

Runpu RP-JP882

Runpu RP-JP882 PTZ Camera Controller User Manual

Comprehensive instructions for setup, operation, and maintenance of your Runpu RP-JP882 PTZ Camera Controller.

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Runpu RP-JP882 PTZ Camera Controller. Please read this manual thoroughly before using the device to ensure proper functionality and to prevent damage.

The Runpu RP-JP882 is a professional PTZ camera controller designed for precise control of various PTZ cameras, including NDI and HDMI models. It features Power over Ethernet (PoE) support, a 4D joystick for intuitive control, and a 3-inch LCD screen for real-time preview and system parameter display. This controller is suitable for applications such as live streaming, educational environments, broadcasting, and conference settings.

2. PRODUCT COMPONENTS AND OVERVIEW

Familiarize yourself with the main components and interfaces of the RP-JP882 controller.



Figure 2.1: Front and Rear View of the RP-JP882 PTZ Camera Controller. This image displays the overall design of the controller, including the 4D joystick, control buttons, LCD screen on the front, and various connection ports on the rear panel.

INTERFACE

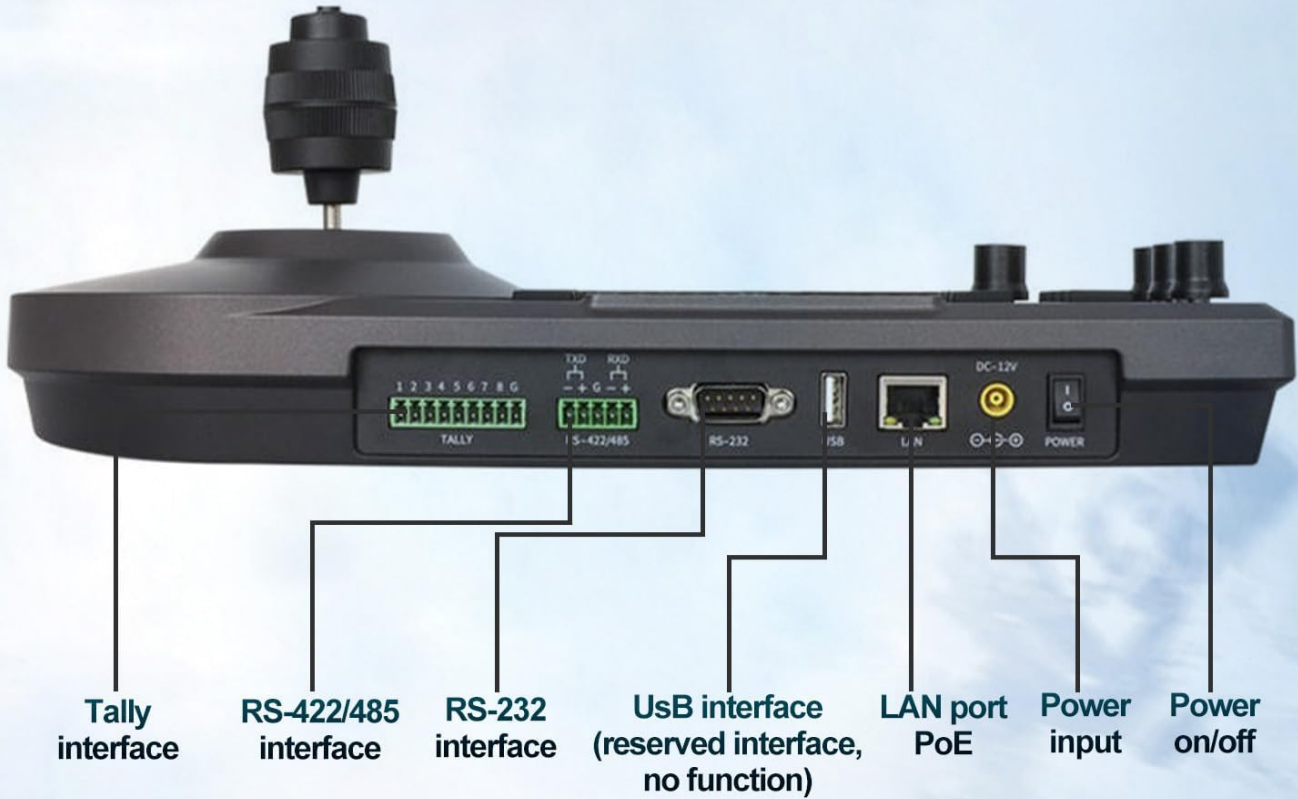


Figure 2.2: Rear Interface Ports. This image highlights the various connection ports available on the back of the controller, including Tally interface, RS-422/485, RS-232, USB interface (reserved), LAN port (PoE), DC-12V power input, and power on/off switch.

