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› Runleader Digital Hours Counter Instruction Manual

## Runleader RL-HM057AD

# Runleader Digital Hours Counter Instruction Manual

**Brand:** Runleader | **Model:** RL-HM057AD

## 1. INTRODUCTION

The Runleader Digital Hours Counter is a versatile and reliable device designed to accurately record the total operating hours of various equipment. It is suitable for a wide range of applications, including garden tractors, generators, scooters, club cars, forklifts, and leaf trimmers. This manual provides essential information for the proper installation, operation, and maintenance of your hour meter.



Figure 1.1: Front view of the Runleader Digital Hours Counter displaying 'HOURS' and a digital readout.

## 2. KEY FEATURES

- **Total Hours Record:** Records total working hours from 0 to 99,999 hours when the machine is operational.
- **Wide Voltage Application:** Operates with external power sources from AC/DC 5V to 277V, compatible with common voltages such as 12V, 24V, 36V, 48V, 72V, 90V, 110V, 120V, 220V, and 230V.
- **Strong Water Resistance:** Constructed with 100% epoxy resin craft, providing IP68 waterproof rating, allowing normal operation even when submerged up to 10 meters.
- **Automatic Data Storage:** Working data is saved by a built-in CR2050 360mAh battery, ensuring hours can be viewed at any time, even when external power is off.
- **Easy Installation:** Designed for drill-in and snap-in mounting with a panel cut-out size of 37.50mm x 24.50mm (1.48 inches x 0.96 inches).

# TOTAL HOURS RECORD



- It begin to record the total working hours when machine is on.
- TOT hours range: 0 to 99,999 hours.

Figure 2.1: The hour meter records total working hours, indicated by an hourglass icon and digital display.

# AUTOMATIC DATA STORAGE



- The working data can be saved when power is off by inner CMOS EEPROM system, the hours can be viewed at any time by built-in battery CR2050.

Figure 2.2: Data is automatically stored using an internal CR2050 360mAh battery.

# STRONG WATER RESISTANCE



**WATERPROOF  
RATE IP68**



- It made by 100% epoxy resin craft which have strong water resistance.

Figure 2.3: The meter is IP68 rated for strong water resistance, suitable for wet environments.

## 3. INSTALLATION

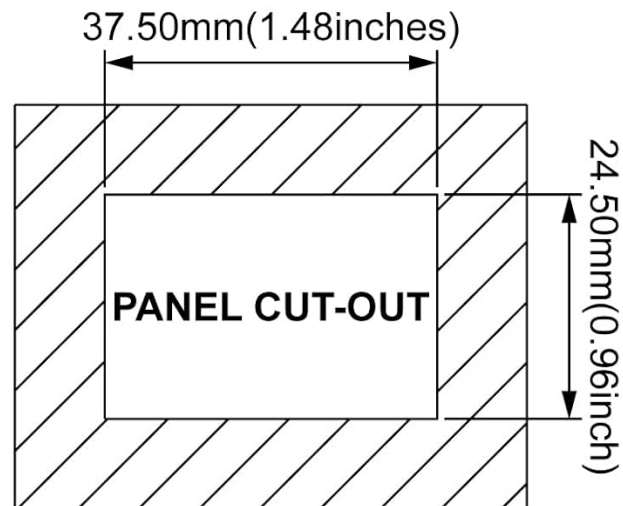
### 3.1 Panel Cut-out and Mounting

The hour meter is designed for drill-in and snap-in mounting. Ensure you have the correct panel cut-out size before installation.

1. Prepare a panel cut-out with dimensions of 37.50mm (1.48 inches) in width and 24.50mm (0.96 inches) in height.
2. Insert the hour meter into the prepared opening. The snap-in design will secure the meter in place.

