



**SMART REVERSE OSMOSIS
UNIT**



**Installation &
Operating Manual**

INDEX

1. SPECIFICATIONS	1
2. SYMBOLS & WARNINGS	2
3. EQUIPMENT CONTENTS	3
4. INSTALLATION	5
4.1 Functional Schematic Diagram	5
4.2 Installation Ball Valve & Tee Fittings	5
4.3 Installation of Faucet	6
4.4 Installation of Drain Clamp	6
5. OPERATION	7
5.1 First Use Instruction	7
5.2 Recommended Replacement Period for Cartridge	7
5.3 Cartridge Replacement	6
6. TROUBLE SHOOTING	9
7. TERMS OF WARRANTY	10

Congratulations on selecting a Dayliff Smart Reverse Osmosis. They are manufactured to the highest standards and if installed and operated correctly will give many years of efficient and trouble free service. Careful reading of this Installation Manual is therefore important, though should there be any queries they should be referred to the equipment supplier.

1. SPECIFICATIONS



Dayliff Smart RO Purifier is a five stage water treatment purifier suitable for treating water from clean municipal sources or borehole water for undersink installation that includes:

- Output 1,800L/day,
- Three stage sediment & carbon cartridge pre-treatment with easy to replace cartridges and LED replacement reminder.
- Reverse osmosis purification using Hidrotek membranes with up to 50% recovery.
- Post Carbon stage for water conditioning.
- Supplied complete with 24VDC diaphragm pump
- Compact tankless design for installation within minimal space.
- Two outlet options – RO water and pre-treated water.

TECHNICAL SPECIFICATIONS

Feed Water Quality: Municipal tap water

Voltage and Frequency: 100~240V, 50/60Hz

Power Input: 96W

Purified Water Flow: 1.2L/Min

Feed Water Temperature: 5~45°C

Feed-water TDS: $\leq 250\text{ppm}$

Feed-water Chlorine level: $\leq 0.2\text{ppm}$

Rejection: 90~99%

Feed-Water Pressure: 0.1~0.4 Mpa

Electric Shock Resistance: type II

2. SYMBOLS & WARNINGS



Wash and replace cartridges regularly.



Do not disassemble parts randomly as it may cause leakage or damage.



Do not use power supply with disproportional rated voltage.



Pull the power plug and cut off the feed water valve if the unit has been in storage for a long time.



Do not store in an environment of 0°C or below.



Handle with care when discharging, moving and installing.



Turn off the feed water ball valve and cut off the source water to avoid the "water hammer phenomenon" which may lead to leakage or damage to housings.



Cut off power and water source at once in case of malfunction and seek assistance from Dayliff retailer.



It is normal to hear vibration sound when system is producing water.



Water hammer is a pressure surge or wave caused when water in motion is forced to stop or change direction suddenly. When a valve is closed suddenly, a pressure wave reverberates in the pipeline of building.

3. EQUIPMENT CONTENTS

Product and Accessories

Main Body

Six Filter Cartridges

Include;

1. Spun PP filter(PP)
2. Granular carbon filter(GAC)
3. Block Carbon filter(CTO)
4. 2 pcs x reverse osmosis membrane(RO)
5. Post activated carbon filter(T-33).

One Accessory Box

Includes faucet, 3-way ball valve, three pipes, instruction book, adapter and drain clamp.

