风琴折说明书（7折8页）

624mm*73mm

1:1

9 | 10 | 11 | 12 | 13 | 14 | 15 | 16(首页)



- Press the"**M**"or "**S**" button to change the setting value.
- The meaning of U-12 means: for your 12V battery ; This gauge is suitable for different batteries of 12V 24V 36V 48V; When using, please follow the above operation to configure the appropriate voltage unit.

Step2: Choose the battery discharge type

- Different types of batteries at the same voltage will have different discharge curves.
- Choosing the right type of discharge curve can help you more accurately indicate battery usage.
- This gauge provides 9 types discharge curves for you to choose from.

Type	Cell empty	Cell full	Voltage Range	Applicable battery type
bt-1	1.73v	2.05v	U-12 10.38v~12.30v U-24 20.76v~24.60v U-36 31.14v~36.90v U-48 41.52v~49.20v	Suitable for measuring common types lead-acid batteries from 12V to 48V.

Type	Cell empty	Cell full	Voltage Range	Applicable battery type
bt-2	1.9v	2.1v	U-12 11.40v~12.60v U-24 22.80v~25.20v U-36 34.20v~37.80v U-48 45.60v~50.40v	Suitable for measuring common types GEL batteries from 12V to 48V.
bt-3	2.75v	3.4v	U-12 11.00v~13.60v U-24 22.00v~27.20v U-36 33.00v~40.80v U-48 44.00v~54.40v	Suitable for measuring common types Lithium iron phosphate batteries (LiFePO4) from 12V to 48V.
bt-4	1.92v	2.1v	U-12 11.51v~12.62v U-24 23.02v~25.24v U-36 34.53v~37.86v U-48 46.04v~50.48v	Suitable for measuring 12V to 48V American brand "Trojan" new batteries; Usually EZGO's club car has a battery with similar performance.
bt-5	1.75v	2.08v	U-12 10.50v~12.50v U-24 21.00v~25.00v U-36 31.50v~37.50v U-48 42.00v~50.00v	Suitable for measuring common types AGM batteries from 12V to 48V.
bt-6	3.2v	4.05v	U-12 12.80v~16.20v U-24 22.40v~28.35v U-36 32.00v~40.50v U-48 41.60v~52.65v	Suitable for measuring common types 18650 lithium batteries from 12V to 48V.

Type	Cell empty	Cell full	Voltage Range	Applicable battery type
bt-7	1.82v	2.08v	U-12 10.92v~12.48v U-24 21.84v~24.96v U-36 32.76v~37.44v U-48 43.68v~49.92v	Suitable for measuring other types lead-acid batteries from 12V to 48V.
bt-8	1.86v	2.05v	U-12 11.16v~12.30v U-24 22.32v~24.60v U-36 33.48v~36.90v U-48 44.64v~49.20v	Suitable for measuring other types lead-acid batteries from 12V to 48V.
bt-9	1.65v	2.0v	U-12 9.90v~12.00v U-24 19.80v~24.00v U-36 29.70v~36.00v U-48 39.60v~48.00v	Suitable for measuring other types lead-acid batteries from 12V to 48V.

- When U-24 or U-36 or U-48 is selected, the measured voltage value will change automatically.

Choose the battery discharge type:

- Choose the battery discharge type need to be performed under display interface 2. (figure 2)





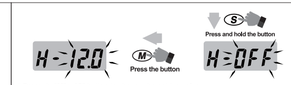
- Press the"**M**"or "**S**" button to change the setting value.
- When the Step2 setting is completed, the BAT% indicator light will be illuminated correctly.
- When the battery power is more than 30%, the BAT% indicator light will show green.
- When the battery power is less than 30%, the BAT% indicator light will show yellow and keep flashing.
- When the battery power is less than 10%, the BAT% indicator light will show red and keep flashing.

