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› Creality Ender 3 V3 SE 3D Printer Instruction Manual

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Creality Ender 3 V3 SE 3D Printer User Manual

MODEL: ENDER 3 V3 SE

1. Introduction

The Creality Ender 3 V3 SE is a high-speed 3D printer designed for efficiency and ease of use. It boasts a printing speed of up to 250mm/s with an acceleration of 2500mm/s², significantly reducing print times. This printer is equipped with features like CR Touch auto-leveling and a strain sensor for auto Z-offset, ensuring a perfect first layer with minimal effort. Its "Sprite" Direct Extruder supports various filaments including PLA, PETG, and TPU, offering versatility for your printing needs. The robust dual Z-axis and dual Y-axis linear shafts provide enhanced stability and precision for high-quality prints. Additionally, it features a 32-bit silent mainboard for quiet operation and auto filament loading/unloading for convenience.



Image: Creality Ender 3 V3 SE 3D Printer in operation, showcasing a printed model.

2. Unboxing

Carefully open the packaging and remove all components. Ensure all listed parts and accessories are present before proceeding with assembly. The package includes the 3D printer unit, various screws, a toolkit, power cable, filament, nozzle cleaner, nozzle, storage card, and card reader.

Video: Official guide on how to unbox, assemble, and operate the Ender 3 V3 SE 3D printer.

Refer to the included packing list to verify all items. If any components are missing or damaged, contact customer support immediately.

3. Setup

3.1. Assembly

The Ender 3 V3 SE is designed for quick and easy assembly, typically taking around 20 minutes. Follow these steps:

1. **Mount the gantry into the slots of the base:**Carefully align the gantry with the designated slots on the printer's base.
2. **Fasten the gantry from the bottom with M3*14 screws:** Secure the gantry to the base using the provided M3*14 screws from underneath.
3. **Secure the gantry to the base with M3*8 screws:**Further secure the gantry using the M3*8 screws.
4. **Place the display bracket on the right side of the base:**Position the display bracket on the right side of the printer's base.
5. **Align by the screw holes:** Ensure the bracket's screw holes align with those on the base.
6. **Fasten it with M4*10 screws:** Use the M4*10 screws to secure the display bracket.
7. **Connect the display wiring:** Carefully plug the display cable into its corresponding port.
8. **Mount the display and slide it well into the bracket:**Slide the display unit firmly into the bracket until it clicks into place.
9. **Place the spool holder on the top of the gantry:**Attach the filament spool holder to the top bar of the gantry.
10. **Align by the screw holes:** Ensure the spool holder's screw holes align.
11. **Fasten it with M5*8 screws:** Secure the spool holder using the M5*8 screws.
12. **Plug the cable connector into the extruder adapter board:**Connect the main cable to the extruder adapter board.
13. **Fix the connector with the clip assembly:**Use the provided clip to secure the cable connector.
14. **Insert the cable into the fixing clip as marked:**Route the cable through the fixing clip as indicated by the markings.
15. **Connect the X-axis motor:** Plug in the X-axis motor cable.
16. **Connect the Z-axis motor:** Plug in the Z-axis motor cable.

3.2. Initial Power-On

Before powering on, ensure the voltage switch on the printer's power supply is set correctly for your local standard (115V or 230V). Incorrect voltage can damage the power adapter.

1. **Set the voltage properly:** Verify the voltage switch setting.
2. **Plug in the power cable and switch on:**Connect the power cable and flip the power switch to ON.
3. **Peel off the screen protection film:** Remove the protective film from the display screen.
4. **Select a language:** Choose your preferred language from the display menu.

3.3. Auto-Leveling

The Ender 3 V3 SE features CR Touch auto-leveling and a strain sensor for auto Z-offset, simplifying the leveling process.

1. **Auto leveling - Nozzle heating:** The printer will automatically heat the nozzle to the required temperature.

2. **Nozzle cleaning:** The nozzle will perform a cleaning routine.
3. **Nozzle auto Z offset:** The printer will automatically determine and set the Z-offset.
4. **Creating a leveling mesh:** The CR Touch sensor will probe multiple points on the print bed to create a precise leveling mesh.

