

## PTZOptics PT-JOY-G4

# PTZOptics PTJOY G4 Joystick Controller User Manual

Model: PT-JOY-G4

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## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the PTZOptics PTJOY G4 Joystick Controller. The PT-JOY-G4 is designed to control Pan-Tilt-Zoom (PTZ) cameras using both serial and IP protocols, offering versatile integration into various production environments.

Please read this manual thoroughly before operating the device to ensure proper usage and to maximize its performance and longevity.

## 2. PRODUCT OVERVIEW

### 2.1 Key Features

- **Universal Compatibility:** Controls most PTZ cameras supporting serial or IP protocols, including Sony.
- **Protocol Switching:** Easily switch between control protocols with a dedicated button.
- **Web User Interface:** Streamlined setup and configuration for multiple cameras.
- **Settings Management:** Import and export settings for different production scenarios.
- **Comprehensive Control:** Expanded LCD screen and dedicated knobs for precise control over pan, tilt, zoom, white balance, red/blue gain, and shutter speed.
- **Power Over Ethernet (PoE):** Simplifies installation by providing power and data over a single Ethernet cable.

### 2.2 Components and Controls

The PT-JOY-G4 features a robust design with clearly labeled controls for intuitive operation.



**Figure 2.1:** Front view of the PTZOptics PTJOY G4 Joystick Controller, showing the main joystick, zoom knob, LCD screen, and various control buttons.





**Figure 2.3:** Rear view of the controller, displaying the RS232, RS485, Ethernet (PoE), and power input ports.

- **Joystick:** Controls Pan and Tilt movements of the camera.
- **Zoom Knob:** Adjusts the camera's zoom level (Wide/Tele).
- **LCD Screen:** Displays current settings, camera status, and menu options.
- **Camera Selection Buttons (CAM 1-6):** Selects the camera to be controlled.
- **Preset Buttons:** Stores and recalls specific camera positions.
- **Exposure/White Balance Knobs:** Fine-tune image settings.
- **Focus Controls:** Manual and one-push autofocus options.
- **Rear Ports:** Includes RS232, RS485, Ethernet (PoE), and DC power input for connectivity.

## 3. SETUP

### 3.1 Powering the Controller

The PT-JOY-G4 can be powered via Power Over Ethernet (PoE) or a DC power adapter.

- **PoE Connection:** Connect an Ethernet cable from a PoE-enabled network switch to the Ethernet port on the rear of the controller. This provides both power and network connectivity.

- **DC Power:** Alternatively, connect the provided DC power adapter to the DC IN port on the rear of the controller and plug it into a power outlet.

## 3.2 Connecting to Cameras

The controller supports both IP and serial connections to PTZ cameras.

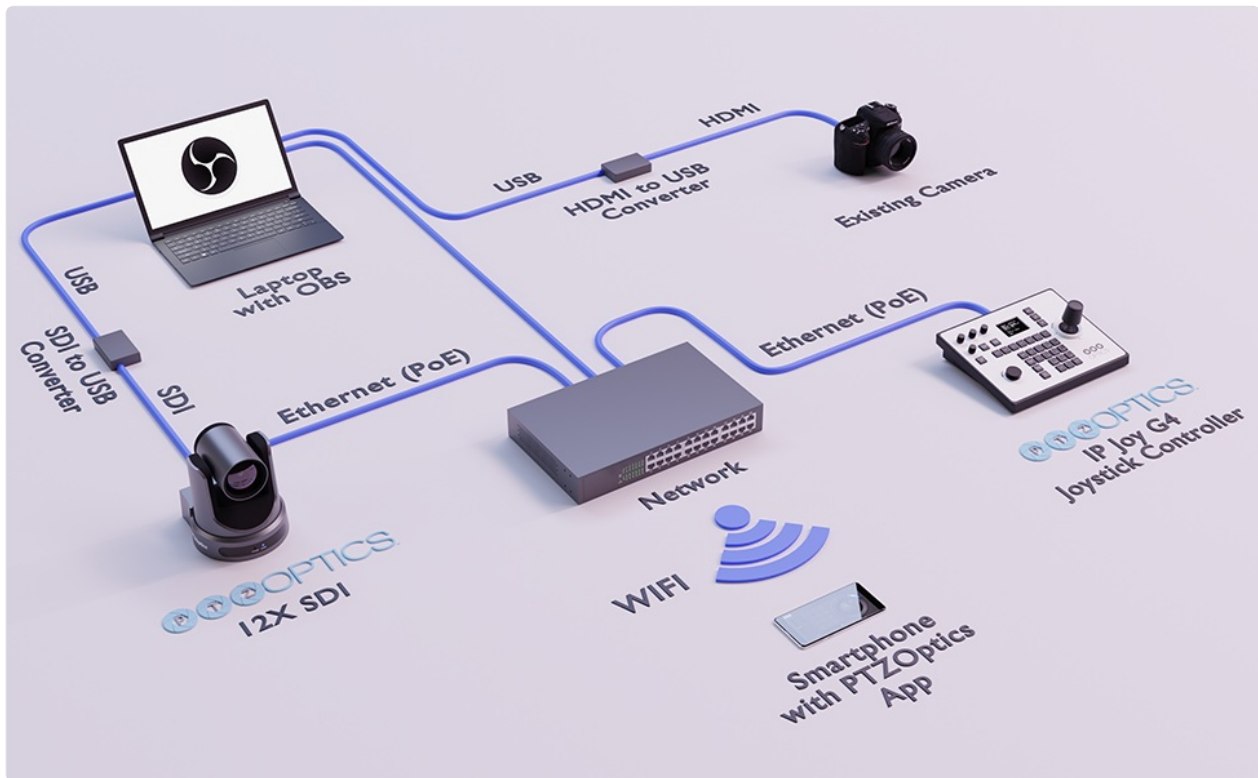


**Figure 3.1:** Connection diagram illustrating how the PT-JOY-G4 integrates into a network with PTZ cameras, a laptop, and other devices via Ethernet (PoE) and USB converters.

