Owner manual Hydraloop H300 & H600

Hydraloop H300 and H600 have been tested and certified under IAPMO R&T and NSF/ANSI 350 Class R.

SAFETY

General Safety Instructions

WARNING

- Before installing or operating any Hydraloop device, carefully review this manual.
- A Hydraloop device produces non-potable water. DO NOT use the output water for drinking purposes. Be aware that the backup water outlet and non-potable outlet are situated close together.
- Only Hydraloop staff, certified Hydraloop partners, or authorized installers should open or service the device to minimize the risk of electric shock.
- Follow the installation manual to ensure the safe and proper installation of the Hydraloop device.

WARNING

- If the power cable is damaged, it should be replaced by Hydraloop staff, a certified Hydraloop partner, or authorized installers.
- Before servicing or conducting maintenance, ensure the Hydraloop device is disconnected from the backup water supply.

ATTENTION

After commissioning or performing any work on the Hydraloop device, inspecting all water lines thoroughly for leaks and potential cross-connections is essential.

Recommendations

ATTENTION

- Install the Hydraloop device indoors, maintaining an ambient temperature range of 14–40 °C or 57–104 °F
- Avoid exposing the Hydraloop device to direct sunlight
- Do not connect reusable water to a bidet or a toilet hand shower
- Ensure the Hydraloop device is always easily accessible for service and maintenance

ATTENTION

- The Hydraloop device must be moved or transported upright or vertically
- Be careful to avoid any damage to the exposed underside of the device

Responsibility and Liability

Manufacturer

Hydraloop ensures the proper functioning of the device following its general sales conditions. However, as the manufacturer, Hydraloop is not responsible in the following instances:

- Failure to follow instructions for Recycle 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, ensuring compliance with local legislation, electrical, and plumbing codes. Key responsibilities include:

- Obtaining login details from the Hydraloop Sales Engineer
- Conducting testing and activation through the HDM, along with performing all necessary checks
- Maintaining a comprehensive commissioning report
- Keeping a record of maintenance activities within their log
- Providing a detailed explanation of the operation to the user/owner
- Offering guidance on using the Hydraloop APP

User

For the best performance of the Hydraloop device, please follow these guidelines:

- Refer to the owner's manual
- Seek help for the setup, installation, testing, verification, activation, and ongoing maintenance of the device from an authorized, skilled, and certified installer
- Perform routine maintenance at intervals determined by the caliber of the input water

INTRODUCTION

Hydraloop offers a range of patented residential greywater recycling products. The device collects lightly contaminated greywater from showers, baths, and optionally from washing machines, bathroom hand basins, heat pumps, and/or air-conditioning systems (depending on the model). The greywater is treated and disinfected so that it can be reused for flushing toilets, operating the washing machine, irrigating the garden, or topping up swimming pools. Optionally, approximately 50% of the washing machine greywater can be treated through the inlet diverter.

Prior to installation, the lines need to be prepared in the house by isolating the waste stream of the showers and baths from the waste stream of other water sources (such as sinks, kitchens, and toilets). The toilet fixtures and the washing machine have dedicated lines and inlets for receiving reusable water processed by your Hydraloop device (separated from potable water).

PRODUCT DETAILS

Models: H300 and H600

- A decentralized greywater recycling device for greywater from showers, baths, and washing machines,
- One reusable water outlet to feed toilet flushing,
- A second reusable water outlet to feed washing machine,
- An auxiliary outlet for outdoor garden use (optional)
- In addition to treating shower/bath greywater, 50% of the laundry greywater can be treated with the inlet diverter option.

Your Hydraloop device is not intended to treat wastewater (blackwater) from toilets, kitchen sinks, dishwashers, or floor drains.

NOTE: Reusable water cannot be fed to bidets and/or toilet hand showers in the home.

