CONTENTS

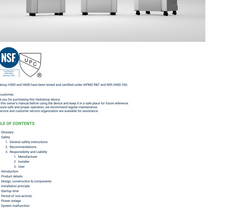
- Frequently Asked Questions
- Owner Manual
  - Owner Manual H300 and H600
- Product Data Sheets
  - H300
    - H300 Product Data Sheet
  - H600
    - H600 Product Data Sheet
- Hydraloop Cascade
  - Hydraloop Cascade Product Data Sheet
- General Sales Conditions

EXPAND ALL
FAQ/INFO

OWNER MANUAL HYDRALOOP H300 & H600

ORIGINAL INSTRUCTIONS

SOPPA CHIL THIS DOCUMENT



Hydraloop H300 and H600 have been tested and certified under NFSR47 NET and NSF/ANSI 350.

Dear customer,
Thank you for purchasing the Hydraloop device.
Read this owner's manual before using the device and keep it in a safe place for future reference.
Our service and customer service organization are available for assistance.

TABLE OF CONTENTS

1. Glossary
2. Safety
   1. General safety instructions
   2. Recommendations
   3. Responsibility and Liability
      1. Manufacturer
      2. Installer
      3. User
3. Introduction
4. Product details
5. Design, construction & components
6. Installation principle
7. Startup time
8. Period of non-activity
9. Power outage
10. Operation principle
11. Visual and audible alarms
12. Maintenance
13. FAQs
14. Limitations
15. Hydraloop APP
16. Warranty
17. Specifications & Data Plate

GLOSSARY OF TERMS

Greywater: Lightly contaminated domestic water coming from the drains of baths, showers and washing machines.

Blackwater: Contaminated wastewater containing pathogens from human waste and other organic materials. This wastewater can come from toilets, bidets, hand showers, floor drains, dishwashers, and kitchen sinks.

Reusable water: Greywater that has undergone various steps of treatment in order to be reused for toilet flushing, water for the washing machine and/or outdoor uses (irrigation, pond water).

Backup water: Water that is used as a main source of water in the facility. This could be municipal water, well water, rain water etc. Another term for backup water is 'mains water'.

Inlet diverter: This special valve allows for the intake of greywater from your shower/bath or the washing machine. By adding this valve to the inlet of the Hydraloop device, greywater from the washing machine can be treated for reuse.

Auxiliary Switch: This valve allows for the distribution of reusable water to be used for the garden irrigation or pool top-up (depending on your region). This outlet is non-pressurized.

HDM: Hydraloop Device Manager – online monitoring system for the Hydraloop device. This dashboard allows the Training, Verification and Activation of the Hydraloop device are conducted as well as the monitoring, maintenance, troubleshooting and the operation of the device. The HDM requires a Fixed Point your Hydraloop Sales Engineer in order to be activated. This login is generated by the Hydraloop Sales Engineer.

Hydraloop APP: This is an APP that device owners can download on their smartphone to monitor how their Hydraloop device is functioning, offer tips on how to save more water and give encouragement when water savings in the home or at a high level. The APP will notify user when the 21 day Activation date has been reached (and a minimum of 20 Shower/bathtub and washer cycles have been run/begun to be activated).

Start-up Time: The Hydraloop device requires a minimum of 21 days (3 weeks) as 20 showers to develop the biological treatment process in the C1 tanks and become fully operational. If the C2 stem of operation 20 showers has not taken place by the device, the start-up time will last longer than the activated 21 days.

Ventilation: This is a special drying the greywater for to prevent anti-sulphurising of water out of activity. Ensure that the greywater input and sewage output both have proper two-way ventilation. Ventilation for greywater input should be above all greywater inlets and first outlets the building.

Recycle Ready: This is a hydraloop guide for configuring the plumbing in the home to be ready to receive and recycle greywater. This guide provides all the necessary information to get any existing Hydraloop Ready.

