

DIGITAL OIL METER

L-DHFOM80-01



Thank you for purchasing this Lubemate Digital Oil Meter. Your meter is designed for measuring compatible fluids, including Gear Oil, Lubricating Oil, ATF Oil, Hydraulic Oil, Diesel, Kerosene, Premix Coolant.

This manual provides important information for the installation, operation and maintenance of your Digital Oil Meter. Read and understand this manual before installing or operating the meter.

1. GENERAL SAFETY REGULATIONS

- Keep the work area clean and dry.
- Keep children away from the equipment.
- Read and understand this manual before use.
- Use the meter only for its intended purpose.
- Inspect the meter before use. Do not use damaged equipment.
- Do not alter or modify the meter.
- Do not exceed the maximum working pressure.
- Use only compatible fluids specified in this manual.
- Relieve system pressure before installation, inspection or servicing.
- Do not operate the equipment when tired or under the influence of drugs, alcohol or medication.



WARNING

Equipment Misuse Hazard

- Equipment misuse can damage the meter or other equipment.
- This equipment is for professional use only.
- Check equipment daily. Replace meter if damaged.



WARNING

Skin Injection Hazard

High-pressure fluid can penetrate the skin and cause serious injury.

- Never point the nozzle at yourself or others.
- Never place fingers over the outlet.
- Relieve pressure before servicing.
- Seek immediate medical attention if injection injury occurs.



WARNING

Electrostatic Charging Hazard

Before use, ensure grounding of the dispensing system to prevent fire or explosion.

Clean the meter case with a wet cloth only.



BATTERY SAFETY

- Replace batteries only in a non-hazardous area.
- Use only identical battery types.
- Do not mix old and new batteries.
- Observe battery polarity during installation.

PACKAGE CONTENTS

• Digital Oil Meter	1
• AAA Batteries (pre-installed)	2
• User Manual QR Card	1

TECHNICAL SPECIFICATIONS

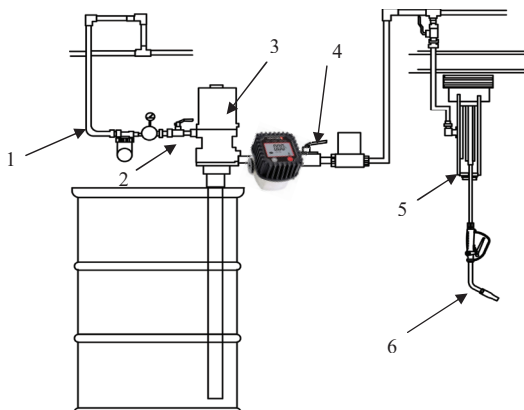
Model	L-DHFOM80-01
Connection	3/4" BSP Female
Flow Rate	6 – 80 L/min
Maximum Working Pressure	100 bar (1500 psi)
Accuracy	± 0.5%
Display	LCD Digital (5- Digit present total, 7- Digit non-resettable total)
Measurement Units	Litre / Gallon / Pint / Quart
Power Supply	2 × AAA Alkaline Batteries [Duracell® MN2400 (LR03)]
Operating Temperature	-10° C to +50° C
Protection Rating	IP65
Compatible Fluids	Gear Oil, Lubricating Oil, ATF Oil, Hydraulic Oil, Diesel, Kerosene, Premix Coolant.
Weight	0.91 kg / 2 lb

2. INSTALLATION

These meters must be installed in-line as part of a dispense system as shown in the below figure. However, the typical installation shown is only a guide for selecting and installing an in-line meter. It is not an actual system design.

Typical installation:

1. Air Supply
2. Air Shut-off Valve
3. Pump
4. Fluid Shut-off Valve
5. Hose Reel
6. Digital Oil Meter / Dispensing Valve



INSTALLATION PROCEDURE

1. Flush all pipelines before installation.
2. Confirm the system is depressurised.
3. Install the meter in the correct flow direction.
4. Tighten all fittings securely.
5. Check for leaks after installation.
6. Do not overtighten threaded connections.
7. Support heavy pipework independently to prevent excessive load on the meter.

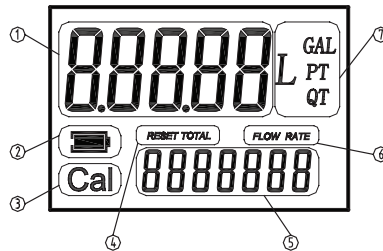
3. OPERATION



CAUTION

- Never operate the meter with the plastic cover removed. The cover protects the meter from damage due to impact. Meters are factory sealed to prevent the ingress of moisture and dirt.
- Flush the lines before installing the meter to prevent contamination that may cause malfunction or damage.

