Runleader®

Product Model/Name: RL-HM019C Tach/Hour Meter

Manufacturer: Ningbo Jiangbei Run Leader Electronics Co.,Ltd

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CE RoHS

EU REP

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⚠ WARNING

- **INGESTION HAZARD:**This product contains a button cell or coin battery.
- **DEATH** or serious injury can occur if ingested.
- A swallowed button cell or coin battery can cause **Internal Chemical Burns in as little as 2 hours.**
- **KEEP** new and used batteries **OUT OF REACH of CHILDREN.**
- **Seek Immediate medical attention** if a battery is suspected to be swallowed or inserted insied any part of the body.

⚠ WARNUNG

- **VERSCHLUCKUNGSGEFAHR:**Dieses Produkt enthält eine Knopfzelle oder Knopfbatterie.
- **TOD** oder schwere Verletzungen können bei Verschlucken auftreten.
- Eine verschluckte Knopfzelle oder Knopfbatterie kann in nur 2 Stunden innere Verätzungen verursachen.
- **BEWAHREN** Sie neue und gebrauchte Batterien AUSSERHALB DER REICHWEITE von KINDER.
- Suchen Sie sofort einen Arzt auf, wenn der Verdacht besteht, dass eine Batterie verschluckt oder in einen Körperteil eingeführt wurde.

⚠ AVERTISSEMENT

- **RISQUE D'INGESTION:**Ce produit contient une pile bouton ou une pile bouton.
- La MORT ou des blessures graves peuvent survenir en cas d'ingestion.
- Une pile bouton ou une pile bouton avalée peut provoquer des brûlures chimiques internes en aussi peu que 2 heur.
- GARDEZ les piles neuves et usagées HORS DE PORTÉE des ENFAN.
- Consultez immédiatement un médecin si vous soupçonnez qu'une batterie a été avalée ou insérée dans une partie du corps.

⚠ AVVERTIMENTO

- **PERICOLO DI INGESTIONE:**Questo prodotto contiene una pila a bottone o una batteria a botton.
- MORTE o lesioni gravi possono verificarsi se ingerito.
- Una pila a bottone o una batteria a bottone ingerita possono causare ustioni chimiche interne in appena 2 ore.
- TENERE le batterie nuove e usate FUORI PORTATA di BAMBINI.
- Consultare immediatamente un medico se si sospetta che una batteria sia stata ingerita o inserita in qualsiasi parte del corpo.

⚠ ADVERTENCIA

- **PELIGRO DE INGESTIÓN:**Este producto contiene una pila de botón o una pila de botón.
- LA MUERTE o lesiones graves pueden ocurrir si se ingiere.
- Una pila de botón o una pila de botón tragada puede causar quemaduras químicas internas en tan solo 2 horas.
- MANTENGA las pilas nuevas y usadas FUERA DEL ALCANCE de los NIÑOS.
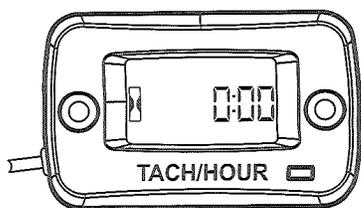- Busque atención médica inmediata si un Se sospecha que la batería se ingiere o se inserta en cualquier parte del cuerpo.

⚠ WAARSCHUWING

- **GEVAAR VOOR INSLIKKEN:**Dit product bevat een knoopcel- of knoopcelbatterij.
- DOOD of ernstig letsel kan optreden bij inslikken.
- Een ingeslikte knoopcel of knoopcelbatterij kan in slechts 2 uur interne chemische brandwonden veroorzaken.
- HOUD nieuwe en gebruikte batterijen BUITEN BEREIK van KINDEREN.
- Zoek onmiddellijk medische hulp als het vermoeden bestaat dat een batterij is ingeslikt of in een deel van het lichaam is geplaatst.

