



HOSE END METER PRE SET VERSION



Part No. / Réf. / Art. Nr. / Cód.:

24702

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Manual 24702 EN 2B 2014-05-20

General

Even though it's designed for heavy-duty use the Meter is a High Precision Measuring Device and should be treated as such.

It is possible to calibrate the Meter to a specific oil viscosity. See instructions on page 6.

The Meter's default setting displays volume in liters. This setting can be changed to US quarts, US pints or US gallons. See instructions on page 7.

The Meter has the following features:

- **BATCH volume counter** with a range of 0.01 - 999.99 liters (or quarts/pints/gallons) that can be reset to zero.
- **VOLUME PRE-SET function** with a range of 0.1 – 999.9 liters (or quarts/pints/gallons).
- **TRIP volume counter** with a range of 1 - 99999 liters (or gallons *) that can be reset to zero.
- **TOTAL volume counter** with a range of 1 - 99999 liters (or gallons *) that cannot be reset to zero.

*) The unit of measure in TRIP and TOTAL is always gallons even when the BATCH volume counter is set for pints, quarts or gallons.

The Meter is for use with mineral oils. It could also be used to measure pure glycol.

NOTE! The Meter is not to be used with water based products or glycol mixed with water (antifreeze fluid)!

The Meter is for "indoor use", i.e. it should not be mounted outdoors without shelter against the elements!

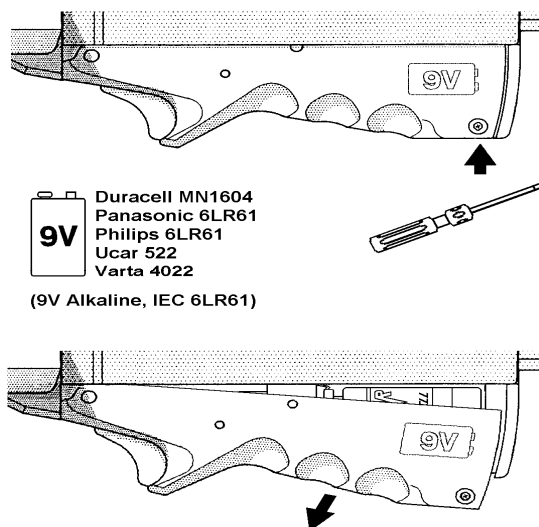
NOTE! The built-in circuit board is well protected against moisture but the Meter should not to be washed with solvents or directly sprayed with high-pressure water!

1. Battery

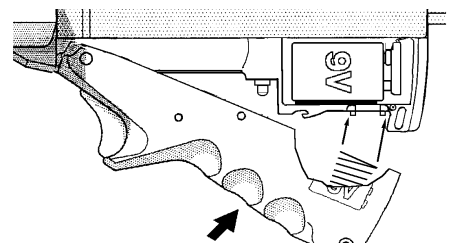
When the Meter is delivered it's not yet activated. Before activating the unit, mount a 9V battery as shown in the illustrations below.

The reason the unit is not activated before delivery is to spare the built in lithium battery that keeps the calibration memory intact even when changing the 9V battery.

The "Low Battery indicator" is triggered when it's time to change the 9V battery.

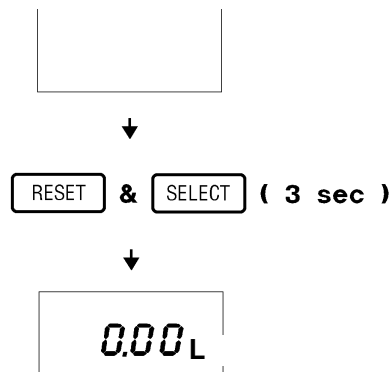


NOTE! Be sure to position the spring accurately before closing the trigger handle.

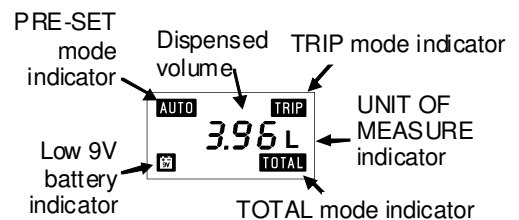


2. Activation

When the battery is mounted, activate the Meter by pressing the RESET & SELECT buttons simultaneously for a few seconds. The display will light up.



