Comgrow Ender 3 V2 Neo

Official Creality Ender 3 V2 Neo 3D Printer User Manual

Model: Ender 3 V2 Neo

Brand: Comgrow

1. Introduction

This manual provides essential information for the safe and efficient operation of your Creality Ender 3 V2 Neo 3D Printer. Please read it thoroughly before assembly and use to ensure proper functionality and to prevent damage or injury. The Ender 3 V2 Neo features several enhancements for an improved 3D printing experience, including simplified assembly, automatic bed leveling, and a silent mainboard.

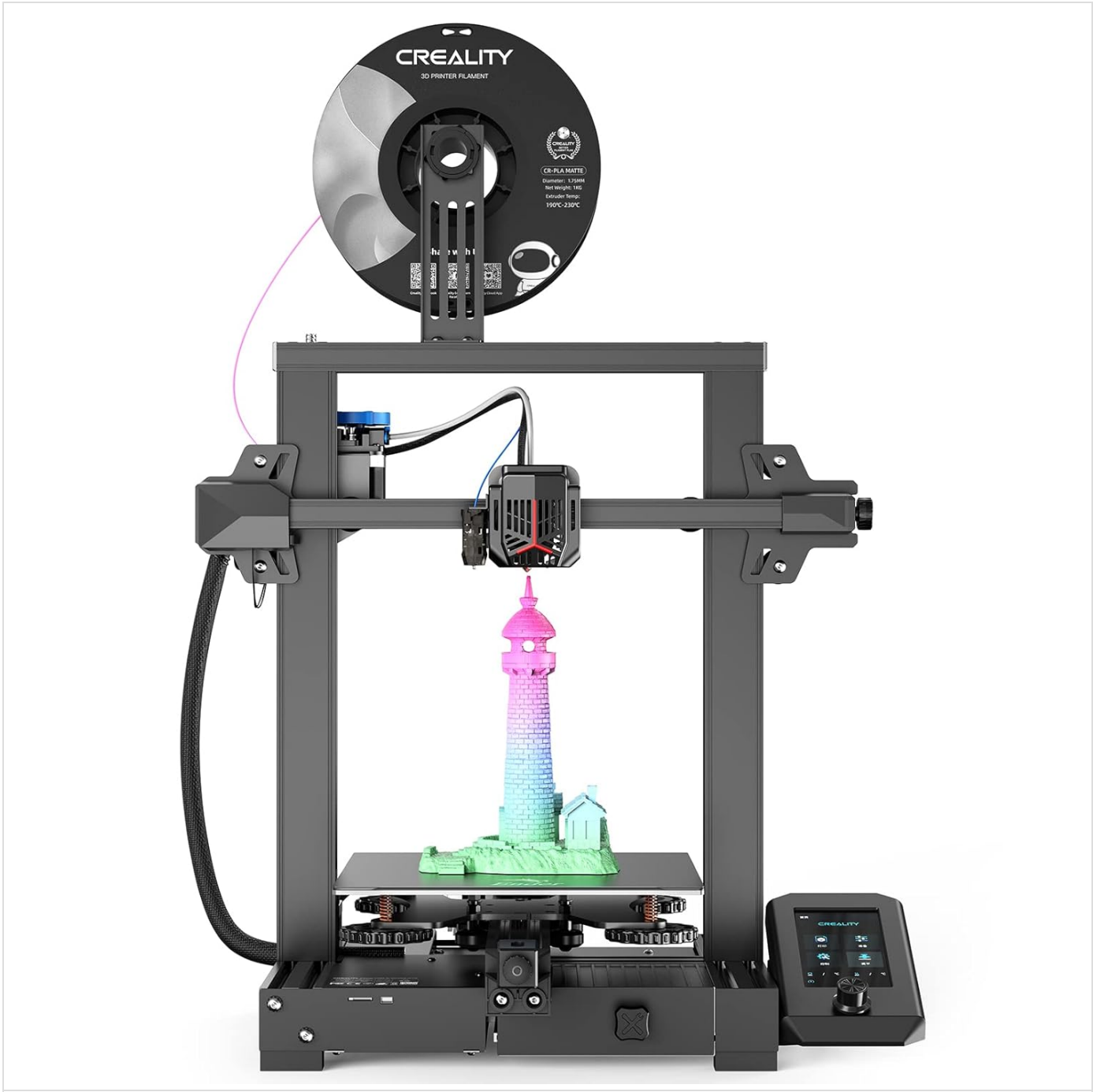

Image 1.1: The Creality Ender 3 V2 Neo 3D Printer, showcasing its overall design and a printed model.

