

LILLIPUT PKC1000

LILLIPUT AVMATRIX PKC1000 PTZ Camera Keyboard Controller User Manual

1. INTRODUCTION

The LILLIPUT AVMATRIX PKC1000 is a professional 3D joystick PTZ camera keyboard controller designed for precise and efficient control of Pan-Tilt-Zoom (PTZ) cameras. This controller supports multiple communication protocols and interfaces, making it a versatile solution for various camera setups in broadcasting, video conferencing, and live event production environments. This manual provides detailed instructions for setting up, operating, and maintaining your PKC1000 controller.



Figure 1: AVMATRIX PKC1000 PTZ Camera Keyboard Controller with 3D Joystick.

2. SAFETY INFORMATION

Please read and understand all safety instructions before using the device to prevent injury or damage.

- Do not expose the device to water, moisture, or high humidity.
- Use only the power adapter provided with the unit. Using an unauthorized power adapter may damage the device and void the warranty.
- Do not open the casing. Refer all servicing to qualified personnel.
- Ensure proper ventilation around the device to prevent overheating.
- Keep the device away from direct sunlight, heat sources, and strong electromagnetic fields.
- Clean the device with a soft, dry cloth. Do not use liquid or aerosol cleaners.

3. PACKAGE CONTENTS

Verify that all items are present in your package:

- 1x AVMATRIX PKC1000 PTZ Camera Keyboard Controller
- 1x Power Supply

4. SETUP

4.1 Power Connection

1. Connect the provided power adapter to the DC12V input port on the rear of the PKC1000 controller.
2. Plug the power adapter into a suitable electrical outlet.
3. The controller's LCD display should illuminate, indicating power is supplied.

4.2 Camera Connection

The PKC1000 supports various communication interfaces for connecting to PTZ cameras:

- **RS-232:** Use a serial cable to connect the RS-232 port on the controller to the corresponding port on your PTZ camera.
- **RS-422/RS-485:** For multi-camera setups or longer distances, use RS-422 or RS-485 connections. Connect the appropriate terminals on the controller to your cameras. Ensure correct wiring for half-duplex (RS-485) or full-duplex (RS-422) communication.

Ensure that the communication protocol (Pelco D, Pelco P, or VISCA) and baud rate settings on the controller match those of your connected cameras.



Figure 2: Rear view of the PKC1000 controller, illustrating power and communication ports.

5. OPERATING INSTRUCTIONS

5.1 Basic Controls

- **3D Joystick:** The three-dimensional joystick provides intuitive control over camera movements.
 - Move the joystick *left/right* for **Pan** control.
 - Move the joystick *forward/backward* for **Tilt** control.
 - Rotate the joystick *clockwise/counter-clockwise* for **Zoom** control (zoom in/out).
- **Focus and Iris Control:** Dedicated function keys on the keyboard allow for manual or automatic adjustment of camera focus and iris settings.

5.2 Protocol and Camera Selection

The PKC1000 supports PELCO-D, PELCO-P, and VISCA control protocols. Use the keyboard to select the desired protocol and camera ID. The controller can manage up to 255 connected cameras, allowing for extensive multi-camera setups.

- Use the numeric keypad to enter the camera ID you wish to control.
- Select the appropriate protocol (e.g., VISCA, Pelco-D) via the dedicated buttons or menu options on the LCD display.
- Adjust the communication baud rate (2400bps to 19200bps) to match your camera's settings.

6. MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your PKC1000 controller.

- **Cleaning:** Regularly wipe the surface of the controller with a soft, dry, lint-free cloth. Avoid using abrasive cleaners, solvents, or strong chemicals.
- **Storage:** When not in use for extended periods, store the controller in a cool, dry place, away from direct sunlight and extreme temperatures.
- **Joystick Care:** Keep the joystick free from dust and debris. Avoid applying excessive force to the joystick.

7. TROUBLESHOOTING

If you encounter issues with your PKC1000 controller, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Controller does not power on.	No power supply or faulty adapter.	Ensure the power adapter is securely connected and plugged into a working outlet. Verify the adapter is the correct one.
Camera not responding to commands.	Incorrect cable connection, mismatched protocol/ baud rate, or wrong camera ID.	Check all communication cables for secure connection. Verify that the selected protocol (Pelco D/P, VISCA), baud rate, and camera ID on the controller match the camera's settings.
Joystick movements are erratic or unresponsive.	Dust/debris in joystick mechanism or internal fault.	Clean around the joystick base. If the issue persists, contact customer support.
LCD display is blank or unreadable.	Power issue or display fault.	Check power connection. If power is present and display remains blank, contact customer support.

8. SPECIFICATIONS

Technical specifications for the LILLIPUT AVMATRIX PKC1000 PTZ Camera Keyboard Controller:

Feature	Description
Model Name	PKC1000
Input Voltage	DC12V±10%
Input Current	1A (Max)
Interfaces	RS232 Serial Port; RS485 Half duplex; RS422 Full duplex
Communication Baud Rate	2400bps, 4800bps, 9600bps, 19200bps
Joystick	Three-dimensional (Control: up, down, left, right, rotate)
Display Mode	LCD Blue Screen Display
Power Consumption	8W MAX
Working Temperature	-10°C ~ 50°C
Storage Temperature	≤90%RH (No frosting)

Feature	Description
Dimensions (L×W×H)	320mm × 179.3mm × 106.4mm
Supported Protocols	Pelco D, Pelco P, VISCA
Max Connected Cameras	255

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the LILLIPUT official website or contact your authorized dealer. Keep your purchase receipt as proof of purchase for warranty claims.

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