

DIGITAL OIL CONTROL GUN WITH METER

L-DHF0G80-01



Thank you for purchasing a quality oil control gun with digital meter.

This oil control gun is designed for dispensing and measuring compatible fluids within the operating limits specified in this manual.

This manual provides important information for the installation, operation and maintenance of your oil control gun. Read this manual carefully before installation and operation and retain it for future reference.

1. GENERAL SAFETY REGULATIONS

 WARNING

The warnings, cautions and instructions contained in this manual cannot cover every possible condition or situation that may occur. The operator must exercise appropriate caution and judgement when installing, operating and maintaining this equipment.

- 1. Keep the work area clean and dry. Damp or wet work areas may increase the risk of injury.
- 2. Keep children away from the work area. Do not allow children to handle this product.
- 3. Use this equipment only for its intended purpose and within the operating limits specified in this manual. Do not modify the equipment or use it for a purpose for which it was not intended.
- 4. Before use, inspect the equipment for damaged or worn components and any other condition that may affect correct operation. Replace damaged or worn components before use.
- 5. Maintain proper footing and balance during operation to reduce the risk of tripping, falling or injury.
- 6. Do not operate the equipment when tired or under the influence of drugs, alcohol or medication. Inattention during operation may result in serious personal injury.

 IMPORTANT

This manual contains important warnings and information.
READ AND KEEP IT FOR FUTURE REFERENCE.

PACKAGE CONTENTS

• Oil Control Valve with Digital Oil Meter	1
• Flexible Nozzle	1
• User Manual QR Card	1

TECHNICAL SPECIFICATIONS

Model	L-DHFOG80-01
Product Type	Digital Oil Control Gun
Inlet Connection	3/4" BSP Female
Flow Rate	6–80 L/min
Operating Pressure	5–100 bar (70–1450 psi)
Operating Temperature	-10°C to +60°C
Meter Accuracy	±0.5%
Measuring Principle	Oval Gear Digital Meter
Display	LCD Digital Display
Measurement Units	Litres (L), Gallons (GAL), Pints (PT), Quarts (QT)
Power Supply	2 × 1.5V AAA Batteries
Fluid Viscosity Range	8–5000 mPa·s
Meter Ingress Protection	IP65
Dispensing Extension	Flexible Hose with Automatic Shut-off Nozzle
Suitable Fluids	Gear Oil, Lubricating Oil, Automatic Transmission Fluid (ATF), Hydraulic Oil, Diesel, Kerosene, Premix Coolant

2. GENERAL DISPLAY INSTRUCTIONS

WARNING

Precautions Before Installation

- Check that information is shown correctly on the display.
- Check that the trigger operates correctly.
- Check that the oil inlet swivel rotates freely.
- Apply PTFE thread-sealing tape to the threaded connection during assembly to provide an effective seal.

WARNING

Read carefully and understand all INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury. Save these instructions in a safe place and on hand so that they can be read when required. Keep these instructions to assist in future servicing.

SKIN INJECTION HAZARD

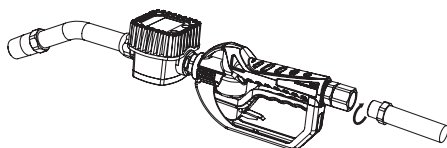
High-pressure fluid can penetrate the skin and cause serious injury.

- 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.

2.1. INSTALLATION PROCESS

This Digital Oil Control Gun is designed for installation at the end of a pressurised lubrication dispensing system. The dispensing valve should be connected only to compatible lubrication equipment operating within the specified pressure and flow limits.

- The oil control gun is fitted with a 3/4" BSP female inlet. When connecting with hose fitting, please remember to apply the Teflon or oil-resistant thread sealant for a better seal.



3. OPERATION



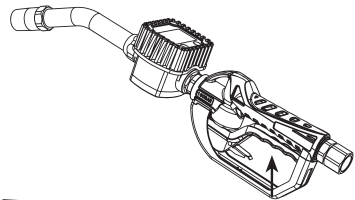
CAUTION

- Never operate the meter with the plastic cover removed. The cover protects the meter from damage due to impact. Meters are factory sealed to keep moisture and dirt out.
- To prevent line contamination, which can cause equipment malfunction or damage, flush the lines before you install this equipment in the system.

1. OPERATING THE CONTROL GUN

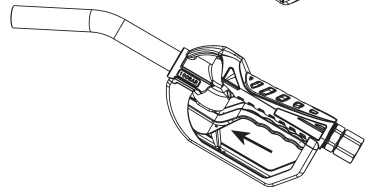
1.1. Start Dispensing

Pull the trigger to begin fluid dispensing.