2. Safety Instructions

- Always operate the printer in a well-ventilated area.
- Keep the printer away from flammable materials and heat sources.
- Do not touch the nozzle or heated bed during operation or immediately after, as they can reach high temperatures.
- Ensure the power supply voltage switch is set correctly for your region (e.g., 115V for USA) before powering on the device.
- Keep children and pets away from the printer during operation.
- Do not attempt to modify the printer's electrical components.
- Unplug the printer from the power outlet before performing any maintenance or cleaning.

3. Package Contents

Verify that all components are present in the package:

- Creality Ender 3 V2 Neo 3D Printer (partially pre-assembled)
- Filament Spool Holder
- Tool Kit
- Power Cable
- Sample Filament
- SD Card and Card Reader
- User Manual

4. Setup and Assembly

The Ender 3 V2 Neo is designed for quick assembly, requiring only three main steps:

1. **Install Gantry:** Attach the pre-assembled gantry to the base.
2. **Install Screen:** Secure the display screen to the printer frame.
3. **Install Rack:** Mount the filament spool holder rack.

Image 4.1: Visual guide for the three-step quick assembly process, showing the gantry, screen, and rack installation.

Before powering on the printer, ensure the voltage switch on the side of the power supply is set to the correct local voltage (e.g., 115V for the USA). Incorrect voltage settings can damage the unit.

5. Operating Instructions

5.1. CR Touch Auto Bed Leveling

The Ender 3 V2 Neo features CR Touch 16-point automatic bed leveling. This system automatically compensates for variations in the print bed's height, simplifying the leveling process and improving first-layer adhesion. To initiate auto-leveling, navigate to the 'Leveling' option on the printer's user interface.

