

RETROFLAG Station Deluxe Edition

RETROFLAG PiStation Deluxe Edition Instruction Manual for Raspberry Pi 4

Model: Station Deluxe Edition

1. INTRODUCTION

This manual provides detailed instructions for the setup, operation, and maintenance of your RETROFLAG PiStation Deluxe Edition. This product is a custom-designed case for the Raspberry Pi 4, integrating a 4.3-inch LCD screen and stereo speakers, inspired by classic gaming console aesthetics. Please read this manual thoroughly before use to ensure proper functionality and longevity of your device.

2. PRODUCT OVERVIEW

The RETROFLAG PiStation Deluxe Edition transforms your Raspberry Pi 4 into a portable retro gaming system. It features a compact design with functional buttons and easy access to all necessary ports. The integrated LCD screen and stereo speakers provide an all-in-one gaming experience.



Figure 2.1: Front view of the PiStation Deluxe Edition with the 4.3-inch LCD screen open, revealing the console-inspired design and front USB ports.

RF PiStation LCD

Design inspired by PSone LCD Screen. Plug and play, stereo speaker, 4.3 " color LCD (800 * 480)



Figure 2.2: Close-up of the integrated 4.3-inch LCD screen with control buttons for volume, screen brightness, and aspect ratio switching, flanked by stereo speakers.

3. FEATURES

- Specifically designed for Raspberry Pi 4.
- Integrated 4.3-inch 800x480 Pixel LCD Screen with Stereo Speakers.
- Screen aspect ratio swappable (4:3 to 16:9).
- Functional POWER, RESET, Volume, Screen Brightness Buttons and LED indicators.
- Safe Shutdown and Safe Reset functionality (requires script installation).
- Retro styling inspired by iconic classic gaming consoles.
- Easy access to the SD-Card and all other ports without opening the case.
- Metadata in EmulationStation saved when rebooting and shutting down.
- Micro HDMI to HDMI output conversion.

4. PACKAGE CONTENTS

- RETROFLAG PiStation Case with integrated LCD.
- Screwdriver.
- Mounting screws.
- Instruction manual.

5. SETUP

5.1 Raspberry Pi 4 Installation

The PiStation Deluxe Edition is designed for easy installation of your Raspberry Pi 4. No complex wiring or soldering is required.

1. Carefully open the PiStation case by removing the bottom plate.
2. Insert your Raspberry Pi 4 board into the designated slot within the case. Ensure all ports align

correctly with the case openings.

3. Secure the Raspberry Pi 4 board using the provided screws.
4. Connect the internal USB cable from the case to one of the Raspberry Pi 4's USB ports. This enables the front USB ports on the PiStation.
5. Connect the internal ribbon cable from the case to the GPIO pins on the Raspberry Pi 4. This enables the functional power, reset, and screen control buttons.
6. Carefully close the bottom plate of the case and secure it with the remaining screws.



Figure 5.1: Diagram showing the Raspberry Pi 4 board being inserted into the PiStation case, highlighting the internal connections.

5.2 Safe Shutdown Script Installation

To enable the Safe Shutdown and Safe Reset functions, a script must be installed on your Raspberry Pi's operating system (e.g., RetroPie, EmulationStation). This script ensures that your system shuts down gracefully, preventing data corruption.

1. Access the terminal on your Raspberry Pi.
2. Download the safe shutdown script from the official RETROFLAG GitHub repository. Specific instructions and the script can be found at: <https://github.com/RetroFlag/retroflag-picase>
3. Follow the provided instructions on the GitHub page to install and configure the script.
4. After successful installation, the POWER and RESET buttons on your PiStation will perform a safe shutdown and reboot, respectively.

6. OPERATING INSTRUCTIONS

6.1 Power On/Off and Reset

- **Power Button:** Press the POWER button on the front of the case to safely turn on or shut down your Raspberry Pi (after script installation).
- **Reset Button:** Press the RESET button to safely reboot your Raspberry Pi (after script installation).

6.2 LCD Screen Controls

- **Volume Buttons:** Use the dedicated volume buttons below the screen to adjust audio output.

- **Brightness Buttons:** Use the dedicated brightness buttons below the screen to adjust screen illumination.
- **Aspect Ratio Switch:** Press the aspect ratio button to toggle between 4:3 and 16:9 display modes.

6.3 Port Access

- **Front USB Ports:** Two USB ports are available on the front for connecting game controllers or other peripherals.
- **Side Ports:** A removable cover on the side provides access to additional USB 3.0 ports and the Ethernet port of the Raspberry Pi 4.
- **Rear Ports:** The rear of the case features the USB-C power input, micro HDMI output (converted to full-size HDMI), and a 3.5mm audio jack.
- **SD Card Slot:** The microSD card slot for the Raspberry Pi is accessible from the side of the case without disassembly.