When the Meter is activated, the display will show 0.00 L.



3. Functions

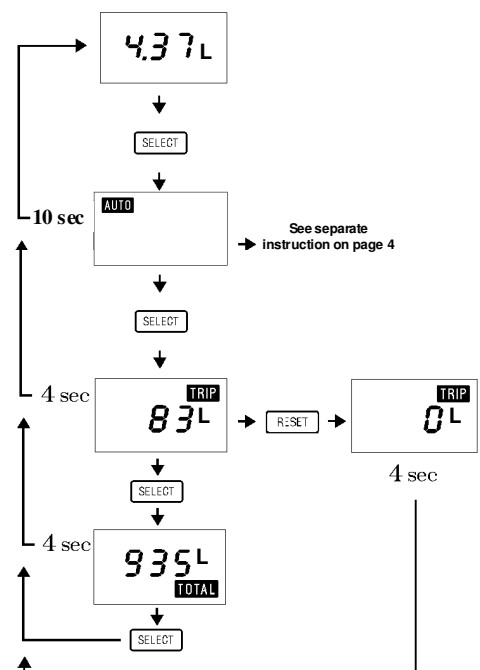
Use the SELECT button to toggle the functions of the Meter

The TRIP function can be used to keep track of dispensed volume

over a certain period of time. The TRIP function can be reset when shown on the display.

The display will always automatically return to show the actual dispensed volume after approx. four seconds.

NOTE! The TRIP and TOTAL counters always show when volume in US gallon(G) even when Batch volume counter is set to show pints, quarts or gallons. The TOTAL counter can not be reset.

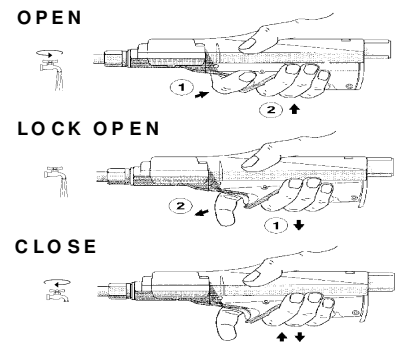


4. Normal dispensing

Before using the Meter it should always be reset to show 0.00 on the display by pressing the RESET button.

To start dispensing, press the "safety lock" before pressing the "trigger handle". This ensures that you won't accidentally release oil e.g. when pulling down from a hose reel.

The "trigger handle" can be locked in the open position, and released by pressing the trigger handle once more.



5. Pre set dispensing

Press the SELECT button, or any of the UP/DOWN arrow buttons, to activate the PRE-SET function. PRE-SET mode is indicated with the PRE-SET mode indicator on the display (AUTO symbol lit up).

Pre-setting of volume is then done with the UP/DOWN arrow buttons in increments of 0.1 liters (or quarts, pints, gallons).

Hold down a key for more than 4 seconds for the increments to change to 1.0 liters (or quarts, pints, gallons) for faster setting of big volumes.

To start "pre-set dispensing", proceed as when starting a "normal dispensing" and lock the "trigger handle" in the open position.

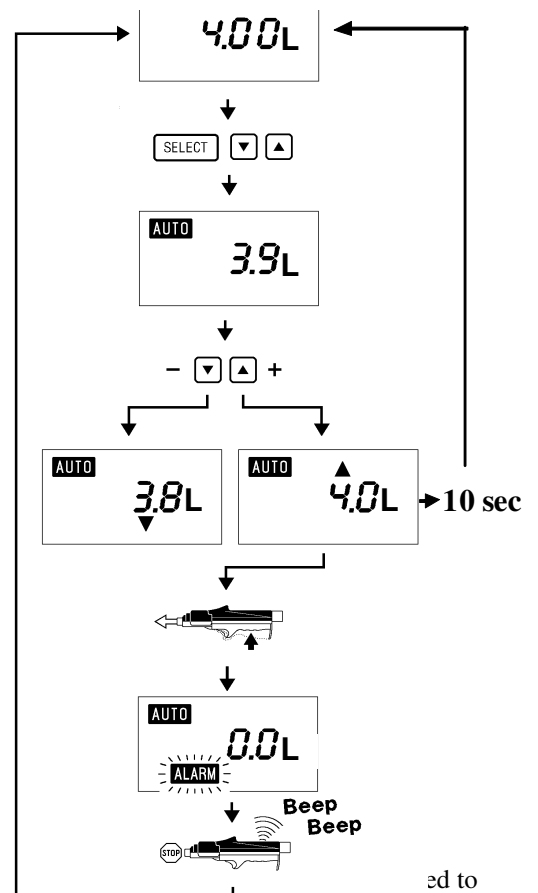
NOTE! When in PRE-SET mode (AUTO symbol lit up) the dispensing must be started within 10 seconds or the meter will return to BATCH mode.

