UNGER

Quality Tools for Smart Cleaning™

HYDRO POWER® NANO SYSTEM

NANOD
NANOE

OPERATING INSTRUCTIONS

READ THE OPERATING INSTRUCTIONS BEFORE TURNING ON THE SYSTEM!

KEEP OPERATING INSTRUCTIONS WITH THE MACHINE AT ALL TIMES!

V1.0 03/26

HydroPower® NANO

Table of Contents

Table of Contents

1 Introduction

1.1 General information

This manual allows you to use the HydroPower® NANO Safely and efficiently.

The operating instructions are part of the HydroPower® NANO and must be kept accessible to the personnel in the immediate vicinity of the HydroPower® NANO at all times.

Before starting work, the personnel must have read and understood this manual. All safety instructions and instructions for use stated in this manual must be followed for safe operation.

The current version of the HydroPower® NANO is described in this manual. If changes or additions become necessary over time, the operating instructions will be accompanied by a supplement which will be incorporated into the next revision.

The respective revision status of the operating instructions is displayed on the cover sheet. The first user manual has the revision status „1.0“. The status is increased by „1“ for each revision.

1.2 Intellectual and industrial property rights

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In the case of infringements, Unger Germany GmbH reserves the right to take legal action at any time.

We reserve the right to make changes to this manual, as well as changes to technical details, with regard to the specifications and illustrations in this manual.

1.3 Property and legal deficiencies

Claims for material and legal deficiencies presuppose that the operator shall submit the defect in writing without delay, but at the latest within two working days.

Unger Germany GmbH is in no case responsible for damage to the system itself, or damage caused by the unit due to improper handling of the product.

In particular, Unger Germany GmbH is not responsible for failures or errors caused by modifications to the unit by the customer or other persons.

If Unger Germany GmbH is responsible for a defect, Unger Germany GmbH shall repair or replace the unit at its discretion.

Claims for material and legal deficiencies will be nullified in the case of non-compliance with the individual regulations of this manual, the relevant legal provisions, as well as further recommendations given by Unger Germany GmbH.

2 Safety information

2.1 Safety alert symbols and signal words

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the HydroPower® NANO. Always read and obey all safety messages. These instructions are not meant to cover every possible condition and situation that may occur. Common sense and caution must be practiced when operating and maintaining the HydroPower NANO.

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

This is the safety alert symbol. It is used to alert you to potential hazards that can cause serious injury or death. All safety messages will follow this safety alert symbol along with the word "DANGER" or "CAUTION." These words mean:

 **DANGER**	**Indicates a hazardous situation that can lead to serious injury or death.**
 **CAUTION**	**Indicates a potentially hazardous situation. Which, if not avoided, can result in minor or moderate injuries.**
ATTENTION	**Indicates a situation which can lead to material damage.**
NOTE	
	Here you can find operating tips and other useful information.

2.2 Warning signs

Warning of a hazard.

Warning of electrical voltage.

Warning of overpressure in containers.

Warning of hot surfaces.

Warning of suspended loads.

Warning of injury to the limbs.

2.3 Mandatory signs

Application tips and other useful information.

Use protective gloves.

Use safety shoes.

Use protective goggles.

Safety Information

2.4 General safety regulations

2.4.1 Basic principles

Special safety regulations may apply to certain activities. Safety instructions and warnings are given in the respective sections of the operating instructions.

Operate the HydroPower® NANO only:

- in accordance with the operating instructions for safety and driving safety
- if the HydroPower® NANO is in a technically sound condition.

This includes:

- The safety stickers attached to the HydroPower® NANO must always be complete and in good readable condition. Renew damaged or unreadable signs.
- Carry out cleaning and maintenance work on the HydroPower® NANO only if it is disconnected from water line.
- Carry out maintenance on the filter vessels only if they are depressurized.
- Clean the HydroPower® NANO after use of dirt and impurities.

Use personal protective equipment to avoid personal injury:

▸ protective gloves,

▸ safety shoes,

▸ safety goggles.

2.5 Mechanical hazards

Crushing due to incorrect operation and / or carelessness.

▸ Do not reach between the ground surface and the HydroPower® NANO.

▸ Place the HydroPower® NANO on a level surface only.

▸ Ensure sufficient stability and secure the HydroPower® NANO against tipping over or rolling away.

2.6 Hazards due to pressure

Injuries from pressurized containers.

▸ The three (3) filter housings are pressurized during operation.

▸ Never open / remove a filter housing or any hose during operation.

2.7 Hazards from materials and substances

The safety data sheets for materials and substances can be found online at www.ungerglobal.com/service/downloads/safety-data-sheet.