# PRODUCT MOUNTING

## ■ Panel cut-out size



## ■ Snap-in mounting

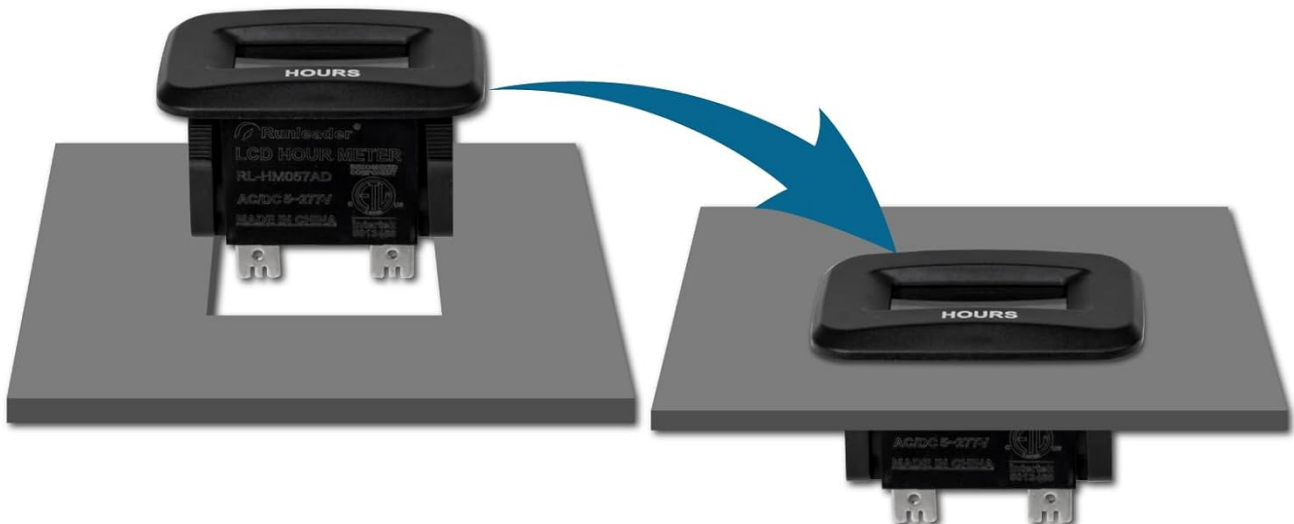


Figure 3.1: Illustration of the required panel cut-out dimensions and the snap-in mounting method.

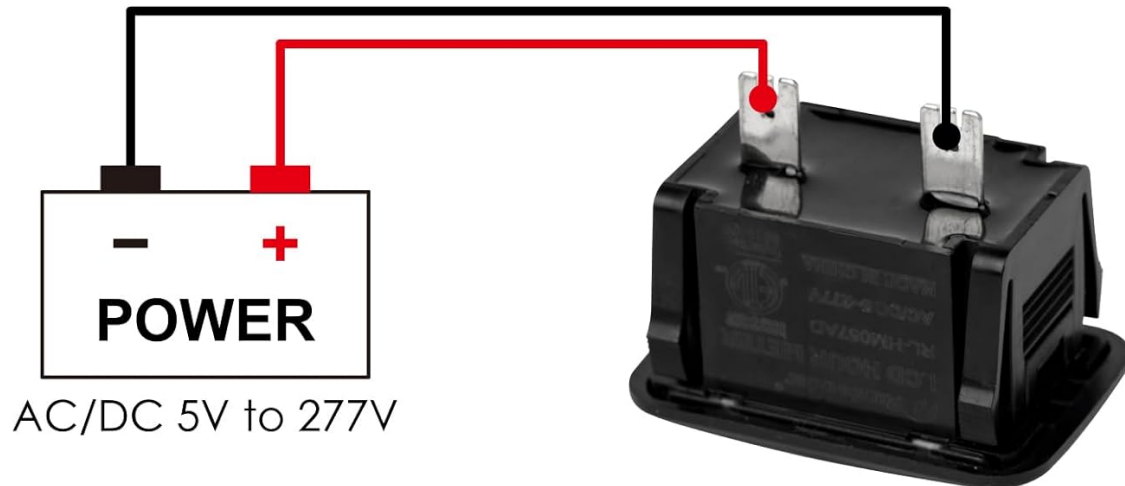
## 3.2 Power Connection

The hour meter operates on AC or DC power from 5V to 277V. The two pins on the back of the meter are not polarity-sensitive, meaning positive and negative connections are interchangeable.