SAFETY

GENERAL SAFETY INSTRUCTIONS

WARNING
- Read this manual before installing and/or operating your Hydraloop device.
- The Hydraloop device produces NON-POTABLE water. DO NOT use the hydraloop water for potable use. Please note that the backup water outlet and non-potable water outlet are non-pressurized.
- The device should only be opened or serviced by trained and certified Hydraloop partner and/or installers. Opening of the device voids warranty.
- The Hydraloop device should be installed according to installation manual for safe operation.

CAUTION
- A damaged power cable should always be replaced by Hydraloop staff or certified Hydraloop partner and/or installers.
- Always disconnect the Hydraloop device from backup water supply before servicing or performing maintenance.

NOTICE
- Following commissioning and/or work on the Hydraloop device, lines should always be checked for leaks and potential cross connection.

RECOMMENDATIONS

STORAGE
- The Hydraloop device should only be installed indoors with an ambient temperature between 10-50°C / 37-91°F
- The Hydraloop device should never be exposed to sunlight.
- Reusable water should never be connected to a drain and/or a toilet bowl/cleaner.
- Only use greywater from showers/baths and washing machines for reuse.

CLEANING
- The Hydraloop device and tubing should be cleaned on a periodic service practice.
- Use only a mild soap solution to clean the outside of the Hydraloop device.

USE
- Never direct greywater from kitchen sinks, floor drains or storage tanks to the Hydraloop device.
- Only use greywater from shower/bath, and optionally from washing machine.
- In cases of emergency soap use, hand soap only enters the Hydraloop device.

RESPONSIBILITY AND LIABILITY

MANUFACTURER

Hydraloop guarantees the proper working of the device according to its general sales conditions.

As a manufacturer, Hydraloop is not liable in the following cases:
- Failure to follow instructions for Reuse Ready preparation, installation, maintenance and/or operation of the device
- Inadequate or insufficient maintenance of the device

INSTALLER

The installer is responsible for the installation and activation of the Hydraloop device:
- Installation shall be according to local legislation, electrical and plumbing codes
- Installation shall be according to the Hydraloop installation manual
- Testing and activation via the HDM and all necessary checks
- Maintain commissioning report and record of maintenance within their log
- Explanation of operation as well as the Hydraloop APP to the user/owner

USER

To ensure optimal functioning of the Hydraloop device, please observe the following:
- Follow instructions
- The assistance of an approved, trained and qualified installer for Preparation, Installation, Testing, Verification, Activation, and regularly scheduled maintenance of the device
- Regular maintenance is required in which the interval is subject to the quality of the input water
- The operation of the Hydraloop APP

INTRODUCTION

Hydraloop Systems B.V. offers a range of patented residential greywater recycling products. The device collects lightly contaminated greywater from showers, bath, and optionally washing machines, treats it biologically and disinfects it with UV-light and stores it for reuse in toilet flushing, washing machine and outdoor uses (irrigation, pond water). Instead of wasting water, reusing the water for flushing toilets, operating the washing machine, irrigating the garden or topping up swimming pools. Optionally, the quality of the washing machine greywater can be treated through the inlet diverter. This is installation, the inlet diverter is then prepared in the house by isolating the waste stream of the showers/baths from the waste stream of the washing machine. This greywater can then be used for the washing machine. The Hydraloop device is not intended to treat blackwater (greywater from toilets, dishwasher, or floor drains. **NOTE**: Reusable water cannot be fed to toilets and/or toilet hand showers in the home.

PRODUCT DETAILS

H300: H300, and H600:
- A decentralized greywater recycling device for shower/bath and washing machine greywater
- A non-potable water outlet for toilet flushing
- A second reusable water outlet for hand washing machine
- The auxiliary outlet for outdoor garden use (optional)
- A backup water inlet for municipal water, well water, or other backup water supply

The Hydraloop device is not intended to treat wastewater (blackwater) from kitchen sinks, dishwashers, or floor drains.
NOTE: Reusable water cannot be fed to toilets and/or toilet hand showers in the home.

