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Model: CUB7CCS0

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Red Lion Controls CUB7CCS0 Counter or Timer. The CUB7CCS0 is a versatile, low-voltage reflective counter/timer designed for industrial applications requiring precise counting or timing functions. Please read this manual thoroughly before attempting to install or operate the device.



Figure 1: Red Lion Controls CUB7CCS0 Counter/Timer. This image shows the compact design of the CUB7CCS0 unit, typically featuring a digital display and control buttons on its front panel, enclosed in a durable housing suitable for industrial environments.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent personal injury and damage to the device or other equipment.

- **Electrical Hazard:** Disconnect all power to the unit and associated equipment before performing any wiring or maintenance. Failure to do so may result in electric shock or equipment damage.
- **Qualified Personnel:** Installation, setup, and maintenance should only be performed by qualified personnel familiar with electrical wiring and industrial control systems.
- **Environmental Conditions:** Ensure the operating environment is within the specified temperature and humidity ranges to prevent malfunction.
- **Proper Wiring:** Use appropriate wire gauges and insulation for all connections. Ensure all connections are secure to

prevent intermittent operation or short circuits.

- **Intended Use:** Use this device only for its intended purpose as a counter or timer. Do not modify the unit.

3. SETUP

3.1 Mounting

The CUB7CCS0 is designed for panel mounting. Ensure adequate space for ventilation and access to wiring terminals. Refer to the dimensional drawings for precise cutout and clearance requirements.

1. Cut a panel opening according to the specified dimensions.
2. Insert the CUB7CCS0 unit into the panel opening from the front.
3. Secure the unit using the provided mounting clips or hardware from the rear of the panel. Tighten screws evenly to ensure a snug fit without over-tightening.

3.2 Wiring

All wiring should be performed with power disconnected. Refer to the wiring diagram provided with your unit for specific terminal assignments. The CUB7CCS0 typically requires connections for power, input signals, and output signals (if applicable).

- **Power Supply:** Connect the low voltage DC power supply to the designated power terminals. Observe correct polarity.
- **Input Signals:** Connect the sensor or signal source to the input terminals. Ensure the input signal type (e.g., NPN, PNP) is compatible with the CUB7CCS0 configuration.
- **Output Signals (Optional):** If using relay or transistor outputs, connect them to the controlled device according to the wiring diagram.
- **Grounding:** Ensure proper grounding to minimize electrical noise and ensure safety.

4. OPERATING

4.1 Power On and Initial Display

Once wired, apply power to the unit. The display will illuminate, typically showing the current count or time value, or a default setting. The CUB7CCS0 features a clear digital display for easy readability.

4.2 Mode Selection

The CUB7CCS0 can operate in various modes (e.g., counter, timer, rate meter). Use the front panel buttons to navigate through the menu and select the desired operating mode. Consult the detailed programming guide for specific button functions and menu structures.

4.3 Parameter Setting

To configure the unit, enter the programming mode using the designated button (often labeled 'PROG' or 'SET'). Parameters may include:

- **Count/Time Value:** Set the target count or time duration.
- **Input Scaling:** Adjust the input signal to represent desired units (e.g., pulses per unit).
- **Output Control:** Configure relay or transistor outputs based on count/time thresholds.
- **Display Options:** Select units, decimal points, or display brightness.
- **Reset Function:** Configure manual or automatic reset options.

Use the UP/DOWN or navigation buttons to adjust values and the ENTER/SET button to confirm. Exit programming mode to save changes and return to operation.

5. MAINTENANCE

The CUB7CCS0 is designed for minimal maintenance. However, periodic checks can ensure optimal performance and longevity.

- **Cleaning:** Keep the front panel and display clean using a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Connections:** Periodically inspect all wiring connections for tightness and signs of corrosion. Re-tighten if necessary.
- **Environmental Check:** Ensure the operating environment remains within specified limits for temperature and humidity.
- **Battery Replacement (if applicable):** Some models may include an internal battery for memory retention. If the display shows a low battery indicator or settings are lost after power cycles, consult the full product manual for battery replacement procedures.

6. TROUBLESHOOTING

If you encounter issues with your CUB7CCS0, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No display/Unit not powering on	No power supply; Incorrect wiring; Blown fuse (external)	Check power connections and voltage; Verify wiring against diagram; Check external fuse.
Incorrect count/time	Incorrect input scaling; Faulty sensor; Incorrect mode selection	Verify input scaling settings; Test sensor operation; Ensure correct operating mode is selected.
Unit not responding to inputs	Input wiring error; Sensor malfunction; Input type mismatch	Check input wiring; Test sensor; Confirm input type (NPN/PNP) matches configuration.
Settings not saving	Not exiting programming mode correctly; Low internal battery (if applicable)	Ensure settings are confirmed and programming mode is exited properly; Check/replace internal battery if unit has one.

If the problem persists after attempting these solutions, contact Red Lion Controls technical support.

7. SPECIFICATIONS

Specification	Value
Brand	Red Lion
Model	CUB7CCS0
Item Weight	0.01 Ounces
Number of settings	5
UPC	747356317085
Manufacturer	Red Lion Controls
Color	Black

8. WARRANTY AND SUPPORT

Red Lion Controls products are warranted against defects in material and workmanship for a specified period from the date of purchase. For detailed warranty terms and conditions, please refer to the official Red Lion Controls website or contact their customer service.

For technical assistance, product support, or to report issues, please visit the official Red Lion Controls support page or contact their technical support team directly. Have your product model number (CUB7CCS0) and any relevant error messages ready when contacting support.

Red Lion Controls Official Website: www.redlion.net

