A8 PLUS User Manual

CONTENTS

Preface

Dear customer:

Thanks for choosing and using Anet 3D printer. For your convenience, please read the instructions carefully before using them and follow the instructions strictly.

Special Version:

1. All the contents in this manual have been checked carefully. If there is any misprint or misunderstanding of them, Anet reserves the right to interpret it.
2. This user manual is for reference only and does not constitute any form of commitment.
3. It is recommended to use Anet original filament.

1. Use Instruction

In order to prevent damage to you and others in the process of using, Please be aware of the following:

● Please do not attempt to use the machine in any way undescribed in the instructions to avoid accidental personal injury and property damage.

● Please do not place this machine near inflammable and explosive materials or high heat sources. Please place this machine in a ventilated, cool and dust free environment.

● Please do not place the printer on a larger vibrating or other unstable platform. The shaking of the machine will affect the printing quality.

● Please do not replace the power line of other products during installation. Please use the original power line supplied with the machine. The working power supply uses 110V-220V AC. The power plug must be plugged into the three holes socket with ground wire to avoid damage to components or accidents such as fire and electric shock.

● Please do not touch the nozzle and heating bed during the printer working to prevent high temperature burns and personal injury.

● Please do not wear gloves or wrappers when operating the machine in case the movable parts cause entanglement and cutting damage on the human body parts.

● After printing, please use the remaining temperature of the nozzle to clean up the filament on the it with the help of tools. Do not touch the nozzle directly with your hands during cleaning to prevent scalding.

● Please often do product maintenance. In the circumstance of power off, please regularly clean the printer body with dry cloth to wipe away dust and bonded printing materials, foreign objects on guide rails, and lubricating oil is recommended for sliding parts, screw rods and bearing parts.

● Children under 14 years old or people above 60 years old, please use this machine under the adult people to avoid personal injury.

● Some filaments will produce slight odor but it won't make people feel uncomfortable.

● Self-disassembly or modification may cause damage or abnormal performance, and your machine will no longer enjoy warranty service.

● It is recommended to use A8 PLUS in a well-ventilated environment. Please cut off the power supply after using.

2. Installation Instruction

●Please make sure the packing is intact before receiving the goods.

●After unpacking, please check carefully whether the parts list is consistent with the physical parts.

●If you have any problems, please contact your supplier or Anet in time.

●Pictures in this manual are for your reference ,please take the object as the standard.

3. Spare Parts List

No.	Picture	Name	Qty.	No.	Picture	Name	Qty.	No.	Picture	Name	Qty.
1		Chassis kit	1	7		Display screen	1	13		Protective tube bag（10A）	1 (Gift)
2		Vertical frame kit	1	8		Display screen holder	1	14		Rubber finger cot Wind mouth	2 (Gift)
3		Screw bag（T nut *3, M4*8 screw*3, M5*20 cylindrical head screw*4）	1	9		Filament holder kit 1	1	15		Tool bag（Hexagon wrench bag, transparent ruler, plier, screwdriver）	1 (Gift)
4		Limit switch bag (Limit switch*2, KB2.3*12*2)	1	10		Filament holder kit 2	1	16		A8 Plus electronic data (TF card,reder)	1 (Gift)
5		Power supply kit	1	11		Line bag （Heating bed line \ X, Y, Z1, Z2 motor line \X, Y, Z limit switch line）	1	17		PLA filament*10m	1 (Gift)
6		Mainboard kit	1	12		Black winding pipe bag (R clip, ribbon, fixing clip, winding pipe)	1	18		Power line	1 (Gift)

Attention: The gifts in the parts list and toughened glass do not enjoy the warranty policy.

