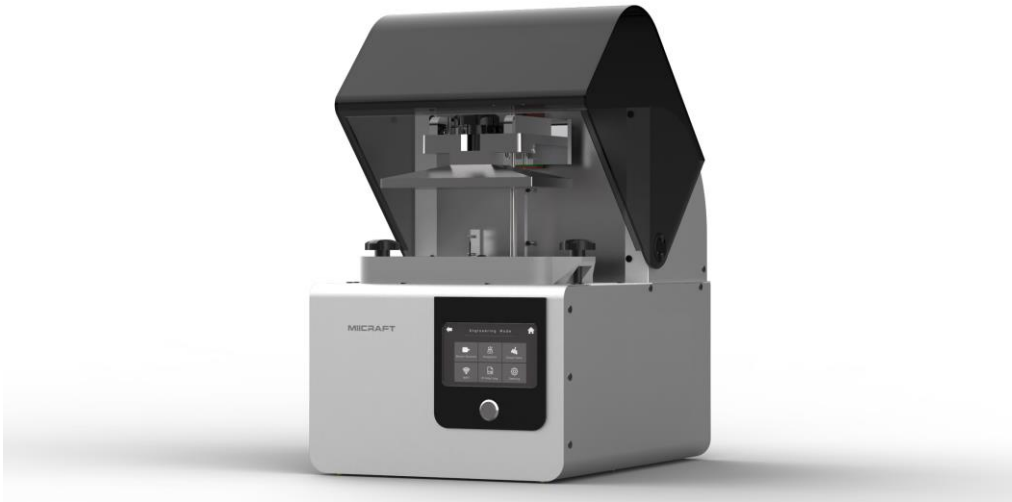


MiiCraft Maintenance Manual

Alpha Series

Version 1.0.1



MiiCarft Modules	Alpha Series
Building size (mm)	L 150 x W 84.4 x H 75
XY Resolution	58 um
Z-Layer Resolution	10 to 500um
Wavelength (LED)	405nm
I/O (Connection)	Ethernet / USB
User Interface	5" Touch Screen

The key components of the machine or 3D printer needs some maintenance for having smooth performance. Additive manufacturing uses key components of mechanical & electrical systems. Mechanical components need some regular & yearly maintenance for having better performance & long life. The common error & their maintenance method of MiiCraft 3D printer are provided in this manual.

Note - Unplug the power cable of the printer to start the maintenance procedure.

Contents

1. Z Motor Maintenance: -	3
Check Method: -	3
Gap Adjustment: -	3
Method 1: -	3
Method 2: -	5
2. Picker Maintenance: -	6
3. Teflon & holding Glass Maintenance (Alpha Series)	7
4. Common & frequently performed practices: -	8
5. Troubleshooting guidelines: -	9
6. Customer Support: -	11
Download Log Report: -	11
Remote Assist: -	12

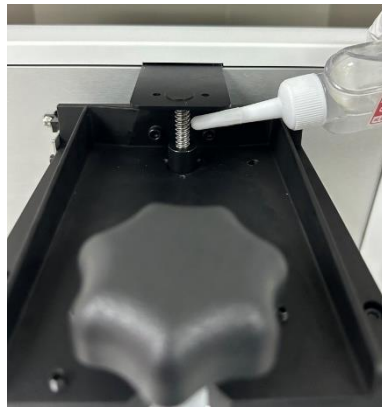
1. Z Motor Maintenance: -

Check Method: -

- Using Computer Interface
- Using the Touch panel

Procedure: -

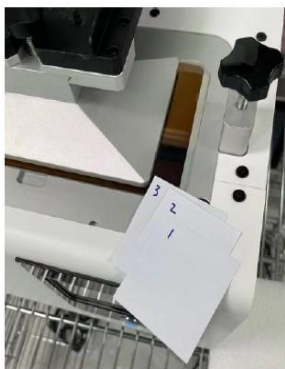
- Take the Z motor downward by using a touch panel or computer interface.
- When the platform touches the bottom limit sensor, add sewing machine oil on the guide pin shafts & central screw.
- The amount of the oil should not exceed 0.5ml.



