

INSTALLATION MANUAL H600

ORIGINAL INSTRUCTIONS



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

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 device output water for potable use. Please note that the backup water outlet and non-potable outlet are close in proximity.
- The device should only be opened or serviced by Hydraloop staff or certified Hydraloop partner and/or installers. Risk of electric shock may occur.
- The Hydraloop device should be installed according to installation manual for safe operation.

WARNING

- 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.

ATTENTION

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

RECOMMENDATIONS

ATTENTION

- The Hydraloop device should only be installed indoors with an ambient temperature between 14-35°C | 57-95°F.
- The Hydraloop device should never be exposed to sunlight.

- Reusable water should never be connected to a bidet and/or a toilet hand-shower.
- The Hydraloop device should always be accessible for service and maintenance.

ATTENTION

- The Hydraloop device should only be moved or transported in an upright, vertical position.
- Care should be taken not to damage the exposed underside of the device.

ATTENTION

- Never direct greywater from kitchen sinks, floor drains or dishwasher to the Hydraloop device.
- Only use greywater from shower/bath, and optionally from washing machines.
- In cases of excessive soap use, foam may form within 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 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:

- Installation shall be according to local legislation, electrical and plumbing codes
- Installer must have obtained login details from Hydraloop Sales Engineer
- 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:

- [Owner's manual](#)
- 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

RECYCLE READY CHECKLIST

By now the building has been prepared to be Recycle Ready with the plumbing configuration laid out according to the Hydraloop Recycle Ready document. Please ensure that you have completed and submitted your Recycle Ready Checklist and that you (as the Installer) have prearranged a login for the HDM with a Hydraloop Sales Engineer prior to the installation date (support@hydraloop.com). Without this access activation cannot be performed.

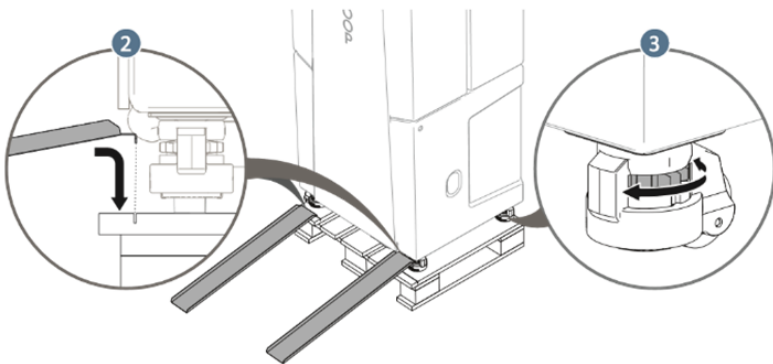
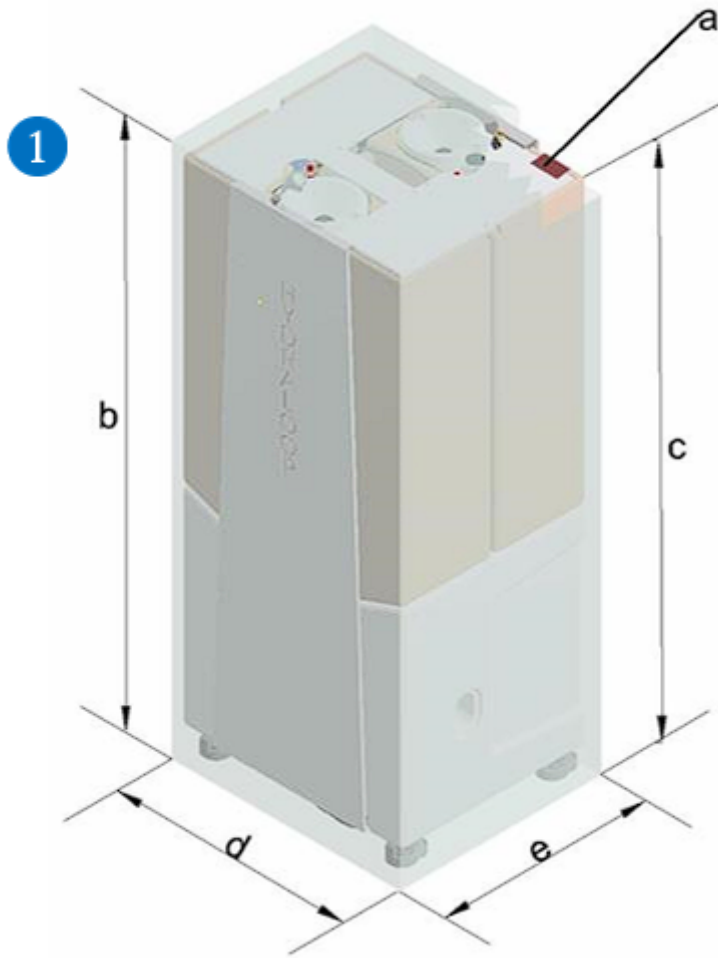
HYDRALOOP H600 DIMENSIONS AND WEIGHTS

