USER MANUAL

HF-12400 (High Flow) Water Purifier

Direct-flow reverse osmosis · 400 GPD · 10" filter housings

5 stages
Filtration



3-07-HF12400

Made in Türkiye

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Read the whole manual before installing the unit and keep it near the unit.

01 Safety

Cold water only

Feed water must be 5–38 °C. Do not connect the unit to a hot water line.

Mains water

Use microbiologically safe mains water. Well and spring water need pre-treatment.

Pressure

If mains pressure is above 4 bar, use a pressure reducer.

Location

Choose a dry, level place protected from frost and direct sunlight.

Electricity

Plug the adapter into an earthed socket. Do not touch it with wet hands; do not run the unit if the cable is damaged.

Close the valve

Close the valve and unplug the adapter before maintenance, when away for a long time or in case of a leak.

Users

The unit must not be used by children or persons with limited abilities.

Repairs

Repairs must be done by an authorised service. Use original parts and filters only.

CAUTION

Do not use bleach, solvents or abrasive products for cleaning. They damage the membrane.

02 Working principle

Reverse osmosis forces water under pressure through a very fine membrane. Dissolved salts, heavy metals and other contaminants cannot pass and are sent to the drain with the reject water.

The HF-12400 (High Flow) is **direct-flow**: there is no storage tank and water is produced the moment you open the faucet.

Open the faucet
Line pressure drops; the pump and solenoid valve switch on.

→

Water is purified
Pre-filters → pump → membrane → final filter.

→

Close the faucet
The pump stops and the solenoid valve closes the feed water.

03 Specifications

Stock code	**3-07-HF12400**
Filtration	5 stages
Frame	Plastic
Filter housing	Standard 10" housing
Pump	400 GPD
Membrane	1 × 400 GPD
Faucet	Luxury faucet
Valve	Shut-off or solenoid valve
Pressure gauge	10 bar
Package / weight	275 × 430 × 485 mm · 12.00 kg
FEED WATER CONDITIONS	
Feed water pressure	1–4 bar (with pump)
Feed water temperature	5–38 °C (41–100 °F)
Feed water TDS	Max. 500 ppm
Feed water pH	3–11
Power supply	220–240 V AC, 50 Hz
Pump supply	24 V DC (via adapter)

* Nominal value at 25 °C. Output varies with water temperature, pressure and TDS. Lower output with cold water in winter is normal.

04 Box contents

1 Purification unit
filters and membrane fitted



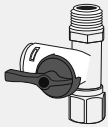
2 Purified water faucet



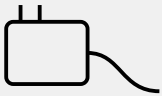
3 Connection tubing



4 Feed water valve



5 Pump adapter



6 User manual



The membrane may come fitted or packed separately. If separate, fit it before installation (page 10).

05 Before installation

- ☐ I chose a level, dry, frost-free place out of direct sunlight, with enough room to change the filters.
- ☐ There is an earthed socket nearby, protected from splashes.
- ☐ Mains pressure is between 1–4 bar (with pump). If higher, I have a pressure reducer.

OBTAIN SEPARATELY
Drain saddle (clamp) · pressure reducer (recommended)

TOOLS NEEDED
Drill, 5 and 12 mm bits, spanner or adjustable wrench, PTFE tape, cutter

06 Parts and functions

Numbers match the water path diagram (page 6); the tag shows where the part is found.

INLET AND PRE-FILTRATION

1 **Feed water valve** IN THE BOX
Takes water from the cold water line to the unit. Close it for maintenance and when the unit is not used for a long time.

2 **Pressure reducer** OBTAIN SEPARATELY
Keeps mains pressure steady and safe and protects the unit from pressure surges. **Not included. Mandatory if mains pressure is above 4 bar.**

3 **10" Sediment 5 µm** FITTED
Retains sand, rust and sediment. Replace: 6–12 months.

4 **10" GAC Carbon** FITTED
Reduces chlorine, taste and odour. Replace: 6–12 months.

5 **10" CTO Carbon** FITTED
Reduces residual chlorine and organics. Replace: 6–12 months.

PRESSURE AND CONTROL

6 **Solenoid valve** FITTED
Closes the feed water when the pump stops, so no water runs to the drain while the unit is idle.

7 **Low-pressure switch** FITTED
Stops the pump when water is cut off or pressure is too low, so the pump never runs dry.

8 **Pump** FITTED
Raises the water pressure to the level the membrane needs and keeps production going at low mains pressure.

