

Red Lion CUB4L800

User Manual

RED LION CUB4L800 8-DIGIT REFLECTIVE COUNTER

1. Introduction

This manual provides essential information for the proper installation, operation, and maintenance of the Red Lion CUB4L800 8-Digit Reflective Counter. Please read this manual thoroughly before attempting to install or operate the device to ensure safe and efficient use. Keep this manual for future reference.

2. Safety Information

Always observe standard safety precautions during installation and operation of this equipment. Failure to comply with safety warnings may result in injury or damage to the device.

- **Electrical Hazard:** Disconnect all power before installing or servicing the unit.
- **Qualified Personnel:** Installation and maintenance should only be performed by qualified personnel.
- **Environmental Conditions:** Do not expose the unit to conditions outside its specified operating environment.
- **Proper Wiring:** Ensure all wiring connections are secure and conform to local electrical codes.

3. Product Overview

The Red Lion CUB4L800 is an 8-digit reflective LCD counter designed for industrial applications requiring reliable counting and display. Its reflective display offers excellent visibility in various lighting conditions. The unit features multiple input modes and a compact design for easy integration.



Figure 1: Front view of the Red Lion CUB4L800 8-Digit Reflective Counter, showing the display and control buttons.

4. Setup and Installation

Follow these steps for proper installation of your CUB4L800 counter:

- Mounting:** The CUB4L800 is designed for panel mounting. Cut a panel opening of the specified dimensions (refer to the specifications section). Insert the counter into the opening and secure it using the provided mounting clips.
- Wiring:** Refer to the wiring diagram provided with the unit or in the specifications section. Connect the power supply (typically 9-28 VDC) to the designated terminals. Connect the input signal (e.g., from a sensor or switch) to the appropriate input terminals. Ensure all connections are tight and correct.
- Power On:** Once all connections are verified, apply power to the unit. The display should illuminate, indicating the unit is operational.

5. Operation

The CUB4L800 counter is designed for straightforward operation. The reflective display shows the current count value.

- Counting:** The counter increments or decrements based on the input signals received. The counting mode (up, down, quadrature) is typically configured during initial setup or via internal jumpers/switches.
- Resetting the Count:** A dedicated reset input or a front-panel button (if available on your model) can be used to reset the count to zero or a preset value. Consult the specific model's diagram for reset functionality.
- Display Hold:** Some models may feature a display hold function, allowing the current count to be frozen on the display while counting continues internally.

6. Maintenance

The CUB4L800 counter requires minimal maintenance to ensure long-term reliable operation.

- Cleaning:** Keep the display and front panel clean. Use a soft, damp cloth with a mild cleaning solution. Do not use abrasive cleaners or solvents, as these can damage the display or housing.
- Inspection:** Periodically inspect wiring connections for tightness and signs of wear or corrosion.
- Environmental Control:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature failure.

7. Troubleshooting

If you encounter issues with your CUB4L800 counter, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Display is blank	No power, incorrect wiring, or faulty unit.	Check power supply connections. Verify input voltage. If issues persist, contact support.
Counter not incrementing/decrementing	No input signal, incorrect input wiring, or sensor malfunction.	Verify input signal presence and strength. Check input wiring for breaks or shorts. Test the sensor independently.

Problem	Possible Cause	Solution
Inaccurate count	Noise on input line, incorrect input mode, or fast input signals.	Ensure proper shielding for input cables. Verify input mode settings. Consider using a debouncing circuit for noisy signals.

If these steps do not resolve the issue, please contact Red Lion technical support.

8. Specifications

- **Model:** CUB4L800
- **Display:** 8-Digit Reflective LCD
- **Input Voltage:** 9-28 VDC
- **Input Type:** Various (e.g., NPN/PNP, contact closure) - *Refer to specific model datasheet for details.*
- **Operating Temperature:** -10°C to 50°C (14°F to 122°F)
- **Storage Temperature:** -40°C to 70°C (-40°F to 158°F)
- **Humidity:** 85% RH non-condensing
- **Mounting:** Panel Mount
- **Dimensions:** *Refer to product datasheet for exact dimensions.*

9. Warranty and Support

Red Lion Controls products are warranted against defects in material and workmanship for a period of one year from the date of shipment. For full warranty details, please refer to the official Red Lion Controls website or contact your local distributor.

For technical assistance, troubleshooting, or service, please visit the [Red Lion Controls Support page](#) or contact their customer service department directly. When contacting support, please have your product model number (CUB4L800) and any relevant details about your application readily available.