HYDRALOOP MODELS	HEIGHT (MM)	WIDTH (MM)	LENGTH (MM)	DRY WEIGHT (KG)	WET WEIGHT (KG)
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	-

HYDRALOOP MODELS	HEIGHT (INCHES)	WIDTH (INCHES)	LENGTH (INCHES)	DRY WEIGHT (POUNDS)	WET WEIGHT (POUNDS)
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	-

OFF-LOADING AND UNPACKING INSTRUCTIONS

The Hydraloop device will be transported to your location mounted and strapped onto a HL-Transport plate, wrapped in protective packaging, and mounted onto a wooden pallet. When moving the Hydraloop device, it is important to always keep it in an upright, vertical position. A horizontal position may cause damage to the devices' internal components and seals.



1 Leave the protective packaging on until device is placed at its final installation position

- 2 Place the lip of transport rails in the grooves on the pallet. Make sure transport rails are flush with top of pallet
- 3 Turn adjustment ring on each castor wheel clockwise until brake is released. Device can now maneuver freely
 - With a person on either side of the device, carefully roll it down the transport rails and off the pallet
 - Roll the H600 to final position
 - Turn the adjustment ring on the castor wheels counter clockwise to activate brake
 - Use the adjustment ring on castor wheels to level the device
 - Make sure the Hydraloop device is not leaning on the castor wheels when in operation, but on the supports
 - The wheels of the H600 cannot support the operational weight of the device

The H600 comes with the following items:



- H600 device

- ½" gasket (5x)

- PVC ball valve

- Power cable

- Mesh inline filter

- Flexible connectors (3 x)

- Quick Reference Guide

INSTALLATION CONSIDERATIONS

Basic installation steps:

1. Prior to installation ensure that you are following applicable plumbing and electrical guidelines in your city or state/province and that your plumbing configuration is protected against backflow and cross connection maintaining the safety of the public water supply.
2. Position the Hydraloop device in its planned location.
3. Connect H600 wastewater outlet to sewer.

4. Connect incoming greywater to the inlet on the top of the device via inlet manifold, in combination with external lift pump if necessary.
5. Connect H600 reusable water outlet connections.
6. Connect the backup water supply and open.
7. Plug 100/240V power cord into wall socket.
8. Run the Testing, Verification and Activation using the HDM with your Hydraloop Sales Engineer.

H600 INSTALLATION ORIENTATION

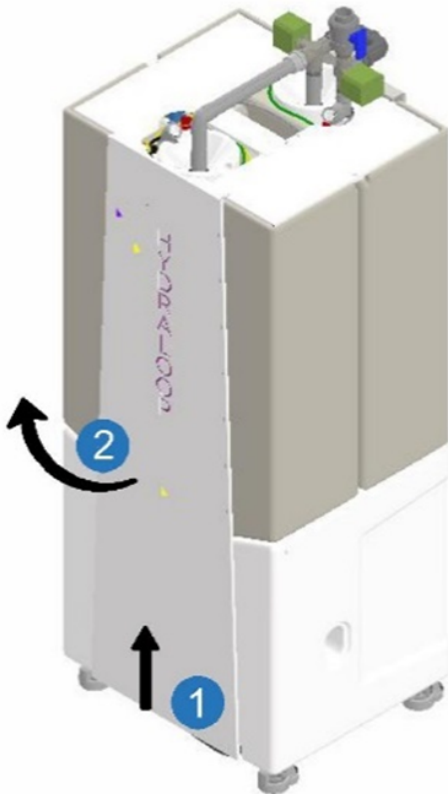
The H600 does not need to be affixed to the wall to protect against falling over as it is balanced with its two upper tanks having a wider base for stability. Access is needed to both the front and back of the device for maintenance, so it is recommended that it be installed with its side flush against the wall. See image below:



