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› Runleader Rotating Shaft Hour Meter Tachometer RL-HM019C User Manual

Runleader RL-HM019C

Runleader Rotating Shaft Hour Meter Tachometer

MODEL: RL-HM019C

Brand: Runleader

1. INTRODUCTION

The Runleader RL-HM019C is a versatile hour meter and tachometer designed to monitor the running hours and RPM values of any rotating shaft, gear, or pulley on external equipment. It is suitable for a wide range of applications including lawn mowers, generators, compressors, marine engines, diesel/gas engines, and other process/power equipment. This device helps in tracking engine usage, monitoring real-time RPM, and reminding users of scheduled maintenance.



Image 1.1: The Runleader RL-HM019C unit, showing the main display and the magnetic pickup sensor with its cable.

2. FEATURES

- **Tachometer (RPM) Function:** Displays real-time RPM values when external equipment is operating, detected via a magnetic sensor. Helps in adjusting engine idle. The maximum RPM value is viewable and resettable.
- **Hour Meter (TOT) Function:** Accumulates total running hours (TOT) when external equipment is off. This value is non-resettable and has 1-minute/1-hour accuracy.
- **Job Timers (JOB1 & JOB2):** Two resettable timers to record the duration of specific work jobs.
- **Maintenance Service Timer (SVC):** Programmable countdown timer for maintenance intervals. The display flashes when the SVC time is reached.
- **Magnetic Signal Detection:** Utilizes a magnetic sensor for accurate RPM and hour tracking.
- **LCD Display Shutdown:** Features a display shutdown function to conserve power.
- **Waterproof Rating:** IP68 rated for strong water resistance.
- **Certifications:** CE and RoHS certified.

INSTALLATION METHODS

1. Magnetic signal pickup



2. Product mounting

■ Stick-on mounting



■ Screw-on mounting



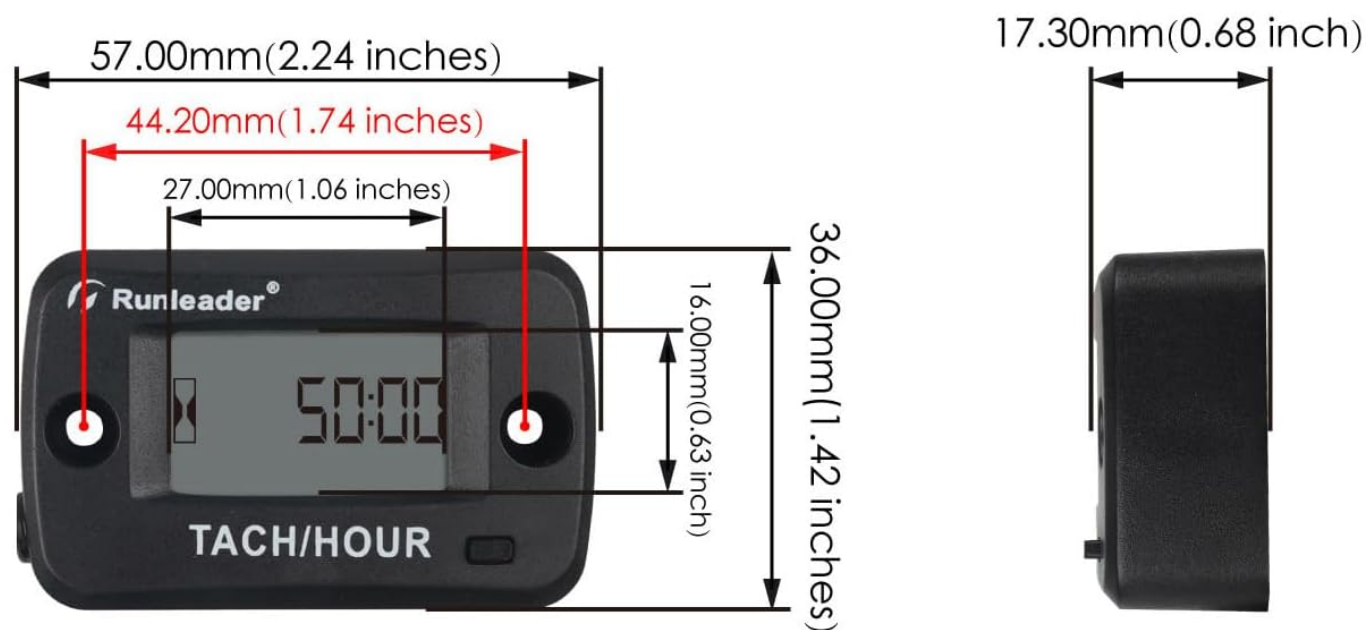
Image 2.1: Overview of the product's features including 6-digit display, TOT, JOB, SVC, RPM, MAX RPM, and IP68 waterproof rating, alongside CE and RoHS certifications.