Irritation to the eyes, skin and respiratory tract.

- Resin can cause irritation to the eyes, skin and resiratory tract. Avoid any contact with the resin when replacing the DI resin pack.
- In case of resin contact with eyes, remove contact lenses and rinse eyes immediately and thoroughly with clean water.
- Wash hands thoroughly after finishing work.

- Wear protective gloves and goggles.

Spilled resin is a slipping hazard.

- If resin is spilled, carefully clean it up immediately.
- Wear safety shoes.

Irritation to eyes, skin and respiratory tract through contact with liquid membrane care.

- Avoid any contact with and swallowing of the membrane care liquid (sold separately).
- In case of contact with eyes, remove contact lenses and rinse eyes immediately and thoroughly with clean water.
- Keep the membrane care liquid sealed and inaccessible to children.

- Wear protective gloves and goggles.

2.8 General hazards

Read and follow ANSI Standard IWCA 1-14.1 (Window Cleaning Safety).

Purified water is delivered to the waterfed pole by hoses from the HydroPower® Ultra system. This introduces a risk of tripping to both the operator and the general public. Identify work area with appropriate signage.

Any surface that becomes wet must be identified with appropriate signage to direct pedestrians and workers away from work area. During wintertime, it is important to avoid water pooling, which could freeze, creating a dangerous slip hazard.

General hazards associated with the use of water fed poles and deionization equipment[1]:

- Trip hazard to the general public when using hoses.
- Slip hazard presented from wet pathways.
- Slip hazard for operator when concentrating on work.
- Falls from height when working on flat roofs.
- Electrocution from poles coming into contact with overhead power source.
- Injuries to others from falling poles or fabric of the building that may be dislodged.
- Injury to others from falling poles caused by incorrect handling or failure of pole.
- Injury through incorrect manual handling of poles and other equipment.
- Hazards from carrying tanks, systems and equipment that are overloaded, unstable, unsecured or incorrectly installed within a vehicle.

Safety Information

2.9 Technical Label

2.10 Responsibilities of the operator

The HydroPower® NANO is for commercial use only.

- The operator must be familiar with and observe all applicable workplace rules and regulations, including all accident prevention procedures.
- The operator must be familiar with and strictly adhere to all applicable local, state/provincial and federal labor laws, safety codes and standards.
- The operator must have read and understood the HydroPower® NANO Operating Instructions and have been trained in its safe and proper operation before using the HydroPower® NANO.
- The operator must insure that all safety labels on the HydroPower NANO are legible at all times.
- The HydroPower® NANO should not be used if the operator is under the influence of drugs, alcohol, or medications.

2.11 Obligation of personnel

Working with the HydroPower® NANO is only permitted if the operating instructions have been read and understood.

2.12 Requirements for staff

Only persons who perform their work reliably, should be authorized as personnel for this unit. Persons whose reactions and judgement are affected, e.g. by drugs, alcohol or medication, are NOT permitted to operate this unit.

NOTE

The operator is recommended to have this confirmed in writing.

2.13 Storing the Operating Instructions

This manual must be kept with the HydroPower® NANO and must be available to the entire staff at all times.

If the manual becomes illegible for any reason, the operator must obtain a replacement manual from the manufacturer.

To find the most up-to-date information, and to download the operating instructions manual, please visit: www.ungerglobal.com/downloads

NOTE

When transferring or reselling the HydroPower® NANO to third parties, the following documents should be passed on to the new owner:

- this manual,
- the documentation of any repair work,
- proof of maintenance work.

2.14 Contact Address

Unger Germany GmbH

Piepersberg 44
42653 Solingen
Germany

Telefon: (49) 0212 / 22 07–260
Fax: (49) 0212 / 22 07–2 22

service@ungerglobal.com
www.ungerglobal.com

3 About the HydroPower® NANO

3. 1 Using the HydroPower® NANO

3.1.1 Intended use

The HydroPower® NANO is used for the filtration of municipal water by demineralization for the purpose of glass and surface cleaning.

The HydroPower® NANO is intended for commercial use only.

The HydroPower® NANO may only be connected to municipal water lines.

The use of the HydroPower® NANO in any way other than as described in this manual, including for bacteria removal, is prohibited.

This applies in particular to the use of the HydroPower® NANO for bacteria removal.

3.2 Technical specifications

3.2.1 Operating conditions

Ambient Temperature [°F/C]	40-105 / 5 ... 40
Max. Water Temperature [°F/C]	85 / 30

ATTENTION

Material damage due to improper handling.

Ensure that the incoming water is of known drinking quality.