FRONT PLATE REMOVAL AND BACKPLATE REMOVAL

To remove the stainless-steel front plate, use a lever on the lower side of the front plate to carefully lift the stainless plate upwards. The plate is holding its position due to its shape so once it moves upwards it will be free to remove. Disconnect the LED light connection from the front plate and put the plate aside.

The H600 has both a front and back plate with LED light connections on the front only. Both will need to be removed to expose both modules on either side.

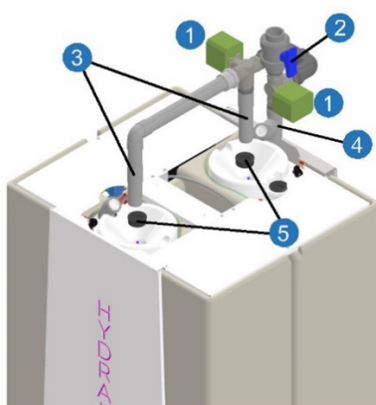


1 Carefully wedge a wooden (broom stick handle) or plastic tool between the bottom of the front plate and the floor and move the front plate upwards.

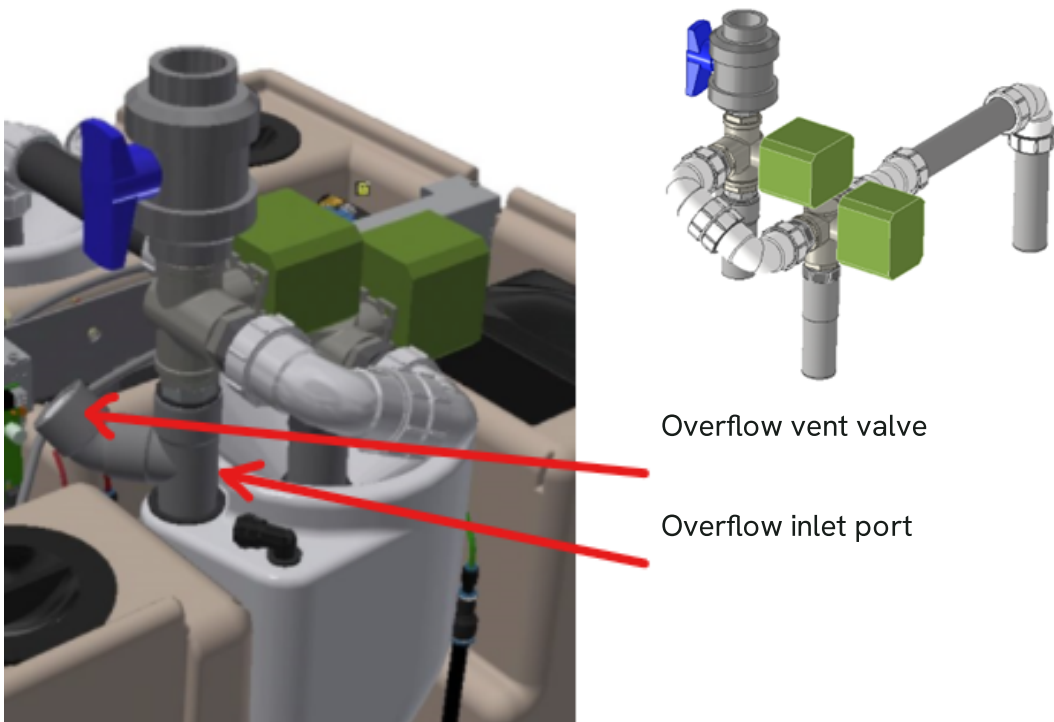
2 Remove the front plate off the device.
Disconnect the earth wire and LED light connection (Premium model) from the top of the front plate being careful not to break the wire connection.

*Place the front plate in a way that it cannot fall and be damaged.