2.1 Front Panel Controls

- **4D Joystick:** For Pan, Tilt, and Zoom control.
- **3-inch LCD Screen:** Displays camera preview and system parameters.
- **Camera Selection Buttons (CAM 1-7):** Quickly select active camera.
- **Numeric Keypad:** For entering camera IDs, preset numbers, and other values.
- **Function Keys (F1/F2):** Customizable shortcut keys.
- **PTZ Speed Knob:** Adjusts the speed of Pan, Tilt, and Zoom movements.
- **Focus/Zoom Knobs:** Manual adjustment for focus and zoom.
- **Preset Buttons (STORE, CALL, CLEAR):** Manage camera presets.
- **Menu/Setting Buttons:** Access controller settings and camera menus.

2.2 Rear Panel Interfaces

- **Tally Interface:** For connecting to Tally systems.
- **RS-422/485 Interface:** Serial communication for PTZ camera control.
- **RS-232 Interface:** Serial communication for PTZ camera control.
- **USB Interface:** Reserved for future use; currently no function.
- **LAN Port (PoE):** Ethernet connection for IP control and Power over Ethernet.
- **DC-12V Power Input:** Alternative power input if PoE is not used.
- **Power On/Off Switch:** Controls the device's power.

3. SETUP AND CONNECTION

3.1 Powering the Controller

The RP-JP882 controller can be powered in two ways:

1. **Power over Ethernet (PoE):** Connect an Ethernet cable from a PoE-enabled switch or injector to the LAN port on the controller's rear panel. This method provides both power and network connectivity through a single cable.
2. **DC-12V Power Adapter:** Connect the provided DC-12V power adapter to the DC-12V power input port on the rear panel, then plug the adapter into a standard power outlet.

Ensure the power switch on the rear panel is in the "ON" position after connecting power.

3.2 Connecting PTZ Cameras

The controller supports various connection methods for PTZ cameras:

3.2.1 IP Control (Recommended)

For IP control, both the controller and the PTZ cameras must be connected to the same Local Area Network (LAN) and have IP addresses within the same network segment.

1. Connect the controller's LAN port to your network switch using an Ethernet cable.
2. Connect your PTZ cameras to the same network switch.
3. Ensure all devices (controller and cameras) have compatible IP addresses. The controller can automatically search for camera IP addresses for quick pairing.
4. The controller supports IP VISCA network protocols over the Ethernet interface.



Figure 3.1: Multi-Camera IP Connection Diagram. This illustration demonstrates how the RP-JP882 controller can connect to and control multiple PTZ cameras through a PoE switch and router, enabling control of up to 255 cameras over a single network cable.

3.2.2 Serial Control (RS-232/RS-422/RS-485)

For serial control, connect the controller directly to the PTZ camera using appropriate serial cables.

- Connect an RS-232 cable from the controller's RS-232 port to the camera's RS-232 port.
- Alternatively, use RS-422/485 for longer distances or multi-drop connections, connecting to the corresponding ports on the controller and camera(s).
- Ensure the communication protocols (e.g., VISCA, PELCO-D, PELCO-P) and baud rates are matched between the controller and the camera.

4. OPERATION

4.1 Initial Power-On and Camera Detection

1. After connecting power and network, turn on the controller using the power switch.
2. The 3-inch LCD screen will display the startup sequence.
3. The controller will automatically search for connected PTZ cameras on the network. Detected cameras will be listed or made available for selection.

4.2 Camera Selection

To select a camera for control:

- Press one of the **CAM 1-7** shortcut buttons to select a pre-configured camera.
- Alternatively, use the numeric keypad to enter the camera ID and press **ENTER**.
- The LCD screen will display the selected camera's preview (if available) and system parameters.



Figure 4.1: LCD Screen Display Modes. This image illustrates the 3-inch LCD screen displaying both system parameters (such as camera IP, Pan, Tilt, Zoom, Focus Mode) and a real-time preview of the camera's view.

4.3 Pan, Tilt, and Zoom Control

Use the 4D joystick for precise camera movement:

- **Pan/Tilt:** Gently move the joystick left, right, up, or down to control the camera's horizontal (pan) and vertical (tilt) movement.
- **Zoom:** Rotate the joystick head clockwise to zoom in (tele) and counter-clockwise to zoom out (wide).
- **PTZ Speed:** Adjust the **PTZ SPEED** knob to increase or decrease the responsiveness and speed of the joystick movements.



Figure 4.2: 4D Joystick Operation. This image highlights the 4D joystick, demonstrating its variable speed and omnidirectional rotation capabilities for precise Pan, Tilt, and Zoom control.