Hassle-free Auto Leveling

CR Touch for Multiple-point Leveling
Strain Sensor for Auto Z-offset

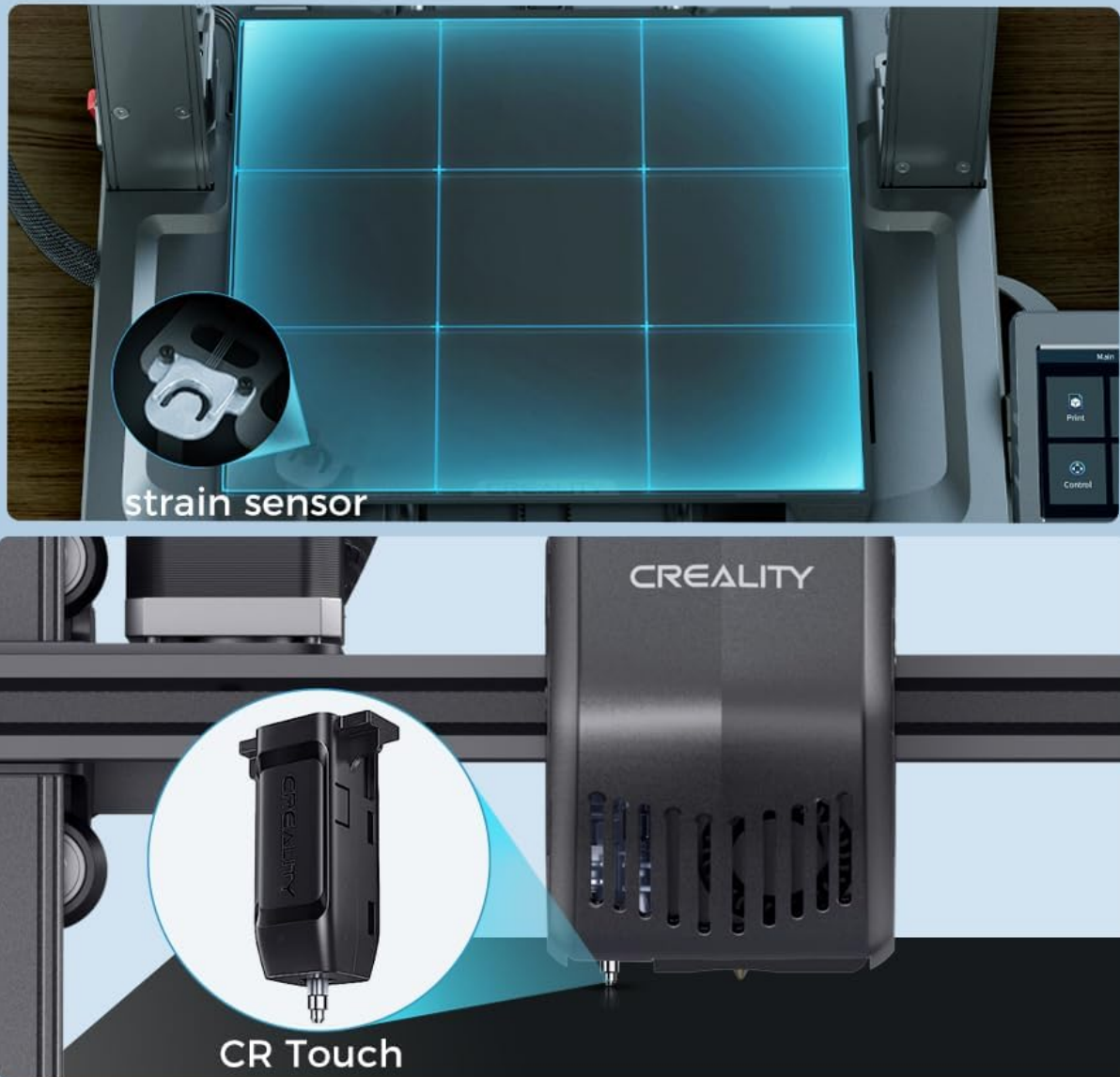


Image: Visual representation of the CR Touch auto-leveling and strain sensor for Z-offset.

3.4. Filament Loading

The printer supports auto filament loading for convenience.