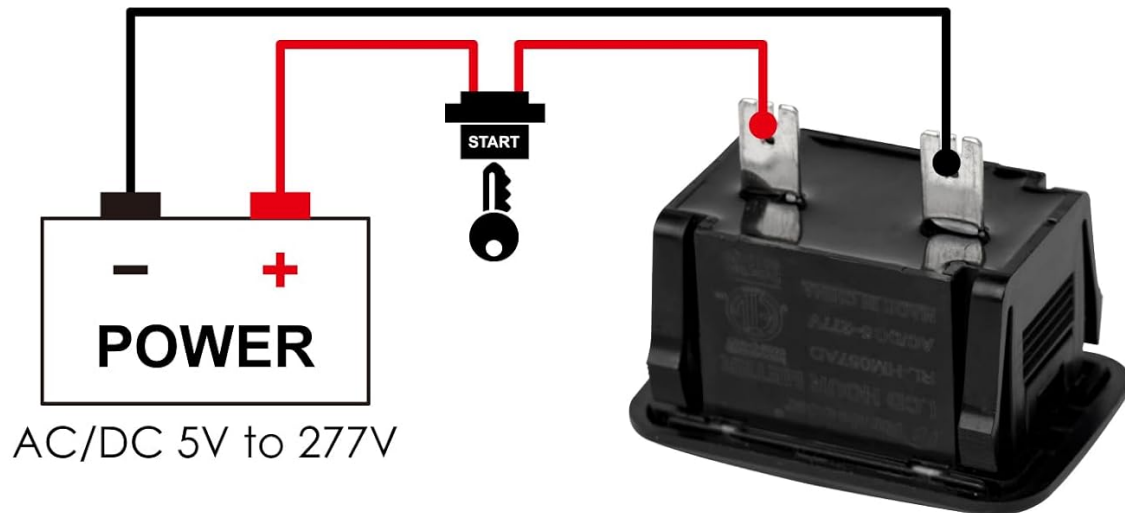
1. **Direct Power Connection:** Connect the two pins of the hour meter directly to your AC/DC 5V to 277V power source.
2. **Switch Power Connection:** For applications where the meter should only record when the machine is running (e.g., a riding lawn mower with a pressure switch), connect the power source through a switch. The meter will begin recording when the switch is closed and power is supplied.

# POWER CONNECTION

## ■ Direct power connection



## ■ Switch power connection



■ The power pins are not divided positive "+" and negative "-".

Figure 3.2: Wiring diagrams illustrating direct power connection and connection via a switch. The power pins are not polarity-sensitive.

## 4. OPERATION

Once properly installed and connected to a power source, the Runleader Digital Hours Counter will automatically begin recording the total working hours of the connected equipment. The display shows the accumulated hours up to 99,999 hours.

- The hourglass icon on the display indicates that the meter is actively recording time.
- The internal CR2050 battery ensures that the recorded data is retained even when the external power supply is disconnected.

## 5. MAINTENANCE

The Runleader Digital Hours Counter is designed for minimal maintenance. The internal CR2050 360mAh battery is built-in and provides power for data retention. This battery is not user-replaceable. For optimal performance and longevity:

- Keep the meter clean from excessive dirt and debris.
- Avoid exposing the meter to extreme temperatures beyond its operating range.
- Do not attempt to open the sealed unit, as this may compromise its waterproof integrity and void the warranty.

## 6. TROUBLESHOOTING

If your Runleader Digital Hours Counter is not functioning as expected, consider the following:

- **No Display/Not Recording:** Verify that the power connections are secure and that the external power source is providing the correct voltage (AC/DC 5V to 277V).
- **Intermittent Recording:** Check for loose wiring or an inconsistent power supply. If using a switch, ensure the switch is functioning correctly.
- **Display Issues:** While rare, extreme environmental conditions or physical damage could affect the display. Ensure the meter is installed in a suitable location.

If problems persist, refer to the warranty and support section for assistance.

## 7. SPECIFICATIONS

| Feature                    | Specification                                   |
|----------------------------|-------------------------------------------------|
| Model Number               | RL-HM057AD                                      |
| Operating Voltage          | AC/DC 5V to 277V                                |
| Hours Range                | 0 to 99,999 hours                               |
| Waterproof Rating          | IP68                                            |
| Internal Battery           | CR2050 360mAh (included, non-replaceable)       |
| Panel Cut-out Size (W x H) | 37.50mm x 24.50mm (1.48 in x 0.96 in)           |
| Item Weight                | 1.45 ounces                                     |
| Manufacturer               | Ningbo Jiangbei Run Leader Electronics Co., Ltd |