Step3: Set the warning voltage value

- This function is used to measure the real-time voltage value of the user's battery; and an alarm warning for the voltage is designed.
- The warning voltage contains high voltage warning and low voltage warning.
- After setting the warning voltage value, the Alarm indicator light will light up and display green; when the warning value is reached, the Alarm indicator light will turn red and flash to remind.
- If the warning voltage value is not set, the Alarm indicator light will not light up.
- Set the warning voltage value need to be performed under display interface 3.

High & Low voltage warning setting





- Press the"**M**"or "**S**" button to change the setting value.
- The setting method of low voltage alert are same as high voltage.

Note: Over voltage reminder range: 12-60V.
Under voltage reminder range: 8.5-59V.

Step4: Use of the battery status indicator

Battery power level indication area.

- A display bar consisting of 10 red LED lights is used to indicate the battery status.
- When the battery is full, all 10 LED lights are on. As the battery power decreases, the LED lights go out one by one.
- When the remaining battery power is less than 10%, the first red indicator light flashes.
- When charging the battery, the LED lights will cycle and illuminate one by one.

To shut down the gauge

- Press the "**M**" or "**S**" button to turn on the gauge.
- When the gauge screen is turned off, the historical data will be retained and will not be cleared.



6. Backlight Choice

- Backlight setting and operation can be worked on any display interfaces, the operation of display interface 1 as following:



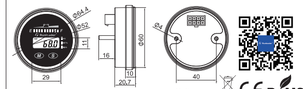
b-Aut	the backlight will be automatically turned off, when press the button, the backlight will be on.
b-ON	the backlight is always on, when key switch turning on.
b-OFF	turn off the backlight display.

Product Specifications & Parameters

ITEM NAME	PARAMETERS	ITEM NAME	PARAMETERS
Product model	RL-BI025A	The battery apply	12V 24V 36V 48V
TOT hours range	0.0-99999H	Working voltage	DC8-65V

ITEM NAME	PARAMETERS	ITEM NAME	PARAMETERS
Timing accuracy	0-9999.9H: 0.1H 10000H-99999H: 1H	Display window size	29x11mm
SVC hours range	OFF, 5-2000H	Product dimension	Φ64.4x36.7mm
TOT initial time range	0-99999H (It is only can be reset 1 hour before engine working)	Housing material	ABS
Battery indicator light	10 pcs	Waterproof rate	IP67
Number of battery curves	9	Product Weight	(About 80g)

Product Dimension

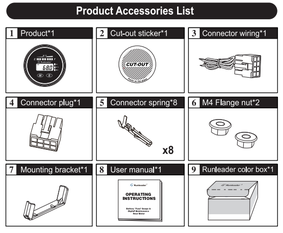


Runleader®

OPERATING INSTRUCTIONS

Battery "Fuel" Gauge & Digital Maintenance Hour Meter

Product Accessories List

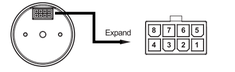


Please refer to the quick installation manual for installation method.
RLT-AZ1,RLT-AZ2.

Way of wiring

1. Description of the connection port

The pin function of the 8-hole connector is as follows:



Pin NO.	Pin mark	Pin meaning	Description
1	B-	Input negative power supply	Connected to the negative pole of the battery
2	HRM+	High level timing terminal	With a high level trigger, the timer starts timing
3	Key Switch	Key switch	Connect the key switch to control the display and off of the LCD screen
4	B+	Input positive power supply	Connected to the positive pole of the battery
5	OUT 5V	Output terminal	Output 5V voltage
6	N/A	Standby	ODM custom pin function, (factory implementation)
7	N/A	Standby	ODM custom pin function, (factory implementation)
8	HRM-	Low level timing terminal	With a low level trigger, the timer starts timing

2. Install connection port

Step1: B+ (pin 4) & B- (pin 1) installation

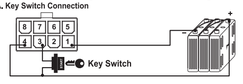
- The pin 4(B+) pin is connected to the positive pole of the battery, and the pin 1(B-) is connected to the negative pole of the battery.
- If only these two pins are connected, the LCD display will light, but the timing function will not work.
- Please make sure the battery voltage matches the voltage of the battery fuel gauge before connecting. Excessive voltage will damage the product.



