



OPERATING INSTRUCTIONS STYLE 9301 PORTABLE FLOW METER

A. GENERAL

The Akron Brass Style 9301 Portable Flow Meter is designed for testing nozzles.

The unit operates with a self contained 12 VDC dry cell battery and includes a Console with Meter and a Body with adapters for the Flow and Pressure Sensors and necessary Wiring, all housed in a convenient Carrying Case.

The dry cell battery has an average life of 10-12 hours on a full charge. A 110 VAC and a 12 VDC charger are also included.

Note: A battery low on charge may result in erratic readings. Therefore, it is recommended the battery be charged before it's initial use and after each use.

B. SET-UP

Check the O-Rings in the Flow Sensor for proper lubrication. If needed, apply a light coating of grease (O-Ring Lube or silicone).

Insert the Flow Sensor into the Sensor Port and align the locator pin to the hole and push down to seat. Then slip the Retaining Ring over the Sensor Cable and thread it down until snug.

The other end of the Cable is split into 2 Weatherpack connectors. One connector attaches to the Flow Sensor and one to the Pressure Transducer. Connect the one end of the cable to the Control Unit using the Screw Ring Plug.

When testing a nozzle with a pumper, connect a hose off a male discharge to the swivel inlet of the Portable Flow Meter. Run another hose between the unit and the nozzle. Turbulance at the inlet of the Portable Flow Meter may effect the accuracy of the unit. For best results the following guidelines should always be followed:

Do not use any reducing adapter immediately prior to the Flow Meter inlet. If reduction is necessary a short section (minimum 6') of 2 1/2" hose is recommended.

Once the unit is assembled, flip up the red switch cover and turn the toggle switch on.

The Portable Flow Meter is preset at the factory and ready to operate. No calibration should be required. If the unit would need calibration refer to the Operating Instructions for the Style 9300 Flow Meter which can be found on the Akron Brass CD or web site. For further information contact Akron Brass Customer Service.

C. OPERATING INSTRUCTIONS

CAUTION: - This 9301 Portable Flow Meter is intended for training and/or testing of fire ground procedures, not actual use during fire ground operations.

These instructions describe the features and operational steps for general service after the system is set up. The Meter consists of the display screen and two operation buttons located directly beneath the display.

When the unit is powered on, three red LED mode lights on the left side of display will appear. Each of these lights aligns with particular function marked on the bezel face.

The unit has three operating functions:

1. Flow GPM or LPM - Actual Gallons or Liters per minute flowing. Flows up to 300 GPM or 1200 LPM will display in single increments. Flows over 300 GPM or 1200 LPM will display every 10 units.

2. Flow TOTAL - Total gallons or liters flowed since unit was powered up. Figures displayed must be multiplied X 100 to get a total.

3. Pressure PSI or kPa – Shows actual pressure.

At the time of power up, all three mode lights will appear with four zeros. In sequence a number value will appear, followed by GAL/LPM, PSI/kPa, Pipe Size (2.5) and finally 0. This will be complete in a few seconds

The unit is now ready for operation.

TO READ:

GPM/LPM: - Press and release left (flow) button to place mode light on GPM/LPM. The actual GPM or LPM will appear on display.

TOTAL FLOW: - Press and release left (flow) button to place mode light on TOTAL. The figures displayed must be multiplied by 100 to give gallons or liters flowed.

PSI/kPa: - Press and release the right (pressure) button to place the mode light on PSI/kPa. Actual pressure will appear on the display.

TROUBLESHOOTING

PROBLEM	SOLUTIONS
Display does not illuminate	A problem exists with the power. Check connections. Check battery. Recharge if needed.
GPM/LPM shows 0 & water is flowing	Check cable (16) - Replace if needed. Stop water flow and remove Flow Sensor (7) and spin the paddlewheel to be sure it spins freely. If still no reading - replace the sensor.
LED Dim	Hold the left button down for 5 seconds to brighten.
Lens Foggy	Fog should dissipate soon after use with LED's lighted.
dEAD displayed	A problem exists with the power. Check connections. Check if battery needs recharging.
EPrL displayed	Check cable (16) - replace if necessary and recalibrate. Check for vacuum in line
EPrH displayed	Check power & ground connections and recalibrate.