1. **Enter "Prepare" for filament preheating:** Navigate to the "Prepare" menu on the display and select the preheat option for your filament type (e.g., PLA).
2. **Start with auto filament loading:** Once preheated, initiate the auto filament loading process.
3. **Cut a sharp angle at the end of filament:** Use the cutting pliers to trim the end of your filament at a 45-degree angle for easier insertion.
4. **Insert the filament into the extruder:** Gently push the filament into the extruder until it catches.
5. **Wait till the filament flowing out:** The printer will automatically feed the filament until it extrudes from the nozzle.

"Dual" Stable Structure

Dual Z-axis Lead Screws and Dual Y-axis Linear Sharts

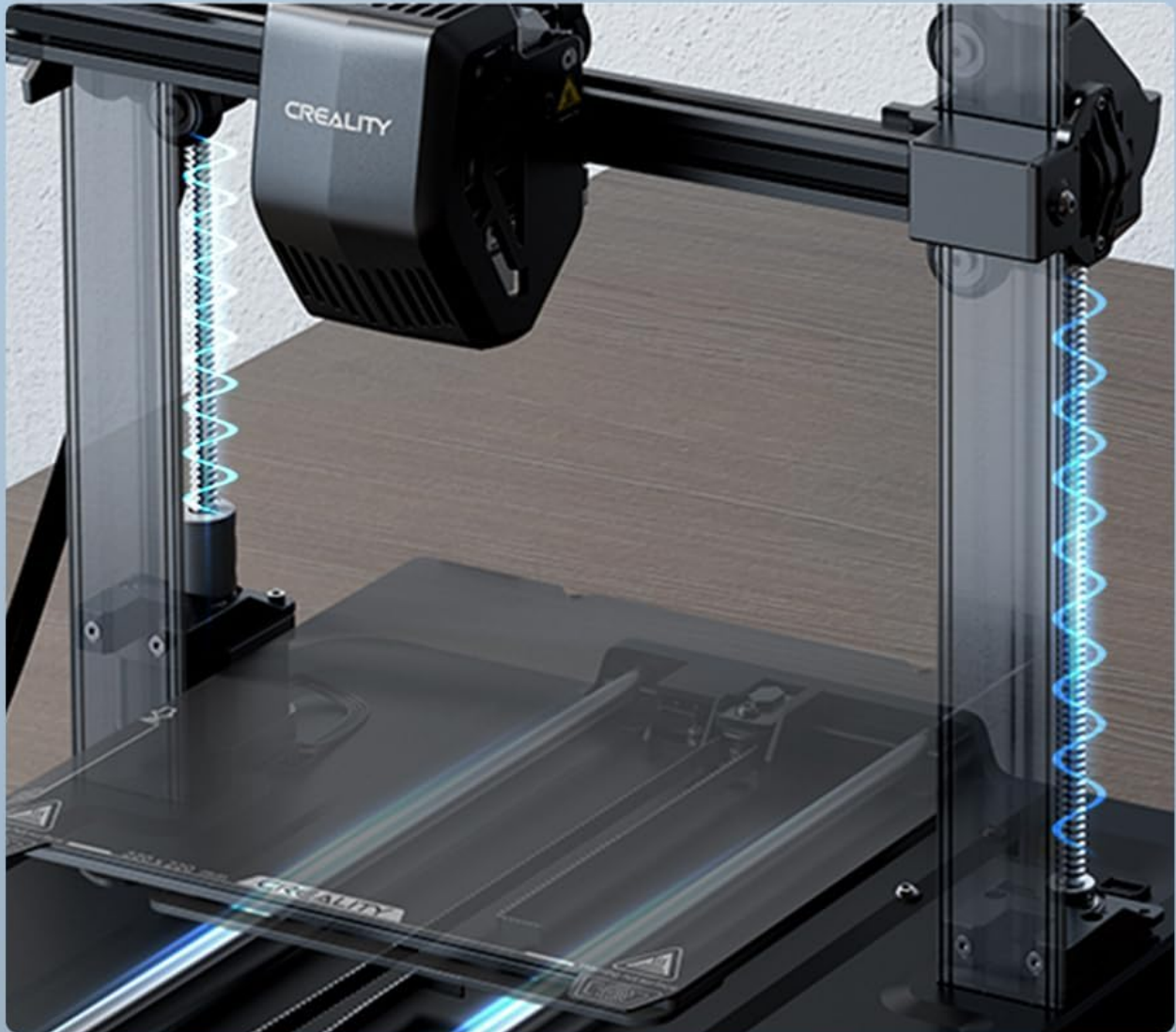


Image: Illustration of the auto filament loading and unloading mechanism.