ROTATING SHAFT TACHOMETER / MAINTENANCE / HOUR METER

TACH/HOUR

Please read and understand the following notices carefully, and correctly install and operate the product before using.
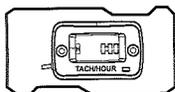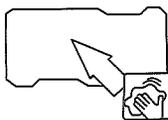
⚠️
Notice

1. Please make sure to refer to the installation instructions in the operating instructions to avoid damage caused by installation errors.
2. The product included the battery inside and it's battery can not be replaced, do not disassemble or replace the battery by yourself.
3. Do not pull the wiring when using it or the wire will fall off and poor contact happened.
4. Please install the product in a proper location to avoid the possibility of this product being hit and prevent damage to the product.
5. The product has certain waterproof function, but cannot be used in deep water or soaked in rain for a long time.
6. Please use the product at the specified temperature, high temperature environment may cause damage to the product.

PRODUCT ACASSORIES LIST

1 product*1	2 double-sided tape*1
3 user manual*1	4 cable tie*2
5 screws*2	6 magnet*1

PRODUCT INSTALLATION

This product can be directly installed with double-sided tape or screws, the installation method is as follows:
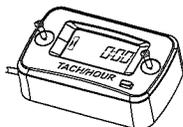
1.Double-sided tape installation:

a) Clean properly the surfaces.
Note: Make sure the surface is flat and clean enough.

b) Remove protection from double-sided tape.
Note: When removing the double-sided tape protector, make sure that the double-sided tape is not exposed to water or oil on both sides.

c) Stick the double-sided tape on the back of the product.
Note: Before pasting the double-sided tape, please make sure the back of the product is clean and tidy, without moisture or grease.

d) Fix the tach hour meter in a proper position.
Note: Before pasting the double-sided tape, please confirm that the pasted place is clean and tidy, no moisture or oil.
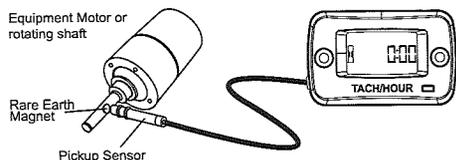
2. Screw installation:

a) The design allows for surface mount.

b) Choose a location where the pick-up wire (included) will reach the meter.

c) Install with screws as the below diagram.

Note: **Proper position requirement: no moisture, no grease, is a plane, no violent vibration, and the temperature not exceed 125 °F. Do not drill into gas tank, engine crankcase or oil reservoir frames.**

3. Pickup sensor and pickup magnet installation:

a) Mount the pickup magnet on the rotating shaft, rotating gear, or pulley device.
b) Fix the pickup sensor where you need it.
c) Verify that the distance between the top of the pickup sensor and the pickup magnet is less than 5mm and is centered.

Equipment Motor or rotating shaft
Rare Earth Magnet
Pickup Sensor

PRODUCT USAGE

1. Hours—Total hours of operation:

▪ Total hours can not be reset.
▪ The TOT time max value is 999999; When the TOT timing range is 0.0-9999.9H, the timing accuracy is 1min; When the TOT timing exceeds 9999.9H,the timing accuracy is 1H.
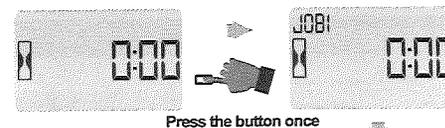
123 hours 45 minutes

▪ When the TOT time exceeds 999999 hours, the timing will restart from 0.

2. JOB1—Hours of operation since the timer was reset

▪ To view "JOB1" time: press the button once to view the job1 time.
▪ To reset "JOB1" time: press and hold the button until display shows "000:00" , then release the button ,the "JOB" display will reset to "0:00",and it will begin to record the next job interval.
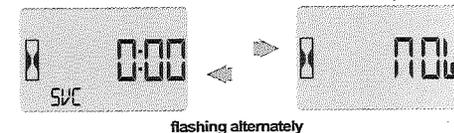
Press the button once

3. JOB2—Hours of operation since the timer was reset.

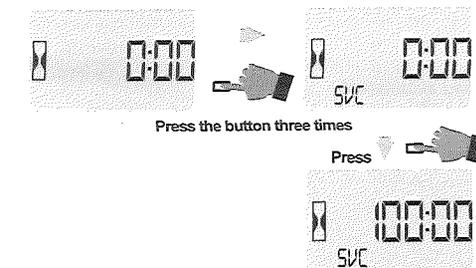▪ "JOB2" is the same operation as the "JOB1".