9 **Pressure gauge** FITTED
Shows the operating pressure. A marked drop means the pre-filters are clogging.

PURIFICATION

10 **1 × 400 GPD Membrane** FITTED
Separates dissolved salts and contaminants. Replace: 12–24 months.

11 **Flow restrictor** FITTED
Builds the pressure the membrane needs and limits reject water. The unit cannot purify if it is removed.

12 **High-pressure switch** FITTED
Stops the pump when the faucet is closed and restarts it when the faucet is opened.

OUTLET

13 **2.5" Inline Post Carbon (Quick-connect)** FITTED
Polishes taste and odour as the final stage. Replace: 6–24 months.

14 **Purified water faucet** IN THE BOX
Supplies purified water only. The unit starts automatically when you open it.

07 Water path and installation

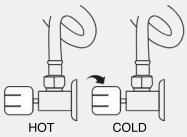
Water flows through the unit in this order. Numbers match the parts list (page 5).

1. Feed water valve
2. Pressure reducer
3. 10" Sediment 5 µm
4. 10" GAC Carbon
5. 10" CTO Carbon
6. Solenoid valve
7. Low-pressure switch
8. Pump
9. Pressure gauge
10. 1 × 400 GPD Membrane
11. Flow restrictor
12. High-pressure switch
13. 2.5" Inline Post Carbon (Quick-connect)
14. Purified water faucet

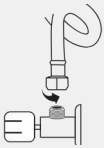
Reject water: From the membrane to the drain

STEP 1 Water inlet ①

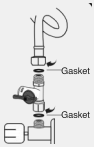
A Close the cold water angle valve under the sink.



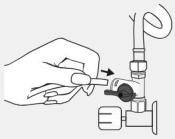
B Remove the flexible hose from the angle valve.



C Fit the feed water valve in between with its gaskets and tighten.



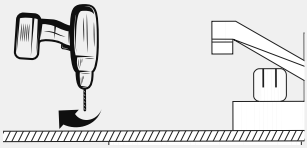
D Connect the unit's inlet tubing to the valve.



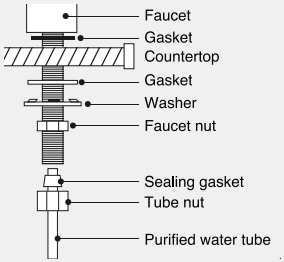
* If a pressure reducer is used, fit it between the valve and the unit.

STEP 2 Faucet

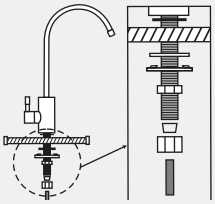
A Drill the worktop with a 5 mm, then a 12 mm bit. Use a diamond bit on marble and granite, an HSS bit on steel sinks.



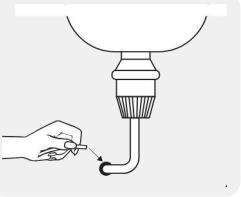
B Fit the parts in this order and tighten the nut.



C Connect the purified water tubing to the faucet with the nut and insert.



STEP 3 Reject water



Fit the drain saddle (clamp) to the sink drain pipe, **above the trap**. Drill the pipe through the clamp hole and connect the reject water tubing.

The tubing must not kink and must slope down to the drain. Do not remove the flow restrictor.

STEP 4 **Connections**

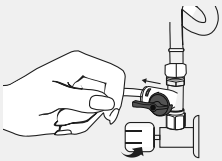
UNIT CONNECTION	CONNECT TO
Water inlet	Feed water valve / pressure reducer
Purified water (final filter outlet)	Faucet
Reject water (flow restrictor outlet)	Drain saddle



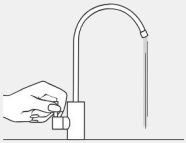
- Cut the tubing to length **squarely** with a cutter.
- Push the tubing fully into the fitting. Pull back gently to check it is seated.
- Plug in the adapter only after all water connections are complete.

08 First start-up

A Open the valve. Check the filters and connections for leaks.



B Open the faucet; the pump starts. Let water run for **15 minutes** without using it.



- When you close the faucet, the pump should stop within a few seconds.
- A white, milky look in the first days is air and clears by itself.
- If the unit has not been used for more than 2 days, discard the first 1–2 minutes of water.