4 Parameter

Model:	A8 PLUS	Nozzle diameter:	0.4mm
Layer precision:	0.1-0.4mm	Product dimension:	612*462*573 mm
Printing speed:	40-120mm/s	Product weight:	10±0.1kg
XY axis position precision:	0.015mm	Packing dimension:	600*570*215mm
Z axis position precision:	0.004mm	Packing weight:	12.8±0.1kg
Printing material:	PLA, ABS,HIPS etc.	Build volume:	300mm*300mm*350mm
Filament tendentiousness:	PLA	Display:	LCD 12864
Filament diameter:	1.75mm	Offline printing:	Yes
Software language:	English	Support file format:	G-Code, Gco
Moulding support automatically:	Yes	Operating systems:	Windows, MAC
Slice software:	Cura	Environmental requirements:	Temperature 0-40℃ Humidity 5-80%

5 Name of Parts

Filament holder

End cap

Guiding rod shaft sleeve

Z axis aluminum profile

Heating Block

Nozzle

X axis limit switch

Extruder kit

X axis belt

X axis guiding rod

Air blower

Right Z axis screw red nut support

Wind mouth

Power supply box

Z axis guiding rod

Z axis screw rod

Z axis limit switch

Coupling

Z1 axis motor

Heating bed kit

Rotary button

Power switch

Operation interface

Y axis belt bearing fixed kit

Rubber floor mat

6. Installation

Step 1

No.	Name	Qty.
1	Chassis kit	1
2	Vertical Frame kit	1
3	M5*20 hexagon socket screw	4

M5*20

Before assembly   After assembly

Vertical frame kit

Chassis kit

Screw holes are installed on aluminum profile

Attention:
1. The vertical frame kit is placed on the chassis kit, aligned with the hole position on the aluminum profile of the chassis, and the vertical frame and chassis are fixed with 4 M5 * 20 screws.
2. Corner bracket installation: tighten the screw with a wrench, the T nut will rotate 90°, the corner bracket is fixed.

Step 2

No.	Name	Qty.
1	Power supply kit	1
2	X Limit switch	1
3	KB2.3*12 Cross recessed countersunk screw	2

KB2.3*12

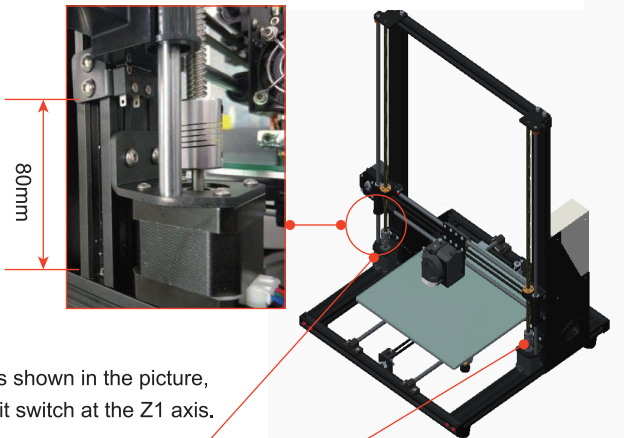Before assembly   After assembly
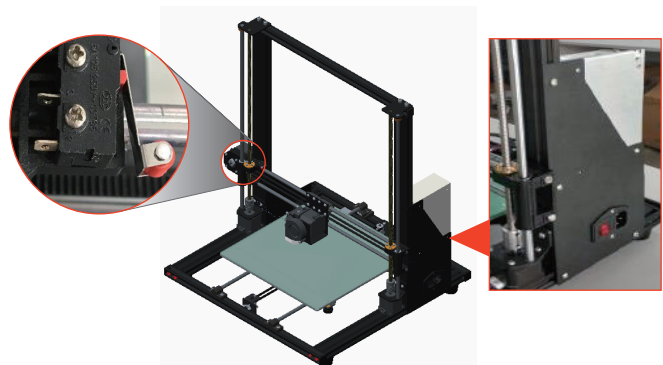
Attention:
1. Install the X axis limit switch as shown above.
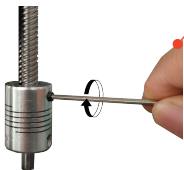2. Install the power supply kit on the aluminum profile card slot.