The drinking (tap) water must be free of iron, manganese and heavy metals (max. 0.2 ml / l iron, 0.05 mg / l manganese), the maximum silicate (SiO2) content must not exceed 20 mg / l. It must also not contain barium and strontium.

General safety regulations

3.2.2 Pressure ratings

Min. input pressure	3 Bar / 44 PSI
Max. operating pressure	6 Bar / 90 PSI

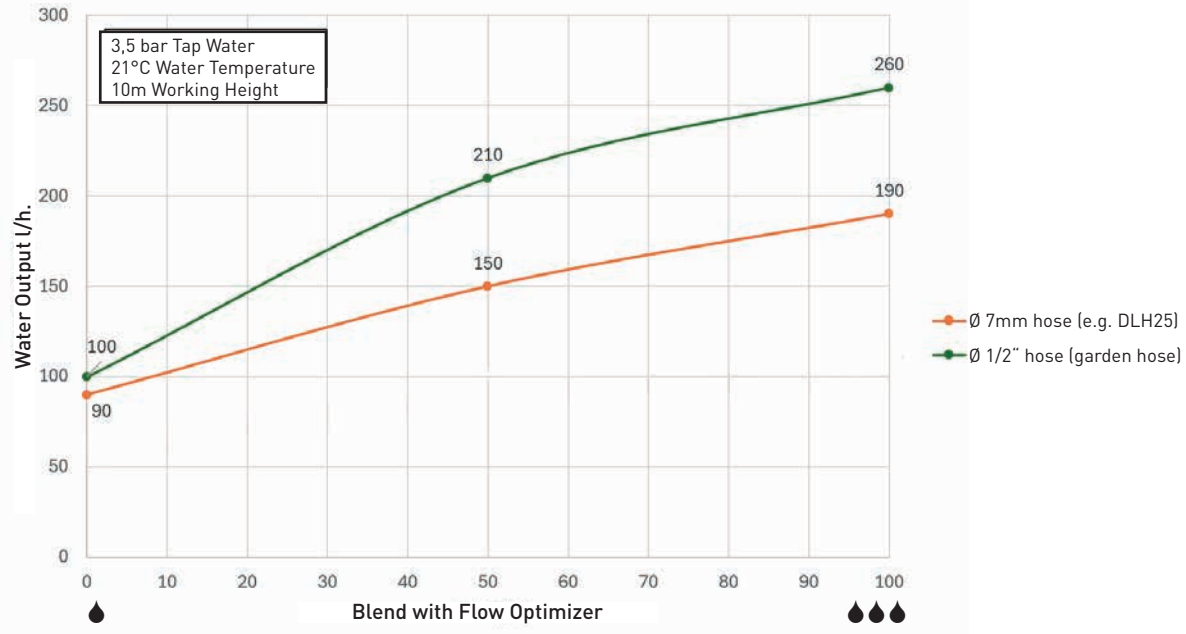
3.2.3 Dimensions quick overview

Length [in/cm]	25.5 / 65
Width [in/cm]	19 / 48
Height [in/cm]	47.5 / 122
Empty weight [lb/kg]	66 / 30

3.2.4 Media connections

Standard feedwater connection thread ["]	3/4
Standard concentrate connection thread ["]	3/4
Standard permeate connection thread ["]	3/4

3.3 Water output quantity



3.4 System products & accessories

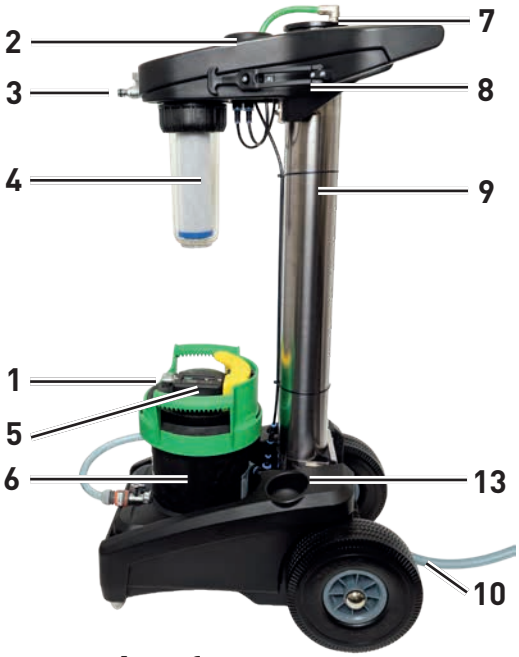
The following is included in each delivery:

- HydroPower Nano Base
- HydroPower Ultra DI Tank
- HydroPower Ultra Resin Pack
- NANO Membrane
- Combi Pre-Filter
- Filter Key
- Concentrate Hose
- Membrane Maintenance Liquid
- Suction Pipe for membrane care
- Instruction Manual

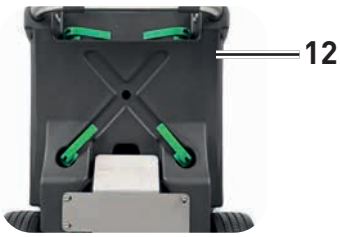
System overview

4 Preparing for use

4.1 Construction of the HydroPower® NANO



1 Water outlet
2 Flow Optimzer dial
3 Water inlet
4 Kombi-Vorfilter (Feinpartikel/Chlor)
5 TDS meter
6 HydroPower® Ultra resin filter
7 Manometer
8 Pole fixing
9 NANO Membrane
10 Concentrate hose
11 NANO technical label
12 Clamps for für HydroPower Filter
13 Pole holder
14 Concentrate outlet



4.2 Interfaces

The **digital TDS meter** shows the water quality at water outlet for the pure and the blend mode using the flow optimizer dial.
TDS meter shows the value of the filtered water after NANO Membrane and DI resin. It should ideally show a value of 0. If the value is 10 or greater, the resin should be replaced.

The **manometer** shows the water pressure behind the pump. Ensure that the water inlet pressure is at least 3 bar. The optimum is 4 bar or higher, maximum should not exceed 6 bar.

The **flow optimizer dial** balances pressure and resin usage, extending resin life up to ten times while optimizing system performance. **PURE** mode 💧 allows all the tap water to flow through the membrane first before going through the resin filter.

BLEND mode 💧💧💧 allows some tap water to bypass the membrane and go directly through resin filter. The **BLEND** mode 💧💧💧 results in an increase of water pressure and of resin consumption.

On the top front of the unit is one connection for attaching the hose for the water supply and one connection for the waterfed hose on the HydroPower Ultra resin tank. These are standard quick connections.

The water outlet for the concentrate is located at the back of the unit. The 5 ft hose allows you to drain the brine water away from the unit. There is a **WORK** mode (standard working mode) and **FLUSH** mode (for flushing the NANO filter)dial at base of unit.

Transport and storage

4.3 Transport and storage

4.3.1 Transport

Check the completeness of the delivery, see section "3.3 System products & accessories".

The HydroPower® NANO is carefully tested and packaged before shipment. However, damage during transport cannot be ruled out. Therefore, immediately check the HydroPower NANO upon delivery for any damage.

If the HydroPower® NANO has been damaged during transport, show the damage to the company delivering the HydroPower® NANO on behalf of your distributor.

Complaints of damage during transport cannot be accepted without written confirmation by the distributor.

In the case of transport of the HydroPower® NANO by a delivery vehicle:

DANGER

Severe injuries and property damage due to the HydroPower® NANO falling are possible.

- Do not walk or grab under the suspended load.
- Use only the fixing points provided for fixing the hoist.
- Only use a suitable hoist.
- Secure the HydroPower NANO to the transport.
- Observe the weight and maximum dimensions of the HydroPower® NANO.
- Wear protective gloves and safety shoes.

When transporting, ensure that the HydroPower® NANO is properly secured and cannot move during transport. Protect the HydroPower® NANO from external damage.

Use the fixing points of the frame during transport, or if the HydroPower® NANO is being lifted with a crane, in order to avoid damage.

If the HydroPower® NANO is transported in a horizontal position, it is recommended that the HydroPower® Ultra resin filter be stored upright next to it. The transparent inlet hose should remain connected to prevent any residual water from leaking out.

Operating the HydroPower® NANO

4.3.2 Operating the HydroPower® NANO

1 Water inlet
2 Carbon/sediment combi pre-filter
3 NANO membrane
4 DI resin filter
5 Water outlet

What is Pure Water?
Pure Water is water in its purest form, physically processed to remove the minerals that would otherwise lead to limescale spots and streaks. Such impurities are referred to as TDS (Total Dissolved Solids) and are measured in ppm (parts per million). Water is considered 100 % demineralized (pure) when its TDS is measured at 0 ppm. TDS of 180 ppm is considered as average water hardness.

Flow of water purification

The water enters the HydroPower® NANO pre-filter via the water inlet (1).

The pre-filter (2), removes the largest impurities and chlorine from the water and thus protects the membranes, sits in front of the membrane.