# PRODUCT DIMENSIONS

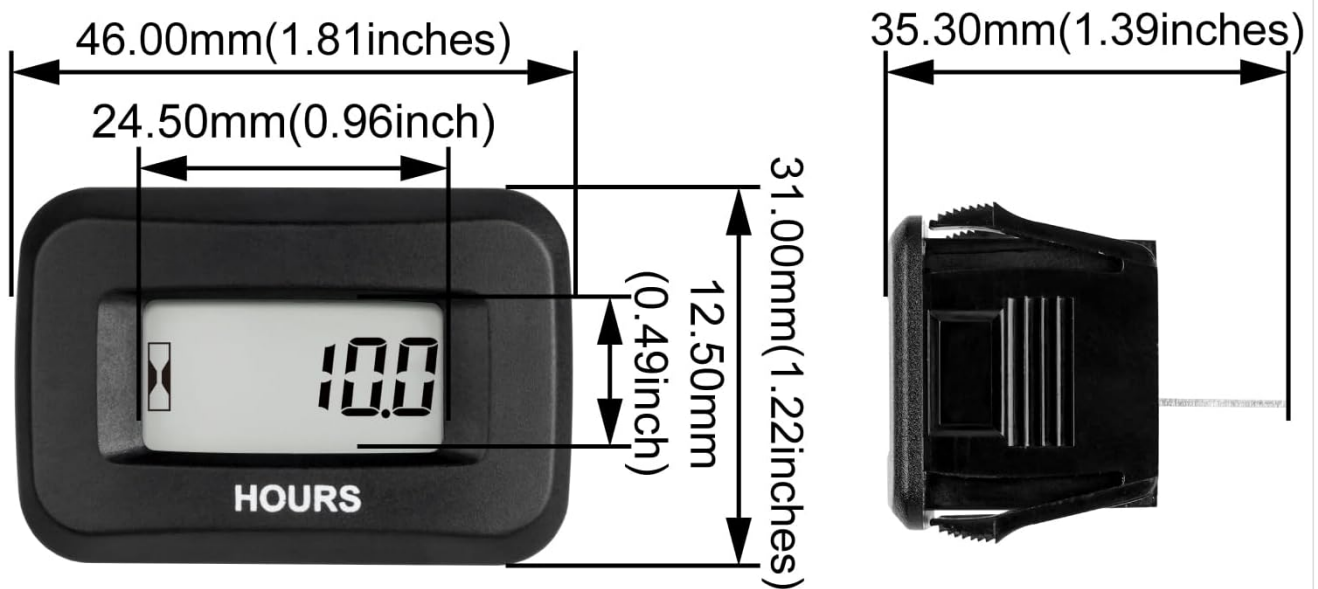


Figure 7.1: Detailed product dimensions for accurate fitting and installation.

## 7.1 Applicable Equipment

The hour meter is suitable for a wide range of AC/DC 5V to 277V equipment, including but not limited to:

- Lawn mowers
- Generators
- Golf carts
- Forklifts
- Scrubber machines
- Snowmobiles

# APPLICATION

It is applicable to AC/DC 5V to 277V equipments, such as:

- Lawn mower
- Generator
- Golf cart
- Forklift
- Scrubber machine
- Snowmobile



Figure 7.2: Examples of equipment compatible with the Runleader Digital Hours Counter.