Step 3

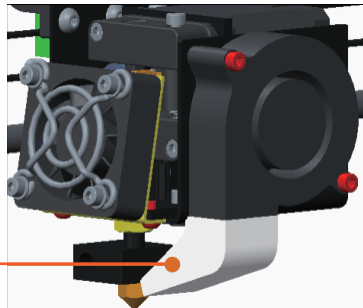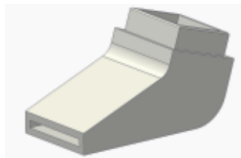| No.	Name	Qty.
1	Z axis limit switch kit	1
2	Wind mouth	1

The installation position of the Z axis limit switch is 80mm away from the Y axis profile

80mm

As shown in the picture, install the limit switch at the Z1 axis.

please tighten the screws of coupling with hexagon wrench to lock the screw rod .
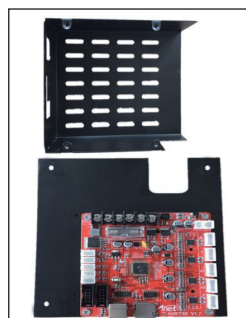
Installation diagram of Wind mouth

Step 4

No.	Name	Qty.
1	Mainboard kit	1

Before disassembly   After disassembly

Attention:

Split the mainboard kit, retain the 4 M3*6 hexagon socket screws.

Installation

Step 5

| No.	Name	Qty.
1	Cable bag	1

1.Disassemble the mainboard kit shell and fixed it into the groove.
2.Machine wiring: the wire of the extruder is wrapped with winding pipe, then it passes through the wire hole on the shell together with the left X axis limit switch wire and the X axis motor wire(as shown below picture).
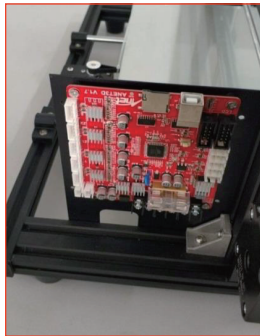
Fix mainboard on the groove.
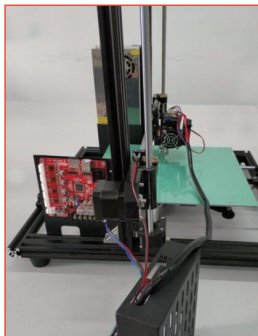
Please pass the lines of extruder, X axis limit switch and X axis motor through the square hole on the mainboard mask, as shown in the picture.
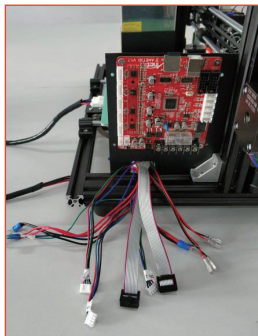
Pass all other wires through the holes under the mainboard (pay attention to the end that passes through matching the mainboard socket)
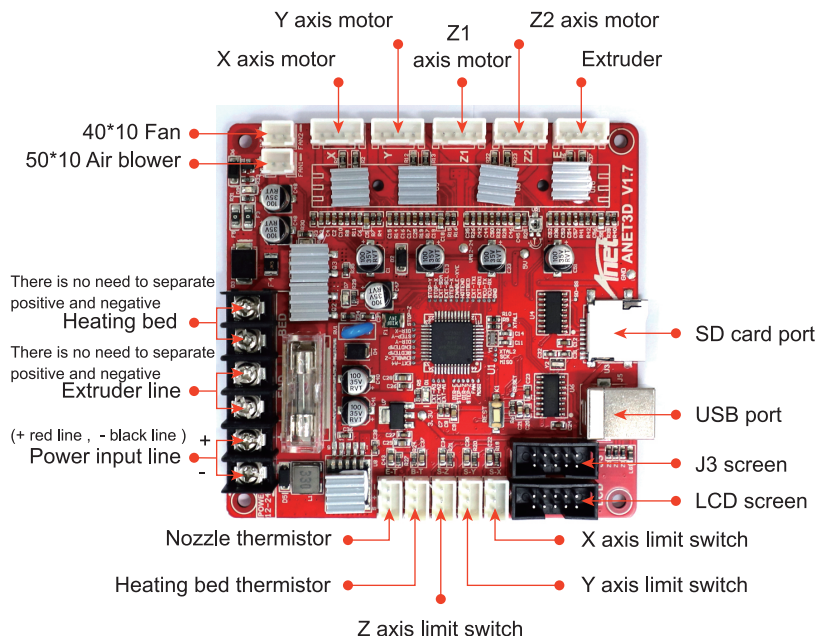
Step 6

According to the schematic diagram of the line port and the label of the wiring, find the corresponding wiring and plug in all the wiring, the cable with the word "-A" is connected to one end of the mainboard.