3. SPECIFICATIONS

Specification	Detail
Model Number	RL-HM019C
Brand	Runleader
Material	Acrylonitrile Butadiene Styrene (ABS)
Item Weight	80 Grams (2.82 ounces)
Power Source	1 Lithium Metal battery (included)
Waterproof Rate	IP68
Magnetic Pickup Wire Length	1.2m / 47.24 inches (excluding sensor)
Dimensions (L x W x H)	57.00mm x 36.00mm x 17.30mm (approx. 2.24 x 1.42 x 0.68 inches)
Manufacturer	Ningbo Jiangbei Run Leader Electronics Co., Ltd

DIMENSIONS & ACCESSORIES

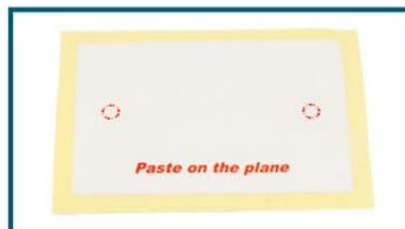
■ Dimensions



■ Accessories



Magnet*1



Cut-out label * 1



Cable tie*2



Double-sided tape*1



User manual*1



Screws*2

Image 3.1: Detailed dimensions of the hour meter and a display of included accessories: magnet, cut-out label, cable ties, double-sided tape, user manual, and screws.

4. SETUP AND INSTALLATION

4.1 Magnetic Signal Pickup Installation

The tachometer functions by detecting the rotation of a shaft or gear using a magnetic sensor. Ensure the magnetic pickup sensor is securely positioned near the rotating part of the equipment you wish to monitor. The sensor detects the magnetic

field generated by a magnet attached to the rotating component.