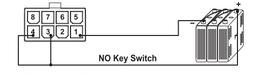
Step2: Key Switch (pin 3) installation

- Connect the key switch to control the battery indicator display to turn on or off.
- If the key switch is not used, connect the modified pin 3(Key Switch) to pin 4(B+), otherwise the corresponding function status indicator will not light.

A. Key Switch Connection



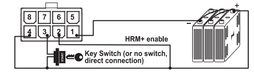
B. NO Key Switch, Direct Connection



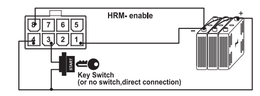
Step3: HRM+ (pin 2) or HRM- (pin 8) installation

- HRM+: More than 7V voltage signal to enable the timing function.
- HRM-: Low level signal (ground) to enable timing function.
- This function is used to record the running time of the parts you need to record.When the part is working, the time is recorded, and when it is not working, the time is stopped.
- You can also connect HRM+ (pin 2) to B+ (pin 4) to enable the timing function, or connect HRM- (pin 8) to B- (pin 1) to turn on the timing function;
- If the HRM+ (pin 2) or HRM- (pin 8) is not connected, the timing function will not work.

A. HRM+ enable timing

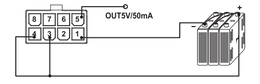


B. HRM- enable timing



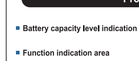
Step4: OUT 5V (pin 5) installation

- This function is used to control an external component in different states of battery power. When the battery power is more than 10%, it outputs 5V voltage; when the battery power is less than 10%, it outputs 0V voltage.
- When this function is not used, it will not affect other functions of the meter.



Product usage

- **Battery capacity level indication area**
- **Function indication area**



1、Function indication area

There are 3 display interfaces in the function indication area; press the "**M**" button to select. After selection, the interface will remain and will not jump to other interfaces.



2、TOT— Total hours of operation

- Press the "**M**" button to select, so that the total time is always displayed on the screen.
- TOT time can not be reset.
- The TOT time max value is 99999 hours; When the TOT timing range is 0.0-9999.9 hours, the timing accuracy is 0.1H; When the TOT timing exceed 9999.9 hours, the timing accuracy is 1H.
- When the TOT time exceed 99999 hours, the timing will restart from 0.
- The "**TOT**" icon will flash when timing is in progress.

3. Hour meter initial time setting

- You can program a start hours (old hour meter data) to replace an old hour meter.
- **Hour meter initial time setting and operation need to be performed under display interface 1. (figure 1)**

Note: The initial time setting will not be set again after 1 hour of engine operation.



- Press the"**M**"or "**S**" button to change the setting value.

4. SVC— Maintenance interval time.

Note: Timing is countdown.

- **SVC setting and operation need to be performed under display interface 1. (figure 1)**





- Press the"**M**"or "**S**" button to change the setting value.
- Once maintenance time arrive, the screen will be flashed to remind the current maintenance status, and quit automatically after 2H, or press any button to exit the reminder.

Remaining maintenance time(T)	LED light color	LED light meaning
T＞2 hours	Green, always on	Always on when normally working condition.
0＜Ts2 hours	Yellow flashing	During working, press and hold the button on any interface to cancel the advance maintenance reminder.
T=0	Red flashing	Automatically re-enter the maintenance cycle; during working, press and hold the button on any interface to cancel the advance maintenance reminder; automatically quit the maintenance reminder after 2 hours without cancel reminder after 2 hours without cancel.

5. Setting Battery "Fuel" Gauge.

Step1: Select the applicable battery voltage.

Select the applicable battery voltage need to be performed under display interface 2. (figure 2)

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8