

27-39-60

Water Filler for Central Water Filling

User manual



Legal notice

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1. Safety information

1.1. Instructions for transporting the water topping trolley:

1. Lifting: Before lifting the trolley, make sure you are wearing appropriate safety clothing. Always lift the trolley using a lifting technique with your knees bent, not from your back, to avoid injury. Lift the trolley only when the water tank is empty.
2. Moving: to transport the trolley, grasp the handles with both hands, keeping your body stable. Make sure the transport route is clear of obstacles to avoid unnecessary jolts. Being equipped with two pumped wheels ensures smooth movement of the trolley, but remember not to push it too abruptly.
3. Setting up: When setting up the trolley, make sure that the wheels are positioned on a firm, stable surface.
4. Remember to be careful during any transport operations, especially due to the weight of the trolley (up to approx. 110 kg with a filled 60 l tank).
5. When transporting the trolley on a pallet, secure it in an upright position (standing up) using fixing straps to prevent it from moving during transport.

1.2. Battery topping trolley operator's workstation manual:

1. Preparing the workstation: Make sure the work area is clean and well lit. Check the technical condition of the trolley, including the water level in the tank and the condition of the hoses. The trolley should be used on a hard, stable and even surface, in temperatures between 10°C and +40°C, and humidity not exceeding 80%. Work in extreme weather conditions (strong wind, heavy rain, snow) should be avoided.
2. Safety: Wear appropriate safety clothing, safety gloves and safety goggles. Read the manual before starting work.
3. The operator's workstation should be ergonomic, providing comfortable access to the trolley and its controls. Excessive bending and strain should be avoided by adjusting the working height to the natural posture of the operator. The ground should be stable and free of obstructions to ensure safe and comfortable use.
4. Operating the trolley: Use the trolley for its intended purpose. When topping up the batteries, avoid water contact with other components to prevent corrosion.
5. After finishing work: Check that the work has been carried out correctly, close the water container and clean the work area of any debris. Report any irregularities.
6. Precaution: In the event of water leaks or other problems, stop work immediately and contact the manufacturer's service department.

1.3. Instructions for monitoring the release of hazardous substances while topping up batteries:

1. Environmental control: Regularly check the work area for any leaks or fumes. Make sure the room is well ventilated.
2. Substance release: When topping up batteries, be particularly vigilant for signs of any unpleasant odors or fumes. If you notice any such signs, stop work immediately and contact the manufacturer's service department.
3. Protective measures: Always wear appropriate safety clothing (safety gloves, safety goggles, work clothes) and, if necessary, a safety mask.
4. Emergency response: If a hazardous substance spill is detected, report the incident immediately, apply countermeasures in accordance with the health and safety procedure, and evacuate to a safe place if the situation requires.
5. Regular inspection: Systematically check the condition of the batteries and water containers to prevent the uncontrolled release of harmful substances.

1.4. Do not charge the trolley from mains electricity while topping up batteries

1. Do not charge the trolley from the mains while topping up batteries. Charging the trolley at this time can lead to dangerous discharges or short circuits, which is a safety hazard. Ensure that the trolley charging process only takes place when the refillable batteries are disconnected and the trolley is not being used for other tasks.

There is no obligation to wear hearing protection as the noise level emitted by the device does not exceed 80 dB, which is below the threshold requiring protection in accordance with applicable standards.



2. Instructions for use

2.1. Preparation

1. Connect the ends of hose 6 and hose 7 to the faucet.
2. Make sure that the return water tank 11 is connected.
3. Top up the 60l tank 9 with deionised water.

2.2. Important in use

1. Do not store in the freezing cold.
2. Always keep the battery fully charged.
3. Use only pure deionised water.
4. Do not smoke or use an open flame while handling batteries.
5. The cart is equipped with a safety switch (no. 15), which disconnects both DC and AC power. The safety switch must always be used when the machine's operation poses a threat to health, human life, or property and requires immediate shutdown. When the safety switch is activated, the battery will not start charging when connected to the AC mains.