MAGNETIC SIGNAL PICKUP

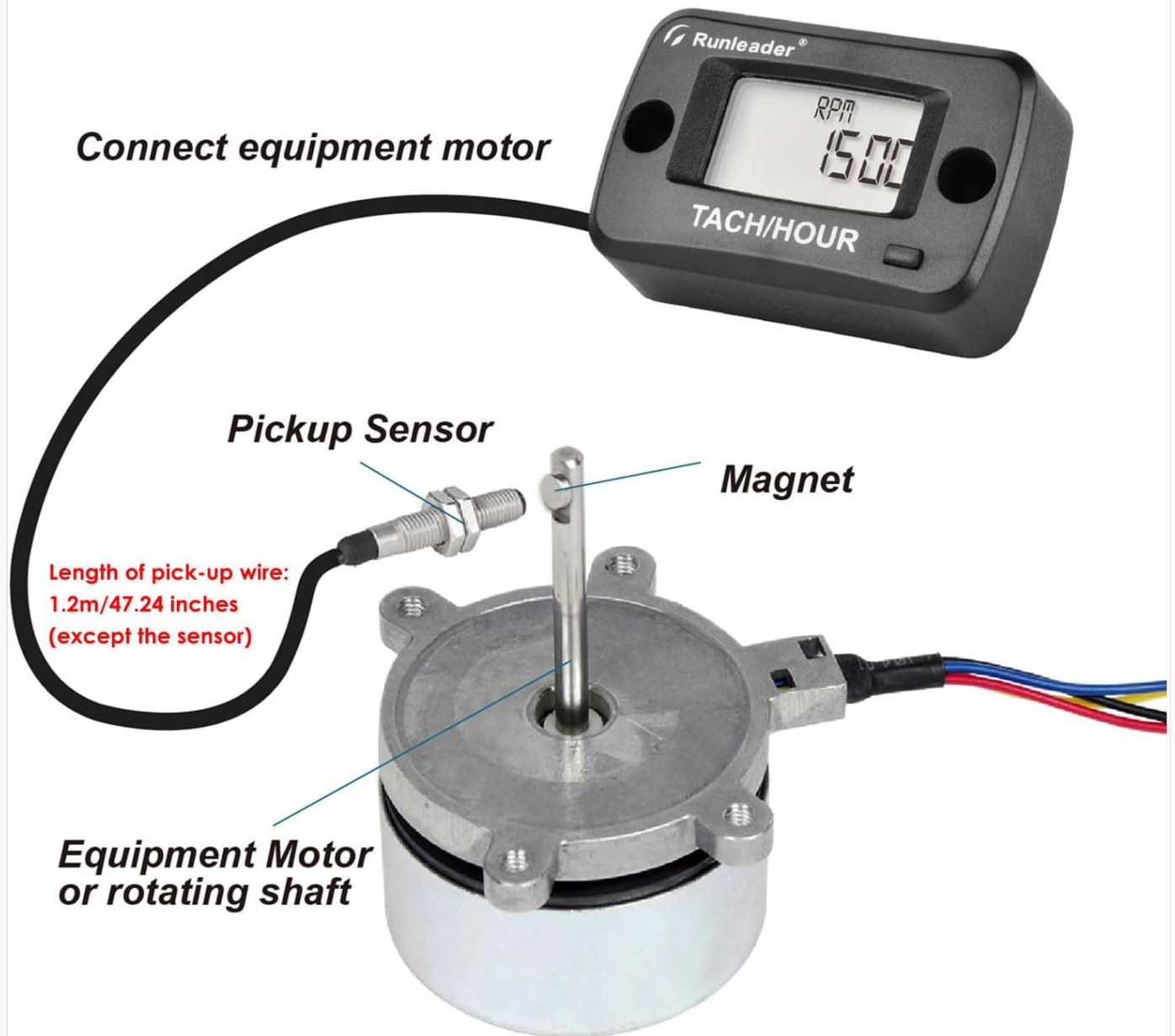


Image 4.1: Illustration of how to connect the magnetic pickup sensor to the equipment motor or rotating shaft, with a magnet attached to the shaft for signal detection.

4.2 Product Mounting

The RL-HM019C offers two primary mounting options:

- **Stick-on Mounting:** Use the provided double-sided tape to adhere the unit to a clean, flat surface.
- **Screw-on Mounting:** Utilize the pre-drilled holes on the unit and the included screws to securely fasten it to a surface.



Image 4.2: Visual guide demonstrating both stick-on mounting using adhesive tape and screw-on mounting with screws for securing the device.

5. OPERATING INSTRUCTIONS

5.1 RPM and Total Hours (TOT) Display

When the external equipment is running, the display will show the real-time RPM. When the equipment is shut off, the accumulated total hours (TOT) will be displayed. The maximum RPM value can also be viewed directly.

RPM & TOT HOURS RECORD



■ RPM

Display real-time RPM when rotating equipment is on.

The maximum RPM value also can be viewed directly.



■ TOT Hours

Display the total hours when rotating equipment is off.

Image 5.1: The meter displaying 'RPM' with a value of '1000' and 'TOT Hours' with a value of '50:00', indicating the two primary

5.2 Job Timers (JOB1 & JOB2)

The device includes two independent job timers, JOB1 and JOB2, which can be used to record the hours for specific tasks or work periods. These timers are viewable and resettable, allowing for tracking of individual job durations.