H600 GREYWATER INLET MANIFOLD INSTALLATION



- 1** Inlet diverter valve
- 2** Manual shut-off valve
- 3** T1A & T1B greywater inlet pipes
- 4** Overflow pipe
- 5** Black rubber seal rings



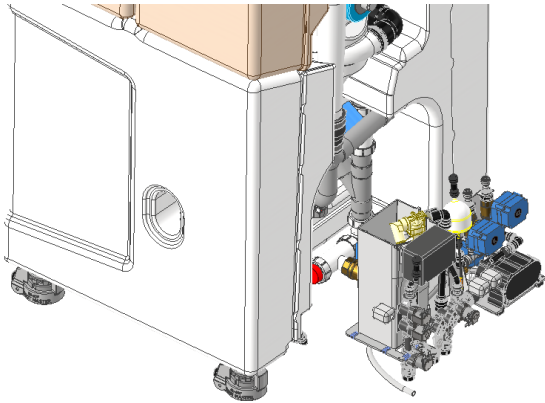
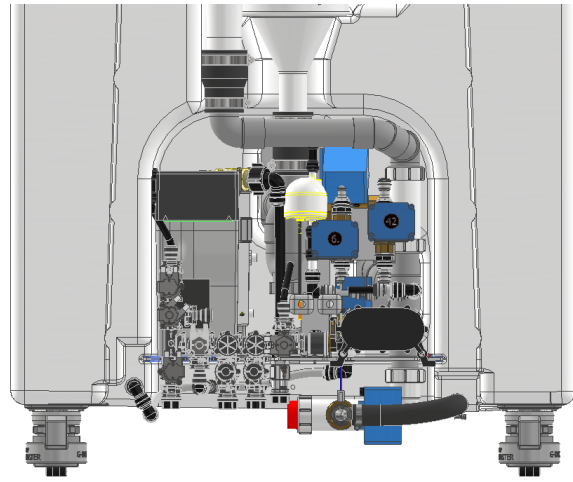
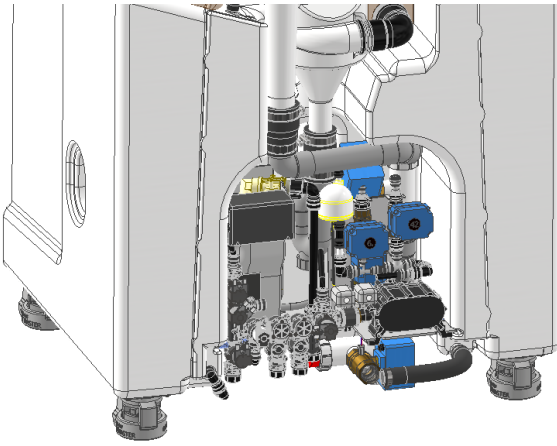
Install the H600 inlet manifold as follows:

1. There are 3 pipes to be inserted into the top of the device and 1 open ended connection for the greywater inlet.
2. Stand in front of the device (the front is the side with the LED connections) and note that the inlet manifold needs to be oriented with the valve cluster (indicated by #1 & #2 on the drawing above) on the far/back side of the T1 tank inlet.
3. Place 1 of the black seal rings on the overflow pipe (#4 on drawing) and slide it all the way to the T-piece.
4. Lubricate (Vaseline) the outside of the seal and the overflow inlet port.
5. Lubricate the other 2 seal rings both inside and outside, and both T1 inlet pipes.
6. Place a lubricated seal ring over each of the inlet pipes.
7. Position and slide the inlet manifold into the T1 tank inlets and overflow port as indicated in the above drawing. Apply equal pressure, ensuring the top pipe stays horizontal, and push all 3 pipes in until the seal on the overflow pipe is securely nested in between the T-piece and the T1 tank overflow opening.
8. Ensure all 3 seals are securely in place and watertight.
9. Connect the 40mm | 1 ½" OD shut off valve to the manifold inlet and connect the 3-way Recycle Ready valve with the pipework to the shut off valve.

REUSABLE WATER OUTLETS

The Hydraloop device comes equipped with three standard outlet valves, (1) dedicated for feeding multiple toilets (no high flush toilets) and (1) dedicated for feeding one washing machine (1) auxiliary outlet (irrigation). Note that the irrigation valve will not be permanently pressurized, unlike the other two reusable water outlets. This outlet's standard function is to supply reusable water when a surplus is available.