DESIGN, CONSTRUCTION & COMPONENTS

The Hydraloop device is a turnkey greywater recycling device. It is a pre-assembled product that includes:

- Tanks for the treatment and storage of both greywater and treated reusable water.
- Booster pump to distribute the reusable water to toilets, washing machines, 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,
- One or more independent reusable water outlets, depending on model and version (auxiliary outlet),
- Connection to backup water supply,
- Connection to sewer,
- Connection to electrical power,
- Connection to permanent Wi-Fi.

INSTALLATION PRINCIPLE

Only authorized installers who have scheduled an HDM login should perform the installation, verification, and activation of the Hydraloop device. Your authorized installer and a Hydraloop sales engineer have completed this login.

The drawing below is a reference to the piping configuration that has been completed by your plumber/installer via the Recycle 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. Washbasin greywater can be connected to the H600 device.

START-UP TIME

Following verification, the Hydraloop device requires a minimum of 21 days (3 weeks) and 20 showers to develop the biological treatment process in the T2 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 this start-up period of 21 days (3 weeks) and 20 showers, the Hydraloop device will automatically switch over to deliver reusable water to the toilets, washing machine, and/or auxiliary outlet (for outdoor use).

PERIOD OF ‘NON-ACTIVITY’

Your Hydraloop device works completely automatically, adapting to the water use in the home/building. It is advised to always keep your device switched on, even if there is no water use for an extended period (up to one month).

If the Hydraloop device does not detect any incoming or outgoing greywater for a period of 72 hours, it will assume that there is no occupancy, and the purge valve will activate to empty the lower storage tank until 15 L | 3.5 gallons are remaining. The two treatment tanks will keep the minimum volume of greywater in standby mode and will continue to aerate this water at intervals, leaving the treatment system on standby for the next incoming volume.

If the inactive period is longer than 1 month, the device will purge the upper tank and go into ‘deep’ standby mode. Once incoming greywater enters the device, it will ‘wake up’ and begin functioning automatically. However, after a ‘deep’ standby mode, the treatment process needs to be reactivated again, just like at the initial startup 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 machines until power is restored. However, the Electronic Control Unit (ECU) will continue to function via backup batteries. If power is restored within one (1) hour, the device will automatically begin operating normally. Stored reusable water or backup water will be available immediately. If power is not restored within the hour, reusable water in the storage tank and all greywater in the upper processor 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 your area experiences frequent power outages, installing an inexpensive Uninterrupted Power Supply (UPS) could be your best option for keeping the device powered on.

SYSTEM MALFUNCTION

Because the Hydraloop server continuously monitors all crucial components via your Wi-Fi internet connection, your Hydraloop device is very dependable. In the unlikely event a component fails—for example, the UV lamp—the Hydraloop system will automatically switch to backup water, with no reusable water being distributed as a precaution.

Note: Hydraloop Systems BV is not liable for any damage if the above or any other abnormal substances enter the Hydraloop device, causing the system and/or the washing machine damage.

VISUAL ALARM LIGHT AND AUDIBLE ALARM

Visual Status Indications

White light: A white light indicates that there is a sufficient volume of reusable water for all uses.

Blue light: A blue light indicates that there is currently no reusable water available and backup water is being used for all purposes.

Blue white alternate light: A blue-white alternating light indicates that there is reusable water in the storage tank, but not enough for a full washing machine cycle.

Green light: A green light indicates that the Hydraloop device is in automatic cleaning mode.

Purple light: A purple light indicates that the Hydraloop device is detecting that the washing machine is in operation.

Orange light: An orange light indicates that your Hydraloop device is currently not treating greywater and has automatically switched over to backup water.
Since your device is monitored 24/7, your Hydraloop installer knows about this. If the status light does not change after 24 hours, please contact Hydraloop support in your Hydraloop app.

Red light: A red light on the LED panel can indicate two things.
1. The Hydraloop device detects an issue with your toilets or washing machine.
2. There is an issue with the Hydraloop device, and no water can be distributed to the toilets and washing machines. In the event of a red light, please open your Hydraloop app and contact Hydraloop directly.

