Multifunctional meter

Please read and understand following notice carefully, and correctly install and operate the product before using.

1 Notice

WARNING

DO NOT DISASSEMBLE

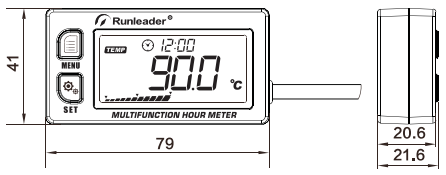
WATERPROOF

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 product with waterproof design can be used in the rain, but can not be used underwater.
4.Fierce vibration and strong impact may make the product failure.
5.Incorrect installation of battery cover at the back side will make the front panel of main unit fogged, condensed or watered.
6.As this meter has back light, power consumption will be large. When the battery is low, please replace the battery as soon as possible. The battery is CR2450.

2 Product accessories list

Product x 1 User manualx 1 Magic type x 1
Zip tiesx 6 Temperature sensor x 1 Cable component x 1
CR 2450 Battery x 1 Power wire component x 1

3 Dimension



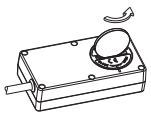
Unit: mm

4 Installation

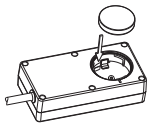
1. Battery installation

Notice: The meter has data storage function, previous data will be remembered automatically after replacing the battery, initial time value is 12:00.

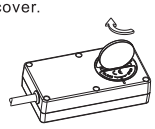
1 Open the battery cover.



2 Put the battery inside.

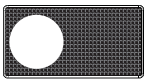


3 Close the battery cover.

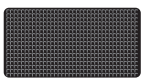


2. Product installation

1 Stick the loop side of the magic tape on the back of the multifunctional meter.

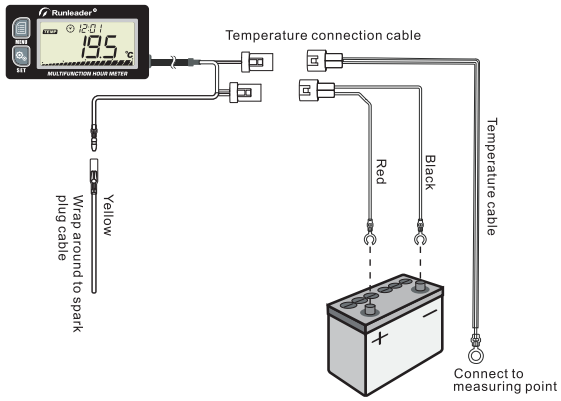


2 Stick the hook side of the magic tape on the device.



3 Wrap one side of the yellow cable to engine's spark plug wires 5 circles or more, and fixed by zip ties.

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



3. Verify the correctness of the product installation.

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

5 Interface switch

When backlight is light, short press SET to switch 3 interfaces as below pictures:

Temperature interface → **RPM interface** → **TOT interface**

6 Interface operation

1. Temperature interface operations

Temperature main interface-----Real time display current temperature

MENU Short press

View overtemperature alert

Long press MENU 2S

Set overtemperature alert value

MENU Short press

a)Press SET to increase set value,press MENU to decrease the set value.
b)Short press to change 1 per time; Long press for 1S to change 3 times per second, and change 10 per time.
c)Setting range: -20-℃-+300℃ (-4℉-+572℉) Long press MENU + SET for 2S to save and exit setting mode.

View max temperature

Long press MENU 2S

Reset max temperature

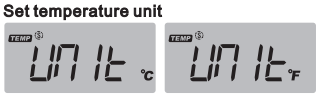
a)The temperature return to initial -20℃(-4℉) after setting.

MENU Short press

View temperature unit

Long press MENU 2S

Set temperature unit



a)There are two optional temperature units℃and℉, the default setting is ℃. Switch the temperature by short pressing MENU or SET .
b)Long press MENU +SET for 2S to save and exit setting mode.

2. RPM interface operations

RPM main interface-----Real time display current RPM

MENU Short press

Set overspeed alert value

Long press MENU 2S

Overspeed alert value flash

a)Press SET button to increase set value, press MENU button to decrease set value. Short press once to change 100; Long press for 1S to change 3 times per second, and change 1000 per time, default value is 8000.
b)Setting range is 1000-25000. Long press MENU +SET to save and exit setting mode.

MENU Short press

View max RPM

Long press MENU 2S

Clear the max RPM

a)The max RPM return to initial 0.

MENU Short press

View stroke

Long press MENU 2S

Stroke value flash

a)Switch stroke type by short pressing MENU or SET .
b)Long press MENU + SET to save and exit setting mode.

※Suitable for 9 types: 1P1R\2P1R\3P1R\ 4P1R\6P1R\8P1R\3P2R\5P2R\1P2R.

3. Clock setting

Any main interface

Long press MENU 2S

Clock value flash

a)Press MENU decrease set value, press SET to increase set value. Short press once to change 1; Long press for 1S to change 3 per second, and change 5 per time.
b)Switch the hour setting interface and minute setting interface by short pressing MENU + SET . Default is 12:00.

Notice: After connected the meter to external power, backlight will display as follows. When engine is working, backlight will be on automatically; when engine stops working for 10S, backlight will be off.

7 Relationship between stroke and cylinder in setting RPM mode

RPM Type	Ignition Method	Stroke and Cylinder	RPM Range
1P1R	1 spark per revolution	4 stroke 2 cylinder	0--25000
		2 stroke 1 cylinder	0--25000
2P1R	2 spark per revolution	4 stroke 4 cylinder	0--15000
		2 stroke 2 cylinder	0--15000
3P1R	3 spark per revolution	4 stroke 6 cylinder	0--10000
		2 stroke 3 cylinder	0--10000
4P1R	4 spark per revolution	4 stroke 8 cylinder	0--7500
6P1R	6 spark per revolution	4 stroke 12 cylinder	0--5000
8P1R	8 spark per revolution	4 stroke 16 cylinder	0--3750
3P2R	3 spark 2 revolution	4 stroke 3 cylinder	0--20000
5P2R	5 spark 2 revolution	4 stroke 5 cylinder	0--12000
1P2R	1 spark 2 revolution	4 stroke 1 cylinder	0--25000

Notice: A part of 4 stroke 1 cylinder engine is special. When 2P1R's data is incorrectly, please try to set 1P1R.

8 Specifications & Parameter

Product name	Multifunctional meter
Temperature measuring range	PT100: -20℃-+300℃ (-4℉-+572℉)
Temperature measuring accuracy	±1%℃
Total hour range	0-99999H
Housing material	ABS
Waterproof level	IP65
Display mode	LCD
Display windows size(visible)	52×24mm
Product weight	216g
Dimension	79×41×21.6mm
Battery type	CR2450 Replaceable
External power voltage	12/24V

9 Trouble shooting

Problems	Possible reasons	Solutions
Display nothing	1.Battery empty. 2.Battery installed backwards.	1.Replace the battery. 2.Check the battery installation is correct.
Time no change or not accurate after 6 minutes or RPM is not accurate	1.Cable loose or wrapped less cycles. 2.Cable may damaged. 3.Stroke type setting is incorrect.	1.Tighten or wrap more cycles. 2.Repair or change the cable. 3.Set the correct stroke.
Display no change	The meter is crash.	1.Re-install the battery.
LCD display ERR	1.Sensor is not connected. 2.Sensor is damaged. 3.Sensor type setting is incorrect.	1.Re-install the sensor. 2.Replace a new sensor. 3.Reset sensor type.
Unclear display on LCD or color changed	1.Wrong angle of the product. 2.Low battery.	1.Adjust the angle. 2.Replace the battery.