Note the outlet connections on the H600 in the drawing below:



Connection specifications Hydraloop H300 & H600

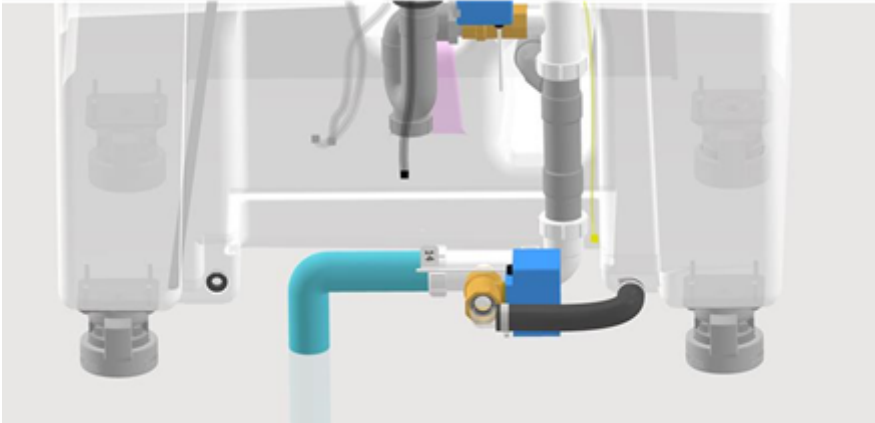
Input connection		Size (imperial)	Size (metric)	Thread type	Additional information
	Greywater supply	1 ½"	40 mm (OD)	PVC	Into feed channel
4	Backup water supply	½"	15 mm	male	
	Inlet diverter (optional)	1 ½"	40 mm (OD)	PVC	
Output connection		Size (imperial)	Size (metric)	Thread type	Additional information
2	Toilet supply	½"	15 mm	male	Connect to flexible hose
3	Washing machine supply	½"	15 mm	male	Connect to flexible hose
1	Auxiliary outlet (optional)	½"	15 mm	male	Connect to flexible hose
5	Wastewater line	1 ½"	40 mm (OD)	PVC	*Into rubber sleeve - 40 mm ID or 40/50 adapter

H600 WASTEWATER OUTLET INSTALLATION

The 40 mm | 1 1/2" OD wastewater line at the bottom of the H600 needs to be connected to the sewer with the PVC eccentric adapter ring or *rubber reducing sleeve (40 mm ID or 40/50) through the floor (first image).

*Please note that the rubber reducing sleeve do not come with the Hydraloop device and must be provided by the installer.

H600 drain line connected to sewer system by using reducing sleeve through the floor



* Rubber reducing sleeve - 40 mm ID or 40/50 rubber adapter OR equivalent available in your country - Not included with the Hydraloop device

INTRODUCING AN EXTERNAL LIFT PUMP

If the Hydraloop device is on the same or higher floor as the shower/bath or washing machine an external lift pump needs to be incorporated to have the source greywater enter the device.

To discuss alternate options for introducing an external lift pump please refer to your Recycle Ready document or speak to your Hydraloop Sales Engineer for assistance at support@hydraloop.com.