Audible Status Indications

High water level: Buzzer alarm: 2 beeps every minute, visual alarm: 2 pulses every minute

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

UV lamp: Buzzer alarm: 4 beeps every minute, visual alarm: 4 pulses every minute

Water storage tank re-disinfection circulation: Buzzer alarm 5 beeps every minute, visual alarm: 5 pulses every minute

Water distribution pump: Buzzer alarm: 6 beeps every minute, visual alarm: 6 pulses every minute

If you need assistance, please call your Hydraloop installer or contact Hydraloop directly via support@hydraloop.com or the Hydraloop app.

MAINTENANCE

We recommend maintenance be performed on the device once per year. Only Hydraloop staff, a licensed Hydraloop partner, and/or installers should open or service the device.

This check contains the following elements:

- Descaling of the Hydraloop device with a citric acid solution.
- Remove, clean, and descale the air diffuser.
- Replace the rubber membranes of the air pump every three years (according to the manual of the air pump supplier).
- Replace the UV light bulb every two years by unscrewing the lid on the UV-C lamp housing.
- Collect effluent samples using the water valve that is connected to the washing machine.

In regions with very high levels of water hardness, more frequent descaling of the water tanks may be necessary. Please check the water hardness during installation.

PRECAUTIONS

High temperature

The maximum water temperature Hydraloop can process is 60°C | 140°F. Water with temperatures higher than 60°C | 140°F can damage the device. The operating temperature of the Hydraloop device is between a minimum temperature of 14°C | 57°F and a maximum temperature of 35°C | 95°F. The Hydraloop device must be protected from direct sunlight.

Avoid hair dye

Hair dye should not enter the Hydraloop device, as it can harm the biological treatment system and seals. In case of accidental contact, adjust the app settings to have backup water feed the outlets and contact your installer. Hydraloop Systems B.V. is not responsible for damage caused by products such as hair dye, paints, or bleach to your laundry.

No human waste

It's crucial to prevent human waste from going down the shower or bath drain. While an infrequent accident may not cause problems, frequent incidents should be avoided.

Shower hair care

Long hair loss can lead to clogs, potentially causing wastewater piping issues and hindering the efficiency of your Hydraloop device(s). Follow these practices for optimal performance:

- Install dedicated debris traps or strainers in shower drains, bathtubs, and sinks. Alternatively, use filters or barriers during bathing to capture debris and prevent clogs.
- Regularly clean debris traps or strainers to remove buildup and prevent clogs.

Incorporating these practices ensures smooth operation and minimizes the risk of disruptions and the need for interventions by professional service engineers.

No bleach

Cleaning the shower and bath with products containing bleach is not allowed, as it may damage the biological treatment system and seals. In case of accidental use, set the device to backup water via the smartphone app and contact your installer. Consider using environmentally friendly cleaning products.

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

HYDRALOOP APP

The Hydraloop app is a free app that device owners can download on their smartphones to monitor how their Hydraloop device is functioning, gather tips on how to save potable water use, and receive encouragement when water savings in the home/facility are at a high level.

Once the app has been downloaded on your smartphone, open it up to find the Dashboard page. Here you will be able to enter your Hydraloop device serial number, model number and version number, as well as personal information about your device and its location. Your WiFi details can then be inputted into the app.

What can I do with the Hydraloop app?

- The app allows you to check the status of your Hydraloop device.
  The following status indicators will give an indication of what your device is doing:
  - **White light:** Your device is distributing reusable water.
  - **Blue light:** Your device is distributing backup water.
  - **Purple light:** Your washing machine is active.
  - **Green light**: A self-cleaning process is now engaged.
  - **Blue & White alternating light:** There is reusable water in the storage tank, but not enough for a complete washing machine cycle.
- The app allows you to determine the priority of your reusable water use. On the Settings page, you have the option of choosing the priority for the reusable water for either the toilet, washing machine or auxiliary outlet (outdoor irrigation).
- The app will indicate warning signals based on how the device is performing:
  - **White light:** None
  - **Orange light:** High water level warning
  - **Orange light:** Air pump failure
  - **Orange light:** UV lamp failure