Goose Faucet

3-way Ball Valve

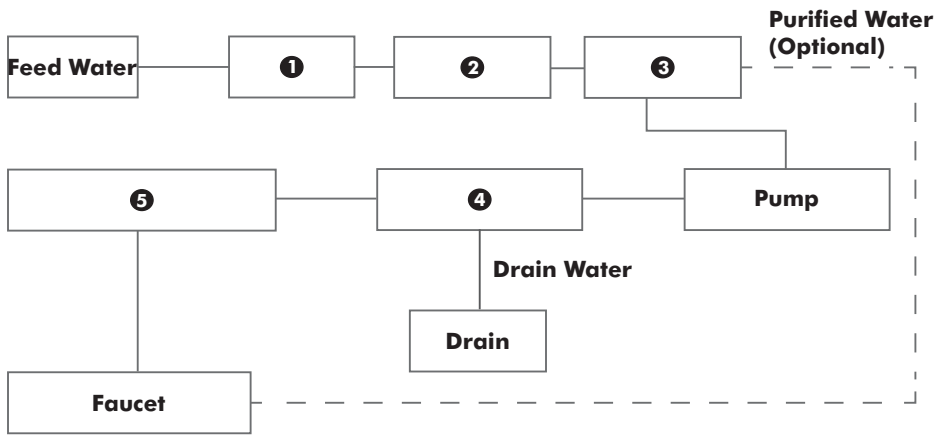
3 pipes (red, blue & white)

Instruction Book

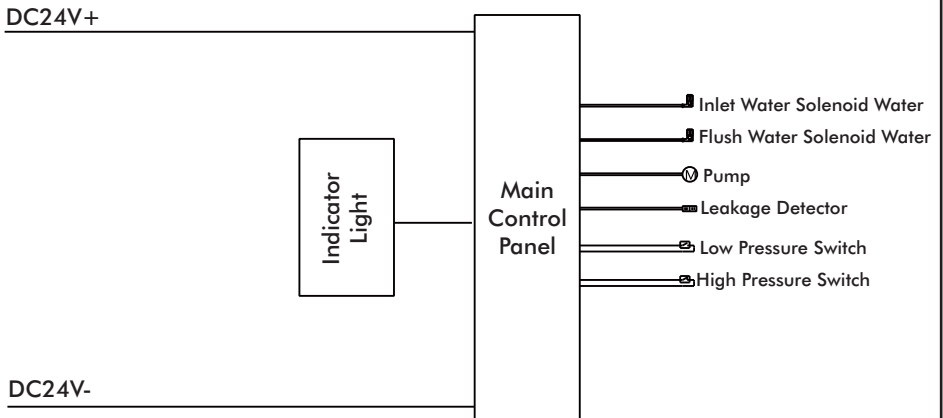
Adapter

Drain Clamp

Fig 1: Product & Accessories



Diagram

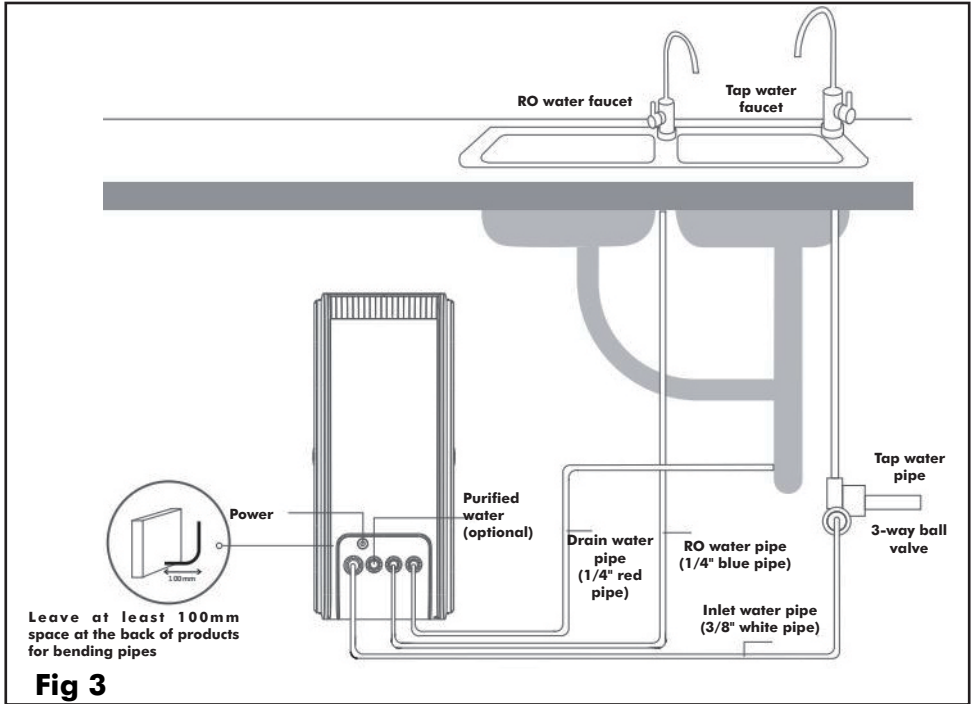


1. Spun PP filter(PP)
2. Granular carbon filter(GAC)
3. Block Carbon filter(CTO)
4. Reverse osmosis membrane(RO)
5. Post activated carbon filter(T-33).