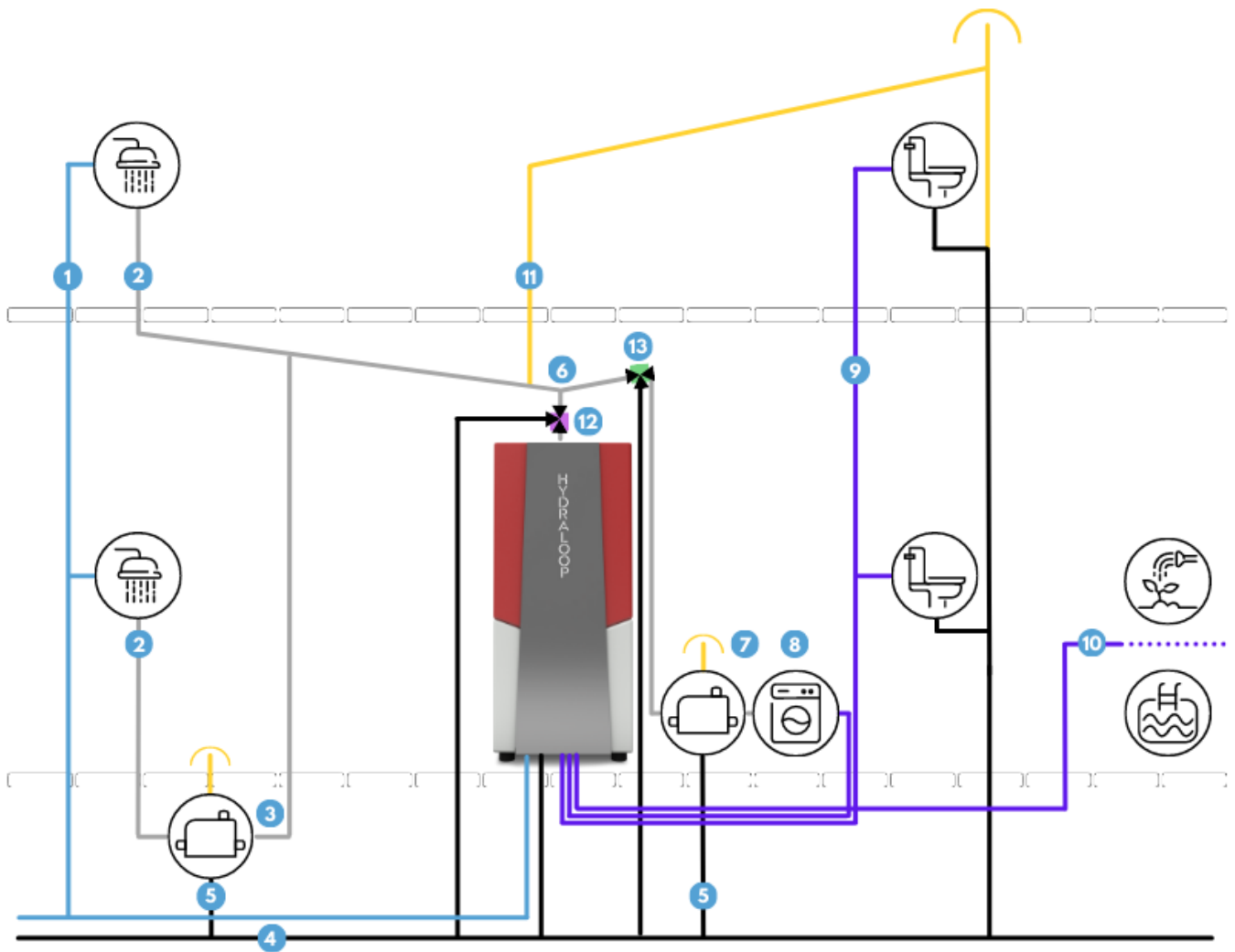
NOTE: When servicing the lift pump please have Hydraloop device on bypass so as not to potentially clog the device with particulate that may have accumulated in the lift pump over time.

INSTALLATION

The Installation, Verification and Activation of the Hydraloop device should only be carried out by approved installers who have prearranged for their HDM login. This can only be done through messaging support@hydraloop.com. Once you have made your appointment you will receive authorization and your login.

The drawing below is a reference to the piping configuration that has been completed via the [Recycle Ready Guide](#).

RECYCLE READY PLUMBING DIAGRAM



COLOR LEGEND

1	Backup water
2	Greywater and condensation water
3	Lift pump
4	Sewage line
5	Lift pump overflow + maintenance waste
6	greywater and condensation water inlet
7	washing machine greywater lift pump

8	washing machine reusable water feed
9	toilet reusable water feed
10	auxiliary reusable water feed (garden or pool)
11	ventilation
12	manual three-way bypass valve (not included with device)
13	electrical inlet diverter (for washing machine greywater input)

