How to Replace the Nozzle – V1.0

Tools:

- 1 2mm hex wrench
- 2 8mm socket wrench
- 3 Long nose pliers
- ④ Heat resistant gloves
- (5) 0.3 mm Stainless Steel Feeler Gauge



1. Power on the printer.

2. Select "Utilities" > "Filament Loader". Then select "Unload" to unload the filament in the extruder (If there is no filament in the extruder, you can just skip this step).

| ॰ 🕫 😵 💥 Utilities | | | | | | | |
|--------------------|----------|--|--------------------|-----------|---------------|--------|--|
| Move | | Automatic L | (A) Automatic Load | | 🔅 Manual Load | | |
| Axes | | | | | | | |
| Filament Loader | L-Nozzle | [Raise3D] PLA 1.75mm Weight: 0.0g/1000.0g | | 245°C | Load | Unload | |
| | | | | | | | |
| | | | | | | | |
| Leveling | R-Nozzle | [Raise3D] PLA 1.75mm Weight: 985.7g/1000.0g | | 205°C | Load | Unload | |
| | | | | | | | |
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| | Home | Tune | | Utilities | | Print | |

Figure 1 Unload the filament.

3.Select "Utilities" > "Move Axes", select the upper arrow and lift the X axis to a proper height for the following operation.



Figure 2 Lift the X axis to a proper height.

4. Select the "Motor Disable" button, then move the extruder of which the nozzle should be replaced to the center position (this tutorial takes the left nozzle as an example).



Figure 3 Disable the motor and move the extruder to the center.

5. Select "Home" -> "L-Nozzle temp" and set the left nozzle temperature to 200°C, wait until the left nozzle reaches 200°C, then power off the printer. Use the nipper pliers to clean the extruder and the hotend slightly.

Note: The hotend is extremely hot, remember to put on the heat resistant gloves.

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|------------------------------|------------------------|-----------|-------|
| | 響 | Home | 📫 🔅 |
| 25 0 L-Nozzle temp R-N | 24 0 Heatbed ter | mp. | |
| Current | C Time Est. | | |
| O Percentage | Height | RAIS | E∋D |
| 2.91 | C | * | |
| Home | Tune | Utilities | Print |



Figure 4 Set the left nozzle temperature to 200°C, then power off the printer.

6. Remove the retaining screw with the 2mm hex wrench.



Note: The hotend is extremely hot, remember to put on the heat resistant gloves.



Figure 5 Remove the retaining screw.

7.Pull out the entire hotend from the extruder.

Note: Please be careful not to pull apart the cable.



Figure 6 Pull out the hotend from the extruder.

8. Clamp the hotend with the nipper plier, then remove the nozzle with an 8mm socket

wrench. (remember to keep the glove on during the whole process.)

Note: The hotend is made of aluminum. Do not clamp it with excessive force,

or you may distort it, and be careful not to break the cable.



Figure 7 Remove the nozzle.

9. After taking off the old nozzle, wait until the hotend drops to room temperature.

10. After the hotend drops to the room temperature, install the new nozzle back to the hotend.



Figure 8 Install the new nozzle.

11. Power on the printer. Set the left nozzle temperature back to 200°C.



| 9 A | | L-Nozzle temperature | | | | 0 | \$ |
|---------------------------|----|----------------------|-------|---|---|---|----|
| 24 | 20 | 00 | | | | | |
| 0 L-Nozzle temp, R-Noz | | ок | Cance | ł | | | |
| 1 | | 2 | | | 3 | | |
| 4 | | 5 | | | 6 | | |
| 7 | | 8 | | | 9 | | |
| | | 0 | | | × | | |

Figure 9 Power on the printer and set the left nozzle temperature to 200°C.

12. Clamp the hotend with a nipper plier, then reinstall the nozzle with an 8mm socket wrench.

Note:

1. Keep a certain gap between the nozzle and the hotend, and the gap should be not less than

0.05mm, and not more than 0.4mm. Or you can keep the gap of a feeler gauge (0.3mm).

2. The hotend is extremely hot, remember to put on the heat resistant gloves, and do not

overexert in case of gear slip.



Figure 10 Reinstall the new nozzle.

13. Insert the hotend into the extruder, then reinstall the retaining screw to tighten the hotend.



Figure 11 Install the hotend.

14.After the nozzle is replaced, run the five-step Offset Calibration to calibrate the nozzle's Z probe Offset. It is recommended to adjust the height of the left and right nozzles as well.

- 10 / 14 www.raise3d.com (For more information, please refer to the tutorial: Manual E2 - How to Adjust the Height of

Left and Right Nozzle – V1.0).

Note: You can find the "Offset Calibration" at "Settings>Machine>Maintenance>Offset

Calibration".



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|---|-----------------------------------|----------------|-------------------------|----------------------|--|--|--|
| | ٠ | Setting | | | | | |
| K Maintenance | | | | | | | |
| System Version | 20190530 20180522 | | | | | | |
| CPU Temperature | 47.5 °C | | | | | | |
| Make X-Axis Level Up | > | | | | | | |
| Offset Calibration | > | | | | | | |
| | | | | | | | |
| < | Offset C | alibration | | | | | |
| Make sure these requirements are all met, otherwise the guide may not be helpful. 1. The filament in both extruders is Raise3D Premium PLA | | | | | | | |
| 2. Nozzle diamet | er must be <mark>0.4mm</mark> (Th | e original no: | zzle diameter is | : 0.4mm) | | | |
| 3. Heatbed and n | 3. Heatbed and nozzle are clean | | | | | | |
| Start | | | | | | | |
| < | Calibrati | on Options | | | | | |
| 1 | | | | Offset Settings | | | |
| Left Z Probe Offset Measure the distance between the left nozzle and the heatbed when probe triggered ③ 10 min- | 2 3 Right Z Probe Offset | Bed Leveling | 4 R-Nozzle XY Offest | 5 Dual-Color-Cube | | | |
| | Ν | ext | | | | | |

Figure 12 Run the five-step Offset Calibration.

[How to Replace the Nozzle – V1.0]

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