Wiring sheet:

Name	Wiring label	Mainboard port
X axis motor	X-Motor-A	X
Y axis motor	Y-Motor-A	Y
Z1 axis motor	Z1-Motor-A	Z1
Z2 axis motor	Z2-Motor-A	Z2
E axis motor	E-Motor-A	E
Extruder	Extruder thermistor-A	E-T
Extruder	Extruder heating tube-A	END
Display screen	LCD grey ribbon cable-A	LCD
Display screen	J3 grey ribbon cable-A	J3
X axis limit switch	X axis limit switch line-A	S-X
Y axis limit switch	Y axis limit switch line-A	S-Y
Z axis limit switch	Z axis limit switch line-A	S-Z
Heating bed	Heating bed-A	BED
Heating bed	Thermistor-A	B-T
TF card		TF card port
Power supply	Power supply line-A	+ -
Fan	Fan with line-A	FAN2
Air blower	Air blower with line-A	FAN1

8

Schematic diagram of line port installation

Y axis motor
X axis motor
Z1 axis motor
Z2 axis motor
Extruder

40*10 Fan
50*10 Air blower

There is no need to separate positive and negative
Heating bed

There is no need to separate positive and negative
Extruder line

(+ red line , - black line)
Power input line

SD card port

USB port

J3 screen
LCD screen

Nozzle thermistor
Heating bed thermistor
X axis limit switch
Y axis limit switch

Z axis limit switch

1. Except that the electronic wire shown in step 6 passes through the jack at the upper end of the mainboard, the remaining electronic wires are all pulled out from the holes under the mainboard, and the machine is connected from below the machine to avoid affecting the operation of the machine.

2. When all wiring is plugged in, please remove the zip ties on the black belt, plug in the power line, turn on the machine for trial operation(please refer 7.2 First Printing), and then install the mainboard shell after everything is normal.
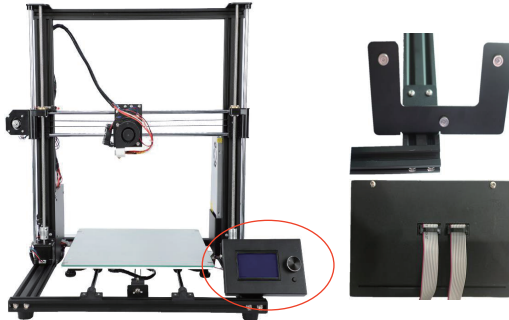
Installation

No.	Name	Qty.
1	Display screen base	1
2	Display screen kit	1

Step 8

No.	Name	Qty.
1	Filament holder	1
2	M4*8 Hexagon socket screw	2
3	M4 T nut	2

Before assembly   After assembly

After the installation of the display screen is completed, place it directly on the magnet to complete the installation of the display screen kit.

Before assembly   After assembly
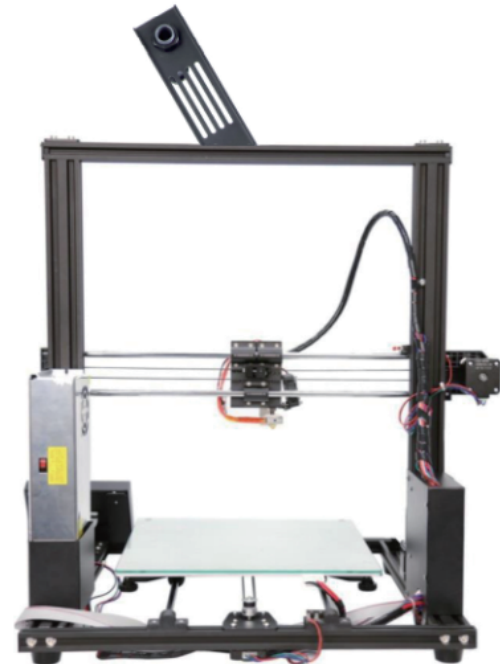
Schematic diagram of product installation completion:

Front

Rear

7 Machine Function Introduction

7.1 Operation Interface

Actual temperature of extruder

Target temperature of extruder

Target temperature of heating bed

Actual temperature of heating bed

Rotary button (left and right for selection, press for confirmation)

XYZ axis coordinates

Speed adjustment ratio

Printing time

Status bar

Printing speed bar

Reset button

12
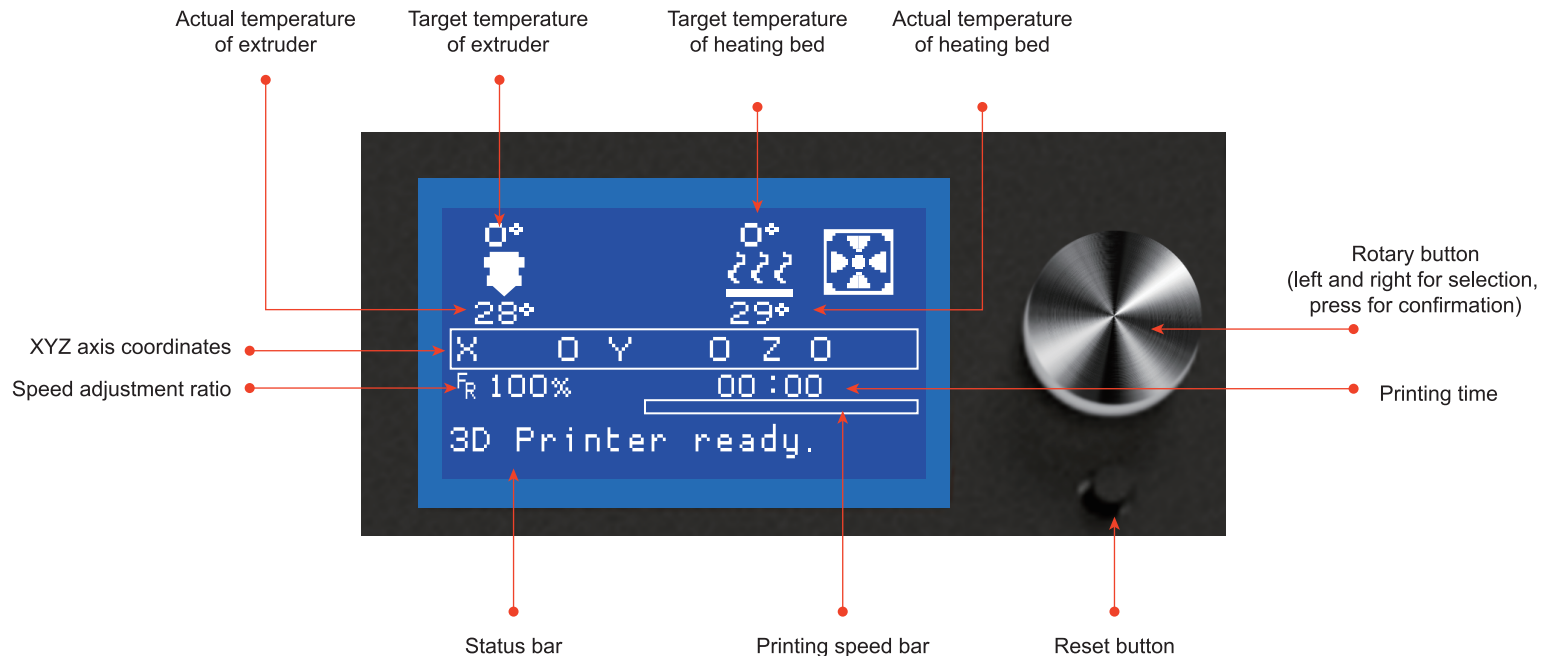
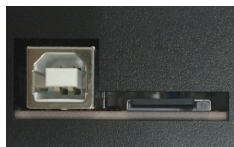# 7 Machine Function Introduction