DESIGN, CONSTRUCTION & COMPONENTS

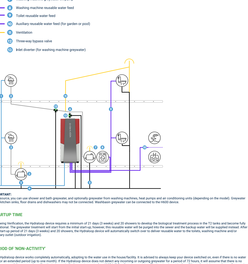
The Hydraloop device is a working greywater recycling device. It is a pre-assembled product that includes:
- Tanks for treatment and storage of both greywater and treated reusable water
- Pumps, valves, and sensors for the reusable water to toilets, washing machine and/or outdoor irrigation.

The Hydraloop device requires:
- Isolated greywater inlet from shower/bath greywater and optionally washing machine greywater via the inlet diverter option.
- Connection to a backup water supply (municipal water, rain barrels, well water, etc.) and/or a non-potable water outlet for toilet flushing, washing machine and optionally for outdoor and garden (hardtap outlet).
- Connection to electrical power.
- Connection to greywater drain.

INSTALLATION PRINCIPLE

The installation, activation and Activation of the Hydraloop device should only be carried out by approved installers who have phased-signed for their H2Ow login. This has been completed by your authorized installer and a Hydraloop Sales Engineer.

The drawing below is a reference for the piping configuration that has been completed by your plumber/installer via the Reuse Ready Guide.



IMPORTANT
As a source, you can use shower and bath greywater, and optionally greywater from washing machines, heat pumps and air conditioning units (depending on the model). Greywater from kitchen sinks, floor drains and dishwashers may not be connected. Wastewater greywater can be connected to the inlet diverter.

STARTUP TIME

During installation, the Hydraloop device requires a minimum of 21 days (3 weeks) and 20 showers to develop the biological treatment process in the C1 tanks and become fully operational. The greywater treatment will start from the initial start-up. However, this reusable water will be purged into the sewer and the backup water will be supplied instead. After 21 days (3 weeks) and at least 20 showers, the Hydraloop device will automatically switch over to deliver reusable water to the toilets, washing machine and/or outdoor tap (optional).

PERIOD OF 'NON-ACTIVITY'

Your Hydraloop device works completely automatically, adapting to the water use in the household. It is advised to always keep your device switched on, even if there is no water being used for a prolonged period of time. The Hydraloop device will then go into a 'stand-by' mode. In this mode, the Hydraloop device will still be able to perform its cleaning cycle and the pumps will activate to empty the lower storage tank until 15 L (3.3 gallons) is remaining. The four-treatment tanks will keep the minimum volume of greywater in standby mode and will continue to aerate this water in intervals, keeping the treatment system on standby for the next incoming volume. If the inactive period is longer than 1 month (30 days), the treatment tanks will empty itself to avoid any odor nuisance. The Hydraloop device will then go into a deep sleep mode. When greywater is then flowing into the system, after a deep/ standby mode the treatment process needs to be reactivated again, just like at the initial start-up of the installation. This reactivation begins automatically.

POWER OUTAGE

If there is a power outage, the Hydraloop device will not supply reusable water to the toilets and washing machine and power is restored. However, the Electronic Control Unit (ECU) will automatically restart the treatment process. The Hydraloop device will then start the treatment process and automatically switch back to supplying reusable water when it is ready and will be available immediately. If power is not restored within the four reusable water tanks in the storage tank and all greywater in the upper pre-treatment treatment tank will be purged to the sewer using the backup battery power. Once power is restored, the Hydraloop device will automatically be operational again, supplying backup water until reusable water is available. If the Hydraloop device is connected to a Uninterrupted Power Supply (UPS) to maintain power to the device.

SYSTEM MONITORING

Your Hydraloop device is fully reliable, with all critical components being monitored continuously by the Hydraloop server through your Wi-Fi internet connection. In the unlikely event a component fails, the Hydraloop device will switch to the backup water supply and the Hydraloop service team will notify reusable water being distributed as a precaution.
Note: Hydraloop Systems B.V. is not liable for any damage if the device or any other abnormal substances enters the Hydraloop device causing the system and/or the washing machine damage.