1. DISPLAY & BUTTON USAGE



Key / Indications :

1.	Partial register (5 figures with moving comma from 0.1 to 99999) displays the volume dispensed during an individual dispensing cycle.
2.	Indication of battery charge
3.	Indication of calibration mode
4.	Indication of resetting present total to Zero
5.	Total register
6.	Indication of flow rate mode
7.	Indication of unit of measurement of partial : L= Litres, GAL = Gallons, PT = Pints, QT = Quarts

Button Functions



MENU Button

- Enter calibration
- Change settings
- Confirm selections



RESET Button

- Reset batch total
- Reset displayed values
- Select options

2. DAILY OPERATION

2.1. Starting a Dispense

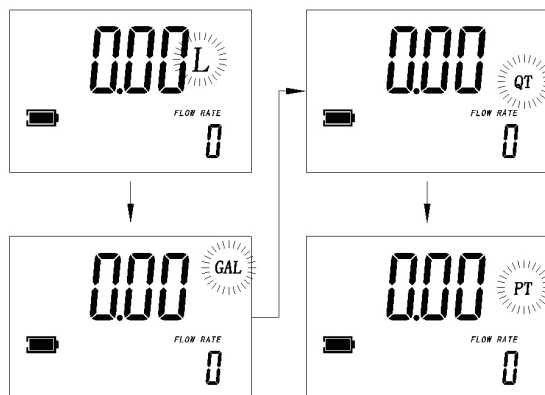
- Press RESET.
- Confirm Present Total returns to zero.
- Begin dispensing.
- Monitor displayed quantity.
- Stop dispensing when required.

2.2. Changing Measurement Units

Press MENU and RESET together and hold for five seconds.

Press RESET to choose a different measurement unit and then press MENU to confirm.

Supported units: Litres, Gallons, Pints, Quarts

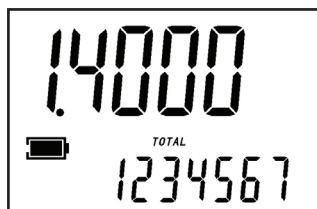


2.3. Viewing Correction Factor & General Total

Press MENU + RESET together for two seconds.

Display shows:

- Current calibration factor (1.4000)
- Non-resettable General total (1234567)

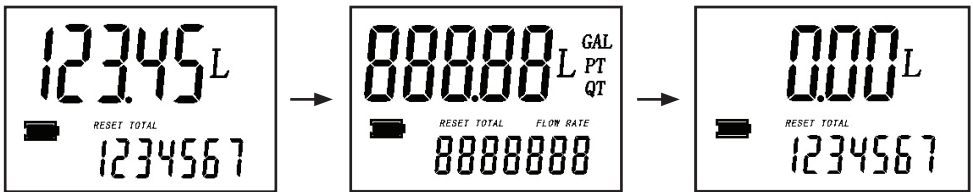


2.4. Resetting Present Total

Press RESET once.

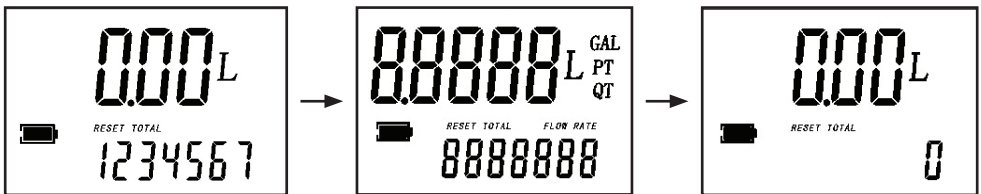
Present Total returns to zero.

General Total remains unchanged.



2.5. Reset The Resettable (Batch) Total

When the meter is on standby, press the RESET key for 2 seconds to reset the batch total first.



4. CALIBRATION

1. ENTERING THE CORRECTION FACTOR DIRECTLY

The calibration factor compensates for fluid viscosity and installation variations.

Formula:

Correction Factor = Current Factor × (Actual Volume ÷ Displayed Volume)

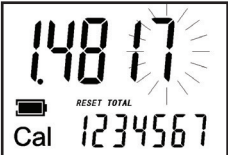
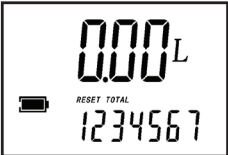
Example

Current Factor = 1.000

Actual Volume = 20.75 L

Displayed Volume = 18.96 L

New Factor = 1.094

1	Wait for the meter to go to standby.	
2	Reset the resettable total.	
3	Press the MENU key. Keep it pressed until similar with the image showed (the digit flash in ① zone), it means the meter is in correction factor modification mode.	
4	Press the RESET key to choose the right digit from 0 to 9. Press the MENU key to start the next digit. So the digit of correction factor can be changed one by one.	
5	Make sure the correction factor is right, press the MENU key. Keep it pressed until quit calibration mode, the factor is saved. The meter goes to standby again.	

2. MODIFY THE CORRECTION FACTOR IN FIELD

Please carefully follow the procedure indicated below.

