



LANCASTER

WATER TREATMENT

Clear-Flo

INSTRUCTIONS FOR INSTALLATION AND MAINTENANCE OF REVOLVE SELF-CLEANING FILTERS

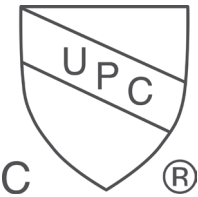
Dear Customer,

Thank you for choosing this product. The filter has been designed and manufactured using the most advanced techniques.

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CONFORMITY CERTIFICATES

LANCASTER WATER TREATMENT FILTER HOUSINGS COMPLY WITH THE FOLLOWING INTERNATIONALLY ACCEPTED STANDARDS:



REVOLVE self-cleaning filter series with plastic threaded connections, as components certified by IAPMO RT to NSF/ANSI 42, 61, 372 - lead free, CSA B483.1. In compliance with Drinking Water Treatment Units regulations, USA and CANADA.

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LANCASTER

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1 - Safety Alert Symbols

WARNING

WARNING SIGN: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. It highlights conditions that are a serious risk for personal safety.

CAUTION

CAUTION SIGN: Indicates a potentially hazardous situation which, if not avoided, may result in a minor or moderate injury, and to alert against unsafe practices.

NOTICE

NOTICE SIGN: Alerts you to pertinent facts and conditions.

2 - General Information

CAUTION

PLEASE READ THIS INSTRUCTION MANUAL THOROUGHLY AND CAREFULLY AND UNDERSTAND ITS CONTENTS BEFORE INSTALLING YOUR LANCASTER WATER TREATMENT FILTER HOUSING.

- The information in this instruction manual is subject to modifications without prior notice and is not binding on the manufacturer Lancaster Water Treatment.
- Keep the instruction manual for future reference.

Contact: See page 1

Product Identification: A label carrying product identification, serial number, production batch is applied on the package of the product. An additional label describing maximum working pressure and maximum working temperature is applied to the filter housing.

The label must not be removed, tampered, hidden, covered, or changed.

If the label on the product is missing or the operational conditions on the label are not legible, **DO NOT INSTALL** the filter and contact Lancaster Water Treatment Authorized Distributors or contact the manufacturer by e-mail at info@lancasterwatergroup.com.

WARNING

The values of the maximum working temperature and the maximum working pressure shown in the label affixed to the filter housing are intended as maximum working parameters and must not be exceeded under any circumstances.

3 - Personnel's Qualification

ONLY QUALIFIED AND LICENSED PERSONNEL MAY PERFORM INSTALLATION, SERVICE AND MAINTENANCE OF THE LANCASTER WATER TREATMENT FILTERS.

4 - Precautions, Warnings

READ ALL INSTRUCTIONS AND PRECAUTIONS BEFORE INSTALLING AND USING YOUR LANCASTER WATER TREATMENT PRODUCT.

WARNING



Before installation ensure that any electric plugs in the vicinity of the area are disconnected.



Do not install near electric appliances.



Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Systems certified for cyst reduction may be used on waters that contain filterable cysts.

CAUTION

Turn-off the water main before installation.