PREPARATION, INSTALLATION, TESTING, VERIFICATION AND ACTIVATION OF THE H600 DEVICE

1. Preparation – Recycle Ready configuration and Recycle Ready checklist must be complete and submitted to support@hydraloop.com
2. Installation
 1. Delivering of H600 to site
 2. Unboxing of the device
 3. Placing the device in position
 4. Securing the device to the back wall leaving room for electrical connections
 5. Connection of greywater inlet, backup water and reusable water lines
 6. Applying electrical connection
3. Testing, Verification and Activation: This step is conducted through the HDM by an approved and trained Installer with a pre-requested login to the HDM. Hydraloop Sales Engineers will be available for first time installers to assist and guide them through the process.
 1. Switch device from greywater bypass to the Hydraloop device
 2. Go through testing of all device systems via the HDM "verification"
 3. Select priority options connected to toilets, washing machine, auxiliary outlet, and lift pumps
 4. Activation of the H600 when all device systems have passed the validation steps. This will occur automatically once all HDM steps have been completed.
4. Commissioning: This step will be conducted through the APP, by the client, or someone assisting the client when the client is occupying the home, and permanent Wi-Fi has been established.
 1. Set up permanent Wi-Fi connection through the APP. Ethernet connection is also available on the device.
 2. Connect the client's smartphone to the Hydraloop device through the APP
 3. Fill in the Warranty information via the APP. At this point in time the Warranty period will start as well as the start-up time

Activation of the device cannot be performed until installer has registered for an HDM login.

Accessing the HDM:

1. Open hdm.hydraloop.com in your browser
2. Sign in with your Username and Password as supplied via email from your Hydraloop Sales Engineer
3. Two-factor authentication is required, enable it to gain complete access
4. Install the APP of your operating system choice
5. Scan QR code
6. Enter verification code
7. Change your password
8. Save Changes (Save icon in top right-hand corner)

Once logged into HDM you will be instructed to scan the barcode on the top of the Hydraloop device. Scanning the barcode will open your device up onto the HDM and the verification process will begin. You will be given instructions on how to proceed to the next steps.

The Hydraloop APP needs to be downloaded on both the Installers and device owners smartphone. If you need assistance, please call your Hydraloop dealer or contact Hydraloop Sales Engineer via email support@hydraloop.com

STARTUP TIME

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.

BACKUP WATER & BACKFLOW PREVENTION

If there is not enough reusable water available, the device will automatically switch to backup water. The device is connected to its backup water supply via an air gap to protect the tap water against backflow or cross contamination. Additionally, a non-return valve is mounted on the point of incoming backup water. NOTE: If using rainwater as a backup water supply pretreatment must be applied prior to entering the Hydraloop device. Pretreatment should include a 5-micron filter and carbon filtration, UV disinfection, expansion vessel and a pressure regulator (depending on the booster pump). The incoming flowrate should not exceed 12 lpm | 3.2 gpm, 1.5-3 bar | 21.75 - 43.5 psi.

PLUMBING BACKUP FACILITY

During periods of unscheduled maintenance, service, or power failure it might be possible that supply of reusable water backup water is temporarily not available. To overcome this a bypass option can be installed. The bypass setup must comply with the applicable regulations of the country, state, or municipality.

DEVICE MALFUNCTION

The Hydraloop device is extremely reliable, and all critical components are monitored continuously by our server through a permanent Wi-Fi internet connection. In the unlikely event a component fails (i.e., the UV lamp) the device will automatically switch to backup water, and everything in-house will function as usual, with no reusable water being distributed as a precaution. An automated system warning will appear on the HDM and Hydraloop APP.

Warning

Hydraloop device is designed for 'normal usage' and is not designed to receive solid materials like stones, chemicals, paint residues, hair dye, bleach, disinfectants, or any other matter that is unusual for shower/bath and washing machine greywater. In the event these substances enter the H300, it can be damaged, and the water treatment can be affected. There is a function in the APP where the greywater from the T1 tank can be wasted to the sewer if you suspect foreign matter has entered the Hydraloop device (i.e., hair dye or bleach).

Note: Hydraloop Systems BV is not liable for any damage if the above or any other abnormal substances enter the H600.

EXPLANATION VISUAL ALARM LIGHT AND AUDIBLE ALARM

Visual Alarm Notifications:

Blue light: A blue light on the LED panel indicates that there is currently no reusable water available and backup water is being used for all functions.

Blue white 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.