1.2. Using the Trigger Lock

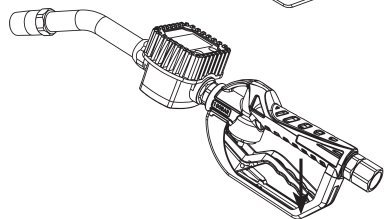
While holding the trigger open, push the trigger lock forward. Fluid dispensing will continue when the trigger is released.



1.3. Stopping Dispensing

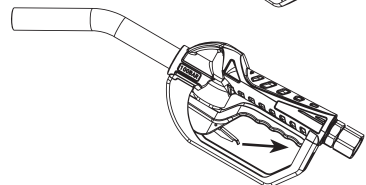
a. Trigger Lock Not Engaged

Release the trigger to stop fluid dispensing.



b. Trigger Lock Engaged

Pull the trigger again to disengage the trigger lock. Release the trigger to stop fluid dispensing.



2. DISPLAY & BUTTON USAGE

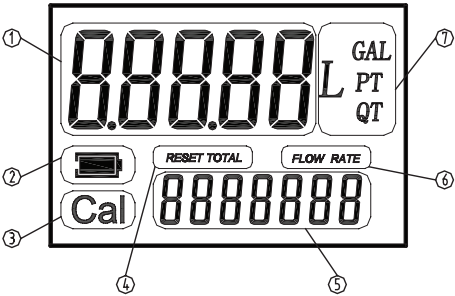


2.1. Display & Button Usage

- Present Total
- General (Grand) Total
- Battery Status
- Flow Rate
- Calibration Mode
- Unit Selection

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



2.2. Button Functions



MENU Button

- Enter calibration
- Change settings
- Confirm selections



RESET Button

- Reset batch total
- Reset displayed values
- Select options

3. DAILY OPERATION

3.1. Starting a Dispense

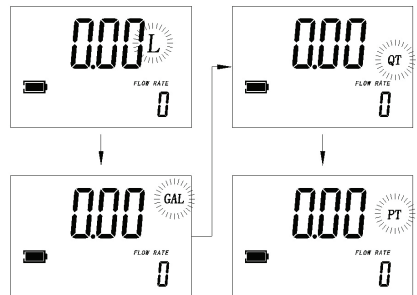
- Press RESET.
- Confirm Present Total returns to zero.
- Begin dispensing.
- Monitor displayed quantity.
- Stop dispensing when required.

3.2. 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



3.3. Viewing Correction Factor & General Total

Press MENU + RESET together for two seconds.

Display shows:

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

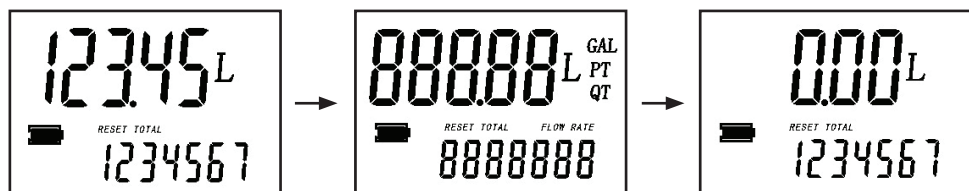


3.4. Resetting Present Total

Press RESET once.

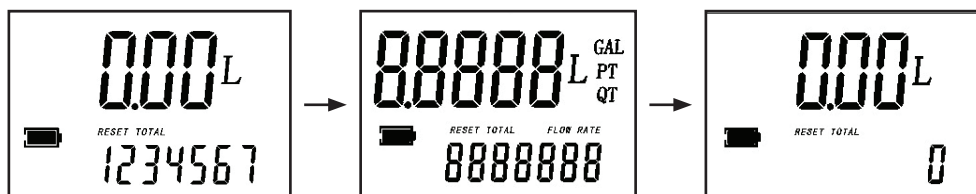
Present Total returns to zero.

General Total remains unchanged.



3.5. Reset The Resettable (Batch) Total

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



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)

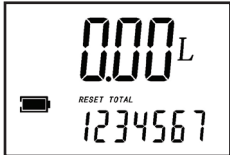
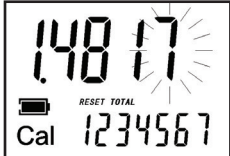
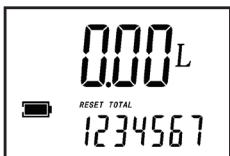
Example

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

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

1. BATTERY REPLACEMENT



WARNING

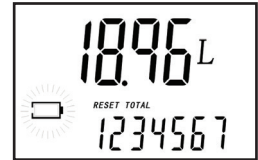
- Battery replacement must only be carried out in a non-hazardous area.
- Do not short circuit batteries.
- Dispose of used batteries according to local environmental regulations.



