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## ELING B0752PZH3D

# ELING Digital GPS Speedometer Odometer Kit (52mm, Red Backlight)

Instruction Manual

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## 1. PRODUCT OVERVIEW

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This manual provides detailed instructions for the installation, operation, and maintenance of your ELING Digital GPS Speedometer Odometer Kit. This device is designed for accurate speed and distance measurement in various vehicles, including cars, boats, and motorcycles.



Figure 1: Front view of the ELING 52mm Digital GPS Speedometer Odometer Kit.

The speedometer features a red backlight for clear visibility and is designed for 12V/24V systems. It displays current speed and accumulated distance (ODO).

## 2. INSTALLATION INSTRUCTIONS

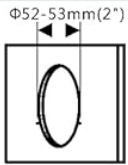
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### 2.1 Mounting the Gauge

1. Cut a 52mm (2 1/16") diameter hole in the panel. Ensure a clearance of 70mm (2 3/4") behind the panel for the gauge.
2. Insert the gauge into the prepared hole.
3. Secure the gauge using the provided M4 nut and C-type bracket.

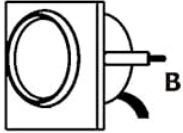
# OWNER'S MANUAL

106-00013-02



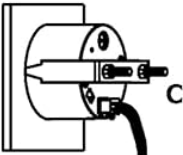
如A图,在准备安装仪表面板上开孔 $\Phi 52\sim 53\text{mm}$ ,并保证面板后面有至少70mm的空间。

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



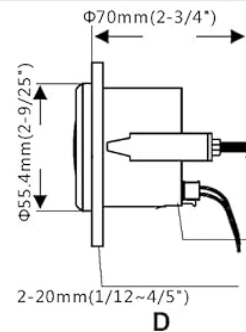
如B图,将仪表放入开好孔的仪表面板中

Pic B: 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:  $9\sim 32\text{VDC}$ ,  
工作电流:  $\leq 60\text{mA}$ ;  
工作温度:  $-30\sim +75^\circ\text{C}$   
存储温度:  $-40\sim +85^\circ\text{C}$ .

Specification:

Operating Voltage:  $9\sim 32\text{VDC}$ ,  
Operating current:  $\leq 60\text{mA}$ ;  
Operating temperature:  $-30\sim +75^\circ\text{C}$   
Storage temperature:  $-40\sim +85^\circ\text{C}$ .

## 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  
Installed in reverse:



GPS天线反向安装  
Reverse the GPS antenna installation

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



1. 如A图,在准备安装仪表面板上开孔 $\Phi 52\sim 53\text{mm}$ ,并保证面板后面有至少70mm的空间。
2. 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。
3. 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好。
4. 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。处于搜星状态或中途GPS信号丢失SOG会闪烁。
5. 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

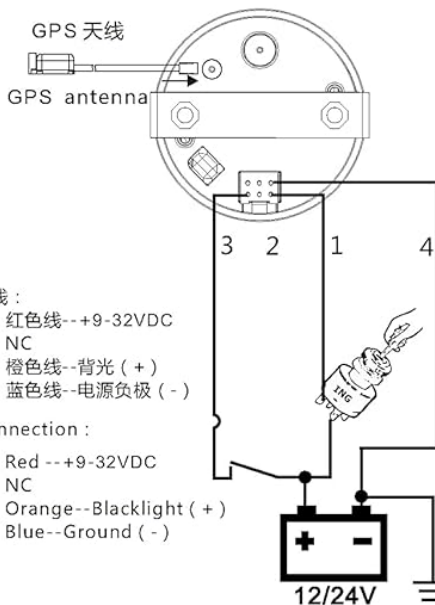
TRIP: 小计里程,掉电自动清零; ODO 累计里程,掉电数据不清零。

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。



接线:

- 1、红色线-- $+9\sim 32\text{VDC}$
- 2、NC
- 3、橙色线--背光(+)
- 4、蓝色线--电源负极(-)

Connection:

- 1、Red -- $+9\sim 32\text{VDC}$
- 2、NC
- 3、Orange--Blacklight(+)
- 4、Blue--Ground(-)

E:接线图

Pic E(Wires Connecting)

1. The hole of  $\Phi 52\sim 53\text{mm}$  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 figure G, 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.