EXPLANATION VISUAL ALARM LIGHT AND AUDIBLE ALARM

Visual alarm Notifications:

Red light	A fixed light on the LED pad indicates that there is a malfunction that needs to be addressed.
Blue/Green alternate light	A blue and white alternating light on the LED panel indicates that there is reusable water in storage tank (T3), but not enough for a full washing machine cycle.
Blue light	A blue light on the LED panel indicates that there is sufficient volume of reusable water for all uses.
Green light	A green light on the LED panel indicates that the first collection tank (T1) or storage tank (T3) is drawing greywater directly to drain (waste). You now know that the device is in automatic cleaning mode.
Orange light	An orange light on the LED panel indicates that Hydraloop device is detecting that the washing machine is in operation.
Flashing Red	A red light on the LED panel indicates that there is an issue with the Hydraloop device, and its water can be distributed to the toilets and washing machine.
Flashing Green	A green light on the LED panel indicates that there is an issue with the Hydraloop device, and its water can be distributed to the toilets and washing machine.

Audible Alarm Notifications:
High water level warning: Buzzer alarm 3 beeps every minute, visual alarm 3 pulses every minute

Air pump failure: Buzzer alarm 3 beeps every minute, visual alarm 3 pulses every minute

UV lamp failure: Buzzer alarm 3 beeps every minute, visual alarm 3 pulses every minute

Water storage tank or distribution circulation failure: Buzzer alarm 3 beeps every minute, visual alarm 3 pulses every minute

Water distribution pump failure: Buzzer alarm 3 beeps every minute, visual alarm 3 pulses every minute

If you need assistance, call your Hydraloop Partner, your installer or contact Hydraloop Sales Engineer via support@hydraloop.com.

MAINTENANCE

We recommend maintenance be performed on the device once per year. The device should only be opened or serviced by Hydraloop staff or certified Hydraloop partner and/or installers.
Annual maintenance contains the following elements:
- Inspection of Hydraloop device with a critic and eminent.
- Remove, clean, and discard the air diffuser.
- Replace the UV-light (recommended to be done every three years (according to the manual of the air pump supplier).
- Replace the UV-C quartz every two years by unscrewing the UV-C light housing.
- Collect effluent samples (along the water valve that is connected to the washing machine.

Hydraloop will only sign for installed service hours frequent discharging of the water tanks may be necessary. Please check water hardness during installation.

FAQs

Please see the following page: Frequently Asked Questions

LIMITATIONS

The maximum water temperature Hydraloop can process is 140°F (60°C). Water with temperatures higher than 140°F (60°C) can damage the device.
Hot (or entering the Hydraloop device is not allowed. Doing so may damage the functionality of the Hydraloop device (a biological treatment system as well as its sensor). If this happens, Hydraloop Systems B.V. is not responsible for any damage caused by products such as hair dye, paints, or bleach in your laundry.

It is imperative that human waste going NOT go down the drain of your shower or bath. An infrequent or rare accident will not cause problems with the device, however, this may only happen occasionally, not frequently.

Cleaning the shower and bath with aggressive cleaning products containing bleach is not permitted. Doing so may damage the functioning of the device's biological treatment system and affects its sensor. These products are introduced, you will need to reset the device to backup water using the smartphone APP. Thus the user should contact your installer. We recommend using environmentally-friendly cleaning products. If using more regular cleaning products, please check they do not contain bleach.

The operating temperature of the Hydraloop device is between a minimum temperature of 37°F / 10°C and a maximum temperature of 91°F / 33°C. The Hydraloop device must be protected from direct sunlight.

We are here to help! Please don't hesitate to contact us with your questions and send your e-mail to support@hydraloop.com.