Fig 2: Process Flow

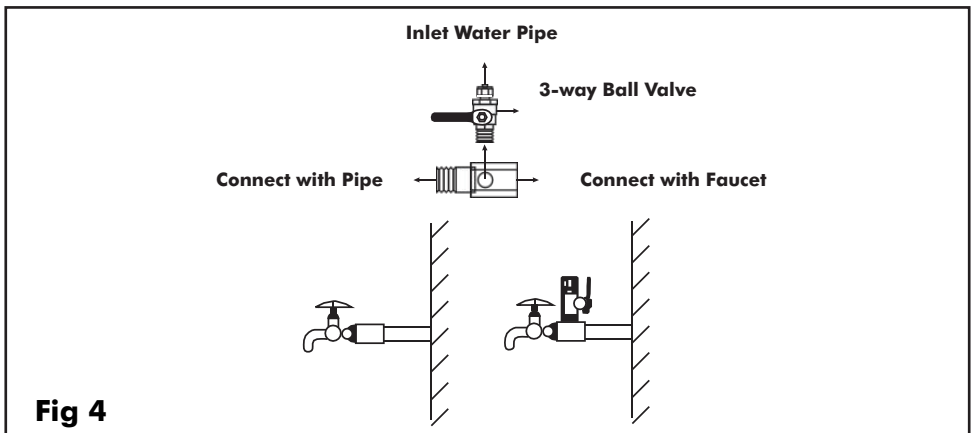
4. INSTALLATION

4.1 Functional Schematic Diagram



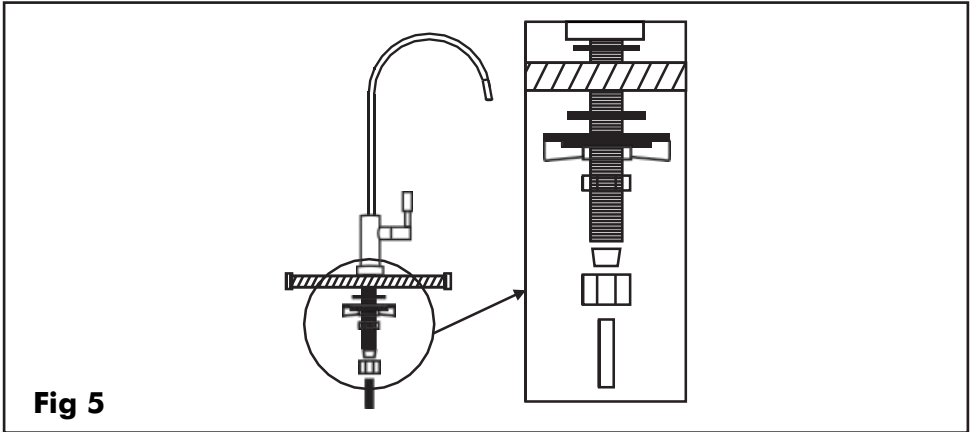
4.2 Installation Ball Valve and Tee Fittings

- Install Tee Fitting and 3-way ball Valve as per Fig 3.
- Wrap threads of 3-way ball Valve and Tee Fitting with Teflon tape.
- Connect inlet water pipe (3/8" white) from unit to Feed Water Valve.
- Install 3-way ball valve to Tee fitting, and then connect to source water.