Figure 2: Installation diagram for the gauge, including cutout dimensions and mounting method.

## 2.2 GPS Antenna Placement

For optimal performance, the GPS antenna requires a clear view of the sky to receive satellite signals. Follow these guidelines:

- Securely fasten the antenna in a flat position with the black side facing upwards.

- Ideally, place the antenna outside the vehicle or inside the front windscreen.
- Connect the antenna cable to the socket at the back of the gauge. **Do not cut the antenna cable.**



Figure 3: Side view of the speedometer, showing the GPS antenna connection point.

### 2.3 Wiring Connections

Connect the wires as follows:

- **Red Wire:** +9-32VDC (Power Supply)
- **Blue Wire:** Ground (-)
- **Orange Wire:** Red Backlight (+)



Figure 4: Rear view of the speedometer showing the wiring harness connection.

After connecting the wires, turn on the power. The meter will begin searching for a GPS signal. It typically takes about 30 seconds to acquire a signal for the first time. Subsequent signal acquisition usually takes less than 3 seconds, especially with a clear view of the sky.

## 3. OPERATION

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### 3.1 Display Information

The speedometer displays the following information:

- **Current Speed:** Displays the real-time speed.
- **ODO (Odometer):** Shows the accumulated total distance. This value is stored and does not reset when power is off.
- **SOG (Speed Over Ground):** Refers to the speed relative to the ground position.



Figure 5: Speedometer display showing current speed and ODO.

### 3.2 Unit Adjustment

To adjust the unit of measurement (KM/H, MPH, KNOTS), press the black button located on the back of the gauge. The selected unit will be saved automatically.

Your browser does not support the video tag.

Video 1: Demonstration of the ELING 52mm Digital GPS Speedometer Odometer, including connection, signal acquisition, and unit adjustment. This video shows the product's features and basic functionality.

The gauge features a red backlight for enhanced visibility in low-light conditions.

## 4. TROUBLESHOOTING

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

- **No GPS Signal:** If the display shows an error or does not acquire a signal, ensure the GPS antenna has a clear view of the sky and is securely connected. Reconnect all wires and restart the device if necessary.
- **Error Code E01:** Indicates the GPS cannot search for a signal when powered on. Check antenna connection and placement.
- **Error Code E02:** Indicates GPS signal was lost during operation. Verify antenna placement and ensure no obstructions are blocking the signal.
- **Error Code E03:** Indicates an internal circuit fault within the instrument. Contact customer support if this error persists.

## 5. SPECIFICATIONS

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Feature	Specification
Brand	ELING
Model	Digital GPS Speedometer Odometer Kit (52mm)
Material	Plastic
Item Dimensions (L x W x H)	2.05 x 2.05 x 2.76 inches
Item Weight	0.22 Kilograms
Operating Voltage	9-32VDC (12VDC/24VDC compatible)
Operating Current	≤60mA
Operating Temperature	-30°C to +75°C
Storage Temperature	-40°C to +85°C
Backlight Color	Red
Waterproof Rating	100% Waterproof and anti-fogging protection
Included Components	Gauge and Sensor (GPS antenna)

## 6. MAINTENANCE

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The ELING Digital GPS Speedometer Odometer Kit is designed for durability and requires minimal maintenance. To ensure longevity and optimal performance:

- Keep the display clean using a soft, damp cloth. Avoid abrasive cleaners.
- Periodically check all wiring connections to ensure they are secure and free from corrosion.
- Ensure the GPS antenna remains unobstructed and securely mounted for consistent signal reception.

## 7. WARRANTY AND SUPPORT

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### 7.1 Warranty Information

For warranty details, please refer to the product packaging or the official ELING website. The product is warranted against defects in materials and workmanship under normal use.

### 7.2 Customer Support

If you require technical assistance or have questions regarding your ELING Digital GPS Speedometer Odometer Kit, please contact ELING customer support through their official website or the retailer from whom you purchased the product.

You can visit the ELING Store for more information: [ELING Official Store](#)

