

# BACKLIGHT Tach/Hour Meter

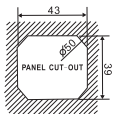
## 1 Notice

1. Please use the product accordance with the user manual strictly.
2. Please do not try to disassemble the main unit and its accessories.
3. This meter is designed with waterproof. It can be used in the rain, but can not be long time used in sunshine or rainy days, and also can not be used underwater, otherwise it will cause display incorrectly or other problems.
4. Little error will be happened when measuring, within the normal range.
5. Fierce vibration and strong impact may make the product failure.
6. As the built-in battery has the useful life, please use the external power as possible when using the meter, external power voltage is DC 6-48V or AC 12-48V.

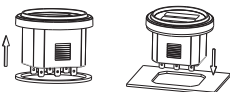
## 2 Installation

### 1. How to Install

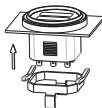
Notice: Mounting plate should have the related fixing holes. If no, please make the fixing holes on the mounting plate.



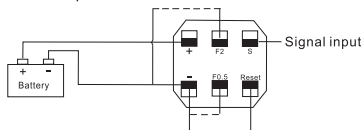
1 Mount the rubber pad with tach hour meter, then insert the tach hour meter into the mounting plate like below pictures



2 Tighten the tach hour meter with a mounting bracket

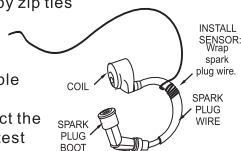


3 Fix the tach hour meter on the device. Connect the power line, induction line and stroke setting cable as below. Stroke setting is based on "stroke setting and matchup"



4 According to the below picture to wrap one side of the cable to engine's spark plug wire 5 circles or more, and fixed by zip ties

Notice: If the cable was not be fixed firmly, it will affect the accuracy of the test data



### 2. Verify the accuracy of the product installation

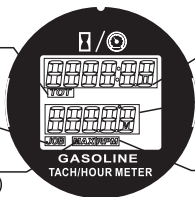
Start the engine, RPM speed data is displayed, showing the product is installed correctly.

## 3 Active Area

※ Total running hour sign

※ Partial time sign

※ MAX RPM sign  
(When display MAX RPM)



※ Total running time value display area

※ Value of RPM or Partial time display area

※ Display the current RPM sign  
(Only when display RPM)

## 4 Product usage

### 1. Stroke setting and matchup

| Stroke setting method  | Stroke setting mode           | Engine type                                 |
|--|-------------------------------|---|
| Pin 'F2' and pin'F0.5' connect with nothing  | 1P1R=1 spark per revolution   | 4 stroke 2 cylinder;<br>2 stroke 1 cylinder |
| Connect the pin 'F2' with pin '-'  | 1P2R=1 spark per 2 revolution | 4 stroke 1 cylinder                         |
| Connect the pin 'F0.5' with pin '-'  | 2P1R=2 spark per revolution   | 4 stroke 4 cylinder;<br>2 stroke 2 cylinder |
| Pin 'F2' and pin'F0.5' all connect with pin '-'  | 3P1R=3 spark per revolution   | 4 stroke 6 cylinder;<br>2 stroke 3 cylinder |
| Note: Some 4-stroke single cylinder engine is special. When it is set to 1P2R and data is not accurate, please try to set to 1P1R. |                               |   |

### 2. Timing and RPM function

- When engine is off, it displays the total running hours and partial time.
- Partial time is resettable. Connecting the reset pin with negative pin of external power, partial time will be reset to zero in 1 second.
- When engine is on, it displays the total running hours and the engine's current RPM.
- Product display RPM range :  
1P1R-----0-20000    1P2R-----0-20000    2P1R-----0-15000    3P1R-----0-10000
- Record Max RPM. Meter will record the Max RPM since last starting of engine. After engine stop working, it will display the Max RPM for 8S, then display the total running hours and partial time.

### 3. Back light function.

- If the product don't be connected to the external power, the back light function will be off.
- If the product is connected to the external power, when engine is on, back light will be lit. When engine stop working, until the display of max RPM is over, the back light goes off.

## 5 Parts list of the product

|                             |                 |                       |                             |
|-----------------------------|-----------------|-----------------------|-----------------------------|
| Hour meter x 1              | User manual x 1 | Cable x 1             | Negative pole component x 1 |
| Positive pole component x 1 | Black nuts x 1  | Mounting brackets x 1 | Rubber ring x 1             |

## 6 Specification of the product

|                  |                           |                     |  |
|------------------|---------------------------|---------------------|--|
| Product name     | Backlight tach/hour meter | Power supply mode   | External power voltage<br>DC 6-48V or AC12-48V+<br>build-in battery CR2032 |
| Housing material | ABS                       |                     |  |
| Waterproof grade | IP65                      | Total running hours | 0-99999.9H   |
| Display Mode     | LCD+White backlight       |                     |  |
| Product weight   | 89g                       | Partial time        | 0-99999.9H   |
| Dimension        | φ60X50mm                  |                     |  |

## 7 Trouble shooting

| Problems                              | Possible Reason   | Solution   |
|---------------------------------------|---|--|
| Display nothing                       | 1. Battery empty.   | 1. Use external power.   |
| No RPM display or RPM is not accurate | 1. Cable loose or Wrapped less circles.<br>2. Cable or function line is connected incorrectly.<br>3. Cable may damaged. | 1. Tighten or wrap more circles.<br>2. Repair or change cable.<br>3. Check the cable and function line if they were connected correctly. |
| Back light doesn't light              | No external power   | Connect to external power  |
| LCD is not seen clearly               | 1. Wrong angle of the product.<br>2. Direct sunlight for a long time.   | 1. Adjust the angle.<br>2. Put the battery indicator in the shade.   |