ELING 0-7000RPM

ELING Engine Tachometer 7000 RPM Gauge with Hour Meter (85mm, 12V/24V) Instruction Manual

Model: 0-7000RPM
Brand: ELING

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your ELING Engine Tachometer with Hour Meter. Please read this manual thoroughly before installation and use to ensure proper function and longevity of the device. This tachometer is designed for use in various vehicles, including cars and boats, operating on 12V or 24V systems.

2. Product Overview

The ELING Engine Tachometer is an 85mm gauge designed to display engine revolutions per minute (RPM) and accumulated operating hours. It features a clear display with red backlight for visibility in various lighting conditions and is built with waterproof and anti-fogging protection for durability.

Figure 2.1: Front view of the ELING 7000 RPM Engine Tachometer with hour meter display.

Figure 2.2: Angled view of the ELING 7000 RPM Engine Tachometer with its red backlight illuminated.

3. Package Contents

Upon unpacking, please verify that all items listed below are present and in good condition:

- ELING Engine Tachometer with Hour Meter (85mm)
- Wiring Harness
- Owner's Manual (Instruction Sheet)
- Mounting Bracket and Nuts

Figure 3.1: Contents of the ELING Tachometer package, including the gauge, wiring harness, and instruction manual.

4. Specifications

Feature	Specification
Measurement Range	0-7000 RPM
Gauge Diameter	85mm (3-3/8 inches)
Operating Voltage	9-32V DC (suitable for 12V/24V systems)
Operating Current	≤60mA
Backlight Color	Red
Waterproof Rating	100% Waterproof
Anti-fogging Protection	Yes
Speed Ratio Adjustment	1-300 adjustable
Hour Meter	Integrated, non-resettable
Product Dimensions (L x W x H)	3.35 x 3.35 x 2.76 inches
Item Weight	0.22 Kilograms (7.76 ounces)
Operating Temperature	-30°C to +75°C
Storage Temperature	-40°C to +85°C

5. Installation

Follow these steps for proper installation of the tachometer:

1. **Prepare the Mounting Hole:** Open a 3-3/8 inch (85mm) diameter hole in your dashboard or mounting panel. Ensure there is at least 2-3/4 inches (70mm) depth behind the panel for the gauge body.
2. **Insert the Gauge:** Carefully insert the tachometer into the prepared hole.
3. **Secure the Gauge:** Use the provided U-shaped mounting bracket and nuts to fasten the gauge securely from the rear of the panel. Tighten the nuts until the gauge is firm but avoid over-tightening.

Figure 5.1: Rear view of the ELING Tachometer showing the mounting bracket and electrical connections.