4.4 Focus and Exposure Control

Use the dedicated knobs and buttons for image adjustments:

- **FOCUS Knob:** Rotate to manually adjust the camera's focus. Press **AUTO** for automatic focus.
- **EXPOSURE Knob:** Adjusts exposure settings.
- **WHITE BALANCE Knob:** Adjusts white balance settings.

4.5 Presets Management

Presets allow you to save and recall specific camera positions and settings.

- **STORE:** Move the camera to the desired position, adjust focus/zoom, then press **STORE** followed by a numeric key (0-999) to save the preset.
- **CALL:** Press **CALL** followed by the numeric key of the desired preset to recall it.
- **CLEAR:** Press **CLEAR** followed by a numeric key to delete a saved preset.

4.6 Custom Function Keys (F1/F2)

The F1 and F2 keys can be customized to perform specific functions. Refer to the controller's on-screen menu for configuration options.

5. MAINTENANCE

5.1 Cleaning

- Regularly clean the controller's surface with a soft, dry cloth.
- For stubborn dirt, use a slightly damp cloth with a mild, non-abrasive cleaner.
- Avoid using harsh chemicals, solvents, or abrasive materials, as these can damage the finish and components.
- Keep the LCD screen clean using a microfiber cloth designed for electronics.

5.2 Storage

- Store the controller in a cool, dry place away from direct sunlight and extreme temperatures.
- If storing for an extended period, disconnect all cables and power.

5.3 Firmware Updates

Periodically check the Runpu official website for firmware updates. Firmware updates can improve performance, add new features, or resolve issues. Follow the instructions provided with the firmware update package carefully.

Note: The controller is NDI upgradeable. Contact Runpu support for information on NDI license upgrades.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Controller does not power on.	No power supply; Power switch off; Faulty power adapter/PoE.	• Ensure power adapter is securely connected or PoE is active. • Check if the power switch on the rear panel is in the "ON" position. • Try an alternative power source (PoE or DC-12V adapter).

Problem	Possible Cause	Solution
Cannot control PTZ camera.	Incorrect network/serial settings; Camera not detected; IP address conflict; Wrong protocol.	• Verify controller and camera are on the same LAN segment for IP control. • Check network cables and connections. • Ensure correct serial cable connections and matched baud rates/protocols (VISCA, PELCO-D/P). • Use the controller's auto-search function for IP cameras. • Confirm the camera is powered on and functioning correctly.
LCD screen shows no preview.	Camera not sending video stream; Network issue; Camera not selected.	• Ensure the selected camera is configured to send a video stream compatible with the controller's preview function. • Verify network connectivity between the controller and the camera. • Confirm the correct camera is selected on the controller.
Joystick movements are erratic or unresponsive.	PTZ speed setting too low; Joystick calibration issue; Physical obstruction.	• Adjust the PTZ SPEED knob to a higher setting. • Check for any physical obstructions around the joystick. • If issues persist, consult the manual for joystick calibration procedures or contact support.

7. SPECIFICATIONS

Feature	Detail
Model Number	RP-JP882
Brand	Runpu
Control Interface	Ethernet (LAN), RS-232, RS-422/485
Control Protocols	VISCA over IP, PELCO-D, PELCO-P, VISCA
Joystick	4D (Pan, Tilt, Zoom rotation)
Display	3-inch LCD Screen (with preview function)
Power Supply	PoE (Power over Ethernet) or DC-12V
Max Cameras Controlled	Up to 255
Preset Storage	Up to 1000 cameras information can be saved (implies presets per camera)
Special Features	Customizable F1/F2 keys, NDI upgradeable (license required)
UPC	717018865919

Universal Compatibility



VISCA | PELCO-D | VISCA over IP | PELCO-P

Figure 7.1: Key Features Overview. This diagram summarizes the main features of the RP-JP882, including its multi-interface control, PoE support, various control protocols, dual control modes (Network & Analog), shortcut buttons, professional LCD screen, and 4D joystick.



Figure 7.2: Universal Protocol Compatibility. This image emphasizes the controller's compatibility with major PTZ camera control protocols: VISCA, PELCO-D, VISCA over IP, and PELCO-P.

8. WARRANTY AND SUPPORT

Runpu provides the following support for the RP-JP882 PTZ Camera Controller:

- **30-Day Money-Back Guarantee:** For any reason, within 30 days of purchase.
- **3-Year Limited Warranty:** Covers manufacturing defects and malfunctions under normal use.
- **Lifetime Online Support:** Our support team is available to assist with any technical issues or questions. Responses are guaranteed within 24 hours.

For technical assistance, warranty claims, or NDI upgrade inquiries, please contact Runpu customer support through the official website or your purchase platform.