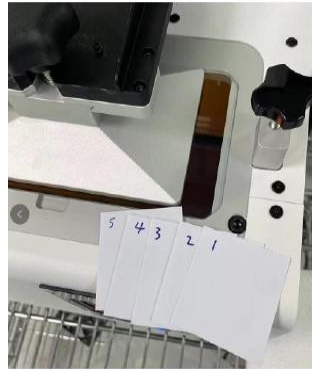
Gap Adjustment: -

Method 1: -

Use white paper to check the Gap at the four corners of the printing platform. The thickness of a piece of white paper is about (100um) 0.1mm. The Gap specification is 0.3~0.5mm. 3 pieces of paper should go in, and 5 pieces of paper can't get in.



Go



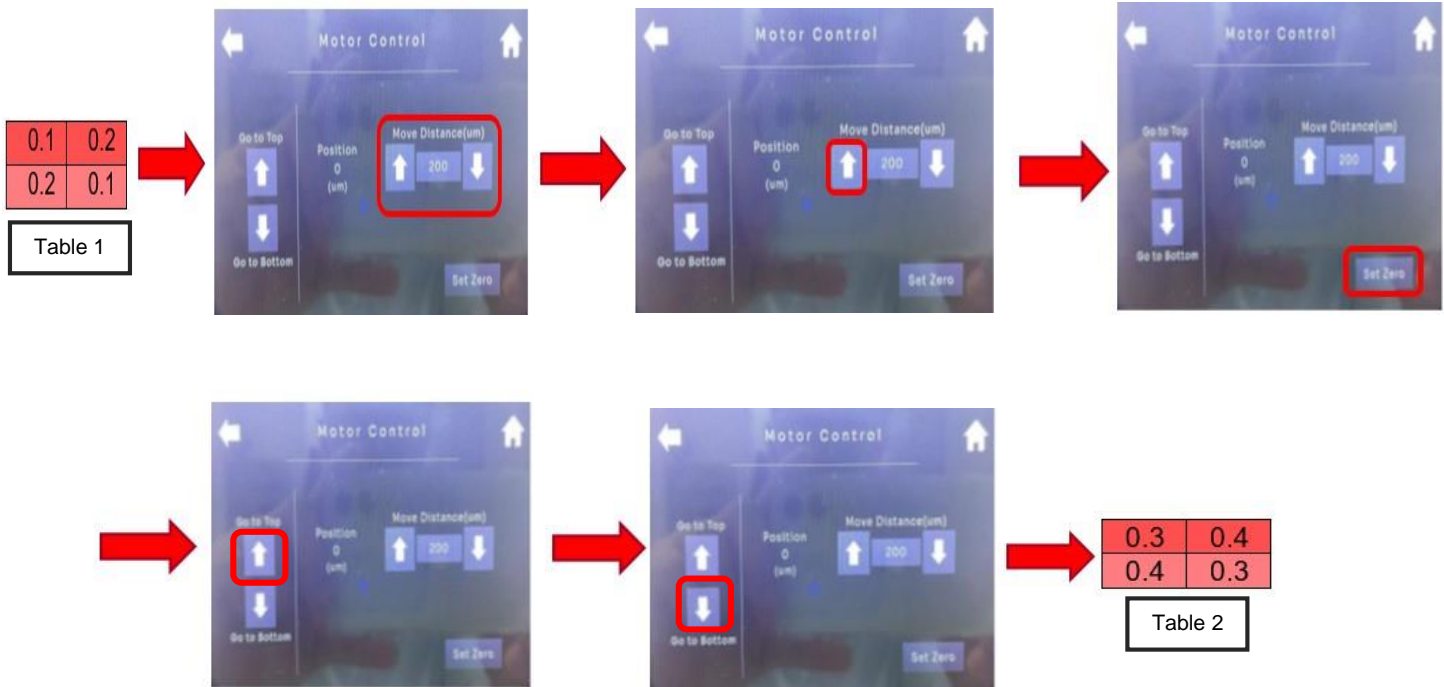
NO GO



Use the motor control to control the origin position of the Platform to control the size of the gap. The middle-value input 10um= 0.01mm and 100um =0.1mm.



Example 1: - Note down the gap values of the four corners measured by the printing platform (Picker/Build Platform) as shown in Table 1. Enter 200 in the motor control and press set zero Afterwards, move the printing platform (Picker/ Build Platform) up and down completely once, then measure the Gap as shown in Table 2, which meets the specifications.