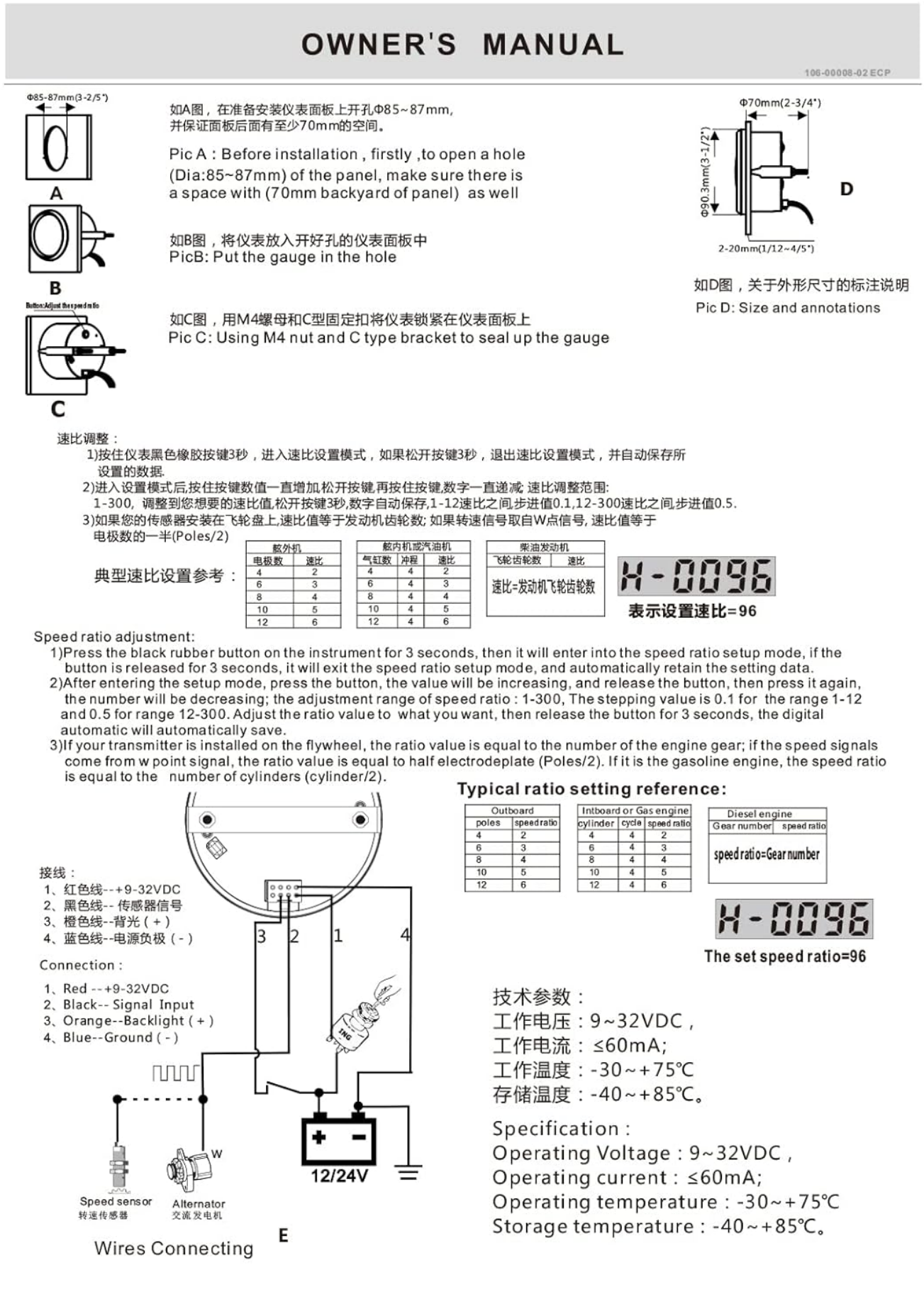

Figure 5.2: Owner's Manual diagram for installation and wiring.

6. Wiring Diagram

Refer to the wiring diagram below and the provided owner's manual for correct electrical connections. Ensure all connections are secure and insulated to prevent short circuits.

- **Red Wire:** Connect to +9-32V DC power supply.
- **Black Wire:** Connect to Ground (-).
- **Blue Wire:** Connect to Tachometer Signal Input. This signal can be sourced from the engine's ignition coil, crankshaft sensor, or a dedicated tacho sensor (sold separately, e.g., ASIN B07RN3HJ72 or B07RR8NQ45).
- **Orange Wire:** Connect to Backlight (+).

The tachometer is suitable for both diesel and gasoline engines. The signal input method may vary depending on your engine type.