When the pre-set volume is reached the meter will automatically stop dispensing and an alarm will be heard. The display will at this point switch to show the actual dispensed volume in BATCH mode.

NOTE! Before continuing dispensing, or starting a new dispense, the trigger handle must be pressed once to release the pre-set mechanism.

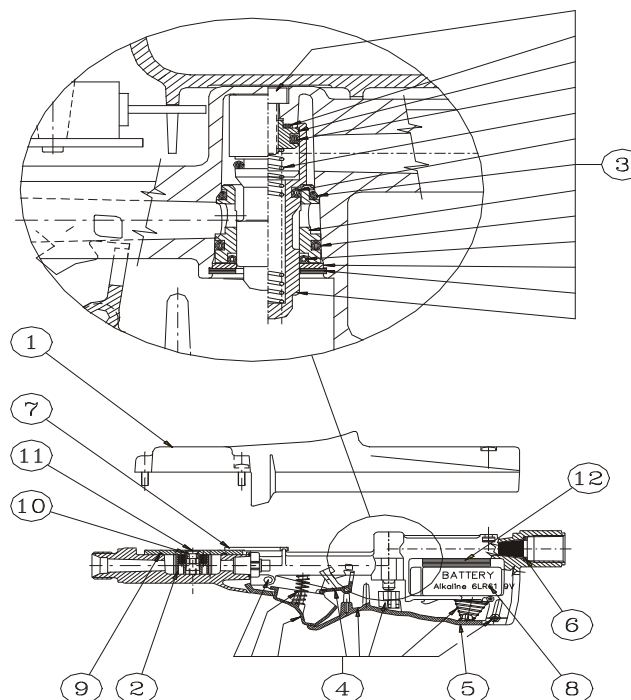
If the dispensing is continued without resetting the display this volume the already dispensed figure

A new dispensing, normal or pre-set, can now be started.



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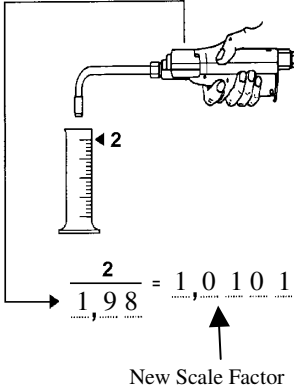
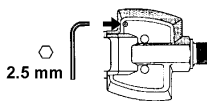
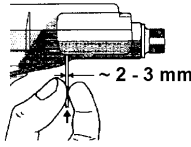
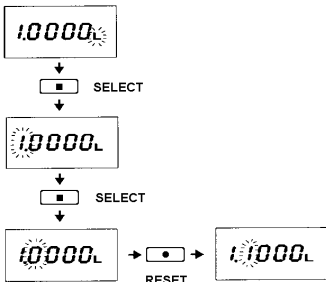
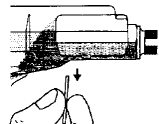
6. Spare parts list