4.3 Installation of Faucet

- Select a convenient location near the sink to place the faucet.
- Drill a hole 12mm in diameter on the counter top.
- Place washers, plates, seals and nuts in order as per Fig 5 and tighten on to counter.
- Attach RO Water pipe (1/4" blue) to the bottom of faucet and connect tubing to unit

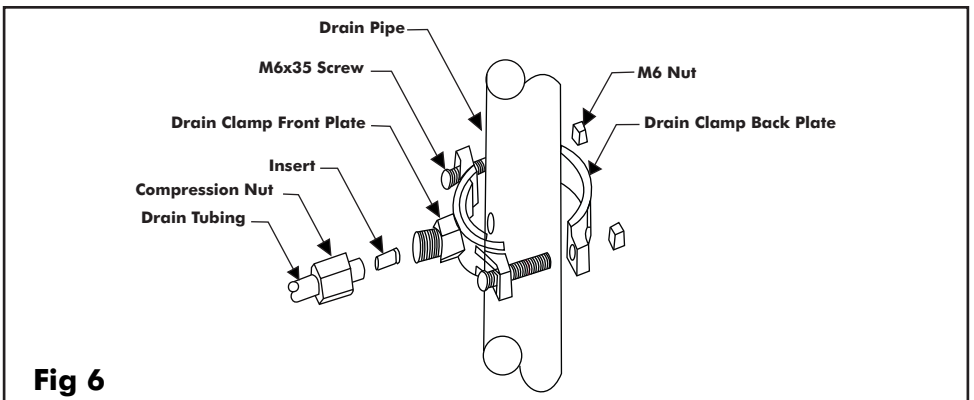


4.4 Installation of Drain Clamp

- Place drain clamp on drain pipe above the drain trap and tighten securely.
- Using the drain clamp as a guide, drill a 6mm hole, enough for the 1/4" tubing to pass through one side of the drain pipe.
- Connect Drain tubing (1/4" red) from unit to Drain Clamp



Do not drill through both sides.



5. OPERATION

5.1 First Use Instruction

1. Connect the RO system to the power, the power indicator light will turn on and the buzzer will ring three times. The system flushes for 90 seconds and indicator light will wash in blue slowly.
2. RO system then begins processing water and indicator light will turn blue slowly showing that the system is in standby mode. When the tank is full, the indicator light remains blue
3. When the system stops processing water, the indicator light turns red.
4. The buzzer rings for 30 times after working continuously for 6 hours or when water leakage is detected.

5.2 Recommended Replacement Period for Cartridges

STAGES	FILTER CARTRIDGE	FUNCTION	LIFESPAN (FOR REFERENCE ONLY)
The First Stage	Spun PP Filter	Removes larger suspended particles in water	3-6 months
The Second Stage	Granular Carbon Filter	Removes organics, chlorine, odor and turbidity	
The Third Stage	Block Carbon Filter	Further removes organics, chlorine, odor and turbidity	
The Fourth Stage	RO Membrane	Removes bacteria, heavy metals, dissolved matters and salinity	
The Fifth Stage	Post Carbon Filter	Adjusts the taste of purified water	

5.3 Cartridges Replacement

Before replacing the cartridges;

- Turn off the water and the power.
- Open RO water faucet and discharge water in pipeline before replacing cartridges.

To replace, follow the below simple steps

1. Push side board according to arrow direction.
2. Lift up cartridge 30°, rotate anticlockwise then remove it.
3. Install new cartridge by rotating clockwise according to specifications, then fix the side board.

