

Red Lion Controls DT800000

Red Lion DT800000 Adjustable Time Base Tachometer User Manual

Model: DT800000 | Brand: Red Lion Controls

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Red Lion DT800000 Adjustable Time Base Tachometer. Please read this manual thoroughly before attempting to install or operate the device to ensure safe and efficient performance. Retain this manual for future reference.

2. SAFETY INFORMATION

Observe the following safety precautions to prevent personal injury and damage to the equipment:

- Ensure all power is disconnected before installation or maintenance.
- Installation and servicing should only be performed by qualified personnel.
- Do not operate the device in environments exceeding its specified operating conditions.
- Protect the device from moisture, dust, and extreme temperatures.
- Verify all wiring connections are correct and secure before applying power.

3. PRODUCT OVERVIEW

The Red Lion DT800000 is an adjustable time base tachometer designed for precise measurement and display of rotational speed or frequency. Its robust design and adjustable features make it suitable for various industrial and automotive applications requiring accurate RPM monitoring.



Figure 1: Front view of the Red Lion DT800000 Adjustable Time Base Tachometer. The display shows a numerical value, indicating its function as a digital readout device for speed or frequency measurements.

4. INSTALLATION AND SETUP

4.1 Mounting

The DT800000 is designed for panel mounting. Ensure adequate space for ventilation and access to wiring terminals. Cut a panel opening according to the dimensions provided in the specifications section. Secure the tachometer using the supplied mounting hardware.

4.2 Wiring

Refer to the wiring diagram provided with your specific unit for detailed connection instructions. General wiring considerations include:

- **Power Supply:** Connect the appropriate DC or AC power supply to the designated terminals. Verify voltage and current requirements.
- **Input Signal:** Connect the speed or frequency input signal (e.g., from a proximity sensor, encoder, or ignition coil) to the input terminals. Ensure proper signal type and level.
- **Output (Optional):** If your model includes output functions (e.g., alarm, retransmission), connect these to the appropriate control systems.
- **Grounding:** Ensure proper grounding to prevent electrical noise and ensure safety.

Caution: *Incorrect wiring can damage the device and connected equipment. Always double-check connections before applying power.*

5. OPERATION

5.1 Power On

Once correctly installed and wired, apply power to the unit. The display should illuminate and show a reading. If the display remains blank or shows an error, refer to the Troubleshooting section.

5.2 Adjusting Time Base and Scaling

The DT800000 features an adjustable time base, allowing for precise scaling of the input signal to display the desired units (e.g., RPM, Hz). Configuration typically involves:

- **Accessing Setup Menu:** Use the front panel buttons (if present) or a dedicated configuration port to enter the setup menu.
- **Setting Input Type:** Select the type of input signal (e.g., NPN, PNP, voltage pulse).
- **Configuring Time Base:** Adjust the internal time base or gate time to match the expected input frequency range and desired display resolution.
- **Scaling Factor:** Enter a scaling factor to convert the raw input counts/frequency into the desired engineering units (e.g., pulses per revolution to RPM).
- **Decimal Point Position:** Set the position of the decimal point on the display.

Refer to the detailed programming guide (usually a separate document or included with the unit) for specific menu navigation and parameter settings.

5.3 Reading the Display

The digital display provides a real-time readout of the measured parameter. Ensure the displayed value is consistent with the expected operational range of your application.

6. MAINTENANCE

The Red Lion DT800000 is designed for minimal maintenance. Follow these guidelines to ensure longevity:

- **Cleaning:** Clean the front panel and display with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Periodically inspect wiring connections for looseness or corrosion.
- **Environmental Control:** Ensure the operating environment remains within specified temperature and humidity limits.

No user-serviceable parts are inside the enclosure. Do not attempt to open or repair the unit yourself.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
Display is blank	No power, incorrect wiring, faulty unit.	Check power supply connections. Verify voltage. Inspect wiring for shorts or breaks.
Incorrect reading	Incorrect scaling, wrong input type, faulty sensor, electrical noise.	Review scaling factor and time base settings. Check input sensor operation. Ensure proper shielding and grounding.
Display shows "Err" or similar	Input signal out of range, internal fault.	Verify input signal is within specified limits. Power cycle the unit. If error persists, contact technical support.

If troubleshooting steps do not resolve the issue, contact Red Lion Controls technical support or your authorized distributor.

8. SPECIFICATIONS

Parameter	Value
Model	DT800000
Brand	Red Lion Controls
Item Weight	0.96 ounces (27.22 g)
Manufacturer	COLE-PARMER
First Available	February 7, 2013

Note: Detailed electrical and environmental specifications are typically found in the product datasheet.

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation included with your purchase or visit the official Red Lion Controls website. Warranty terms and conditions may vary by region and product.

For technical assistance, product support, or to report issues, please contact Red Lion Controls customer service or your authorized distributor. Contact details can typically be found on the manufacturer's website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question