CAUTION

Replace the batteries only with batteries of the specified type and rating. Do not substitute batteries of a different type.

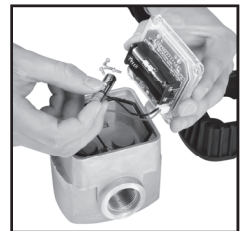
When the battery symbol flashes on the LCD, the batteries are low. The meter can continue to operate; however, battery replacement is recommended.



2. BATTERY TYPE

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

3. PROCEDURE



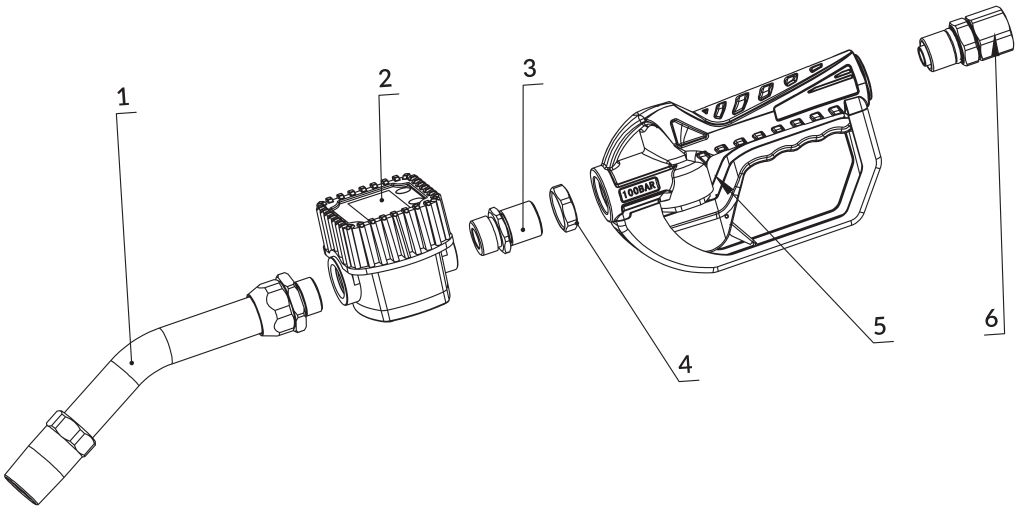
1. Remove the rubber protector.
2. Remove the battery-cover retaining screw(s).
3. Open the battery compartment.
4. Remove and replace both batteries, observing the correct polarity.

- 5. Refit the battery cover and tighten the retaining screw(s).
- 6. Refit the rubber protector.

6. EXPLODED VIEW

The following exploded views are provided for component identification and product reference.