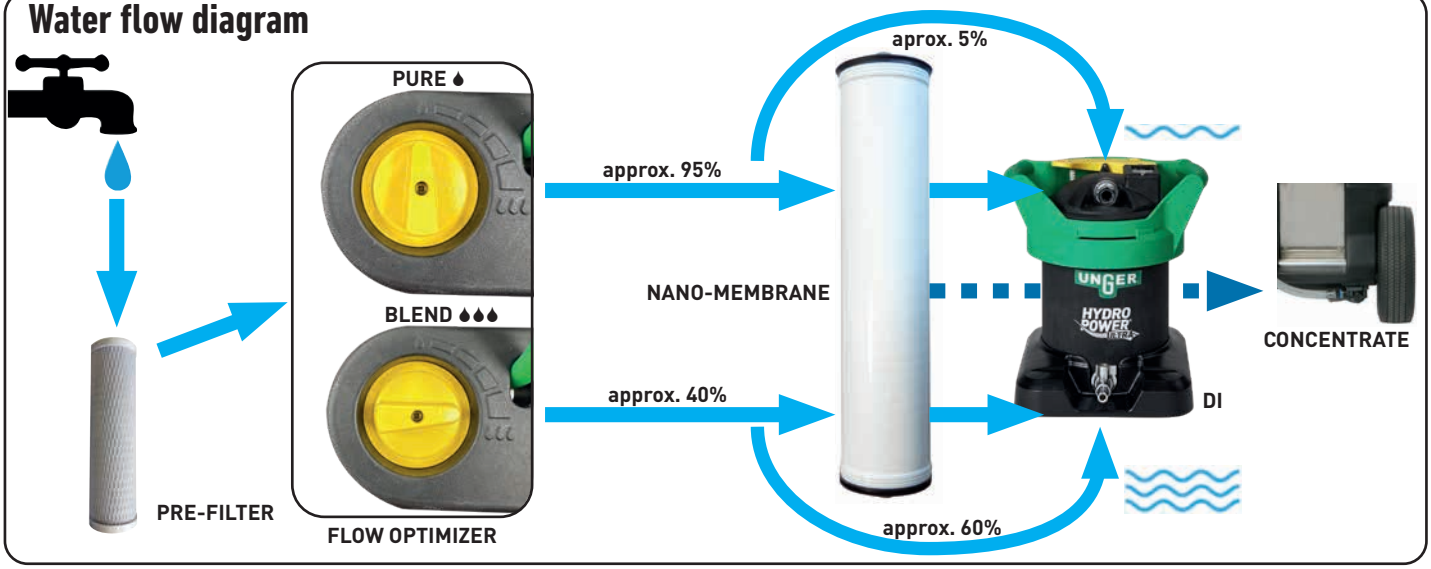
The nano-membrane filter (3) removes up to 90% of the minerals from the water in the HydroPower® NANO.

The resin filter (4) sits after the membrane, which removes the last 10% of the minerals from the water. The Flow Optimizer is used to set the ratio of how much water flows through the membrane or how high the water flow is (for details, see page 14).

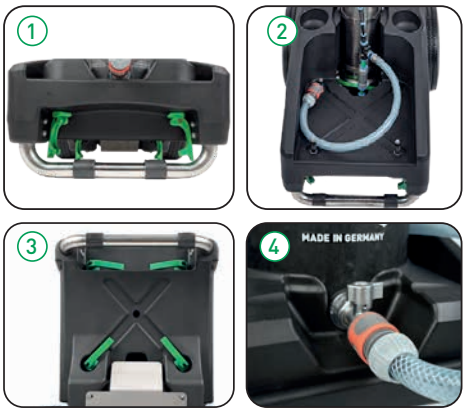
Pure water is discharged from the water outlet (5) into a hose connected to a water fed pole for cleaning glass surfaces without chemicals.

The three filter cartridges (2-4) can be easily removed and replaced (see section 7.3.1).

Water flow diagram



Startup

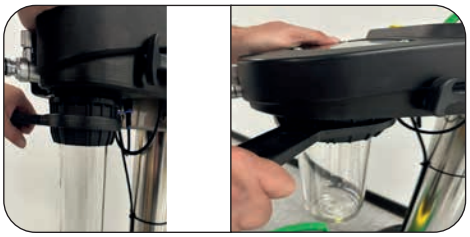


4.4 To start the HydroPower® NANO when NEW:

The HydroPower® NANO uses 3 filters. The Membrane is already installed

NANOE (without HydroPower Ultra DI-Filter), assemble as follows:

1. Open all 4 clamps under the base plate.
2. Place the HydroPower Ultra on the 4 pins on the base. Water connections face forwards.
3. Close the clamps.
4. Connect the front white hose to the HydroPower Ultra's tap.