HYDRALOOP APP

The Hydraloop APP is a free APP that device owners can download on their smartphone to monitor how their Hydraloop device is functioning, gather tips on how to save potable water, and receive encouragement when water savings in the home or at a high level.
Once the APP has been downloaded on your smartphone (you will need to be connected to the Internet) page. Here you will be able to enter your Hydraloop device serial number, invoke number and the password that you received from your installer or Hydraloop Sales Engineer to location. Your WiFi details can then be inputted into the APP.
What can I do with the Hydraloop APP?
- The APP is a tool where you can see your device and all of its data.
- The APP shows the current status of the Hydraloop device in a clear way:
  - **White light**: Your device is distributing reusable water.
  - **Blue light**: Your device is distributing backup water.
  - **Green light**: Your device is in cleaning mode.
  - **Green light**: A self-cleaning process is now engaged.
  - **Blue & White alternating light**: There is reusable water in T3 tank but not enough for a complete washing machine cycle.
- The APP allows you the ability to determine the priority of your reusable water use. On Settings page you have the option of choosing the priority for the reusable water for toilet flushing, washing machine, or garden irrigation (non-potable water).
- The APP will indicate warning signals based on how the device is performing:
  - **White light**: Normal.
  - **Blue light**: Using backup water warning.
  - **Yellow light**: Air pump failure.
  - **Orange light**: UV lamp failure.
  - **Red light**: Water storage tank/water circulation failure in the reusable water storage tank
  - **Red light**: Water distribution pump failure
- There is a Statistics page that you can look at giving you a 'Water Recycled' graph. This will show you how your water savings per month, week or day depending on how you want to view the information.
- Within the Settings page you can find an option called 'Self Service' which can be a useful tool for you the user. There may be times where brand or hair dye is accidentally introduced to the greywater from the bath or shower. In these cases you can simply have your device clean your greywater to sewer to ensure that your device continues to function properly.
  - By activating the information page, you the user have access to all documentation available on the Hydraloop website. This page will offer website to frequently asked questions, instructional manuals, installation manuals and direct contact to our service team.

WARRANTY

For warranty details, please check your Warranty Certificate. Ensure that all your personal details have been entered into your Hydraloop APP.

SPECIFICATIONS AND DATA PLATE

H300
Capacity
300 liters / 80 gallons

Dimensions
Height: 1.48 cm / 58 inch
Width: 55 cm / 22"
Length: 55 cm / 22"
Weight: 75 kg / 165 lbs. (dry)

Voltage
Versions for 100-120V (60Hz)
or 220-240V (50 Hz), 2.4A internal

Power consumption
On average: 100 watts p. per system

Noise level
< 44 dB

Greywater input sources
-shower
-bathtub
-washing machine (inlet diverter)

H600
Capacity
600 liters / 160 gallons

Dimensions
Height: 1.98 cm / 78"
Width: 55 cm / 21.5"
Length: 1.40 cm/ 57"
Weight: 115 kg (586 lbs. (dry)

Voltage
Versions for 100-120V (60Hz)
or 220-240V (50 Hz), 2.4A internal

Power consumption
On average: 100 watts p. per system

Noise level
< 44 dB

Greywater input sources
-shower
-bathtub
-washing machine
-outside dryer
-condensation
-heat pump
-washing machine (inlet diverter)

AVERAGE REUSABLE WATER QUALITY

NSF 350 Effluent Parameters	
CBOD5	10 ppm (mg/L) 400
TSS	10 ppm (mg/L) 400
Turbidity	5 NTU 200
E. coli	14 MPN/100 mL
pH	6 - 9
Dissolve Oxygen	> 1.0 mg/L

DATA PLATE / SERVICE LABEL

The Hydraloop device has a permanent data plate attached on the top of the device that should look like the example below.

- This document and its contents are the sole property of Hydraloop Systems B.V. and must not be copied to a third party either in part or whole without prior written consent of Hydraloop Systems B.V.
- Hydraloop Systems B.V. has the right to change the specifications stated in this document.
- Hydraloop products are protected by patents and patents pending. The Hydraloop brand name is a registered trademark.

HYDRALOOP
Water Saving Solutions
Hydraloop Systems B.V.
Greenspring 7
6017 RR Leeuwarden
The Netherlands
+31 58 285 2050

Hydraloop Inc.
Corporate headquarters
251 W. Fourteenth Ave, Suite 210
San Mateo, CA 94402
United States of America
+1 415 580 5211

Hydraloop MENA LLC
Dubai Silicon Oasis
Al Forsan, The Meadow House
Dubai Silicon Oasis, Dubai
U.A.E.
+971 5 025 400 90

E-Mail: support@hydraloop.com
Website: www.hydraloop.com