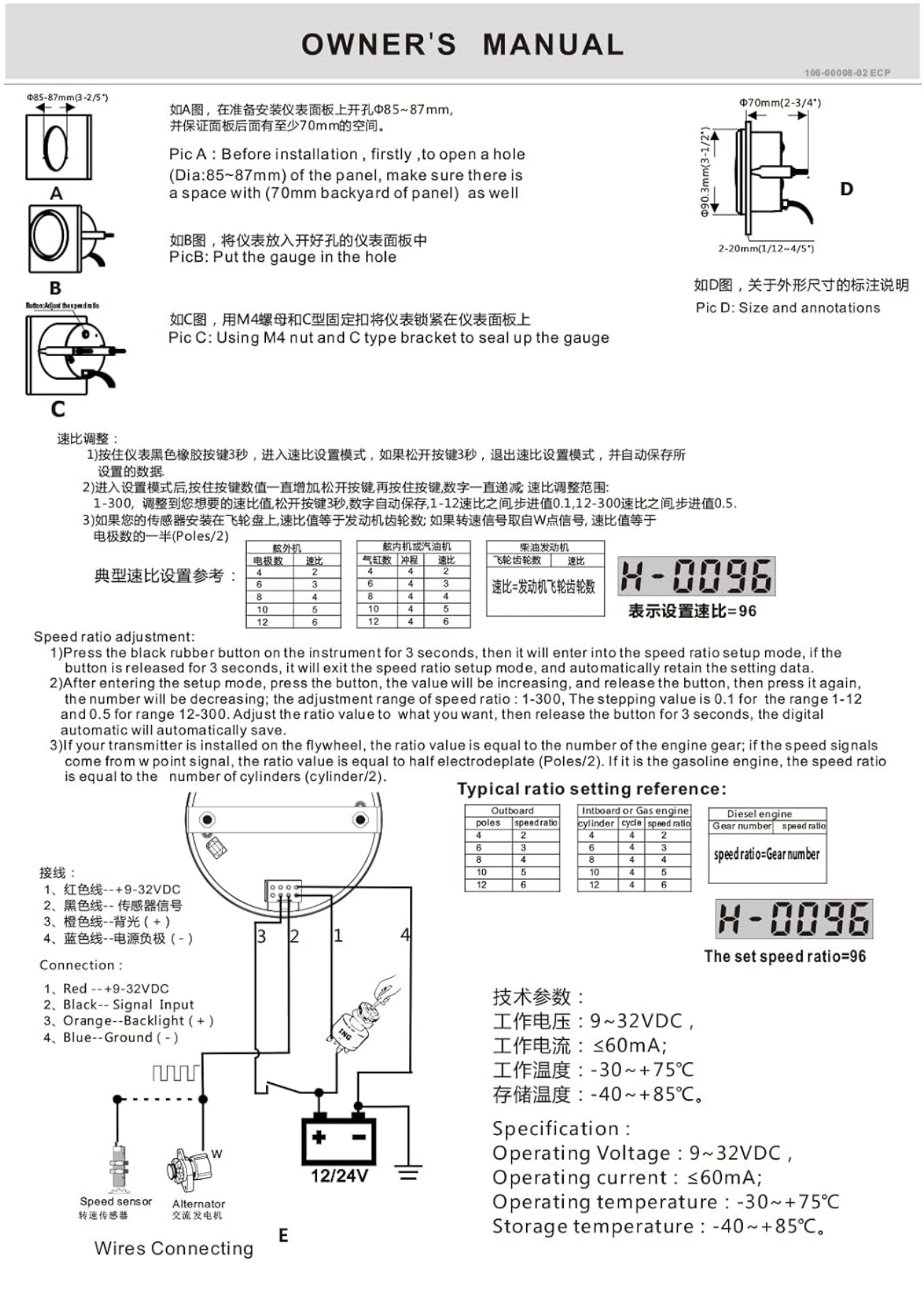

Figure 6.1: Owner's Manual diagram for wiring connections.

7. Operation

7.1. Speed Ratio Adjustment

The tachometer requires a speed ratio setting to accurately display RPM. This ratio is adjustable from 1 to 300. The default idle speed is typically 600-800 RPM.

1. **Enter Setup Mode:** Press and hold the back button located on the rear of the tachometer for 3 seconds. The display will show the current speed ratio setting.
2. **Adjust Ratio:** While in setup mode, press the button repeatedly to increase the ratio value. The value will increment by 0.5 with each press.
3. **Save Setting:** Once the desired ratio is displayed, release the button for 3 seconds. The tachometer will automatically save the new setting and exit setup mode.

Note: If your tachometer signal is derived from the flywheel, the ratio value should correspond to the number of engine gear teeth divided by two (Poles/2). If the signal comes from the ignition coil in a gasoline engine, the ratio should be set to the number of cylinders divided by two (Cylinder/2).

7.2. Hour Meter Function

The tachometer includes an integrated hour meter that continuously records the total operating hours of the engine. This hour meter cannot be reset.

8. Troubleshooting

If you encounter issues with your tachometer, consider the following general troubleshooting steps:

- **No Power/Display:** Check all power connections (Red wire to +V, Black wire to Ground). Ensure the operating voltage is within 9-32V DC.
- **Incorrect RPM Reading:** Verify the speed ratio setting. Adjust it as described in Section 7.1. Ensure the signal input (Blue wire) is correctly connected to a reliable RPM signal source (ignition coil, crankshaft sensor, or tacho sensor).
- **No RPM Movement:** Confirm the signal wire is properly connected and receiving a signal. If using a tacho sensor, ensure it is functioning correctly.
- **Intermittent Readings:** Check for loose or corroded connections. Ensure the signal wire is not experiencing interference.

For persistent issues, consult a qualified technician or contact ELING customer support.

9. Maintenance

The ELING Engine Tachometer is designed for durability and requires minimal maintenance.

- **Cleaning:** Clean the gauge face with a soft, damp cloth. Avoid abrasive cleaners or solvents that could damage the display or housing.
- **Connections:** Periodically inspect all electrical connections for tightness and corrosion.
- **Environmental Protection:** While the gauge is waterproof, prolonged exposure to extreme conditions or direct high-pressure water jets should be avoided.

10. Warranty and Support

ELING products are manufactured to high-quality standards. For warranty information or technical assistance, please refer to the documentation included with your purchase or contact ELING customer support through their official channels. Keep your purchase receipt as proof of purchase for any warranty claims.