Both versions (NANOD and NANOE):

1. Install the Combi Pre-Filter
   (refer to section 7.3.1 Replacing Filter Cartridges)
   a. Unscrew the pre-filter housing with the filter key.
   b. Insert the new filter cartridge (orientation doesn't matter)
   c. Screw the housing into the unit and secure it with a filter key.
2. Install the HydroPower® Ultra Resin
   (refer to section 7.3.1 Replacing Filter Cartridges)
   a. Hold down the yellow FastLock lever on top cap and at the same time, turn cap to remove
   b. Install the resin bag with the handle and green ring facing upwards. To make it easier to insert, move the handle in a circular motion so that it slides in more easily.
   The green ring must rest firmly on the inner edge.
   If it still wobbles, push the entire DI filter onto the floor until it rests firmly. This is the only way to ensure a tight seal and close the top cap.
   c. Replace the top cap by turning it slightly to the left, pressing down and turning it to lock it in place.Do not press the yellow FastLock lever when replacing the top cap.

3. Connect the water inlet (water source) on top of the NANO and water outlet to the hose on top of the DI-Filter. (see image 1)
4. Turn on the water supply at tap water source and on HydroPower® NANO and on HydroPower® Ultra. (see image 2)
5. Turn the Concentrate valve to **WORK** position (see image 3)
6. Turn Flow Optimizer Dial to **PURE** mode (see image 4)
7. Run the NANO for at least 10 minutes to completely saturate the Membrane. The pre-filter housing must fill completely with water before 100% efficiency can be achieved (see image 5).

When Flow Optimizer Dial is turned to the right ♦♦♦, it blends tap water with pure water, that increases the water pressure at the pole but also the resin consumption.

4.4.1 To start the HydroPower® NANO for everyday use:

- Follow the steps 3-7 as descibed above

4.5 Storage

If the unit is not used for more than 14 days, the membranes must be protected in accordance with the storage instructions, (see section "7.2.3 Membrane protection"). The HydroPower® NANO must be stored indoors.

5 Operation of the HydroPower® NANO

The operating instructions must be read and understood before operating the HydroPower NANO.

DANGER

Severe injuries or death and property damage due to the HydroPower® NANO falling are possible.

- Place the unit on a level surface only.
- Make sure the unit is standing securely. If necessary, secure the wheels with a wedge before operating the system.
- Wear safety shoes.

CAUTION

Minor or moderate injuries due to pressurized containers possible.

- The three (3) filter housings are pressurized during operation.
- Never open a housing or remove a hose during operation.
- Check to be sure if the system is watertight before starting the HydroPower® NANO.
- Wear protective gloves.

5.1 Turning off the HydroPower® NANO

To switch off the HydroPower® NANO after finishing the work, proceed as follows:

1. For a longer service life, the membrane should be flushed for approximately five (5) minutes after work. To do this, set the flow optimizer dial to **PURE** ♦ (see image 1)) and the lower Concentrate Valve to **FLUSH** mode ⊸ (see image 2)

   During this process, pure water continues to be dispensed to the bar in a slightly reduced quantity. Therefore, the tap at the bottom of the HydroPower Ultra Filter must be closed.

2. After that, disconnect the water supply.
3. Remove the hoses from the front inlet and outlet connections.
4. Connect Concentrate Hose to the upper inlet connection to avoid any water spillage while transporting.
5. The HydroPower® NANO is now ready to be transported.

6 Troubleshooting

6.1 Procedures for troubleshooting

During operation, the following may occur:

6.1.1 Water pressure too low

- The water pressure from the inlet is too low to provide the desired filter performance.
- Check whether the inlet hose is kinked or if there is too little pressure at the water inlet.
- Check if the tap water valve is fully open.

6.1.2 Overpressure

Overpressure can occur if the water pressure from the inlet is more than 145 PSI (10 bar).
To check the water pressure at the inlet, proceed as follows:

- The pressure gauge (manometer - see image 6.1) indicates the line pressure.
- If the inlet pressure is too high, connect a pressure reducer to the water inlet and regulate the pressure down.

7 Maintenance and servicing

7.1 General information

ATTENTION

Damage caused by improper cleaning of the HydroPower NANO is possible.

- Do not use aggressive cleaning agents and / or solvents.
- Read and follow the use and safety instructions for each cleaning agent/solvent.

ATTENTION

Material damage to the unit due to insufficient maintenance is possible.

- Before each use, perform a visual inspection of the unit for damage. If you notice any damage, do not use the HydroPower NANO and contact your distributor.

