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› Runleader Digital Hours Tachometer RL-HM032A-1 Instruction Manual

Runleader RL-HM032A-1

Runleader Digital Hours Tachometer (Model RL-HM032A-1) Instruction Manual

For Gasoline Engines

INTRODUCTION

This manual provides comprehensive instructions for the Runleader Digital Hours Tachometer, Model RL-HM032A-1. It covers installation, operation, maintenance, and specifications to ensure proper use and longevity of your device. This tachometer is designed to monitor engine RPM and total running hours for various gasoline-powered equipment.

ENGINE SIGNAL CONNECTION



PRODUCT INSTALLATION

■ Stick-on mounting



■ Screw-on mounting

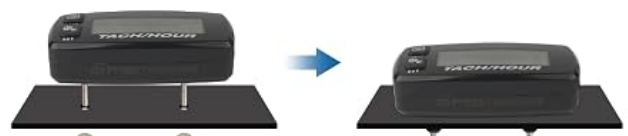


Image: Overview of the Runleader Digital Hours Tachometer highlighting its features and certifications.

PRODUCT FEATURES

- **Easy Battery Replacement:** Features a new design for convenient battery replacement by mounting in the battery cover.
- **Hour Meter:** Records total running hours (TOT) from 0 to 99,999 hours and single working period hours (JOB). Includes a Service (SVC) maintenance reminder from 0 to 200 hours.
- **RPM Meter:** Displays real-time RPM values (0 to 20,000 RPM) and records maximum RPM. Supports 9 programmable engine firing patterns for 12 types of 2/4 stroke gasoline engines. Features an RPM alert with a red backlight for exceeding preset values (1000 to 20,000 RPM).
- **Installation:** Can be mounted using stick-on or screw-on methods. Engine signal is received via a single wire connection (5-8 wraps) to the spark plug wire (inductive cable length: 1.75 meters / 68.80 inches).
- **Other Features:** Two backlight displays (default green, red for RPM alert). Green backlight can be set to always on, always off, or auto (sleeping mode). LCD display shutdown function. Built-in replaceable CR2032 210mAh battery.

SETUP AND INSTALLATION

Mounting Options

The tachometer offers flexible mounting solutions to suit various equipment surfaces.



Image: Illustration of stick-on and screw-on mounting methods.

- **Stick-on Mounting:** Use the provided double-sided tape to adhere the device to a clean, flat surface.
- **Screw-on Mounting:** Secure the device using screws and nuts through the designated mounting holes.

Engine Signal Connection

To receive engine RPM and hour signals, connect the inductive cable to the spark plug wire.



Image: Guide for connecting the inductive cable to the spark plug wire.

1. Locate the spark plug wire on your engine.
2. Wrap the inductive cable around the spark plug wire 5 to 8 times.
3. Ensure the connection is secure to allow proper signal detection.

OPERATING INSTRUCTIONS

Hour Meter Functions

The device tracks engine running time in various modes.



Image: Display modes for Total (TOT), Job (JOB), and Service (SVC) hours.

- **Total Hours (TOT):** Displays the cumulative running time of the engine, up to 99,999 hours. This value cannot be reset.
- **Job Hours (JOB):** Records the running time for a single operational period. This can be reset for individual task tracking.
- **Service Hours (SVC):** A programmable timer (0-200 hours) to remind you of scheduled maintenance tasks. Set the desired interval, and the device will alert you when the time is due.

RPM Meter Functions

Monitor engine revolutions per minute and set alerts.



RPM



MAX RPM



RPM ALERT



TOT



JOB



SVC



WATERPROOF RATE
IP67



USER SHUTDOWN



BACKLIGHT

Image: Real-time RPM, maximum RPM, and RPM alert display.

- **Real-time RPM:** Displays the current engine RPM when the engine is running.
- **Maximum RPM:** Records and displays the highest RPM reached during the current operating period.
- **RPM Alert:** If the engine RPM exceeds a user-defined threshold (1000 to 20,000 RPM), the display backlight will turn red to indicate an alert condition.
- **Engine Firing Patterns:** Calibrate RPM accuracy by selecting one of 9 programmable engine firing patterns, suitable for 12 types of 2-stroke or 4-stroke gasoline engines. Refer to the detailed settings in the full user manual for configuration.

Backlight and Display Settings

- **Green Backlight:** The default backlight can be configured for continuous illumination, off, or an automatic sleeping mode for use in low-light conditions.
- **Red Backlight:** Activates automatically as an RPM alert.
- **LCD Display Shutdown:** The device supports an LCD display shutdown feature to conserve battery life when not actively in use.

MAINTENANCE

Battery Replacement

The device uses a replaceable CR2032 battery.



Image: Comparison of previous and current battery replacement methods, highlighting the easier current method.

1. Locate the battery cover on the back of the device.
2. Open the cover. The CR2032 battery is mounted directly within the cover for easy access.
3. Remove the old battery and insert a new CR2032 210mAh battery, ensuring correct polarity.
4. Close the battery cover securely.

Service Hour Reset

After performing maintenance, reset the SVC timer to begin a new maintenance interval. Refer to the device's menu settings for the specific reset procedure.

TROUBLESHOOTING

- **No RPM or Hour Reading:** Ensure the inductive cable is securely wrapped around the spark plug wire (5-8 turns). Verify the engine is running.
- **Inaccurate RPM Reading:** Check the selected engine firing pattern in the device settings. Ensure it matches your engine type (2-stroke or 4-stroke and cylinder count).
- **Display Not Working:** Check the battery level. Replace the CR2032 battery if necessary. Ensure the LCD display shutdown feature is not active if you expect the display to be on.
- **RPM Alert Not Functioning:** Verify the RPM alert threshold is set correctly in the device settings.

SPECIFICATIONS

Feature	Specification
Model Number	RL-HM032A-1
Hour Range	0 - 99,999 hours
Service Hour Range	0 - 200 hours

Feature	Specification
RPM Measurement Range	0 - 20,000 RPM
RPM Alert Range	1,000 - 20,000 RPM
Battery Type	CR2032 210mAh (included)
Inductive Cable Length	1.75 meters (68.80 inches)
Waterproof Rate	IP67
Item Weight	3.2 ounces
Package Dimensions	7.5 x 4.5 x 1.2 inches



Image: Product dimensions and included accessories.



Image: Water resistance testing, confirming IP67 waterproof rating.

APPLICATIONS

The Runleader Digital Hours Tachometer is suitable for a wide range of 2-stroke and 4-stroke gasoline engine powered equipment, including but not limited to:



Image: Visual representation of common applications.

- Lawn Mowers
- Generators
- Motorcycles
- Outboard Motors
- Chainsaws
- ATVs

WARRANTY AND SUPPORT

This Runleader product includes a 2-year warranty from the date of purchase. For technical assistance, troubleshooting, or warranty claims, please contact Runleader customer service through their official website or the retailer where the product was purchased. Please have your model number (RL-HM032A-1) and purchase information ready when contacting support.