

# Knox 3D Printing Pen Instruction Manual

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Thank you for purchasing the Knox 3D Printing Pen. In order to have a fun and safe time making your 3D ideas come to life, please read the following information carefully.



## Box Contents

- Knox 3D Printing Pen
- Pen Holder
- AC Power Supply
- Filament Starter Pack
- Product Manual

## Warnings!

1. This pen is for ages 8 Years or older. Anyone younger should be supervised by a parent or guardian.
2. Be aware that the nozzle gets extremely hot during use as it melts the plastic. Do Not Touch!
3. Do not insert anything into the end of the nozzle.
4. Due to compatibility issues and chemical differences between plastic filaments, we highly recommend that you ONLY use Knox 3D Printing Pen filament.
5. Keep away from water and other liquids.
6. Give the pen adequate time to cool down after use before storing in a safe & dry place, out of the reach of children.
7. Unplug the Knox 3D Printing Pen when not in use.

## Operating Instructions

### General Operation

1. Plug in 3D printing pen to an outlet. A yellow LED light will illuminate showing the pen is in “service mode”.
2. The LCD display will show “PLA” or “ABS”. Select the value that matches the type of filament you have. It is essential that you select the correct value as each type of plastic has different melting temperatures.
3. Adjust the temperature - ABS melts at 230C/446F - PLA melts at 170C/338F
4. Press the Forward button. A red LED will illuminate showing the pen is in “pre-heat mode”. The display will then start to reflect the current temperature of the pen.
5. When your selected temperature is reached, insert your filament into the back of the pen while using your other hand to press the Forward button. The engine inside the pen will catch the filament and begin feeding it through the pen. Once you begin to see filament extrude from the nozzle, you’re ready to draw!
  - a. NOTE: If the pen is left idle for 2 minutes it will go into standby mode. To wake the pen, just press the Forward button.

## Changing Filaments

### *Changing Color – Same Filament Type*

- Press the retract button for a few seconds and then pull out the unused filament. Insert the new filament and repeat Step 5 above.

### *Changing ABS-to-PLA*

- Press the retract button for a few seconds and remove the unused ABS filament.
- Press the forward button to make sure no ABS filament is remaining in the pen or nozzle.
- Unplug & plug in the pen to reset it. Go through the instructions again selecting PLA as the filament type.
  - **TIP:** *The pen should still be very hot from using ABS. You can feed PLA through right away to be 100% certain no ABS remains before cool down.*

### *Changing PLA-to-ABS*

- Press the retract button for a few seconds and remove the unused PLA filament.
- Unplug & plug in the pen to reset it. Go through the instructions again selecting ABS as the filament type.

## **Diagram: (Correct Filament Head Shape Before Inserting Into Pen)**



Correct



Wrong



Wrong

## Troubleshooting

Beep Sound	Pen is overheated. Lower temperature.
Plastic is Bubbling	Temperature is too hot. Lower temperature.
Plastic is Colorless and/or Hard to Extrude	Temperature is too low. Raise temperature.

## Specifications

- Extrusion Mode – Melting
- Material Compatibility – ABS or PLA
- Diameter of Material – 1.75mm
- Nozzle Hole Size – 0.7mm
- Melting Temp. (ABS) – 230C/446F
- Melting Temp. (PLA) – 170C/338F
- Adapter Current – 100/250V 3A
- Pen Electric Spec. – DC 12V 2A 24W
- Unit Size – 7.2” x 1.2” x 1.8”
- Unit Weight – 2.1 oz.