TOOLS REQUIRED

A. Pliers
B. Combination Wrench 14 mm
C. Flathead Srewdriver
D. Allen Key 6 mm
E. Filter Key

Tools A-C (not included) for changing NANO membrane
Tool D (Filter Key included) for changing Combi Pre-Filter

Maintenance and servicing

Membrane protection during storage

If the unit will not be in use for more than 14 days, the membrane must be protected according to the storage instructions, see section "7.2.3 Membrane protection."

If the membrane is not regularly flushed or protected with the UNGER membrane care liquid, there is a risk of blockage and thus a strong reduction in the unit's performance or damage to the unit.

Frost protection

Never store the HydroPower® NANO below 5°C (40°F).

7.2 Maintenance and maintenance plan

Check the condition of the HydroPower® NANO filter regularly to ensure long life.

7.2.1 Daily inspection

Check the performance of the **resin pack**:
Observe the indication on the TDS-display. It provides information about the filter performance or the filtered water quality. Press the yellow "ON" button located on the TDS meter.

- It shows the TDS value after the resin pack.

▸ If this value is at or above 10, the resin pack must be replaced.

7.2.2 Monthly inspection

Check the performance of the **membrane**:

1. Connect the water inlet (water source) and water outlet (waterfed) hoses.
2. Turn on the water supply at tap water source and on HydroPower NANO unit.
3. Turn Flow Optimizer Dial to **BLEND** mode ♦♦♦ and observe the value on the TDS meter.
4. To determine the current value of the membrane, remove the resin pack in the HydroPower Ultra unit and replace top cover. Turn Flow Optimizer Dial to **PURE** mode ♦ and run the NANO unit for at least 5-10 minutes. Observe the value on the TDS meter.
5. If the value of the measurement in **BLEND** mode ♦♦♦ and the membrane measurement in the **PURE** mode ♦ differ by less than 50%, this is an indication that the membrane should be replaced.

- Check the **combi-pre-filter** visually on a regular basis. The filter cartridge should be replaced as soon as it changes colour, or approximately every 4 weeks.

Maintenance protection

7.2.3 Storage - Membrane protection

The membrane achieves its optimal life with regular water flow or flushing.

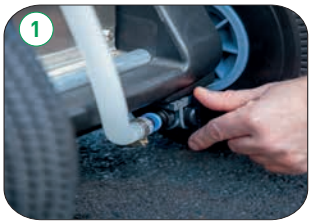
If the HydroPower® NANO is not in use for an extended period of time (longer than 14 days), the membrane must be protected against mineral deposits.

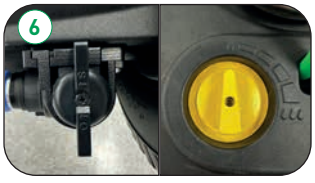
For this purpose, there is the UNGER Membrane Care Fluid. You need one bottle (1l) to treat the membrane. This preserves the current state of the membrane and prevents reduced performance and/or damage after non-use. Alternatively, you can run the unit once a week for approximately 30 minutes to rinse the membrane.

STORAGE - Membrane Protection:

1. The concentrate hose is connected to the rear of the HydroPower® NANO. This flushes out the membrane care fluid. (For information on proper disposal, refer to the Safety Data Sheet (SDS).
2. Loosen the pre-filter housing with the filter wrench. Remove the pre-filter insert and pour out the water. Protect the pre-filter from dust and dirt.
3. Insert the grey suction pipe into the pre-filter housing with the holes facing downwards.
4. Fill the pre-filter housing with a bottle of membrane care fluid (Unger #15436) and screw it back into the bracket. Tighten it by hand using the filter wrench.
5. Ensure that no preservative can flow through the resin of the HydroPower® Ultra. Remove the white inlet hose and close the tap.
6. For the HydroPower NANO, turn the concentrate valve at the rear on the underside to **WORK** and the yellow flow optimiser to **PURE**. Turn on the water supply. Wait until the green liquid has been flushed out of the pre-filter housing and it is filled with clear water. This takes about 30-40 seconds. During this process, water will flow out of the concentrate hose at the rear and the supply hose at the front of the HydroPower Ultra. As it contains preservatives, it should be collected in a container and disposed of in accordance with local regulations.
7. Turn off the tap water supply at the NANO or at the water pipe.

✓ The membrane is protected and the HydroPower® NANO can be stored. For transport, connect the concentrate hose to the top of the NANO's water inlet and the lower white hose to the HydroPower Ultra.