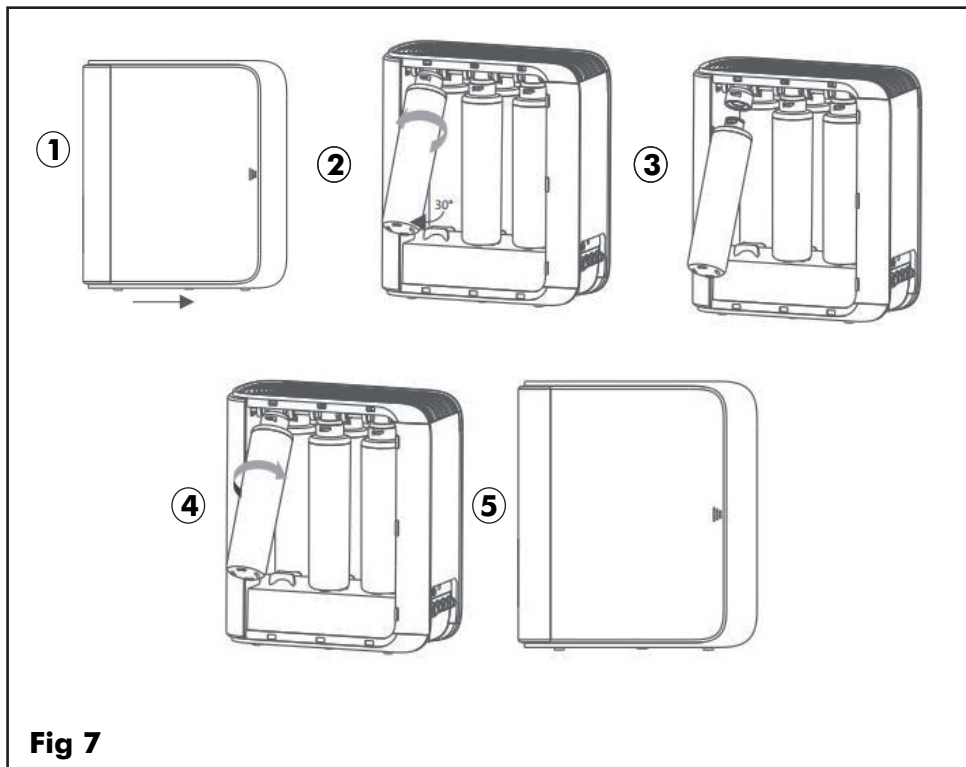


Fig 7

6. TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Water pump is out of service and system does not work	Insufficient feed water pressure	Increase feed water pressure
	No power or power failure	Switch on power
	High pressure switch is out of order	Replace high pressure switch
Water pump works but system does not work	Pump is blocked and adapter fuse burn-out	Replace adapter and repair water pump
	RO membrane is blocked	Replace RO membrane
	Water pump pressure loss	Repair water pump
Constantly running water when shut down	Flush solenoid valve is damaged	Replace flush solenoid valve
	Inlet water solenoid valve damaged	Replace inlet water solenoid valve
Cannot stop working when pressure tank is full or repetitive starting	High pressure switch is damaged	Repair or replace high pressure switch
	Check valve is damaged	Replace Check valve

7. TERMS OF WARRANTY

i) General Liability

- In lieu of any warranty, condition or liability implied by law, the liability of Dayliff in respect of any defect or failure of equipment supplied is **limited to making good by replacement or repair** (at the Company's discretion) defects which under proper use appear therein and arise solely from faulty design, materials or workmanship within a specified period. This period commences **immediately after the equipment has been delivered to the customer** and at its termination all liability ceases. Also the warranty period will be assessed **on the basis of the date that the Company is informed of the failure.**
- **The warranty applies solely to equipment supplied and no claim for consequential damages**, however arising, will be entertained. Also the warranty specifically excluded defects caused by fair wear and tear, the effects of careless handling, lack of maintenance, faulty installation, incompetence on part of the equipment user, Acts of God or any other cause beyond the Company's reasonable control. Also, any repair or attempt at repair carried out by any other party **invalidates all warranties.**

ii) Standard Warranty

If equipment failure occurs in the normal course of service having been competently installed and when operating within its specified duty limits warranty will be provided as follows:-

- **Up to 1 year - The item will be replaced or repaired at no charge.**
- **Over 1 year, less than two years - The item will be replaced or repaired at a cost to the customer of 50% of the Davis & Shirtliff market price.**

The warranty on equipment supplied or installed by others is conditional upon the defective unit **being promptly returned free to a Davis & Shirtliff office** and collected thereafter when repaired. No element of site repair is included in the warranty and any site attendance costs will be payable in full at standard chargeout rates. Also proof of purchase including the purchase invoice must be provided for a warranty claim to be considered.

DAYLIFF is a brand of **Davis & Shirliff**

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