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> FEDREL Multi-Jet Water Meter (Plastic) User Manual

FEDREL FM-102 (FDL019-FM-102)

FEDREL MULTI-JET WATER METER (PLASTIC)

USER MANUAL

Model: FM-102 (FDL019-FM-102)

1. PRODUCT OVERVIEW

The FEDREL Multi-Jet Water Meter (Plastic) is designed for accurate measurement of cold potable water consumption in residential, commercial, and industrial applications. Its multi-jet design ensures high sensitivity and accuracy, even at low flow rates. The plastic body offers corrosion resistance and durability.



Figure 1: FEDREL Multi-Jet Water Meter (FM-102). This image shows the blue plastic body of the water meter with brass threaded connections on both ends. The top part is black, covering the meter's dial, which is visible through a clear plastic window. A black cap is hinged over the dial for protection.

2. SAFETY INFORMATION

Please read all instructions carefully before installation and operation. Failure to follow these instructions may result in property damage or injury.

- Ensure the water supply is turned off before attempting any installation or maintenance.

- Wear appropriate personal protective equipment (PPE) such as gloves and eye protection during installation.
- Do not expose the meter to extreme temperatures or direct sunlight for prolonged periods.
- Do not apply excessive force when tightening connections to avoid damaging the plastic body or threads.
- Installation should be performed by a qualified professional if you are unsure about any steps.

3. SETUP AND INSTALLATION

3.1 Pre-Installation Checks

- Verify that the meter size (3/4 inch, 20mm) matches your piping system.
- Inspect the meter for any visible damage from shipping.
- Ensure the installation location is easily accessible for reading and maintenance, protected from freezing, and away from direct heat sources.
- Confirm the direction of water flow in your pipe. The meter has an arrow indicating the correct flow direction.

3.2 Installation Steps

1. **Turn off the main water supply** to the property or the specific section where the meter will be installed.
2. Drain the water from the pipes to relieve pressure.
3. Cut the pipe at the desired installation point, ensuring enough space for the meter and any necessary fittings.
4. Install appropriate pipe fittings (e.g., unions, reducers if needed) to connect to the meter's brass threaded ends.
5. Apply thread sealant (e.g., PTFE tape) to the meter's threads.
6. Carefully screw the meter into the pipe fittings, ensuring the flow arrow on the meter body points in the direction of water flow. *Do not overtighten.*
7. Slowly turn on the main water supply, checking for any leaks at the connections. Tighten gently if leaks are present.
8. Bleed any air from the system by opening a faucet downstream until water flows smoothly.

4. OPERATING INSTRUCTIONS

4.1 Reading the Meter

The FEDREL Multi-Jet Water Meter features a sealed, dry-dial register for easy and accurate reading. The main reading is typically in cubic meters (m³) or liters, indicated by the black digits on the odometer-style display.

- **Black Digits:** Represent the total volume of water consumed in cubic meters (m³). Read these digits from left to right.
- **Red Digits/Pointers:** Represent fractions of a cubic meter, usually in liters. The red pointers on the small dials indicate smaller units (e.g., 0.1 m³, 0.01 m³, 0.001 m³).
- **Flow Indicator:** A small star or gear-shaped wheel (often red) rotates when water is flowing through the meter, even at very low rates. This can be used to detect leaks.

To calculate water consumption over a period, subtract the previous reading from the current reading.

5. MAINTENANCE

The FEDREL Multi-Jet Water Meter is designed for long-term, maintenance-free operation. However, periodic checks can ensure optimal performance.

- **Visual Inspection:** Periodically check the meter for any signs of leaks, cracks, or damage to the casing or connections.
- **Cleanliness:** Keep the meter's dial clean and free from dirt or debris to ensure clear readability. Use a soft, damp cloth for cleaning.
- **Protection from Freezing:** In cold climates, ensure the meter is adequately insulated or drained during winter months to prevent damage from freezing water.
- **No User Serviceable Parts:** The internal mechanism of the meter is sealed and contains no user-serviceable parts. Do not attempt to open or repair the meter.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Meter not registering flow	<ul style="list-style-type: none"> • No water flow • Meter installed backward • Debris blocking meter 	<ul style="list-style-type: none"> • Check water supply. • Verify flow arrow direction; reinstall if necessary. • Flush system or consult a professional for inspection.
Inaccurate readings	<ul style="list-style-type: none"> • Air in the system • Meter not installed horizontally (if required) • Meter damage 	<ul style="list-style-type: none"> • Bleed air from pipes. • Ensure proper installation orientation. • Contact customer support for replacement.
Leaks at connections	<ul style="list-style-type: none"> • Loose connections • Insufficient thread sealant • Damaged threads/fittings 	<ul style="list-style-type: none"> • Gently tighten connections. • Reapply thread sealant and re-tighten. • Replace damaged parts.

7. SPECIFICATIONS

Attribute	Detail
Brand	FEDREL
Model Number	FM-102 (FDL019-FM-102)
Type	Multi-Jet Water Meter
Material	Plastic Body, Brass Fittings
Size	3/4 inch (20mm)
Application	Cold Potable Water
Manufacturer	Fedrel
ASIN	B071VR6LZJ
Date First Available	20 March 2018

8. WARRANTY INFORMATION

FEDREL products are manufactured to high-quality standards. This product comes with a limited warranty against defects in materials and workmanship from the date of purchase. Please retain your proof of purchase for warranty claims. For specific warranty terms and conditions, please refer to the documentation provided with your purchase or contact FEDREL customer support.

9. CUSTOMER SUPPORT

If you have any questions, require technical assistance, or need to report an issue with your FEDREL Multi-Jet Water Meter, please contact our customer support team. For the most up-to-date contact information, please visit the official FEDREL website or refer to your purchase documentation.

Please have your model number (FM-102 or FDL019-FM-102) and date of purchase ready when contacting support.