Example 2: - Note down the gap values of the four corners measured by the printing platform (Picker/Build Platform) as shown in Table 3. Enter 200 in the motor control and press set zero. Then move the printing platform (Picker/ Build Platform) up and down completely once, then measure the Gap as shown in Table 4, which meets the specifications.

0.7	0.6
0.6	0.7

Table 3

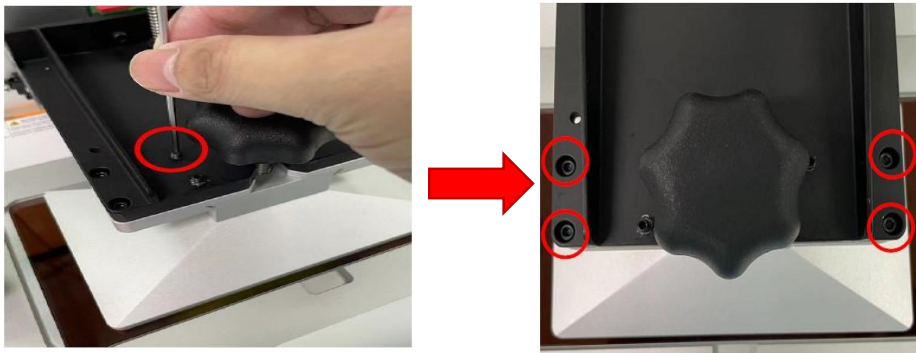


0.5	0.4
0.4	0.5

Table 4

Method 2: -

- i. If you cannot rely on Motor Control to adjust the origin position of the platform to adjust the Gap, you need to adjust the adjustment screw on the printing platform.
- ii. Make the 3 adjustment screws pre-press, loosen the 4 outer fixing screws, and turn the adjustment screws up and down according to the measured Gap value. Fix the 4 outer setscrews Lower the platform to measure the Gap Repeat this step until the Gap is adjusted into the gauge.



Example 1: - The Gap values at the four corners measured by the printing platform are shown in Table 5. At this time, the platform translation cannot be used to adjust the Gap. You need to use the adjusting screw to adjust. Turn the 3 adjusting screws downward continuously until they stop slightly touching foreign objects. Loosen the four fixing screws on the outside. Rotate the 2 adjustment screws on the left for about 1/8 turn to fix the four fixing screws on the outside. The Gap value measured by the lowered platform is shown in Table 6 and meets the specifications.

0.7	0.3
0.7	0.3

Table 5

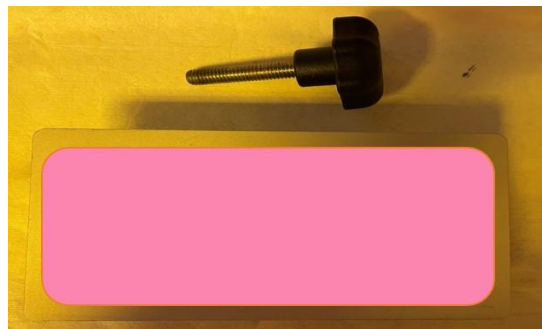


0.4	0.5
0.4	0.5

Table 6

2. Picker Maintenance: -

- Unscrew the Knob and clean the picker surface with Alcohol & dust-free wiper.



- Clean the back of the picker as well frequently to avoid resin addition on the picker holder.

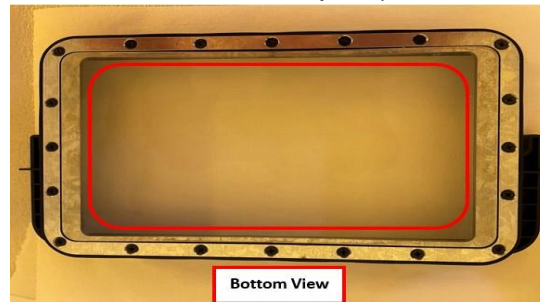


3. Teflon & holding Glass Maintenance (Alpha Series)

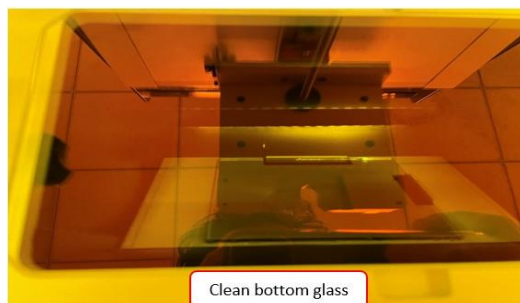
- Remove all of the failed parts from the tank.