HOW TO RECALIBRATE:

1. Press and hold BOTH buttons simultaneously for approximately 15 seconds the unit display flashes **CAL** (calibration). Release. After a few seconds **SIZE** will appear and all 3 mode lights will illuminate.

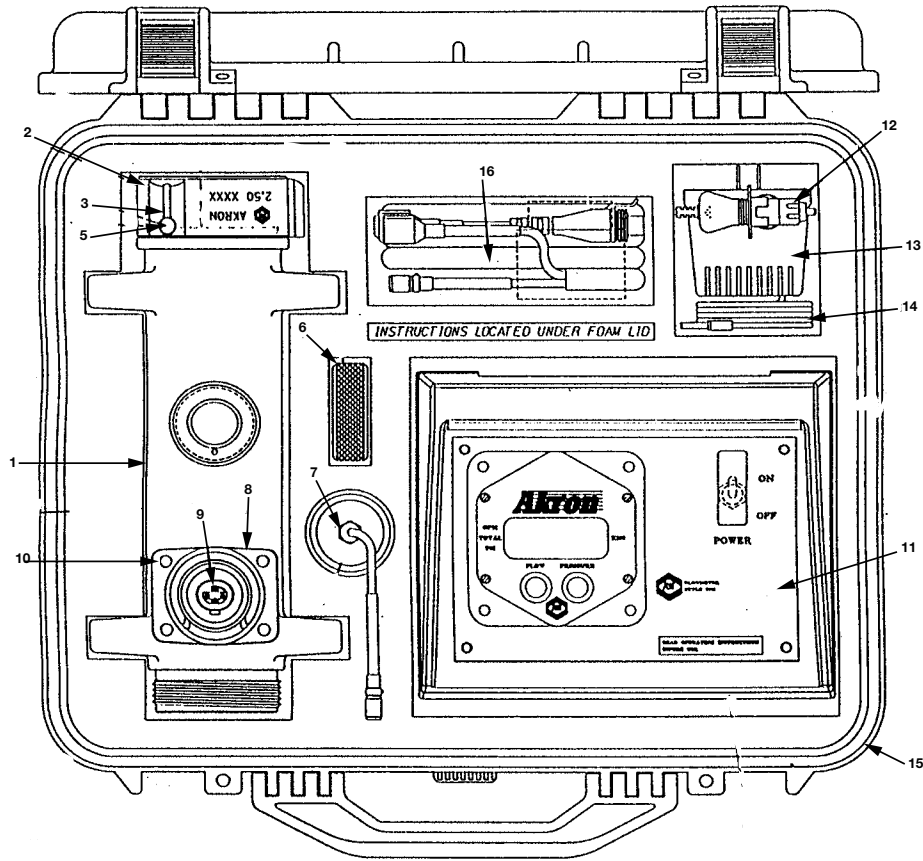
2. Press and release the LEFT button. **PRES** (pressure) will appear.

3. Press and release the RIGHT button. The word **ZERO** (displayed 2Ero) will appear and the PSI/kPa/bar mode light will flash.

4. Press and release the Right button. **ZERO** will start flashing. After a moment 0 will appear.

5. Power off the unit and back on again. The unit is now zeroed out and ready for operation.

The procedure need not be repeated unless the Pressure Transducer (9) or the meter is replaced.



NO.	ITEM	PART NO
1	Body (2-1/2" NH)	115498
2	Swivel (2-1/2" NH)	101420
3	Swivel Plug	742023
4	Gasket	717043
5	Ball Bearings (39)	*
6	Retaining Nut	115497
7	Flow Sensor	93000046
8	Pressure Transducer Guard	115499
9	Pressure Transducer	93000030
10	Screw (4)	765029
11	Control Unit (PSI/GPM)	93010001
11	Control Unit (LPM/kPa)	93010002
11	Control Unit (LPM/bar)	93010003
12	12VDC Vehicle Power Adapter	707390
13	110 VAC Charger	707386
13	240 VAC Charger	707497
14	110 VAC Cable	707387
15	Case & Inserts	707420
16	Pressure & Flow Cable	707385
--	Replacement Battery	93010026

* Packet of 50 Ball Bearings - P/N 109041



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