

Zerodis Zerodisur2efvyq41

Zerodis GRBL CNC Engraver Offline Controller User Manual

Model: Zerodisur2efvyq41

1. INTRODUCTION

This manual provides detailed instructions for the Zerodis GRBL CNC Engraver Offline Controller. This module allows you to operate your CNC engraver independently of a computer, offering flexibility and convenience. It supports manual control of XYZ axes and spindle functions, and facilitates easy file management via storage card or micro USB connection. This controller is compatible with 1610, 2418, and 3018 CNC engraving machines.

2. PRODUCT OVERVIEW

The Zerodis GRBL CNC Engraver Offline Controller is a compact device designed to enhance the usability of your CNC machine. It features a display screen, control buttons for axis movement and spindle operation, and ports for USB and TF (Micro SD) cards.



Figure 2.1: Front view of the Offline Controller with display and buttons.

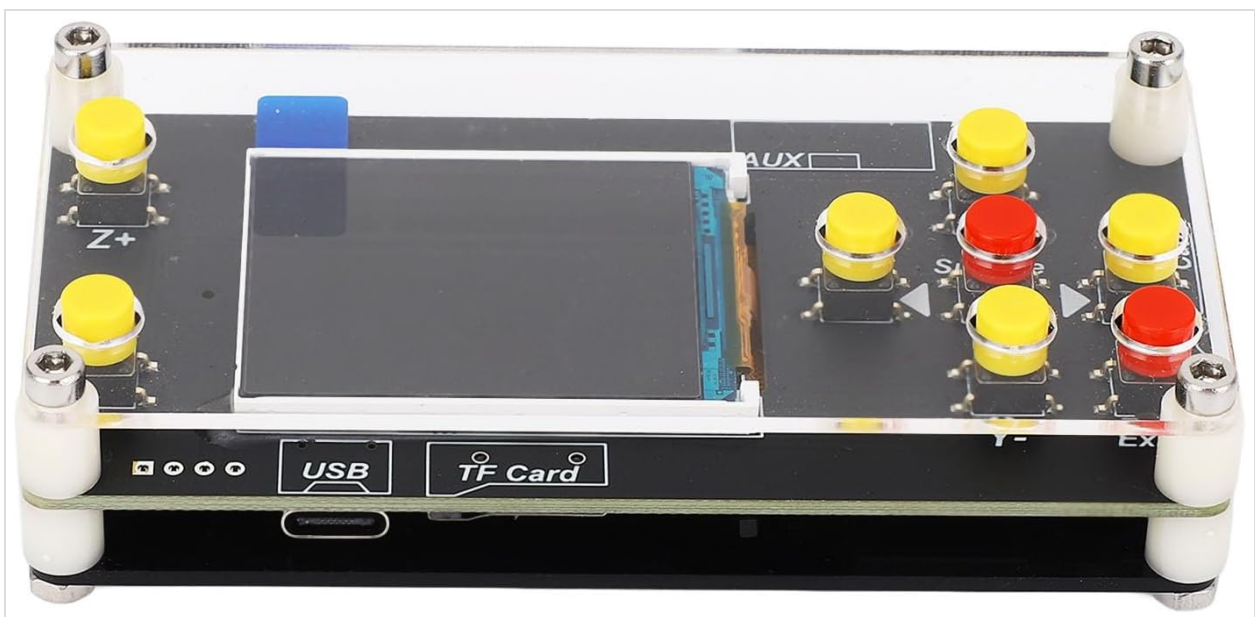


Figure 2.2: Detail of the USB and TF Card slots.



Figure 2.3: Close-up of the control buttons.



Figure 2.4: Rear view showing the connection port.

3. PACKAGE CONTENTS

Please verify that all items are present in your package:

- 1 x Offline Controller
- 1 x Connecting Cable



Figure 3.1: Offline Controller and Connecting Cable.

4. SETUP

The Zerodis GRBL CNC Engraver Offline Controller is designed for straightforward installation and use. Follow these steps to set up your controller:

1. **Connect the Offline Controller:** Locate the appropriate port on your GRBL CNC controller board. Connect the provided connecting cable to this port and then to the corresponding port on the offline controller module. Ensure the connection is secure.
2. **Insert Storage Card (Optional):** If you plan to load engraving files directly from a storage card, insert a compatible TF (Micro SD) card into the designated slot on the offline controller. Ensure the card is formatted correctly and contains your desired engraving files.
3. **Power On:** Once the controller is securely connected to your CNC machine, power on your CNC engraver. The offline controller should initialize and display its interface.

5. OPERATING INSTRUCTIONS

5.1 Offline Control Capabilities

The primary function of this module is to enable offline operation of your CNC engraver. This means you do

not need a computer connected during the engraving process. Once your files are loaded onto the storage card, you can initiate and monitor engraving tasks directly from the controller.

5.2 Manual Control Options

The controller provides buttons for precise manual adjustments:

- **XYZ Axes Control:** Use the dedicated buttons (e.g., X+, X-, Y+, Y-, Z+, Z-) to move the engraving head along the respective axes. This is crucial for setting accurate starting points for your engraving projects.
- **Spindle Control:** A button is available to manually turn the spindle on or off, providing direct control over the engraving tool.

5.3 Bidirectional File Access

Managing your engraving files is flexible:

- **Via Storage Card:** Insert a TF (Micro SD) card containing your engraving files (e.g., G-code files) into the controller's slot. The controller will recognize the files, allowing you to select and execute them directly.
- **Via Micro USB:** Connect the offline module to your computer using a micro USB cable. This allows for easy transfer and storage of engraving files to and from the controller's internal memory or an inserted storage card.

6. MAINTENANCE

To ensure the longevity and optimal performance of your Zerodis GRBL CNC Engraver Offline Controller, follow these general maintenance guidelines:

- **Cleaning:** Gently wipe the surface of the controller with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or abrasive materials.
- **Storage:** Store the controller in a dry, cool environment away from direct sunlight and extreme temperatures when not in use.
- **Connections:** Periodically check all cable connections for tightness and wear. Ensure no pins are bent or damaged.

7. TROUBLESHOOTING

If you encounter issues with your Zerodis GRBL CNC Engraver Offline Controller, consider the following:

- **Controller Not Powering On:** Ensure the connecting cable is properly seated and your CNC machine is powered on. Check for any visible damage to the cable or ports.
- **Files Not Recognized:** Verify that the TF card is correctly inserted and that the engraving files are in a compatible format (e.g., G-code). Try reformatting the card or using a different card.
- **Axis Movement Issues:** Confirm that the CNC machine's motors are properly connected and receiving power. Check for any obstructions in the movement path of the engraving head.
- **No Spindle Control:** Ensure the spindle is correctly wired to the GRBL controller board and that the spindle control button on the offline controller is functioning.

For persistent issues, refer to the documentation for your specific GRBL CNC machine or contact customer support.

8. SPECIFICATIONS

Feature	Detail
Item Type	CNC Engraver Machine Offline Controller Board
Material	Acrylic
Product Application	CNC Engraving Machine Offline Controller
Memory Card Support	Yes (memory card not included)
Compatible CNC Machines	1610, 2418, 3018
Package Dimensions	3.94 x 2.36 x 1.18 inches
Item Weight	2.5 ounces (71 Grams)
Manufacturer	Zerodis
Model Number	Zerodisur2efvyq41
Batteries Required	No

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation provided with your original purchase or contact Zerodis customer service. Keep your purchase receipt as proof of purchase for any warranty claims.