    - **Orange light:** Re-disinfection circulation failure in the reusable water storage tank
    - **Red light:** Water distribution pump failure
- The Statistics page in the app shows a 'Water Recycled' graph. This lists your water savings per month, week or day, depending on how closely you want to monitor your water savings.
- Within the Settings page, you can find an option called 'Self Service' that can be a useful tool for you, the user. There may be times when bleach or hair dye is accidentally introduced to the greywater from the bath or shower. In these cases, you can simply have your device direct your greywater to the sewer to ensure that your device continues to operate effectively.
- By activating the Information page, you, the user, have access to all documentation available on the Hydraloop website. This page will offer weblinks to frequently asked questions, troubleshooting manuals, installation manuals, and direct contact with our service team.

WARRANTY

For detailed information on warranty coverage, please review your warranty certificate. It is essential to ensure that all your personal information is accurately entered into your Hydraloop app.

Under this Factory Warranty ("Warranty"), Hydraloop guarantees to the original purchaser of the Hydraloop device (referred to as the "Product"), as outlined in Part 1 of the Warranty Policy under "Customer," that the product will be free from material defects for a period of two (2) years from the date of the original purchase invoice from Hydraloop or one of its authorized partners, unless local jurisdiction mandates a longer term. In these warranty terms, a "Defect" refers to a manufacturing or design flaw that significantly affects the product's use, is solely attributable to Hydraloop, and is not detectable at the time of product delivery.

To assist Hydraloop device owners in entering their information, contact details, and physical address into the warranty section on the Hydraloop app, the Hydraloop installer will provide support.

SPECIFICATIONS

H300

Volume	300 liters | 80 gallons
Cleaning capacity	360 liters | 95 gallons per day, depending on user behavior
Voltage	100 / 240V, 24V internal
Average power consumption	220 kWh/year, 25W during treatment
WiFi	The Hydraloop device needs to be connected with an internal WiFi-network
Sound Level	± 44 dB
Greywater input sources	– shower – bath – washing machine (inlet diverter)

H600

Volume	600 liters | 160 gallons
Cleaning capacity	850 liters | 225 gallons per day, depending on user behavior
Voltage	100 / 240V, 24V internal
Average power consumption	460 kWh/year, 53W during treatment
WiFi	The Hydraloop device needs to be connected with an internal WiFi-network
Sound Level	± 46 dB
Greywater input sources	shower, bath, hand basin, tumble dryer, air conditioning, heat pump, washing machine (inlet diverter)

H300 and H600 DIMENSIONS AND WEIGHTS (Metric)

HYDRALOOP MODELS	HEIGHT (MM)	WIDTH (MM)	LENGTH (MM)	DRY WEIGHT (KG)	WET WEIGHT (KG)
H300	2045	335	810	82,5	383
H300 PACKAGED	2198	345	815	90,5	–
H300 DISPLAY MODEL	2045	335	810	40	–
H300 DISPLAY MODEL PACKAGED	2198	345	815	50	–
H600	2080	680	810	128	739,5
H600 PACKAGED	2190	705	820	138	–
H600 DISPLAY MODEL	2080	810	720	100	–
H600 DISPLAY MODEL PACKAGED	2190	705	820	72	–

H300 and H600 DIMENSIONS AND WEIGHTS (Imperial)

HYDRALOOP MODELS	HEIGHT (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)	DRY WEIGHT (POUNDS)	WET WEIGHT (POUNDS)
H300	80.51	13.19	31.88	181.91	844.52
H300 PACKAGED	86.54	13.58	31.88	199.55	–
H300 DISPLAY MODEL	80.51	13.19	31.88	88.20	–
H300 DISPLAY MODEL PACKAGED	86.54	13.58	31.88	110.25	–
H600	81.89	26.77	31.88	282.24	1630.60
H600 PACKAGED	86.22	27.76	32.28	304.29	–
H600 DISPLAY MODEL	81.89	26.77	31.88	136.71	–
H600 DISPLAY MODEL PACKAGED	86.22	27.76	32.28	158.76	–

DATA PLATE/SERVICE LABEL

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

EUR

US