2.3. Modes of operation

1. Connect the ends of hose 6 and hose 7 to the faucet.
2. Press the ON/OFF button (1) and wait for the system to boot up - the screen will display the software version number and then the word "READY".
3. Press the start/stop button (14) and wait for the trolley to refill and finish refilling automatically.
4. When topping up is complete, the screen display will show the amount of water topped up to the battery.
5. Disconnect the ends of hose 6 and hose 7 from the battery and plug in the device to charge.

Error codes:

6. E1 Flow - no water flow (no water in tank, faulty flow sensor, faulty pump).
7. E2 Pressure - hydraulic system pressure too high (clogged hydraulic system, clogged filter/flow indicator, trolley and battery not accurately connected).
8. E3 Prism - prism sensor error (damaged prism sensor or its circuit, recalibrated prism sensor).

In the event of an E1 Flow error due to system aeration (no water in the tank during filling), follow the steps below:

9. Switch the trolley off and on again with the black ON/OFF button. The display will show "READY". Connect the refill hoses together. Fill the 60l tank with distilled water.
10. Hold the START/STOP button on top of the device's case for a long time until the words "PUMP FILLING" appears and then release the button. The refilling of the system will start. The trolley will perform 3 cycles. Once completed, the trolley is ready for use.

2.4. Battery charging

1. When the device has finished working, connect it to a 230V AC mains socket. This will cause the power supply unit to start charging the battery, and the indicator (5) will light up red.
2. When the indicator changes from red to green, it signifies that the battery is 80% charged. The remaining 20% will charge if you leave the device connected to mains power.
3. In order to maintain the best battery performance, we recommend that the device is always plugged in to charge when not in use. This will not damage the battery.

2.5. Device

Mains power supply	230 V AC 50 - 60 Hz
Current consumption during charging	0.4 A (AC)
Maximum power	92 W
Security	0.5A 5 x 20 mm T Slow

2.6. Pump

Voltage	12 V DC
Security	5A 5 x 20 mm T Slow
Current consumption	Pump: max. 2.5 A (DC)
Pump capacity	7 l per min.
Device performance	Max. 0.65 ± 0.05l per min
Maximum pump pressure	max. 1.3 bar with closed flow

2.7. Battery

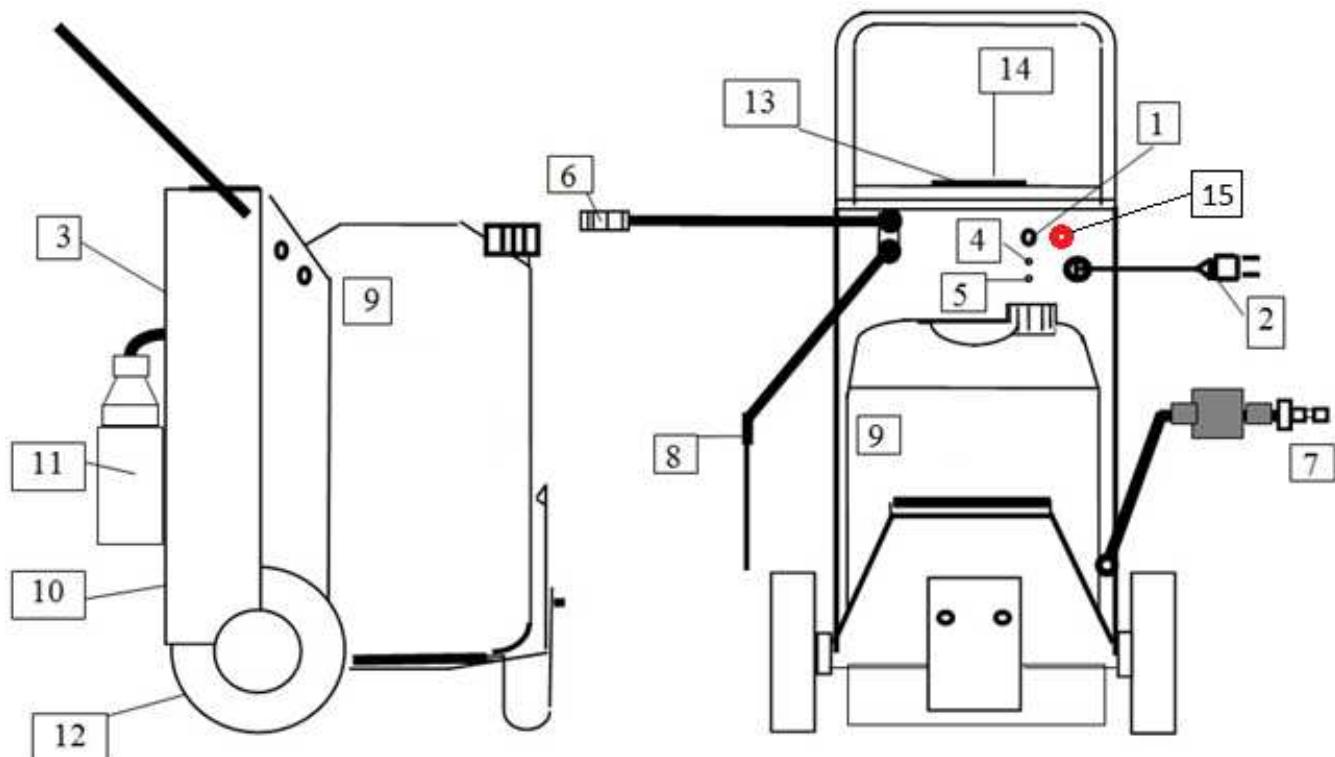
Battery type	AGM
Height	170 mm
Width	75 mm
Length	180 mm
Voltage/capacity	12V / 18Ah

