

1" Digital Meter

User's Manual



! **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.

1. GENERAL DESCRIPTION

The digital meter is a rotating disk, positive displacement meter which uses magnetic coupling to convert fluid flow into digital display information. The digital display is a whole part, can be easily rotate 90° for better read.

2. SAFETY PRECAUTIONS

- Never install them where inflammable!
- Keep the fluid pure is very important.
- Do not use for gasoline!
- Make sure that no air pressure shocks or particles can damage the meter.
- GENERAL SAFETY RULES



WARNING: Read and understand all instructions.



WARNING: The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

3. TECHNICAL DATA

Flow Rate: 20-120L/min. (5-32GPM)
Max. Pressure: 5BAR / 70PSI
Inlet/Outlet: 1"

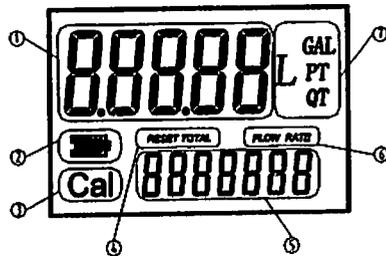
4. INTRODUCTION

The liquids compatible with this meter must be at low viscosity, namely:

- Diesel fuel
- Water
- Kerosene
- Light Oils
- Windscreen

4.1 LCD display

The "LCD" of the meter features two numerical Registers and various indications displayed to the user only when the applicable function so requires



Key Introduction

- ① Partial register (5 figures with moving comma from 0.01 to 999.99), indicating the volume dispensed since the reset button was last pressed.
- 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

4.2 Once the measure value is larger than the maximum register, it will reset to "0" automatically.

4.3 Low battery indicator is available

4.4 Automatic power saving system

When not in use over 60 seconds, the meter will be power off automatically to enter into the power saving mode. Just need to press "MENU" for reuse. Or by transferring the fluid for activation.

4.5 User Buttons

The digital meter features two buttons (MENU and RESET) which individually perform two main functions and together, other secondary functions.

The main functions performed are:

For the **RESET** key, resetting the partial Register and reset table total (reset total)

For the **MENU** key, entering instrument calibration mode.

Used together, indicate the the two keys permit entering configuration mode.

4.6 Battery Replacement

When replacing the battery, please open the cover, remove the plug and replace the battery.

5. DAILY USE

The only operations that need to be done for daily use is partial and/or resettable total Register resetting

5.1 Button usage, calibration and measurement unit change

● **Reset the present total**

- 1) When the meter is on standby, press the RESET key.
- 2) The display shows all the segments.
- 3) The meter resets the present total already.



● **Show current correction factor and general total**

Press MENU and RESET together and hold for two seconds.

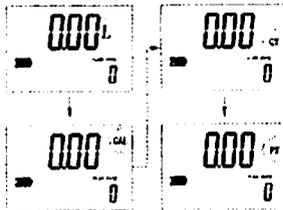
Value "1.4000" is the correction factor which can be reset;
 "1234567" is the general total which cannot be reset.



● **Measurement unit change**

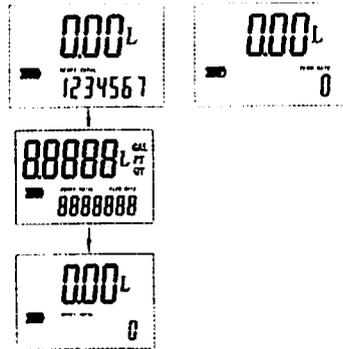
Press MENU and RESET together and hold for five seconds.

Zone 7 on the display is the current unit. Press RESET to chose a different measurement unit and then press MENU to confirm.



5.2 RESET THE RESETTABLE TOTAL

When the meter is on standby, press the RESET key for 5 seconds to reset the present total first.



5.3 PROCEDURE FOR ENTER THE CORRECTION FACTOR DIRECTLY

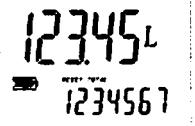
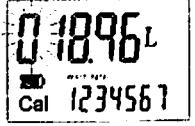
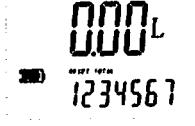
Carefully follow the procedure indicated below.

proper correction factor = current correction factor × (actual value / display value)

Example:
Actual value 20.75
Display value 18.96
Current correction factor 1.000
Proper correction factor $1.000 \times (20.75 / 18.96) = 1.000 \times 1.094 = 1.094$

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.	

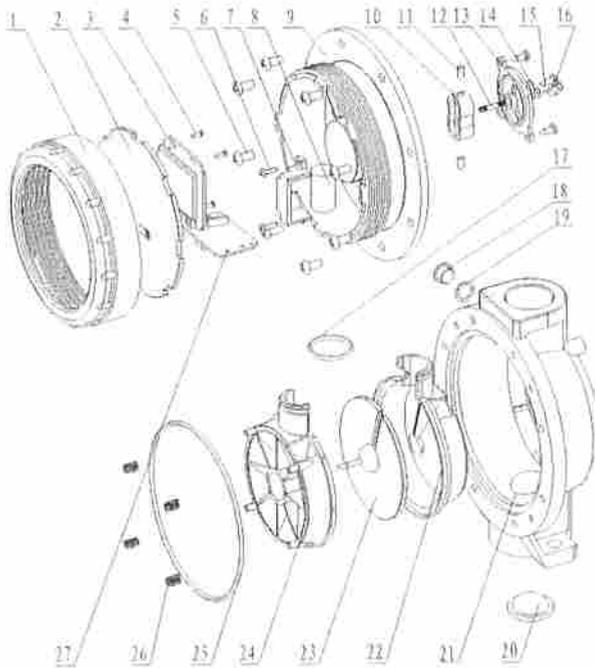
5.4 Modify the correction factor in field

1	Wait for the meter to go to standby.	
2	Reset the resettable total.	
3	<p>Start dispensing into a measuring glass.</p> <p>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.</p>	
4	<p>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.</p>	 
5	<p>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.</p>	

6. MALFUNCTIONS

Problem	Possible Cause	Solution
LCD: no indication	Bad battery contact	Check battery contacts
Not enough measurement precision	Wrong "K" FACTOR	With reference to paragraph H, check the FACTOR
	The meter works below minimum acceptable flow rate	Increase the flow rate until an acceptable flow rate range has been achieved.
Reduced or zero flow rate	Strainer block up	Clean the strainer
The meter does not count, but the flow rate is correct	Incorrect installation of gears after cleaning	Repeat the reassembly procedure
	Possible electronic card problems	Contact your dealer

7. DIAGRAM AND PARTS LIST



No.	Description	Quantity
1	Lock cover	1
2	Plastic cover	1
3	Electric Board	1
4	Self tap screw ST2.2X6.5	3
5	Screw M5X12	8
6	Self tap screw ST2.9*9.5	2
7	Battery Holder	1
8	BatteryCR2	1
9	Meter seat (Up)	1
10	Rotor	1
11	Magnet	2
12	Shaft	1
13	Sealing cover	1
14	Sleever	1
15	Self tap screw ST2.9X9.5	4
16	Driving Lever	1
17	O-ring 23.47X2.62	1
18	Close Plug	1
19	O-ring 9.25X1.78	1
20	Strainer	1
21	Meter Seat (down)	1
22	Measuring chamber (Down)	1
23	Nutating disk	1
24	Measuring chamber (Up)	1
25	O-ring110.72X3.53	1
26	Snap Spring	4
27	Reedswitch board	1