press the button twice

4. SVC—Maintenance interval time.
Note: timing is countdown.
▪ When the maintenance interval time is reached, and the LCD display will flashing , then press the button to clear the status, the next maintenance interval time starts timing.reset to "0:00",and it will begin to record the next job interval.

flashing alternately

Programming SVC time:
a) Press the button three times to get the SVC interface display.
b) Press and hold the button until display shows "0:00" icon.start flashing, release and press button until you get desired numerical value.
c) Release the button and wait for 10 seconds and display will return to total hours. (The setting of SVC timer is completed).
d) The SVC time setting range is 0-1000H. If the time is set to "0:00", which means the SVC function is closed.
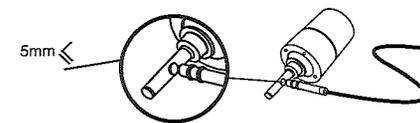
Press the button three times

Press

5. RPM—Typical RPM display during operation of the device
▪ When the rotating shaft, rotating gear, or pulley device starts working, the LCD will display the current RPM.
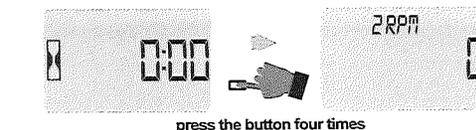▪ The RPM will be refreshed every 0.5s.

▪ The distance of the sensor will affect the accuracy of the RPM data. Please ensure that the distance between the sensor and the magnet is within 5mm.
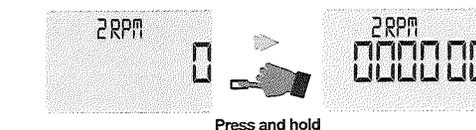
5mm

6. 2 RPM—Display the maximum RPM recorded during the last period of operation.
▪ To view MAX RPM: press the button 4 times at total hours interface and display the "2 RPM".

press the button four times

▪ To reset MAX RPM: press and hold the button until display shows"2 RPM" and "000000", release the button ,2 RPM is reset.

Press and hold

7. Record the times of device starts

- Press the button 5 times until to get the number at the display screen.It indicates the number of device starts.

press the button five times

8. To shut down LCD display

- Press and hold the button at the total hours interface until display the "OFF" icon displayed on the screen, then release the button and the LCD display will shut down automatically.
- The LCD will be displayed when the user press the button.
- When the LCD screen is turned off, the historical data will be retained and will not be cleared.
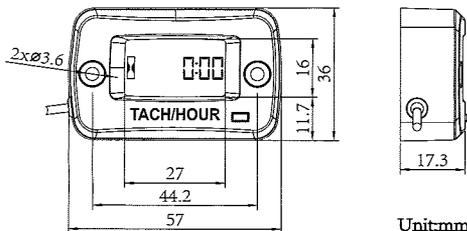

Press and hold

9. About extending the service life of product

- To extend the life of your product, you can apply it as follows:

  a) Avoid product are always in a very humid environment—there is a risk of moisture intruding inside the product, causing the product to consume more electricity.
  b) Avoid product that are always in a high temperature environment (exceed 125°F) —high temperature environment has the risk of increasing the discharge rate of the internal battery CR2450.
  c) Minimize the frequency of button operations—continuous button operation, function switching, the power consumption will increase.
  d) Minimize the measurement at high speed (more than 15000RPM)—In the case of ultra-high engine RPM, the data calculation load of the internal IC of the product will increase, and the power consumption will increase.

SPECIFICATIONS LIST

ITEM NAME	PARAMETERS
Product model	RL-HM019C
Product Type	Tach Hour Meter
RPM range	0-20000RPM
Total hours	0-999999H
JOB1 hours range	0-999999H
JOB2 hours range	0-999999H
Maintenance reminder range	0-1000H
Working times range	0-999999 times
Battery size	CR2450 540mAh
Display window size (viewable)	27*16mm
Housing material	ABS
External dimensions	57*36*17.3mm
Weight	75g
Sensor	Hall Total Length 1.2m Φ8*38mm
Magnet	RbFeB Φ8*3mm

TROUBLESHOOTING

Unit:mm