09 Maintenance and filter change

STAGE	FILTER	FUNCTION	REPLACE
1	10" Sediment 5 µm	Retains sand, rust and sediment	**6–12 months**
2	10" GAC Carbon	Reduces chlorine, taste and odour	**6–12 months**
3	10" CTO Carbon	Reduces residual chlorine and organics	**6–12 months**
4	1 × 400 GPD Membrane	Separates dissolved salts and contaminants	**12–24 months**
5	2.5" Inline Post Carbon (Quick-connect)	Polishes taste and odour as the final stage	**6–24 months**

Intervals depend on water quality and use and are shorter with heavy use. Less water or a change in taste means it is time to replace. Replace the filters at least every 12 months.

Cartridges in housings (10")

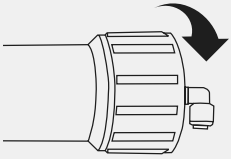
1. Close the valve and unplug the adapter. Open the faucet to release pressure.
2. Place a bowl or cloth under the housing. Unscrew the bowl with the housing wrench, anticlockwise seen from below.
3. Remove the old cartridge with gloves and bag it. Wash the bowl with lukewarm water and a little dish soap, then rinse.
4. Seat the O-ring properly in its groove; replace it if damaged.
5. Centre the new cartridge in the bowl. Tighten the bowl by hand, then lightly with the wrench.
6. Open the valve slowly and check for leaks. Run water from the faucet for 10 minutes.

Inline filters (quick-connect)

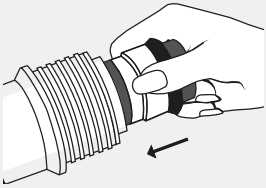
1. Close the valve and the tank valve and unplug the adapter. Open the faucet to release pressure.
2. Press the collets at both ends of the filter and pull the tubing out.
3. Fit the new filter **with the arrow pointing in the direction of flow** and push the tubing fully in.
4. Open the valves and check for leaks. Discard the first 10 minutes of water.

10 Membrane change

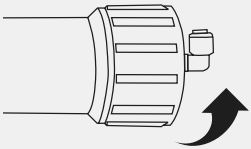
A Remove the tubing and open the cap in the direction of the arrow.



B Push the new membrane in, O-ring end first.



C Close the cap firmly in the direction of the arrow.



1. Close the valve and unplug the adapter and open the faucet to release pressure.
2. Pull the old membrane out with pliers and clean the inside of the housing.
3. When fitting the new membrane, the black brine seal must be **on the cap side**.
4. Turn the water on and plug in the adapter, discard the first **15 minutes** of water and check for leaks.

11 Cleaning and storage

- **Cleaning:** wipe the outside with a damp cloth. Disinfection by an authorised service once a year is recommended.
- **Not used for over a month:** close the valve and unplug the adapter. Before using again, replace the filters and have the unit disinfected.
- **Transport:** close the valve and drain the unit. Carry it upright; protect it from impact, heat, moisture, dust and sunlight. Do not store where it can freeze.
- **Disposal:** bag used filters and tie them closed; do not cut or open the membrane. Take the pump and electrical parts to an e-waste collection point.

12 Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
No water or little water	Valve or tank valve closed	Open the valves.
	Pre-filters clogged	Replace the pre-filters.
	Tubing kinked or crushed	Straighten the tubing.
	Cold feed water (winter)	Normal; output rises as the water warms.
Reject water runs while the faucet is closed	Solenoid valve dirty or faulty	Close the valve and contact service.
Pump does not run	Adapter unplugged, no power	Check the plug and socket.
	No water or valve closed	Check the valve and the mains water.
	Switch, adapter or pump fault	Contact service.
Pump runs continuously or cycles on and off	Faucet not fully closed or a leak in the line	Check the faucet and connections.
	High-pressure switch faulty	Contact service.
Milky water, foam	Air in the system	Normal; clears shortly.
Bad taste or odour	Filters at end of life	Replace the filters.
	Not enough water run after installation or a change	Drain the first tank or run the faucet for 15 minutes.
Leaks at connections	Tubing not pushed fully in or cut at an angle	Cut the tubing square and refit.
	Seal out of place	Seat or replace the seal.
Noise from the unit	Uneven floor or unit touching the cabinet	Place the unit on a level surface, clear of anything.

IF THE PROBLEM PERSISTS
Close the valve, unplug the adapter and contact an authorised service.

13 Maintenance log

MODEL	SERIAL NO
HF-12400 (High Flow)	

INSTALLATION DATE	INITIAL OUTLET TDS
.... / .... /	ppm

DATE	STAGE REPLACED (✓)					OUTLET TDS	BY / SIGNATURE
	1	2	3	4	5		