1	Wait for the meter to go to standby.	
2	Reset the resettable total.	
3	Start dispensing into a measuring glass. Stop dispensing when over 5 Litres of volume is reached, read out the actual value. The volume that is displayed on the LCD is the Display Value, not the Actual Value which may be slightly higher. For example, in the figure on the right, the Display Value is 18.96 while the Actual Value is 20.75.	
4	Press the MENU key. Keep it pressed until showed as the right fig., the digit flash in ① zone, Press the RESET key to choose the right digit from 0 to 9. Press the MENU key to go the the next digit so that the Actual Value can be input.	 
5	Make sure the correction factor is right and then press the MENU key. Keep it pressed until calibration is finished and the factor is save. The meter will then return to standby.	

When the unit of measurement is gallon, the coefficient modification is the same as the above steps.

5. MAINTENANCE

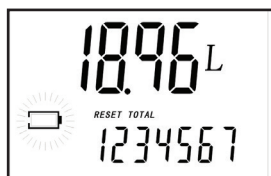


WARNING

- Battery replacement must only be carried out in a non-hazardous area.
- Replace the batteries only with batteries of the specified type and rating. Do not substitute batteries of a different type.

BATTERY REPLACEMENT

Replace batteries only when the low battery indicator appears.



PROCEDURE

1. Remove the rubber protector.
2. Remove the battery-cover retaining screw(s).
3. Open the battery compartment.
4. Remove and replace both batteries, observing the correct polarity.
5. Refit the battery cover and tighten the retaining screw(s).
6. Refit the rubber protector.

BATTERY TYPE

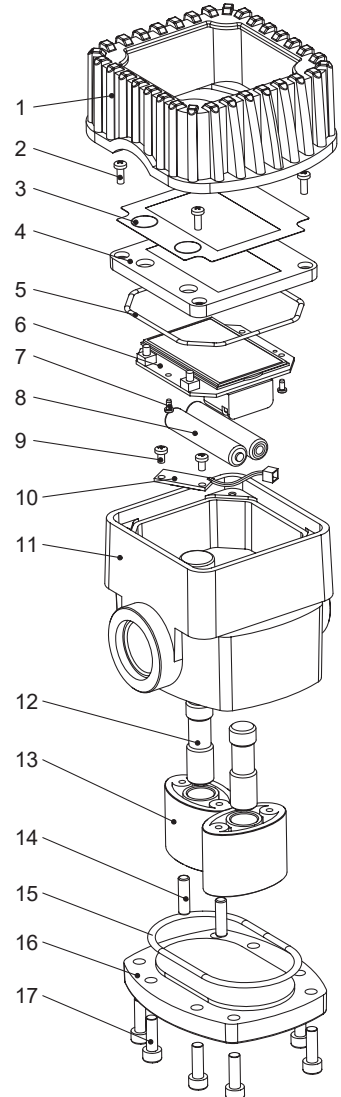
2 × AAA Alkaline Batteries [Recommended: Duracell® MN2400 (LR03)]

Note: Dispose of used batteries according to local environmental regulations.

6. EXPLODED VIEW

NO.	DESCRIPTION	QTY.
1	Rubber protector	1
2	Screw	4
3	Front Label	1
4	Meter Cover	1
5	O-ring	1
6	Electric Board	1
7	Screw	3
8	Battery AAA	2
9	Screw	2
10	Reed Switch Board	1
11	Rubber Holder	1
12	Shaft	2
13	Oval Gear	2
14	Magnetic Rod	2
15	O-ring	1
16	Seat	1
17	Screw	8

Note: No spare parts available



7. TROUBLESHOOTING

Problem	Possible Cause	Corrective Action
No display	Flat battery	Replace batteries
No display	Poor battery contact	Check battery contacts
Incorrect reading	Incorrect calibration	Recalibrate the meter
Low flow	Blocked measuring chamber	Clean internal components
Low flow	Blocked fluid line	Inspect hose and filter
Meter counts incorrectly	Air trapped in system	Bleed system
Meter does not count	Internal gear blocked	Clean measuring chamber
Leakage	Damaged O-ring	Replace O-ring
Electronic malfunction	Circuit board fault	Contact authorised service centre

8. LIMITED WARRANTY

For Warranty Terms and Conditions see au.macnaught.com
For a list of Australian Service Centres see au.macnaught.com

NOTE: Dispose of batteries and electronic components in accordance with local environmental regulations.

Do not dispose of electronic equipment with household waste.



Lubemate® is a practical, cost-effective range of equipment brought to you by the trusted team at Macnaught.

All Lubemate products are specially selected by our experienced technical team at Macnaught®, ensuring they meet our strict quality standards.



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Note: No spare parts available

For Macnaught warranty, terms and conditions see macnaught.com/warranty ©Macnaught Pty Ltd.