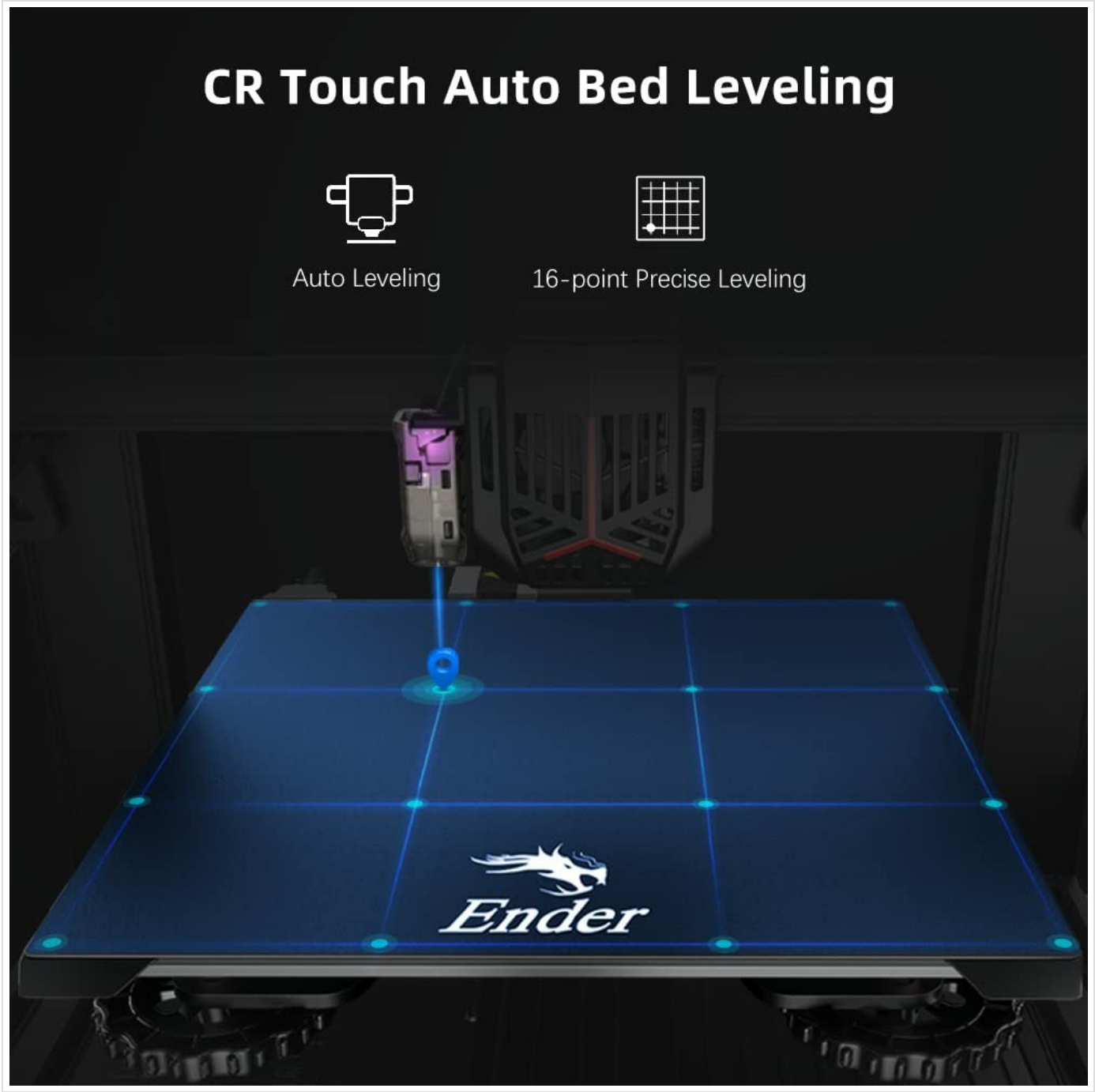

Image 5.1: The CR Touch sensor performing 16-point automatic bed leveling on the print surface.

5.2. User Interface and Model Preview

The printer is equipped with a new 4.3-inch user interface. This interface includes a model preview function, allowing you to visualize the printing shape and monitor progress directly on the screen. The UI supports nine languages for user convenience.

Image 5.2: The 4.3-inch user interface displaying options and a model preview screen.

5.3. Filament Loading and Extruder

The Ender 3 V2 Neo features a full-metal extruder, providing greater extrusion force and enhanced durability, which helps reduce the risk of nozzle blockage. A rotary knob on the extruder facilitates easier filament loading and feeding.

Image 5.3: Close-up of the full-metal extruder with its rotary knob, designed for smooth filament feeding.

5.4. PC Spring Steel Magnetic Build Plate

The printer includes a removable PC spring steel magnetic build plate. This innovative platform consists of a PC coating for good filament adhesion, a spring steel sheet, and a magnetic sticker. Finished models can be easily removed by gently bending the print sheet.

Image 5.4: Exploded view illustrating the layers of the PC spring steel magnetic build plate: PC coating, spring steel, and magnetic sticker.

5.5. Resume Print Function

The printer supports a resume print function, allowing it to automatically continue printing from where it left off after a power outage. This feature minimizes material waste and saves time in case of unexpected interruptions.

6. Maintenance

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

- **Clean the Build Plate:** After each print, allow the build plate to cool and remove any residual filament. Clean the PC coating with isopropyl alcohol to maintain good adhesion.
- **Clean the Nozzle:** Periodically check the nozzle for clogs or debris. Use the provided needle or a brass brush to clean it when cold.
- **Lubricate Moving Parts:** Apply a small amount of lithium grease to the Z-axis lead screw and smooth rods every few months to ensure smooth movement.

- **Check Belts:** Ensure the X and Y-axis belts are properly tensioned. They should be taut but not overly tight. The new injection tensioner allows for quick and convenient adjustment.
- **Inspect Wiring:** Regularly check all cables and connections for any signs of wear or damage.

7. Troubleshooting

This section addresses common issues you might encounter:

- **Poor First Layer Adhesion:** Ensure the bed is properly leveled using the CR Touch system. Clean the build plate thoroughly. Adjust the Z-offset if the nozzle is too far or too close to the bed.
- **Filament Not Extruding:** Check if the nozzle is clogged. Verify that the filament is loaded correctly and the extruder gear is gripping it. Ensure the hotend temperature is appropriate for the filament type.
- **Print Quality Issues (e.g., Layer Shifting):** Check belt tension on X and Y axes. Ensure all moving parts are free from obstruction. Verify that the printer is on a stable surface.
- **Noisy Operation:** The Ender 3 V2 Neo is equipped with a 32-bit silent mainboard for low-noise operation (typically below 50dB). If unusual noises occur, inspect for loose components or issues with fans.