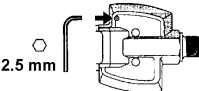
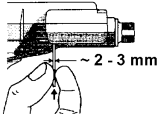
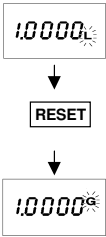
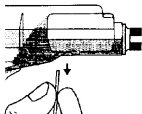
Part No	Description	Position No	Quantity
224 56 90	Cover ¹⁾	1	1
244 58 19	Meter chamber ²⁾	2	1
224 59 09	Valve kit	3	1
244 57 06	Locking device	4	1
204 55 97	Trigger handle	5	1
224 58 17	Strainer	6	1
204 55 94	PCB support	7	1
224 56 34	9V-Battery ³⁾	8	1
234 56 20	O-ring chamber	9	1
234 56 19	O-ring center scr.	10	2
234 56 21	Center screw	11	2
204 57 49	Battery support	12	1

- 1) With electronics
 2) Complete with mounted gears, lid, screws and seals.
 3) Not included, type 6LR61 9V.

Instructions for re-calibration

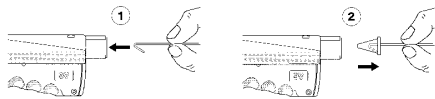
	<p>1. Check the Meter against a 2-liters measure. If the reading on the Meter is out of calibration, note the displayed volume (e.g. 1.98) and calculate the new Scale Factor (e.g. 1.0101) as shown in illustration to the left.</p> <p>Note! If the meter already has a Scale Factor other than the default figure 1.0000 set it back to 1.0000 (see point 3-5.) before performing the calibration. To check the actual Scale Factor, simultaneously press the RESET and SELECT buttons (press RESET slightly before SELECT).</p>
	<p>2. Remove the hexagon screw that covers the SETUP button.</p>
	<p>3. With a sharp object, like a small screwdriver, short-circuit the two soldered pads on the circuit board that can be reached through the hole. These must remain short-circuited during the entire setting procedure.</p>
	<p>4. The actual Scale Factor is now shown on the display.</p> <p>Set the new Scale Factor as shown in the diagram. Use the SELECT button to move to desired position and the RESET button to change the numbers.</p>
	<p>5. Release the SETUP button and test the Meter against the 2-liters measure. If the Meter reading is accurate, replace the hexagon screw.</p>

Instruction for changing the unit of measure

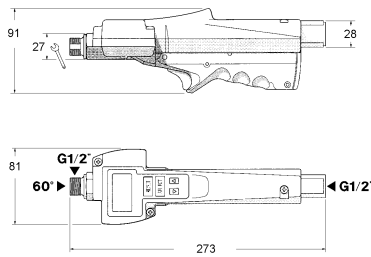
	1. Remove the hexagon screw that covers the SETUP button.
	2. With a sharp object, like a small screwdriver, short-circuit the two soldered pads on the circuit board that can be reached through the hole. These must remain short-circuited during the entire setting procedure.
	3. The actual Unit of Measure is now flashing on the display. Use the RESET button to select the desired Unit of Measure.
	4. Release the SETUP button and test the Meter against a measure. If the Meter reading is accurate, replace the hexagon screw.

STRAINER EXCHANGE

The strainer should be checked if a decrease in flow is noticed. If necessary exchange it with the extra strainer delivered with the Meter.



TECHNICAL DATA



P _{max} ·	735 psi (5 Mpa)	T _{min/max} ·	32 °F / 122 °F (0°C / 50°C)
Q _{min} ·	1 l/min (1 q/min)	Err _{±max} ·	< 1%
Q _{max} ·	15 l/min (16 q/min)	m:	1.88 lb (0.85 kg)

7. Instruction for resetting of flashing display

If the display starts flashing between SETUP and 1.0000 the Scale Factor stored in the memory of the Meter is lost. This is due to either low voltage in the built-in 3V battery or an electrostatic discharge.

If, when disconnecting the 9V battery, the display goes totally blank (without “Low voltage indicator” symbol) the built-in 3V battery is low.

It is not necessary to replace the built-in battery, as the Meter will continue to work as normal when the 9V battery is re-connected. The display may need to be reset as described below.

Follow the “INSTRUCTION FOR RE-CALIBRATION ” (page 6, steps 2 – 5). In step 5 only press SELECT once.

NOTE! When the Meter is calibrated with a Scale Factor other than the default 1.000, it's a good idea to note the new value somewhere so it can be re-programmed if the 3V battery runs low.

8. Pressure drop through hose end meter