JOB TIMER



- Available 2 groups of partial hours to record the hours running during single working period, its can be reset.

Image 5.2: The meter displaying 'JOB1' with a recorded time of '57:10', and a smaller image showing 'JOB2' with '0:00', indicating the resettable nature of the job timers.

5.3 Maintenance Reminder (SVC)

The programmable maintenance service timer (SVC) allows you to set a countdown for scheduled maintenance. Once the set time is reached, the display will flash to remind you that service is due.

SVC MAINTENANCE REMINDER



- It perform the regular maintenance task for rotating equipment, help to advise its arrival status.

Image 5.3: The meter displaying 'SVC' with a set time of '200:00', and a subsequent image showing the display flashing '0:00' to indicate that maintenance is due.

6. MAINTENANCE

The Runleader RL-HM019C is designed for durability and minimal maintenance. Its IP68 waterproof rating ensures protection against dust and water ingress, making it suitable for harsh environments.

- **Cleaning:** Wipe the display and casing with a soft, damp cloth. Avoid abrasive cleaners or solvents.
- **Battery Replacement:** The unit uses an internal lithium metal battery. Refer to the full user manual for specific instructions on battery replacement, if applicable.
- **Magnetic Sensor:** Ensure the magnetic sensor and magnet are free from debris or corrosion to maintain accurate readings.

STRONG WATER RESISTANCE



- It is made by 100% epoxy resin craft which has strong water resistance up to IP68.

Image 6.1: The meter submerged in a testing tank, then shown wet but functional, illustrating its IP68 strong water resistance.

7. TROUBLESHOOTING

If you encounter issues with your Runleader RL-HM019C, consider the following:

- **No RPM Reading:** Check the magnetic sensor's placement and ensure the magnet on the rotating shaft is properly aligned and securely attached. Verify the sensor cable is not damaged and is correctly connected.
- **Inaccurate Readings:** Ensure the magnetic sensor is not too far from the magnet. Interference from strong electromagnetic fields nearby can also affect accuracy.
- **Display Not Working:** The unit includes a lithium metal battery. If the display is completely blank, the battery may need replacement. Refer to the full user manual for battery access.
- **SVC Reminder Not Activating:** Double-check that the SVC timer has been programmed correctly and that the countdown has reached zero.

8. APPLICATIONS

The Runleader RL-HM019C is suitable for a variety of equipment with rotating shafts, including but not limited to:

- Lawn mowers
- Compressors
- Motorcycles
- Outboard motors
- Chainsaws
- ATVs

⚠ 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 inside any part of the body. 	⚠ WARNING • 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 heures. • 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 bottone. • 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. 

Image 8.1: Pictograms illustrating common applications for the hour meter tachometer, such as lawn mowers, compressors, motorcycles, outboard motors, chainsaws, and ATVs.

9. SAFETY WARNINGS

INGESTION HAZARD: This product contains a button cell or coin battery. A button cell battery can cause severe internal chemical burns in as little as 2 hours if swallowed and can lead to death. Keep new and used batteries **OUT OF REACH OF CHILDREN**. Seek immediate medical attention if a battery is suspected to be swallowed or inserted inside any part of the body.

APPLICATIONS

It is applicable to the equipments with rotating shaft, such as:

- Lawn mower
- Compressor
- Motorcycle
- Outboard motor
- Chainsaw
- ATV etc.



Image 9.1: A warning graphic in multiple languages (English, German, French, Italian, Spanish, Dutch) highlighting the ingestion hazard of button cell batteries and the importance of keeping them away from children.

10. WARRANTY AND SUPPORT

The Runleader RL-HM019C comes with a **2-year warranty**. For technical support, troubleshooting assistance, or warranty claims, please contact Runleader customer service. Refer to the contact information provided in the packaging or on the official Runleader website.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Open the live page

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