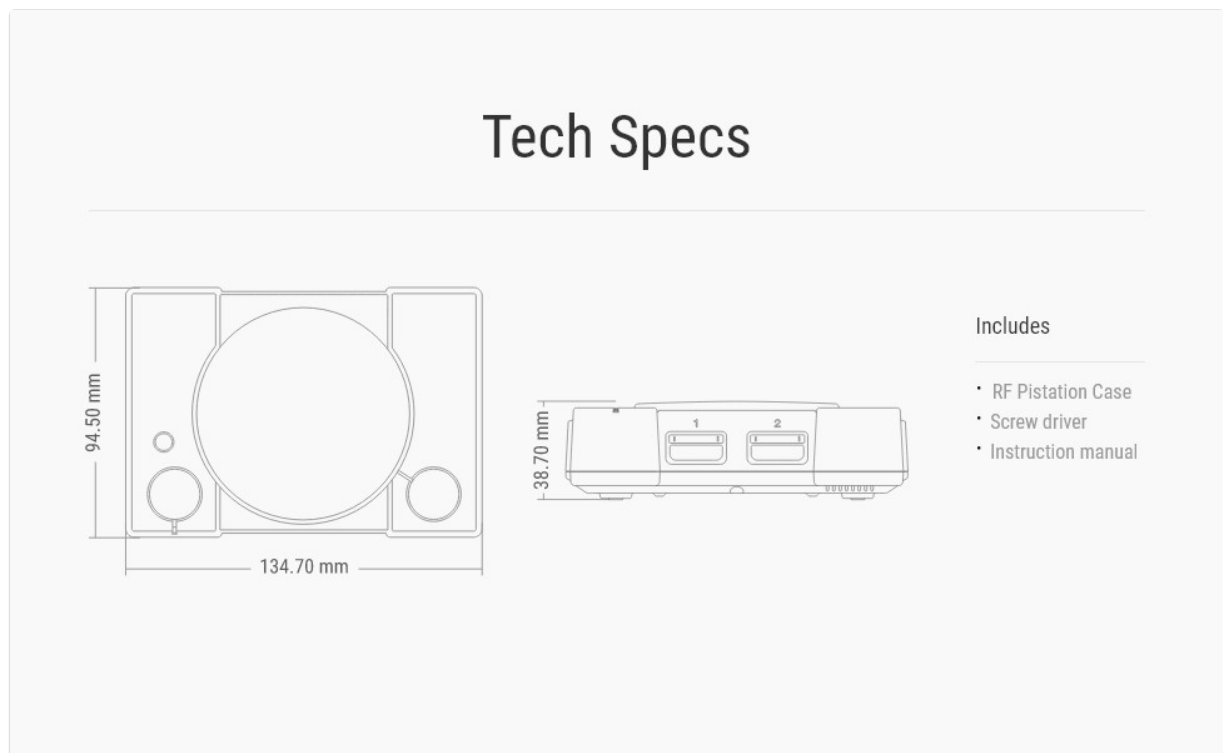


Figure 6.1: Detailed view of the rear and side ports, including USB-C power, micro HDMI, 3.5mm audio, USB 3.0, and Ethernet.

7. MAINTENANCE

- Keep the device clean by wiping with a soft, dry cloth. Avoid using harsh chemicals or abrasive materials.
- Ensure proper ventilation by not blocking the air vents on the case.
- Regularly check for firmware updates for your Raspberry Pi and operating system to ensure optimal performance and compatibility.

8. TROUBLESHOOTING

- **No Display on LCD:** Ensure the Raspberry Pi is correctly seated and all internal cables are securely connected. Check the brightness settings.
- **Buttons Not Responding:** Verify that the safe shutdown script is correctly installed and configured. Check the GPIO pin connections.
- **Audio Issues:** Check the volume settings on the device and within your Raspberry Pi's operating

system. Ensure the 3.5mm audio jack is not obstructed.

- **Connectivity Problems (USB/Ethernet):** Ensure the internal USB extension cable is properly connected to the Raspberry Pi.


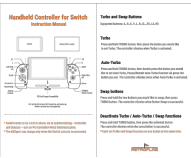
9. SPECIFICATIONS

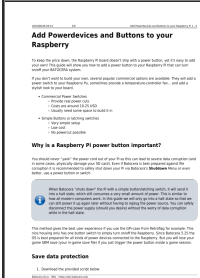



Feature	Detail
Brand	RETROFLAG
Series	Station Deluxe Edition
Model Name	Station Deluxe Edition
Compatibility	Raspberry Pi 4 (Mini ITX Motherboard)
Screen Size	4.3 inches
Screen Resolution	800x480 Pixels
Audio	2 Stereo Speakers
Material	Plastic
Item Weight	14.1 ounces (400 Grams)
Product Dimensions	3.72 x 5.3 x 1.52 inches
Cooling Method	Air (via internal vents)
First Available	November 1, 2021

10. WARRANTY AND SUPPORT

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

Related Documents - Station Deluxe Edition

	<p>Retroflag Classic 2.4G Controller-M User Manual and Features</p> <p>A comprehensive guide to the Retroflag Classic 2.4G Controller-M, detailing its features such as Turbo functionality, button swapping, D-pad remapping, and connectivity options for Nintendo Switch, Windows, and SEGA Mega Drive mini consoles. Includes FCC compliance information.</p>
	<p>Retroflag Handheld Controller for Switch - Instruction Manual</p> <p>Comprehensive instruction manual for the Retroflag Handheld Controller for Nintendo Switch. Learn how to use Turbo, Auto-Turbo, and Swap button functions, plus system compatibility details.</p>

	<p>Add Power Devices and Buttons to Raspberry Pi with Batocera</p> <p>Learn how to add power buttons and switches to your Raspberry Pi for safe shutdown with Batocera. This guide covers commercial options like Retroflag and Argon One, DIY solutions, and essential configuration steps for your retro gaming console.</p>
	<p>Rangemaster Range Cooker User Guide: Installation, Operation, and Maintenance</p> <p>Comprehensive user guide for Rangemaster range cookers, covering installation, operation, cooking tips, cleaning, troubleshooting, and warranty information for various models.</p>
	<p>Rangemaster Range Cooker User Guide: Installation, Operation, and Care</p> <p>Comprehensive user guide for Rangemaster range cookers, covering installation, operation, cooking tips, cleaning, troubleshooting, and warranty information for various models.</p>
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