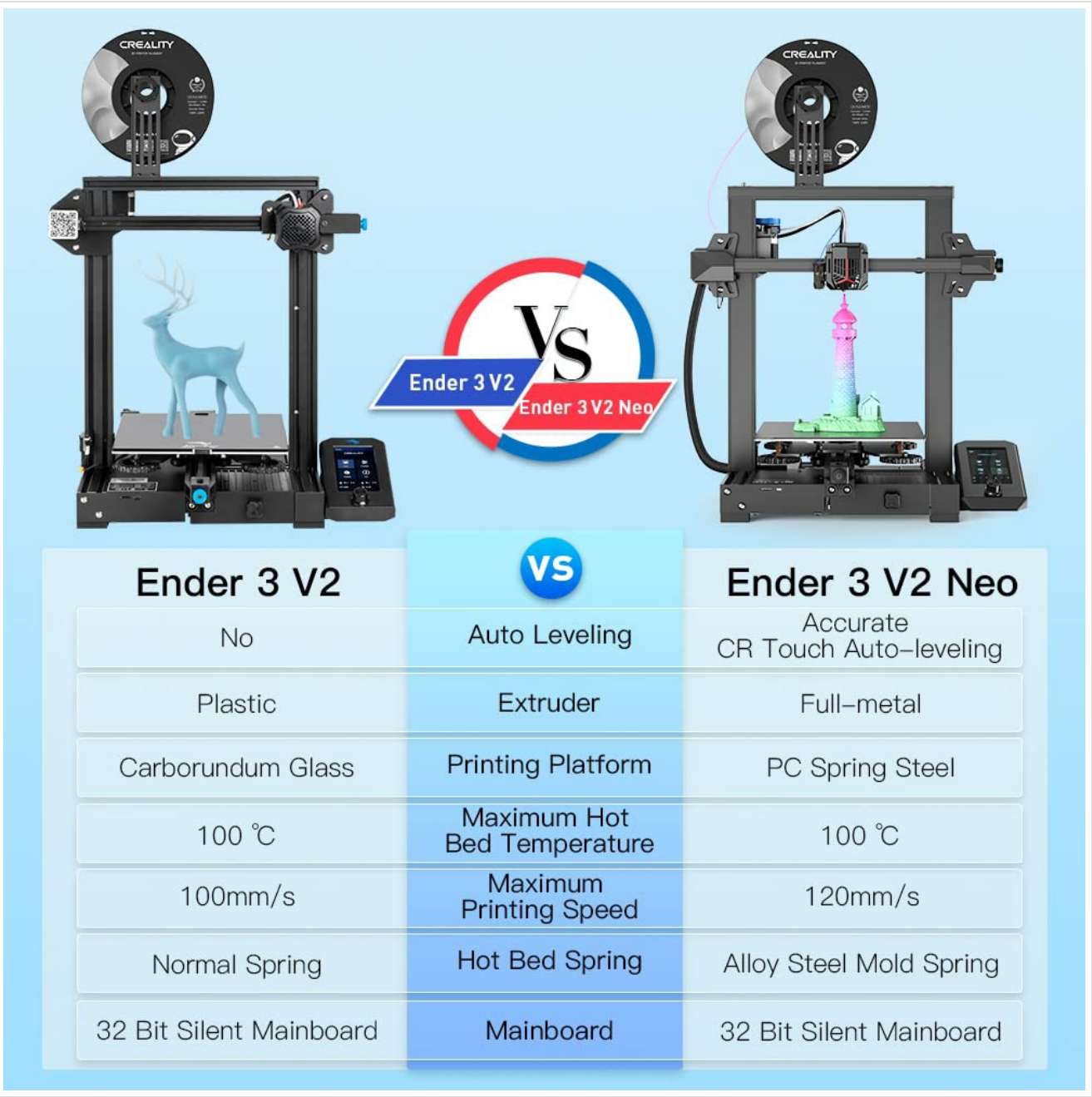

Image 7.1: Illustration highlighting the 32-bit silent mainboard and low noise level of the Ender 3 V2 Neo.

8. Specifications

Feature	Specification
Product Dimensions	17.24"D x 16.7"W x 18.58"H (43.79 x 42.42 x 47.19 cm)
Item Weight	17.2 Pounds (7.8 kg)
Item Model Number	Ender 3 V2 Neo
Manufacturer	Creality 3D
Brand	Comgrow
Material	Aluminum
Compatible Devices	Laptop, Personal Computer
Auto Leveling	CR Touch 16-point automatic leveling
Extruder Type	Full-metal Bowden Extruder
Build Plate	PC Spring Steel Magnetic Build Plate
Mainboard	32-bit Silent Mainboard
User Interface	4.3-inch color screen with model preview
Resume Print Function	Supported

9. Warranty and Support

For warranty information and technical support, please refer to the official Comgrow website or contact their customer service directly. Keep your purchase receipt as proof of purchase for any warranty claims.

You can visit the Comgrow Store on Amazon for additional resources and contact information.