## 8. SAFETY INFORMATION

**WARNING:** This product contains a button cell or coin battery. Ingestion of a button cell battery can cause severe internal chemical burns in as little as 2 hours and may lead to death. Keep new and used batteries OUT OF REACH OF CHILDREN. If you suspect a battery has been swallowed or inserted inside any part of the body, seek immediate medical attention.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p><b>⚠ WARNING</b></p> <ul style="list-style-type: none"> <li>● <b>INGESTION HAZARD:</b> This product contains a button cell or coin battery.</li> <li>● <b>DEATH</b> or serious injury can occur if ingested.</li> <li>● A swallowed button cell or coin battery can cause <b>Internal Chemical Burns</b> in as little as <b>2 hours</b>.</li> <li>● <b>KEEP</b> new and used batteries <b>OUT OF REACH of CHILDREN</b>.</li> <li>● <b>Seek immediate medical attention</b> if a battery is suspected to be swallowed or inserted inside any part of the body.</li> </ul>                                                           |     |
| <p><b>⚠ WARNUNG</b></p> <ul style="list-style-type: none"> <li>● <b>VERSCHLUCKUNGSGEFAHR:</b> Dieses Produkt enthält eine Knopfzelle oder Knopf-Batterie.</li> <li>● <b>TOD</b> oder schwere Verletzungen können bei Verschlucken auftreten.</li> <li>● Eine verschluckte Knopfzelle oder Knopf-Batterie kann in nur 2 Stunden innere Verätzungen verursachen.</li> <li>● <b>BEWAHREN</b> Sie neue und gebrauchte Batterien <b>AUSSERHALB DER REICHWEITE</b> von KINDER.</li> <li>● Suchen Sie sofort einen Arzt auf, wenn der Verdacht besteht, dass eine Batterie verschluckt oder in einen Körperteil eingeführt wurde.</li> </ul> |   |
| <p><b>⚠ AVERTISSEMENT</b></p> <ul style="list-style-type: none"> <li>● <b>RISQUE D'INGESTION:</b> Ce produit contient une pile bouton ou une pile bouton.</li> <li>● La <b>MORT</b> ou des blessures graves peuvent survenir en cas d'ingestion.</li> <li>● Une pile bouton ou une pile bouton avalée peut provoquer des brûlures chimiques internes en aussi peu que 2 heures.</li> <li>● <b>GARDEZ</b> les piles neuves et usagées <b>HORS DE PORTÉE</b> des ENFANTS.</li> <li>● Consultez immédiatement un médecin si vous soupçonnez qu'une batterie a été avalée ou insérée dans une partie du corps.</li> </ul>                 |     |
| <p><b>⚠ AVVERTIMENTO</b></p> <ul style="list-style-type: none"> <li>● <b>PERICOLO DI INGESTIONE:</b> Questo prodotto contiene una pila a bottone o una batteria a bottone.</li> <li>● <b>MORTE</b> o lesioni gravi possono verificarsi se ingerita.</li> <li>● Una pila a bottone o una batteria a bottone ingerita possono causare ustioni chimiche interne in appena 2 ore.</li> <li>● <b>TENERE</b> le batterie nuove e usate <b>FUORI PORTATA di BAMBINI</b>.</li> <li>● Consultare immediatamente un medico se si sospetta che una batteria sia stata ingerita o inserita in qualsiasi parte del corpo.</li> </ul>               |   |
| <p><b>⚠ ADVERTENCIA</b></p> <ul style="list-style-type: none"> <li>● <b>PELIGRO DE INGESTIÓN:</b> Este producto contiene una pila de botón o una pila de botón.</li> <li>● <b>LA MUERTE</b> o lesiones graves pueden ocurrir si se ingiere.</li> <li>● Una pila de botón o una pila de botón tragada puede causar quemaduras químicas internas en tan solo 2 horas.</li> <li>● <b>MANTENGA</b> las pilas nuevas y usadas <b>FUERA DEL ALCANCE</b> de los NIÑOS.</li> <li>● Busque atención médica inmediata si un Se sospecha que la batería se ingiere o se inserta en cualquier parte del cuerpo.</li> </ul>                        |    |
| <p><b>⚠ WAARSCHUWING</b></p> <ul style="list-style-type: none"> <li>● <b>GEVAAR VOOR INSLIKKEN:</b> Dit product bevat een knoopcel- of knoopcelbatterij.</li> <li>● <b>DOOD</b> of ernstig letsel kan optreden bij inslikken.</li> <li>● Een geslikt knoopcel of knoopcelbatterij kan in slechts 2 uur interne chemische brandwonden veroorzaken.</li> <li>● <b>HOUD</b> nieuwe en gebruikte batterijen <b>BUITEN BEREIK</b> van KINDEREN.</li> <li>● Zoek onmiddellijk medische hulp als het vermoeden bestaat dat een batterij is geslikt of in een deel van het lichaam is geplaatst.</li> </ul>                                   |  |

Figure 8.1: Important safety warning regarding the button cell battery. Keep out of reach of children.

## 9. WARRANTY AND SUPPORT

Runleader provides reliable after-sales service and technical support for this product. The hour meter comes with a 2-year support period from the date of purchase.

For technical assistance, warranty claims, or any inquiries, please contact Runleader customer support through the retailer where the product was purchased or visit the official Runleader website for contact information.