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## ELING 52mm

# ELING 2-inch Digital GPS Speedometer Odometer User Manual

Model: 52mm

## 1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your ELING 2-inch Digital GPS Speedometer Odometer. This instrument is designed for various applications including RC cars, dirt bikes, vans, and marine boats, offering precise speed and odometer readings. Please read this manual thoroughly before installation and use to ensure proper function and safety.

## 2. PRODUCT OVERVIEW

The ELING 2-inch Digital GPS Speedometer Odometer features a red backlight for clear visibility and operates on a 9-32VDC power supply, making it suitable for both 12V and 24V systems. It is designed with 100% waterproof and anti-fogging protection for durability in various environments.

### Key Features:

- Digital display for current speed and odometer (ODO).
- Adjustable units: Kilometers per Hour (KM/H), Miles per Hour (MPH), and Knots.
- Red backlight for enhanced visibility in low light conditions.
- Wide operating voltage range: 9-32VDC.
- Waterproof and anti-fogging design.



Figure 2.1: Front view of the ELING 2-inch Digital GPS Speedometer Odometer.

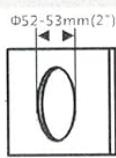
### 3. SETUP AND INSTALLATION

Follow these steps carefully for proper installation of your GPS speedometer.

#### 3.1 Panel Mounting

1. Cut a 52mm (2 1/16") diameter hole in the desired panel location. Ensure a clearance of at least 70mm (2 3/4") behind the panel for the gauge to fit.
2. Insert the gauge into the prepared hole.
3. Secure the gauge using the provided M4 nut and C-type bracket to seal it firmly in place.

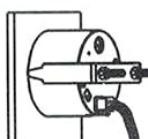
# OWNER'S MANUAL



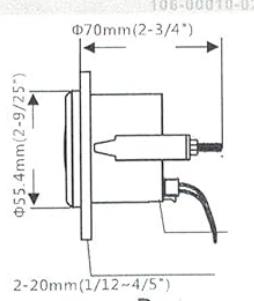
如A图,在准备安装仪表面板上开孔Φ52~53mm,并保证面板后面有至少70mm的空间。  
Pic A : Before installation , firstly , to open a hole (Dia:52~53mm) of the panel, make sure there is a space with (70mm backyard of panel) as well



如B图,将仪表放入开好孔的仪表面板中  
PicB: Put the gauge in the hole



如C图,用M4螺母和C型固定扣将仪表锁紧在仪表面板上  
Pic C: Using M4 nut and C type bracket to seal up the gauge



如D图,关于外形尺寸的标注说明  
Pic D: Size and annotations

技术参数：  
工作电压 : 9~32VDC ,  
工作电流 : ≤60mA;  
工作温度 : -30~+75°C  
存储温度 : -40~+85°C.

Specification :  
Operating Voltage : 9~32VDC ,  
Operating current : ≤60mA;  
Operating temperature : -30~+75°C  
Storage temperature : -40~+85°C.

## gps installation instructions/天线安装说明:



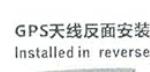
GPS天线正面安装:  
Installed in front:



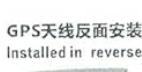
最好的安装方式  
Best



一般安装方式  
General



可能收不到GPS信号  
Can't receive  
GPS signals  
GPS天线反面安装  
Reverse the GPS antenna installation



此面要求是塑  
胶或不能屏蔽  
GPS信号的材  
质。  
this surface  
material required  
plastic or can  
not shield GPS signal  
material



- 如A图,在准备安装仪表面板上开孔Φ52~53mm,并保证面板后面有至少70mm的空间。
- 如B图,将仪表放入开好孔的仪表面板中,并用F和D配件将仪表锁紧。
- 如G图,将线束E插入仪表中; 如G图,连接好GPS天线,并按H图接线示意图将电线连接。
- 打开电源,仪表即可开始工作.仪表开始工作时,处于搜索信号状态,SOG会自动计数,计数到300,如果还没有搜索到GPS信号,SOG会显示E01.处于搜索状态或中途GPS信号丢失SOG会闪烁。
- 轻触仪表背面的按键,可以实现KNOTS、MPH、KM/H单位的切换,并自动保存。

SOG: 表示对地速度-航速 ; COG: 表示相对于地面位置的移动方向 , 表示相对于正北顺时针方向的角度

TRIP: 小计里程,掉电自动清零 ; ODO 累计里程,掉电数据不清零.

COG、TRIP、ODO只能选择其中一种显示。

故障代码 : E01 表示上电时GPS搜索不到GPS信号。

: E02 表示中途GPS信号丢失。

: E03 表示仪表内部电路出现故障。

1. The hole of Φ52~53mm is opened on the instrument panel to be installed as shown in figure A, and ensure that the space behind the panel is 70 mm at least.

2. The instrument is put in the instrument panel with the hole as shown in figure B, and the instrument will be locked by F and D accessories.

3. The wiring harness E is inserted in the instrument; as shown in G figure, GPS antenna is connected; as shown in G figure, and electric wire is connected according to the H figure wiring diagram.