7.2 First Printing

7.2.1 Install TF Card
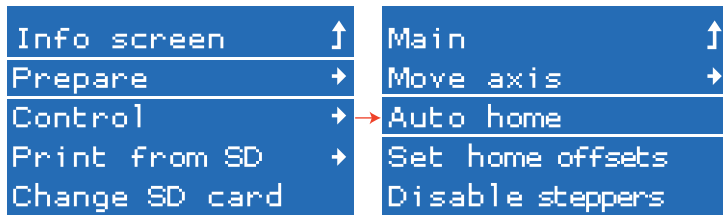
Insert TF as shown in picture


TF card

TF card installation completed

7.2.2 Machine leveling

1. Auto home operation: Adjust the spring around the heating bed to the tightest (counterclockwise), press the rotary button to enter the main menu, select"Prepare"→"Auto home", the machine begins to move toward the position of the limit switch until it stops moving after touching the limit switch.



```
Info screen        ↕
Prepare            ➜
Control            ➜
Print from SD      ➜
Change SD card
```

```
Main               ↕
Move axis          ➜
Auto home
Set home offsets
Disable steppers
```

2. Disable steppers operation: Press the rotary button to enter the main menu, select"Prepare"→"Disable steppers".

3. Manual leveling： Move the nozzle to the heating bed, and observe the distance between the nozzle and the heating bed from the front of the machine. If the distance between the nozzle and the four corners of the heating bed is 0.1mm (the thickness of a piece of A4 paper, A4 paper can pass through the gap and feel slight resistance), leveling is not required. If the distance between the nozzle and the four corners of the heating bed is greater than or less than 0.1mm, adjust according to step 4.
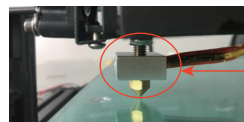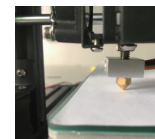

The distance between the extruder and heating bed.

4. Adjust the distance: Fine - tuning the "distance" to make its size about 0.1mm meet the printing requirement. Move the nozzle to the other three corners of the heating bed, and sequentially adjusting the spring compression of the four corners of the heating bed in one direction (clockwise or counterclockwise), so that an A4 paper (about 0.1mm) can pass through this distance and feel a slight resistance, and there is no scratch on the platform when moving the extruder.
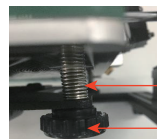
Adjust spring

Nut

Attention: turning the nut counterclockwise is tight and turning the nut clockwise is loose.

A4 paper can pass through the distance between the four corners of the heating bed and nozzle, and feel slight resistance.

7 Machine Function Introduction

7.2.3 Load Filament

1. Perheat Machine

Before loading filament, the machine needs to be preheated. The following pictures illustrates PLA filament as an example, and the operation is as follows. Operating method: Press the rotary button→"Prepare"→ "Preheat PLA"→"Preheat PLA", the machine starts to perheat (the main interface shows that the machine is perheat).
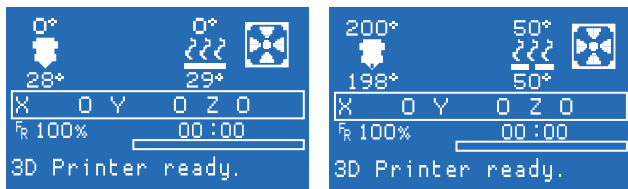
The heating bed and extruder reach the target temperature

Attention: If you want to print with ABS filament, you must select "Preheat ABS" for preheating.

2. Load Filament

Load filament automatically:

1. A roll of PLA filament: Filament specifications: Diameter :1.75mm; Material: PLA;Printing temperature: 200-230℃;

2.Please press rotary button →"Prepare"→"Change filament", the main interface will display "Heating nozzle Please wait……",the interface will display "Wait for start of the filament change" after the nozzle temperature rises to the target temperature →"Wait for filament unload " →"Insert filament and press button to continue…" → then please press rotary button;

3. Straighten up the filament (or cut the filament into bevels with plier),then pass the filament through the extruder;

4.Meanwhile the main interface will display "Wait for filament load" →"Wait for filament extrude",please click "Resume print"to start printing;

5. If the nozzle has filament outflow, the installation of filament is successful. If the installation of filament is not successful, please select"Extrude more"to re-load.