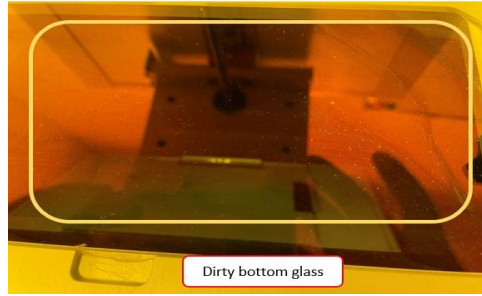
- Clean the Bottom side area with dust free wiper (Use alcohol if needed).



- Check the Glass bottom & keep the surface clean every time.



- Clean all spots & resin from the glass surface.



➤ **Inspection Details: -**

- ❖ Observation light source: - 8.8W LED bulb table lamp
- ❖ Observation method: - Visually for 5 seconds
- ❖ Cleanliness standards: - Any dust, oil stains, fingerprints and other dirt may affect the print results, so the glass should be checked regularly and kept as clean as possible to ensure the print quality.

4. Common & frequently performed practices: -

The following tables present maintenance and repair guidelines connected with each section of the MiiCraft Alpha series printers, together with specific checkpoints, necessary activities and their frequency.

SL. NO.	Activity	Frequency
1	Cleaning & checking the machine & interior Surroundings	Before Every Print
2	Cleaning Picker Surface	Before Every Print
3	Cleaning Teflon glass	After the change of Teflon or print failure
4	Change of Teflon	After 20 prints
5	Resin Mixing	Before Every Print
6	Check for printing residuals in the resin tank	After Printing / Must check if the print failure occurs
7	Cleaning Tank	After Print Failure
8	Restart / Shut Down	Shut Down the printer if there's no use
9	Z Motor lubrication	If noise in Z motor run

5. Troubleshooting guidelines: -

Problems	Remedy
My Z slide isn't moving when I press the relevant buttons in the Control panel as well as in the software.	<ol style="list-style-type: none"> 1. Press the power button to shut down the device then unplug the power supply and the USB from the side of the printer. 2. Wait for 10 seconds and reconnect. 3. If the problem persists, Call technical support and provide the problem description with the serial number and the log list (as shown below) for further assistance.
The built model fell off the build platform or nothing substantial was built.	<ol style="list-style-type: none"> 1. Filter your material using a strainer to ensure there is no debris left from the failed job in it. 2. Wipe out and check your material tray (resin tank) to ensure it is still in good condition. 3. Check the expiry date of the material and use the material within the suggested time period mentioned by the material manufacturer. 4. Damaged Teflon film, scratches, holes or wear in the material tray (resin tank) will cause this build failure. Must order new ones. 5. Dirty optics: clean the glass below the material tray after every print. 6. If this is not the case and you still cannot get a good job after straining or using fresh material, you may have an issue with your LED or the homing position of the build platform. 7. If the problem persists, provide the problem description with the serial number and global IP QR code(refer to remote Assist of the printer to the service and technical team for further assistance).
Sporadic blurring on the printed model.	<p>It is caused by contaminated material from alcohol or some other chemical.</p> <ol style="list-style-type: none"> 1. Pour the old material into a separate container. Do not pour it back into a new or unused material container. 2. Clean out the material tray completely with dry soft paper towels only, don't use any chemicals. 3. Clean the corners of the material tray with dry Q tips. 4. Replace with new material and rebuild parts. <p>To avoid future contamination:</p> <ul style="list-style-type: none"> • Do not place any chemicals near the material tray or resin. • Do not post-clean the part near the material tray, and do not clean the build platform with any chemicals but only dry paper towels.