4. Turn it on , then the meter start to search the signal and SOG will count automatically. If there is still no GPS signal when it count to 300, the SOG displays "E01", indicating that the meter is searching the signal . When the SOG is flickering, indicating the GPS signal is lost. 5. Touch the back button of the meter, we can switch the unit:KNOTS,MPH,KM/H and save automatically.

SOG:Speed Over Ground.

COG:(Course Over Ground): The moving direction relative to the ground position, showing clockwise direction relative to the north.

TRIP : Return zero when off electricity.

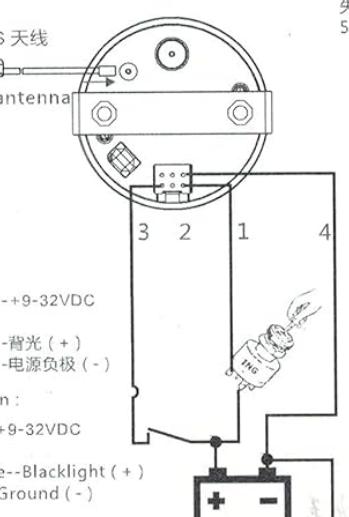
ODO : Accumulated, and never return zero when off electricity.

You could choose one way of the three ( COG 、 TRIP and ODO ) to display

Fault code: E01 indicate that is couldn't search any GPS signals when in an energized state

: E02 indicate that it lose GPS signal .

: E03 indicates that there is a circuit problem .



E:接线图  
Pic E(Wires Connecting)

Figure 3.1: Installation diagram for panel mounting.

## 3.2 GPS Antenna Connection

- Securely fasten the GPS antenna in a flat position with the black side facing upwards. For optimal signal reception, place it outside or inside the front windscreens, ensuring a clear view of the sky.
- Connect the antenna cable to the designated socket at the back of the gauge. Do not cut the antenna cable.
- Upon initial power-on, the GPS speedometer may take approximately 30 seconds to acquire a signal. Subsequent signal acquisition will typically take less than 3 seconds, especially under clear skies.



Figure 3.2: GPS Speedometer and antenna.

### 3.3 Wiring Connections

Refer to the wiring diagram below for correct electrical connections. Ensure all connections are secure to prevent malfunctions.

- **Red Wire:** Connect to +9-32VDC power supply.
- **Blue Wire:** Connect to Ground (-).
- **Orange Wire:** Connect to Red Backlight (+).



Figure 3.3: Rear view with wiring harness and GPS antenna port.

Your browser does not support the video tag.

Video 3.1: Demonstrates the connection and initial function of the ELING 52mm Digital GPS Speedometer Odometer, including power-on sequence and unit adjustment.

## 4. OPERATING INSTRUCTIONS

### 4.1 Display Information

The speedometer displays the current speed and the accumulated odometer (ODO) reading. The ODO value is accumulated and does not reset when power is turned off.

### 4.2 Adjusting Units

To switch between speed units (KM/H, MPH, KNOTS), press the black button located on the back of the gauge. Each press will cycle through the available units. The selected unit will be saved automatically.



Figure 4.1: Location of the black button for unit adjustment.

## 5. MAINTENANCE

The ELING GPS Speedometer Odometer is designed for durability and requires minimal maintenance. To ensure longevity and clear readings:

- Regularly clean the display with a soft, damp cloth. Avoid abrasive cleaners or solvents.
- Ensure all electrical connections remain secure and free from corrosion.
- Periodically check the GPS antenna placement to ensure it maintains a clear view of the sky for optimal signal reception.

## 6. TROUBLESHOOTING

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

### Error Codes:

- **E01:** GPS cannot search for a GPS signal when powered on.
- **E02:** GPS signal lost during operation.
- **E03:** The internal circuit of the instrument is faulty.

### General Troubleshooting Tips:

- **No Display/Power:** Check all wiring connections, especially the power (red) and ground (blue) wires, to ensure they are secure and receiving the correct voltage (9-32VDC).
- **No GPS Signal (E01/E02):** Verify that the GPS antenna has a clear, unobstructed view of the sky. Ensure the antenna cable is securely connected to the gauge and is not damaged. Move the vehicle to an open area if indoors or under heavy cover.
- **Incorrect Readings:** Ensure the correct unit (KM/H, MPH, KNOTS) is selected. If readings are consistently inaccurate, recheck the GPS antenna placement.
- **Display Issues:** If the display is dim or flickering, check the power supply. If an E03 error occurs, the internal circuit may be faulty, and professional assistance or replacement may be required.

## 7. SPECIFICATIONS

Specification	Value
Product Dimensions	2.05 x 2.05 x 2.76 inches
Item Weight	7.4 ounces
Operating Voltage	9-32VDC
Operating Current	≤60mA
Operating Temperature	-30°C to +75°C
Storage Temperature	-40°C to +85°C
Material	Plastic
Manufacturer	ELING
UPC	610825803450

## 8. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation included with your product or contact ELING customer service directly. Ensure you have your product model number and purchase details available when seeking support.

You can visit the official ELING store for more information: [ELING Store on Amazon](#)

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