Attention: The function of automatic material advance and retreat is carried out according to the steps of material return first and material feed later, when the first printing has not started installing filament yet, please wait for 1 - 3 minutes. After the interface displays "Insert filament and press button to continue", insert filament into the extruder for automatic feeding.

14

```
    PRINT PAUSED
  Heating nozzle
  Please wait...

 Nozzle:E1 94/240
```

1) Heating nozzle Please wait.

```
    PRINT PAUSED
     Wait for
  filament unlosd

 Nozzle:E1 236/240
```

3) Wait for filament unload.

```
    PRINT PAUSED
     Wait for
  filament losd

 Nozzle:E1 239/240
```

5) Wait for filament load.

```
    PRINT PAUSED
   Wait for start
   of the filament
       change
 Nozzle:E1 236/240
```

2) Wait for start of the filament change.

```
    PRINT PAUSED
  Insert filament
  and press button
  to continue...
 Nozzle:E1 239/240
```

4) Insert filament and press button to continue.

```
    PRINT PAUSED
     Wait for
  filament extrude

 Nozzle:E1 240/240
```

4) Wait for filament extrude.

```
  RESUNME OPTIONS:
 Resume print
 Extrude more
```

7) Resume print
   Extrude more

3 Printing

1. After leveling is completed and the filament is installed successfully, press the rotary button to enter the main menu, press " Print from SD" → " Main" and select the file under " Main" to start first printing.

2. In the process of printing, if you want to pause printing, press the rotary button to enter the main menu, press " Prepare" → " Pause print" to pause printing, and press " Resume print" to resume printing.

```
Info screen     ↕     Info screen     ↕     Info screen     ↕
Prepare         →     Tune            →     Tune            →
Control         →     Control         →     Control         →
Print from SD   →     Pause print           Resume print
Change SD card        Stop print            Stop print
```

3. If you want to stop printing during printing, press the rotary button to enter the main menu, press " Prepare" → " Stop print" to stop printing, press the reset button to resume normal operation of the machine and select to reprint the model.

```
Info screen        ↕
Prepare            ➤
Control            ➤
Print from SD      ➤
Change SD card
```

```
Info screen        ↕
Tune               ➤
Control            ➤
Pause print
Stop print
```

7.2.4 Remove Model
Please remove the model by hand after printing .

7.2.5 Unload Filament

Automatic unload filament (taking PLA as an example)
Please press rotary button →"Prepare"→"Change filament", the main interface will display "Heating nozzle Please wait……",wait for 1-2 mins ,the interface will display"Wait for start of the filament change"after the nozzle temperature rises to the target temperature →"Wait for filament unload " ,the machine automatically unload filament ,then pulls out the filament in the vertical direction and unload the filament.

```
    PRINT PAUSED
   Heating nozzle
   Please wait...

  Nozzle:E1 94/240
```
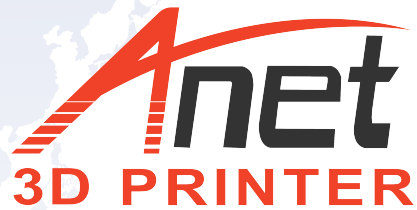
```
    PRINT PAUSED
   Wait for start
   of the filament
       change
  Nozzle:E1 236/240
```

1) Heating nozzle, Please wait...   2) Wait for start of the filament change

```
    PRINT PAUSED
     Wait for
   filament unlosd

  Nozzle:E1 236/240
```

3) Wait for filament unload

16

Anet
3D PRINTER

If you have any problems with the product ,you can obtain relevant services through the following channels:

Website: www.anet3d.com

Facebook after-sales group: www.facebook.com/groups/anet3dprintersupport

After-sales service email: anet@anet3d.com