OIL CONTROL VALVE EXPLORED DRAWING

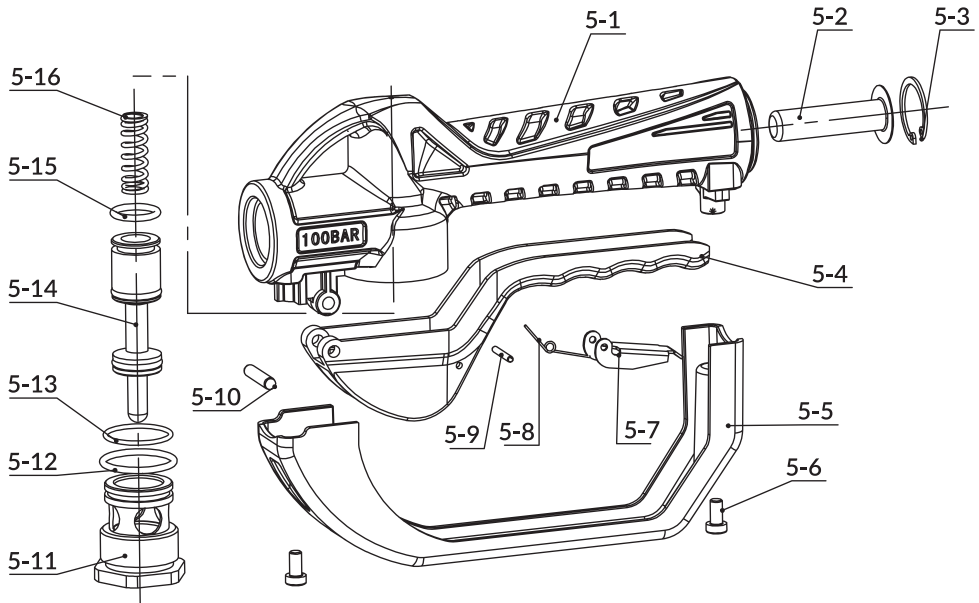


NO.	DESCRIPTION	QTY.
1	Spout	1
2 □	Digital Meter	1
3 □	3/4"swivel	1

Note: □ Digital oil control valve part

NO.	DESCRIPTION	QTY.
4 □	Hexagon Nut	1
5	Handle Body	1
6	Swivel Fitting	1

VALVE BODY EXPLODED DRAWING & PART LIST

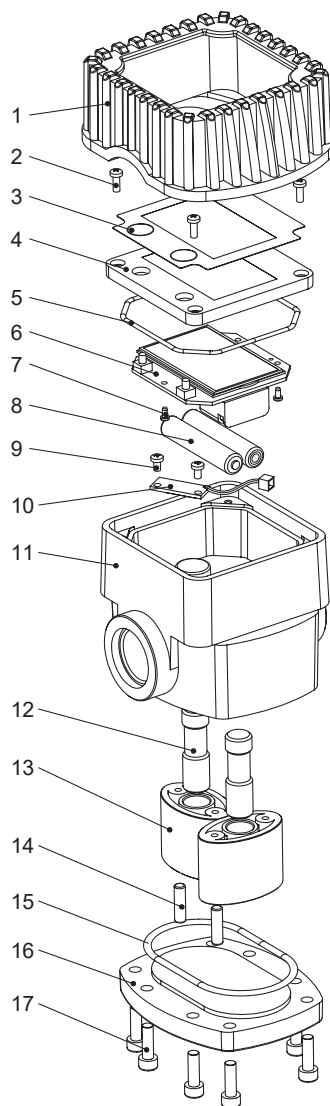


NO.	DESCRIPTION	QTY.
5-1	Handle Body	1
5-2	Filter	1
5-3	Retainer	1
5-4	Trigger	1
5-5	Grip	1
5-6	Screw	1
5-7	Trigger Lock	1
5-8	Clip	1

NO.	DESCRIPTION	QTY.
5-9	Pin	1
5-10	Pin	1
5-11	Piston Sleeve	1
5-12	O-Ring	1
5-13	O-Ring	1
5-14	Slip Pole	1
5-15	O-Ring	1
5-16	Spring	1

NO.	DESCRIPTION	QTY.
1	Rubber protector	1
2	Screw	1
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 fluid flow	Lubricant pump not operating	Verify pump operation and air supply.
	Shut-off valve closed	Open the shut-off valve completely.
	Hose blocked or kinked	Inspect and clear the hose.
	Meter blocked by contamination	Remove and clean the metering chamber.
Low flow rate	Low pump pressure	Verify pump pressure.
	Restricted hose	Inspect the hose assembly.
	High viscosity fluid	Operate within the specified viscosity range.
Incorrect flow reading	Meter requires calibration	Perform meter calibration as described in this manual.
	Incorrect measurement unit selected	Verify selected display unit.
No LCD display	Batteries discharged	Replace both batteries.
	Batteries incorrectly installed	Check battery polarity.
	Poor battery contact	Inspect battery terminals.
Low Battery symbol displayed	Batteries reaching end of life	Replace both batteries with identical batteries.
Meter counts but value is inaccurate	Incorrect calibration factor	Recalibrate the meter.
Oil leaking from swivel connection	Swivel loose	Tighten swivel connection.
Oil leaking from valve body	Worn internal seals	Replace seals.
	Valve seat damaged	Replace valve seat.
Oil leaking from digital meter	Meter O-ring damaged	Replace O-ring.

Problem	Possible Cause	Corrective Action
Oil dripping from nozzle after trigger release	Automatic nozzle contaminated	Clean nozzle assembly.
	Nozzle seal worn	Replace nozzle components.
	Automatic shut-off mechanism damaged	Replace nozzle assembly.
Trigger difficult to operate	Internal contamination	Clean valve mechanism.
	Trigger pivot worn	Replace worn components.
Unexpected battery drain	Old batteries	Replace both batteries together.
	Poor battery quality	Use recommended alkaline batteries.
	Internal electronic fault	Contact authorised service centre.

Note: For any further assistance, please contact your authorised dealer or service centre.

8. LIMITED WARRANTY

For Warranty Terms and Conditions see macnaught.com.au

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.