Maintenance-free lead-acid batteries were used. The diluted sulfuric acid electrolyte is absorbed by separators and plates and thus immobilized. If the battery is accidentally overcharged, producing hydrogen and oxygen, special one-way valves allow the gases to escape, thus preventing excessive pressure build-up. Otherwise, the battery is completely sealed and therefore maintenance-free, leak-proof and usable in any position. Replacement of the battery is only permitted by the manufacturer's service department. Do not open the trolley housing.

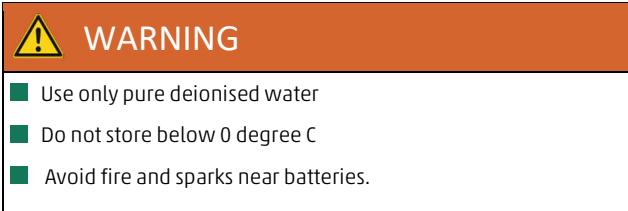
2.8. Charger

Type	I-IU
Threshold 1	Constant current up to $14.7V \pm 0.2V$
Threshold 2 Sustaining voltage	IU regulated $U=13.7V \pm 0.1V$
I_{max}	2.2A
LED indicator No. 5	Lights up red until charging is complete threshold No. 1 - 80%

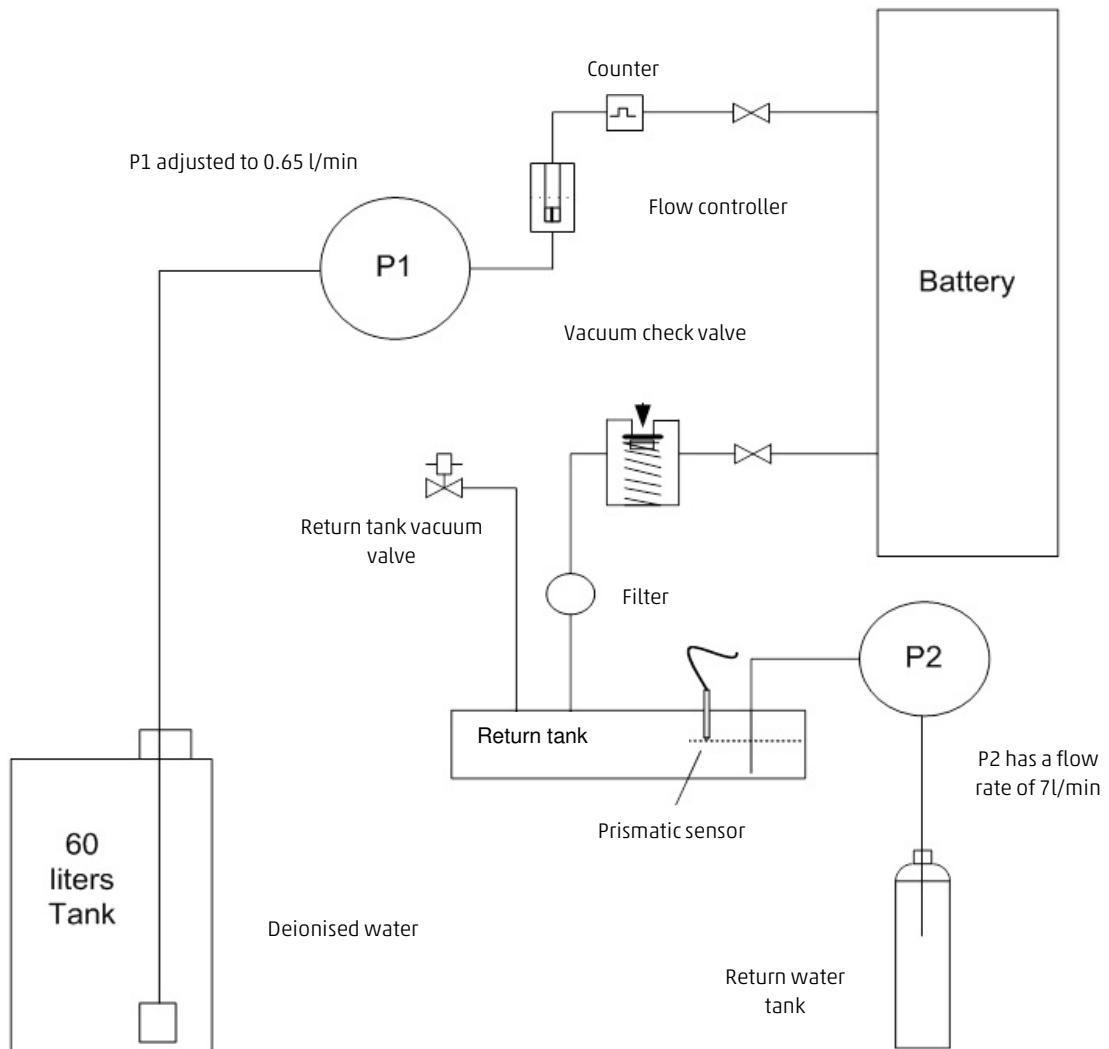
3. Diagrams



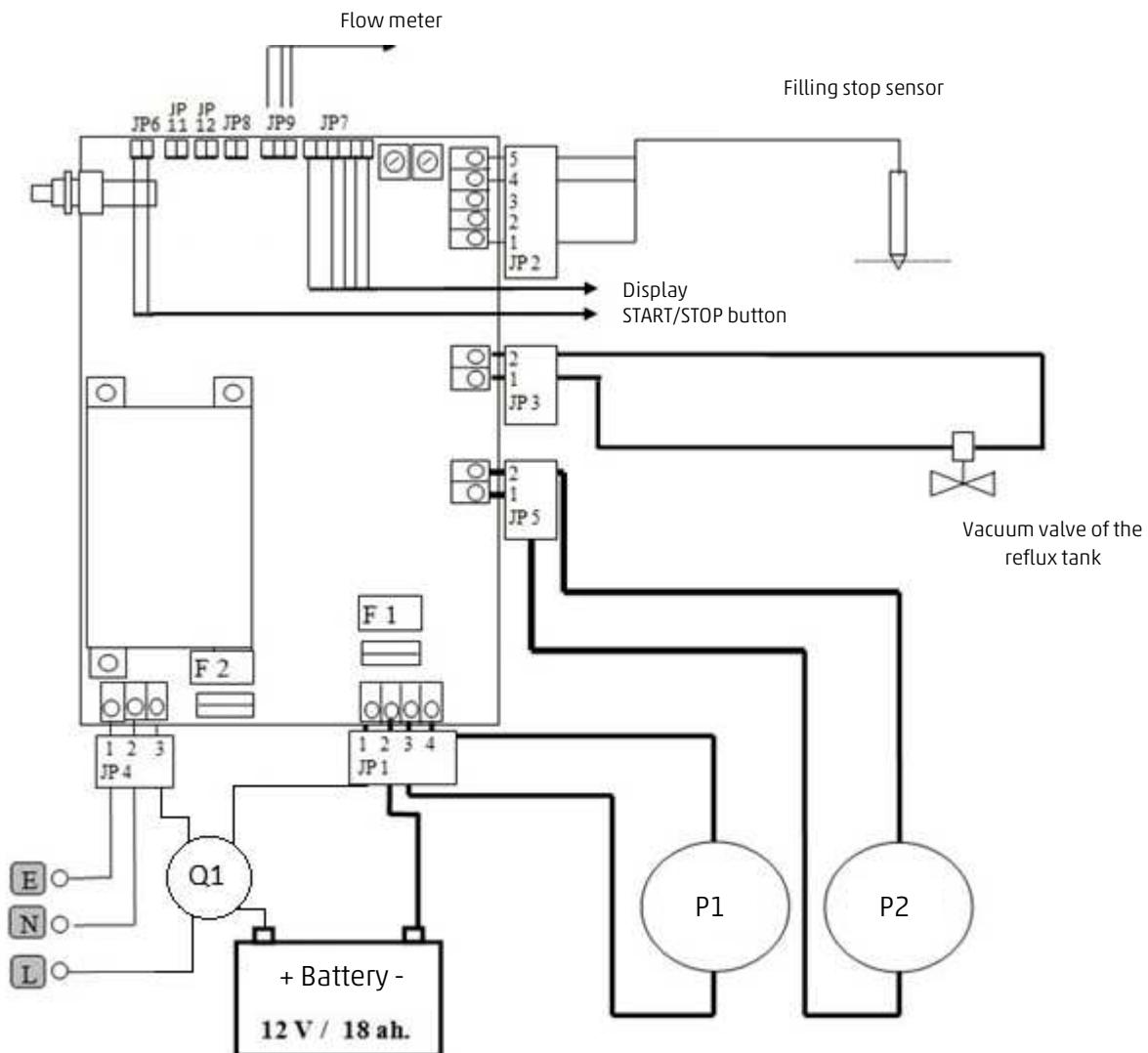
1	ON/OFF switch	12	Return tank
2	230VAC power cable	13	Display
3	Fuse on the PCB	14	START / STOP button
4	Battery indicator "on/off"	15	Emergency STOP
5	Indicator for battery charging		
6	Battery charger connector (female)		
7	Battery charger connector (male)		
8	Suction pipe		
9	Deionised water tank 60l		
10	Battery 12 V/18 Ah		
11	Return water tank 5l		



3.1. Hydraulic diagram for 27-39-60:



3.2. Wiring diagram



Fuses	JP 1	JP 2	JP 3	JP 4 230 V AC	JP 5
F 1 = 5 amp. F 2 = 0.5 amp.	1 Red 2 Black 3 Black 4 Red	1 White 2 - 3 - 4 Green 5 Brown	1 Yellow 2 Yellow	1 Yellow/Green 2 Blue 3 Brown	1 Red 2 Black
JP 6	JP 6	JP 7	JP 8	Q1 DC	Q1 AC
1 Grey 2 Grey	1 Grey 2 Grey	1 - 2 Yellow 3 Green 4 White 5 Grey	1 White 2 White	1 Red 2 Red	3 Brown 4 Brown



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