White light: A white light on the LED panel indicates that there is a 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 directing greywater directly to drain (waste). You now know that the device is in automatic cleaning mode.

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

Orange light: An orange light on the LED panel indicates that there is an issue with the Hydraloop device, and the greywater is not being treated. Action needs to be taken.

Red light: A red light on the LED panel indicates that there is an issue with the Hydraloop device, and no water can be distributed to the toilets and washing machine. Immediately contact your installer or Sales Engineer to begin the troubleshooting process.

Audible Alarm Notifications:

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

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

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

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

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

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

WARRANTY

Under this Factory Warranty ("Warranty") Hydraloop warrants to the first and original purchaser of the Hydraloop device set forth in Part 1 of the Warranty Policy under "Customer", such product hereinafter referred to as the "Product", that such Product shall be free from material Defects for a period of two (2) years as of the date of the original purchase invoice from Hydraloop or one of its authorized Partners, unless local jurisdiction requires a longer term. "Defect" as used in these warranty terms means a manufacturing or a design defect that materially impinges on the use of the Product and which is solely attributable to Hydraloop and that was not detectible at the time of delivery of the Product or part of the Product.

Installer to assist Hydraloop device owner with entering their information, contact details and physical address into the warranty section on the Hydraloop APP.

AVERAGE REUSABLE WATER QUALITY



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

NSF 350 Effluent Parameters	
CBOD5	10 ppm (mg/L) - AVG
TSS	10 ppm (mg/L) -AVG
Turbidity	5 NTU - AVG
E. coli	14 MPN/100 mL

pH	6-9
Noise level	= + 44 dB

DATA PLATE / SERVICE LABEL

The H600 has a permanent data plate attached on the top of the device that should look like the example below.

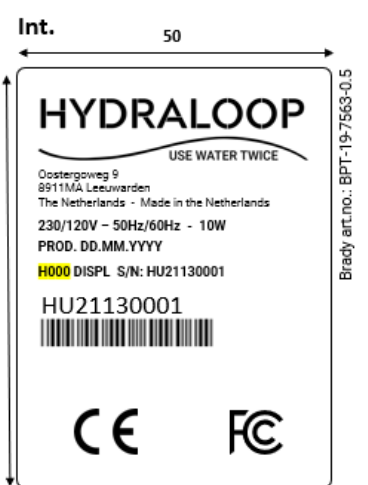
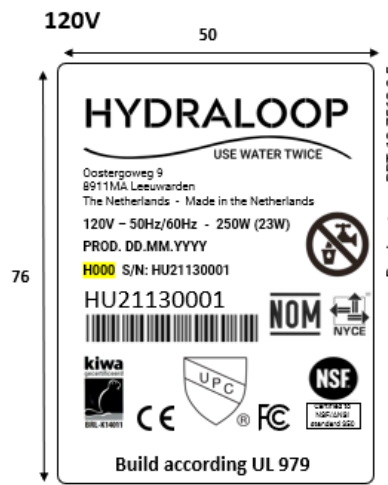
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HYD0017-6

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- Hydraloop reserves 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.

GLOSSARY OF TERMS

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

Blackwater: Contaminated wastewater containing pathogens from human waste and other organic materials. This wastestream 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, pool top-up).

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 optional valve allows for the intake of greywater from sources other than the shower/bath i.e. 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 Outlet: 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. Through this platform the Testing, Verification and Activation of the Hydraloop device are conducted as well as the monitoring, maintenance, troubleshooting and ticket generation. The HDM requires a login from 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 is at a high level. The APP will notify user when the 21 day Activation date has been reached (and a minimum of 20 showers/baths) and when reusable water can begin to be distributed.

Start-up Time: The Hydraloop device requires a minimum of 21 days (3 weeks) or 20 showers to develop the biological treatment process in the T2 tanks and become fully operational. If by 21 days of operation 20 showers has not been sensed by the device, the start-up time will last longer than the indicated 21 days.

Ventilation: This is placed along the greywater line to prevent anti-siphoning of water out of airlock. Ensure that the greywater input and sewage output both have proper two-way ventilation. Ventilation

for greywater input should be above all greywater lines and end outside 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 building Recycle Ready.



Hydraloop Systems B.V.