Re-starting

1. Remove the two white hoses that were connected at the top and bottom for transport. Connect the water inlet and outlet hoses to the NANO.
2. The membrane care fluid will flush out through the concentrate line and the water output line. (Reference SDS for proper disposal)
3. Turn the concentrate valve to **WORK** and the Flow Optimizer Dial to **PURE**.
4. Allow the system to flush for approximately 10-15 minutes until the outcoming water is clear.
5. Turn off the tap water supply.
6. Unscrew the pre-filter housing using the filter key and empty the water.
7. Remove the suction pipe from the pre-filter housing and insert the pre-filter and cartridge and secure the housing using the filter key.
8. Connect the water output hose.

✓ The HydroPower® NANO is ready to work.

Replacing filter cartridges

7.3 Repair and replacement of parts

Additional information on replacement parts can be found on the Unger website (www.ungerglobal.com).

For all other repairs, please contact your distributor.

7.3.1 Replacing filter cartridges

If the display shows a value of 10 ppm or more, the resin filter must be replaced (see section 7.2.1). In addition, the performance of the membrane should be monitored monthly (see section 7.2.2). The combi pre-filter should also be changed regularly (about once a month) to ensure membrane protection, especially against chlorine (see section 7.2.2).
Changing all three (3) filter cartridges is quick and easy:

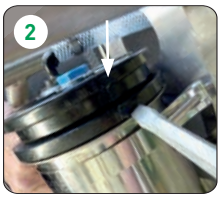
Changing the combi pre-filter

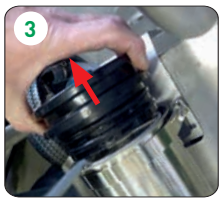
1. Disconnect the water supply.
2. Unscrew the pre-filter housing with the filter key and discard the water.
3. Remove and replace the filter cartridge (orientation doesn't matter.)
4. Screw the housing into the unit and secure it with the filter key.

✓ The filter cartridge is now replaced.

Changing the NANO Membrane

1. Unscrew the clamp fixing on the top of the membrane housing.
2. Remove the black plastic cap.
   - Use a big screwdriver for support.
3. Pull the membrane out and replace with a new membrane.
   - The NANO-membrane has an imprint indicating the flow direction, the **arrow must point downward.**
   - The **rubber seal** must always be at the **top.**
4. Reassembly is the reverse.





UNGER
Quality Tools for Smart Cleaning™

HydroPower® NANO

Replacing filter cartridges

Changing the DI resin filter.

1. Disconnect the water supply.
2. Press yellow FastLock opening lever op top cap to remove pressure from the tank.
3. While continuing to depress the yellow lever, use a counter-clockwise quarter-turn to release the top cap; remove and set aside.
4. Reach into housing and remove exhausted Ultra Resin Pack; discard according to local regulations.
5. Insert the new Ultra Resin Pack with the rubber handle facing upwards and make sweeping circular movements so that the resin pack slides into the container. When finished, the green ring must be firmly seated on the inner edge and must not wobble. If in doubt, tap the container once on the floor so that the resin settles and the ring is seated. This is important for the seal and to be able to close the lid. (Never use the red Ultra Resin Pack in this device!)
6. Replace the top cap at a slight angle and press it down gently, then turn it 1/8 clockwise while holding the base unit firmly with your feet.
7. Reconnect the output hose and turn on the tap water supply
8. Inspect system as it pressurizes.
9. Keep discharge line open and hold down yellow lever to remove trapped air from system.
10. Test system TDS. The value should be at 000.

Please refer to our website for more information on the HydroPower® Ultra unit:
https://www.ungerglobal.com/en/service/downloads/manuals

8.1 Disassembly and storage

NOTE

To prepare the HydroPower NANO for storage, see section 4.5, p. 17

8.2 Recycling

Properly recycle all recyclable materials to help protect our environment.

The packaging material is to be separated. It consists of foam, wood, plastic and corrugate cardboard and is to be recycled individually according to local recycling ordinances.

8.3 Disposal of waste

Dispose of in accordance with applicable federal, state/provincial, and local regulations.

Unger Germany GmbH
Piepersberg 44
D-42653 Solingen
GERMANY
Fon +49 (0)212 / 22 07-260
ungereurope@ungerglobal.com

Unger UK Ltd.
F1 Deansgate, 62-70 Tettenhall Road
Wolverhampton, WV1 4TH
UNITED KINGDOM
Fon +44 (0)1902 306 633
ungeruk@ungerglobal.com

Unger Enterprises LLC
425 Asylum Street
Bridgeport, CT 06610
USA
Tel.: (1) 800.431.2324
unger@ungerglobal.com

www.ungerglobal.com