- **IP Control:** Connect the controller to your network via the Ethernet port. Ensure your PTZ cameras are also connected to the same network. Use the controller's web interface or LCD menu to discover and configure IP addresses for your cameras.
- **Serial Control (RS232/RS485):** Connect the controller to your PTZ camera(s) using appropriate serial cables (RS232 or RS485). Configure the camera address and baud rate settings on both the controller and the camera to match.

## 3.3 Initial Configuration

Upon first power-up, the controller may require initial network or serial settings. Refer to the LCD screen for prompts.



**Figure 3.2:** The LCD screen showing network interface (Native IP, Target IP, Target Port) and serial interface (Baudrate, Address) settings. This display helps in verifying connectivity and configuration.

- **Web Interface:** Access the controller's web user interface by entering its IP address into a web browser. This interface allows for advanced configuration and management of multiple cameras.
- **Camera Assignment:** Assign each connected camera to a specific CAM button (CAM 1-6) on the controller for quick selection.

## 4. OPERATING INSTRUCTIONS

### 4.1 Basic Camera Control

1. **Select Camera:** Press one of the **CAM 1-6** buttons to select the camera you wish to control.
2. **Pan/Tilt:** Use the main joystick to move the camera horizontally (pan) and vertically (tilt). The speed of movement is proportional to how far the joystick is pushed.
3. **Zoom:** Rotate the **Zoom Knob** (located on the left side) clockwise for Tele (zoom in) and counter-clockwise for Wide (zoom out).
4. **Focus:** Use the **ONE PUSH AUTO FOCUS** button for automatic focus. For manual focus, use the **NEAR/FAR FOCUS** controls.



**Figure 4.1:** A hand demonstrating the use of the zoom knob and the adjacent focus control buttons, illustrating precise camera adjustments.

## 4.2 Advanced Settings

- **White Balance:** Use the **WHITE BALANCE MODE** button and associated knobs to adjust color temperature.
- **Exposure:** Adjust camera exposure settings using the **EXPOSURE MODE** button and corresponding controls.
- **Presets:** To save a preset, position the camera as desired, then press **SET** followed by a numeric preset button. To recall, simply press the desired numeric preset button.
- **OSD Menu:** Access the On-Screen Display (OSD) menu of the camera using the **OSD OPEN/CLOSE**, **OSD ENTER**, and **OSD BACK** buttons.

## 5. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the surface of the controller. Avoid abrasive cleaners or solvents.
- **Storage:** Store the controller in a cool, dry place away from direct sunlight and extreme temperatures when not in use.
- **Firmware Updates:** Periodically check the PTZOptics website for firmware updates to ensure optimal performance and access to new features.

## 6. TROUBLESHOOTING

| Problem | Possible Cause | Solution |
|---------|----------------|----------|
|---------|----------------|----------|

| Problem                                         | Possible Cause                                                                              | Solution                                                                                                                                                                 |
|-------------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller does not power on.                   | No power supply; PoE not active or faulty; DC adapter not connected.                        | Check power cable/adaptor connection. Ensure PoE switch port is active. If using PoE, note that the On/Off button may be bypassed, and the unit powers with the switch.  |
| Cannot control camera.                          | Incorrect camera selected; incorrect IP/serial settings; network issue; camera not powered. | Verify camera selection. Check IP address, port, protocol, baud rate, and camera address settings on both controller and camera. Ensure camera is powered and connected. |
| Joystick movements are erratic or unresponsive. | Loose connection; firmware issue; physical damage.                                          | Check all cable connections. Restart controller and camera. If problem persists, consider a firmware update or contact support.                                          |
| Web interface inaccessible.                     | Incorrect IP address; network connectivity issue; firewall blocking access.                 | Verify the controller's IP address. Ensure your computer is on the same network segment. Check firewall settings.                                                        |

## 7. SPECIFICATIONS

| Feature                | Detail                        |
|------------------------|-------------------------------|
| Model Number           | PT-JOY-G4                     |
| Dimensions (L x W x H) | 10.78 x 4.88 x 13.62 inches   |
| Item Weight            | 5.45 pounds                   |
| Manufacturer           | PTZOptics                     |
| Connectivity           | Ethernet (PoE), RS232, RS485  |
| Control Protocols      | IP, Serial (VISCA, PELCO-D/P) |

## 8. WARRANTY AND SUPPORT

The PTZOptics PTJOY G4 Joystick Controller is backed by a **2-year warranty** from PTZOptics. For technical assistance, troubleshooting, or warranty claims, please contact the PTZOptics technical support team. Refer to the official PTZOptics website for the most current support contact information and resources.

**Online Resources:** [www.ptzoptics.com/support](http://www.ptzoptics.com/support)

## 9. VIDEO RESOURCES

No official product videos from the seller were available with verifiable source information for embedding in this manual.