Partial build failure	This could be several things or a combination of the following: <ul style="list-style-type: none"> • Damaged, scratches, holes or wear in the material tray (resin tank) will cause a build failure. • Weak supports. A weak or improperly placed support will cause a part feature not to build. Add additional support to the failed area. • A small feature is not completely attached to the main body of the part. In Q-slicer check to ensure there is no gap, all small features are completely attached, and the part is a single entity. • If it does not help, Contact Service & Support and provide the problem description with the serial number of the device and printing file (.stl &.3dp file format) for further assistance.
Error code 5 Top Sensor NG! Please reboot!	<ol style="list-style-type: none"> 1. Press and hold the power button for a few seconds to shut down the device then unplug the power supply and the USB from the side of the printer. 2. Wait for 10 seconds and reconnect. 3. If the problem persists, provide the problem description with the serial number and global IP QR code of the printer (refer to page 11)to the service and technical team for further assistance.
Error code 6 Bottom Sensor NG! Please reboot!	<ol style="list-style-type: none"> 1. Press and hold the power button for a few seconds to shut down the device then unplug the power supply and the USB from the side of the printer. 2. Wait for 10 seconds and reconnect. 3. If the problem persists, provide the problem description with the serial number and global IP QR code of the printer (refer to page 11)to the service and technical team for further assistance.
Error Code 7. Projector communication NG! Please call the service and reboot!	When the connection error appears: <ol style="list-style-type: none"> 1. Capture the picture of the error message and send it to the service and technical support. 2. Press and hold the power button for a few seconds to shut down the device then unplug the power supply and the USB from the side of the printer. 3. Wait for 10 seconds and reconnect. 4. If the problem persists, provide the problem description with the serial number and global IP QR code of the printer(refer to page 11) to the service and technical team for further assistance.
Error code 8. UV LED Power NG! Please call the service and reboot!	<ol style="list-style-type: none"> 1. Capture the picture of the error message and send it to the service and technical support. 2. Press and hold the power button for a few seconds to shut down the device then unplug the power supply and the USB from the side of the printer. 3. Wait for 10 seconds and reconnect. 4. If the problem persists, provide the problem description with the serial number and global IP QR code of the printer (refer to page 11) to the service and technical team for further assistance.
[Error 404] Upload Fail! Printing file 3dp check fail.	The printing file format is wrong. <ol style="list-style-type: none"> 1. Regenerate the printing file in the Q slicer. 2. If it does not help, Contact Service & Support and provide the problem description with the serial number of the device and printing file (.stl &.3dp file format) for further assistance.

<p>[Error 405] Upload Fail! Printing file extra parameters format fail.</p>	<p>The printing file format is wrong.</p> <ol style="list-style-type: none"> 1. Regenerate the printing file in the Q slicer. 2. If it does not help, Contact Service & Support and provide the problem description with the serial number of the device and printing file (.stl &.3dp file format) for further assistance.
<p>[Error 406] Upload Fail! Can not copy 3dp file.</p>	<p>It means that your printer does not have enough free space to load the job file. When this error appears:</p> <ol style="list-style-type: none"> 1. Check the memory usage in the printer information menu. 2. Go to the print menu on the touch panel of the device then click on the machine menu and delete a few jobs or 3dp files from there to free up some space. 3. If the problem persists, Contact Service & Support and provide the problem description with the serial number of the device and printing file (.stl &.3dp file format) for further assistance.
<p>[Error 408] Upload Fail! Printing thickness is invalid!</p>	<p>The layer thickness information of the job does not match that of the device.</p> <ol style="list-style-type: none"> 1. Regenerate the layer thickness of the job in the Qslicer software. 2. If the problem persists, Contact Service & Support and provide the problem description with the serial number of the device and printing file (.stl &.3dp file format) for further assistance.

6. Customer Support: -

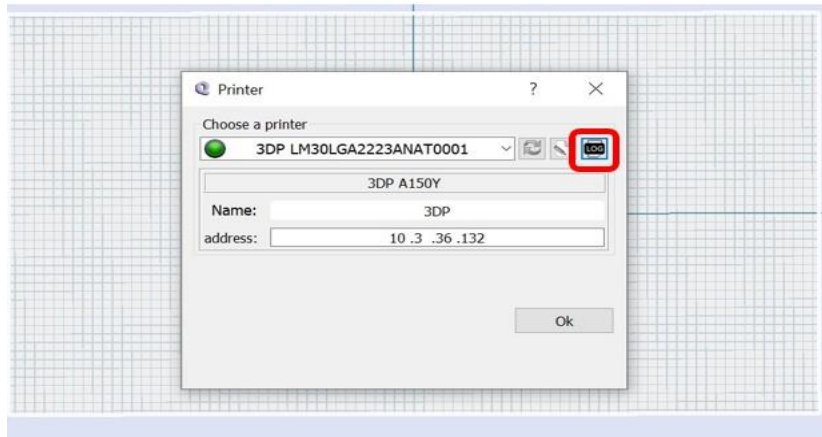
This section provides various options that help to get in touch with the MiiCraft Team for resolving any printer-related issues.