4. Operating

4.1. Printing

To start a print job:

1. **Plug in a storage card:** Insert the SD card containing your G-code files into the printer's card slot.
2. **Select a G-code file and start printing:** Navigate through the display menu to select your desired G-code file and confirm to begin printing.

"Sprite" Direct Extruder

Suitable for Multi-filament Like PLA, PETG, TPU



Image: The Ender 3 V3 SE actively printing a 3D model, demonstrating its speed.

The printer features a resume printing function, allowing it to continue a print job from where it left off in case of a power outage or accidental interruption.

Auto Filament Loading and Unloading



Image: Visual representation of the resume printing function, showing a print recovering from an interruption.

4.2. Auto Filament Unloading

To unload filament:

1. **Auto filament unloading:** From the "Prepare" menu, select the auto filament unloading option. The printer will retract the filament.
2. **Pull out filaments quickly:** Once retracted, quickly pull the filament out of the extruder.

5. Maintenance

Regular maintenance ensures optimal performance and longevity of your 3D printer.

- **Clean the print bed:** After each print, clean the print bed to remove any filament residue. Use isopropyl alcohol for

best results.

- **Inspect the nozzle:** Periodically check the nozzle for clogs or wear. Use the provided nozzle cleaner to clear any blockages.
- **Lubricate moving parts:** Apply a small amount of lubricant to the Z-axis lead screws and Y-axis linear shafts to ensure smooth movement.
- **Check belt tension:** Ensure the X and Y-axis belts are properly tensioned. They should be taut but not overly tight.
- **Firmware updates:** Check the manufacturer's website for the latest firmware updates to improve performance and add new features.

6. Troubleshooting

Here are some common issues and their solutions:

Problem	Possible Cause	Solution
First layer not sticking	Improper bed leveling, dirty print surface, incorrect nozzle/bed temperature	Perform auto-leveling, clean the print bed, adjust temperatures according to filament type.
Filament not extruding	Clogged nozzle, tangled filament, extruder issue	Clear nozzle with cleaner, untangle filament, check extruder for proper function.
Poor print quality (layer shifts, stringing)	Loose belts, incorrect print speed, retraction settings	Check and tighten belts, adjust print speed and retraction settings in slicing software.
Printer making unusual noises	Loose components, worn bearings, motor issues	Inspect and tighten all screws, lubricate moving parts, contact support if motor noise persists.

For more detailed troubleshooting, refer to the official Creality support resources or online communities.

7. Specifications

Key technical specifications for the Creality Ender 3 V3 SE 3D Printer:

- **Product Dimensions:** 17.8 x 16.93 x 20.47 inches
- **Item Weight:** 15.43 pounds
- **Model Number:** Ender 3 V3 SE
- **Material:** Aluminum
- **Color:** Multicoloured
- **Manufacturer:** Creality 3D
- **Printing Speed:** Up to 250mm/s
- **Acceleration:** 2500mm/s²

- **Extruder Type:** "Sprite" Direct Extruder
- **Leveling:** CR Touch Auto Leveling, Strain Sensor for Auto Z-offset
- **Z-axis:** Dual Z-axis synced by quality timing belt
- **Y-axis:** Two 8mm linear shafts
- **Mainboard:** 32-bit silent mainboard
- **Build Plate:** PC spring steel
- **Filament Loading:** Auto filament loading and unloading
- **Supported Filaments:** PLA, PETG, TPU
- **Build Volume:** 8.66 x 8.66 x 9.84 inches (220x220x250mm)
- **Nozzle Temperature:** ≤260°C
- **Heated Bed Temperature:** ≤100°C

8. Warranty & Support

This product is manufactured by Creality 3D and sold by Comgrow. For specific warranty information, please refer to the official Creality or Comgrow website, or the warranty card included with your product. For technical support, troubleshooting assistance, or spare parts, please contact Comgrow customer service directly. They have a dedicated technical staff to provide professional support.

Online resources such as user forums and official support pages can also provide valuable information and community assistance.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question