Download Log Report: -

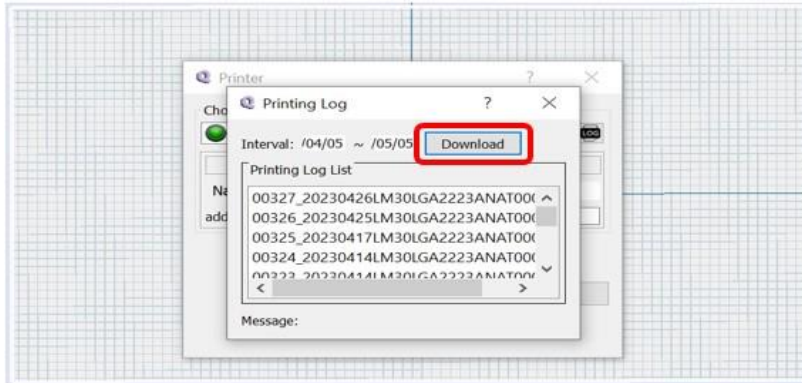
The Download Log Report feature allows you to download the log report with all the printer information.

Steps: -

Open the Q slicer software and connect the printer. Then click on the printing LOG list button as mentioned below.



Select the latest interval and download the latest log information of the printer by clicking on the download button as mentioned below.



To send the log report to Service and Support: -

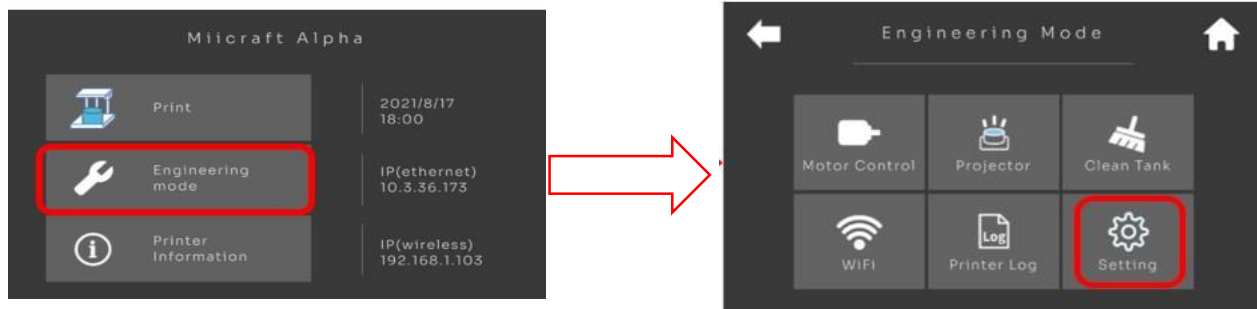
Find the file with a name similar to 00319_20230406LM30LGA2223ANAT0001.txt on your computer & send it to your personal Service and Support team.

Remote Assist: -

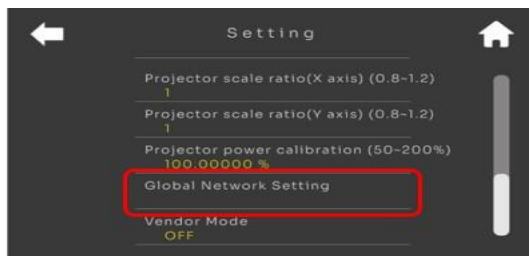
This feature allows you to grant remote access to the support representative.

Make sure the firmware version is **FW5.5.6.t4 or above**.

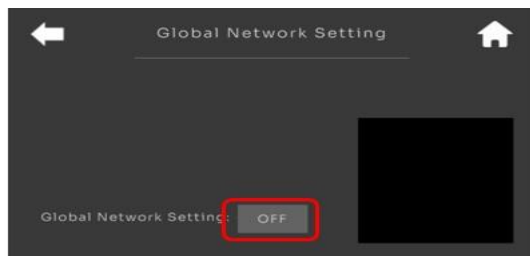
1. On the touch panel, go to the “Engineering Mode” > “Setting” page.



2. Find the “Global Network Setting” item. Press it to enter the setting page.



3. Press the button shown below to enable the global network.



4. scans the QR code and send the contents to the technical service team.



Thanks for reading carefully,
Team MiiCraft.