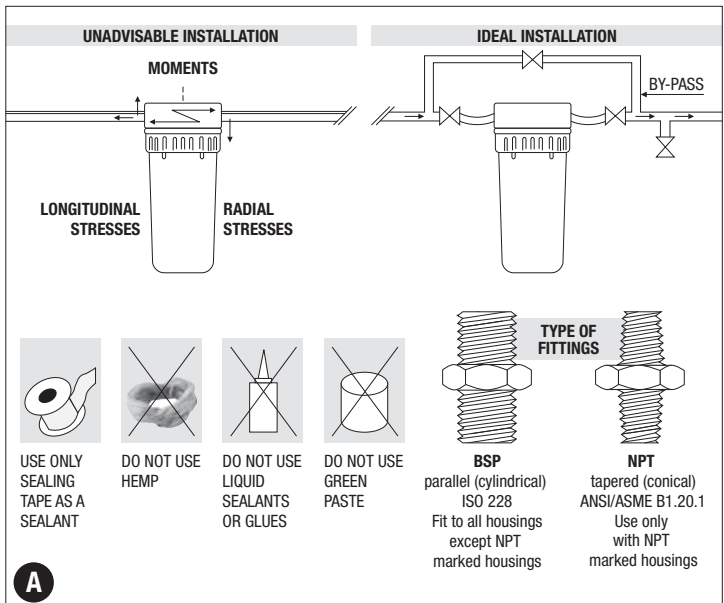
5 - Installation

Refer to Fig. A, B and C for installation directions.

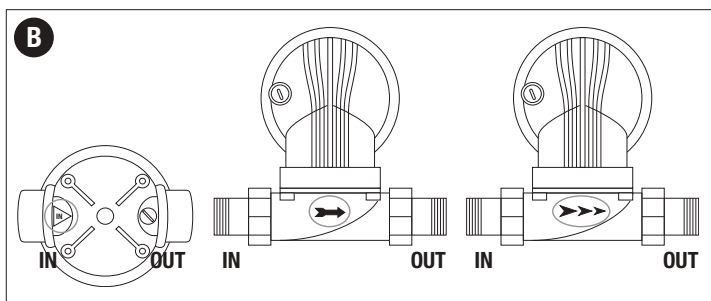
- Before installation, check if the plumbing system has been constructed according to the applicable plumbing code.
- Avoid all kinds of stress by using the wall bracket provided. Should the use of the wall bracket be impossible, the installer (qualified and licensed personnel) shall be responsible for the most appropriate installation avoiding stress which may affect the filter's integrity.
- Connect the inlet to the product's side with the arrow IN and the outlet to the side with the arrow OUT. (Fig. B)
- Connect to pipes using tapered (conical) fittings **ONLY** in the case of NPT marked filter housing and/or in the case of filter housing specified as NPT in the label affixed in the package of the product. Preferably connect to pipes using flexible hoses.
- Connect to pipes using BSP (cylindrical) fittings in the case the filter housing is not marked NPT or not specified as NPT on the package label. Preferably connect to pipes using flexible hoses.
- Use only sealing tape as a sealant for the connections.
- The installation of a by-pass is recommended (see Fig. A).
- Install the provided drain kit to the filter sump: screw the drain-valve to sump male threaded connection, then screw the drain funnel (or the hose fitting) to the drain valve, making sure the 2 gaskets provided with the ball-valve are in place and well positioned. (If you have a model with female threaded sump connection, screw the provided male threaded junction to sump first and then screw the drain-valve).
- If incorporating separately purchased gauges: screw the provided gauges to the dedicated ports on top of Revolve head, using sealing tape to provide tightening.
- Connect a reinforced rubber hose to the drain funnel (or hose fitting) at the base of the filter, secure with a clamp and have it discharge into the drain (see figures DI and D2). The drain point must be lower than the drain funnel or hose fitting. The rubber hose must not be more than 6.5 feet (2 meters) long.

WARNING

Avoid bending or pinching the rubber tube reinforced with canvas: this could generate counter-pressure against the drain with consequent malfunctions.



Modes for presentation of inlet and outlet directions (arrows) in different filter housings models



6 - Start Up

- Keep the filter package with label affixed to identify the product.
- Ensure that the sealing is tight and secure.
- As the installation of the filter and the connection of the rubber hose to the drainage are made, proceed as follows:
 - by gradually opening the water supply to the filter, make sure there is no water leaking;
 - gradually fill the filter to the top then release air in the filter as following:
 - for REVOLVE: by opening the vent-valve on the head of the filter, making sure all air is released and the filter becomes completely filled with water, then tighten the vent-valve;
 - If incorporating separately purchased gauges: Release air from the filter by opening a tap downstream the filter in the pipe-line.
- After the installation, run the tap and let the water flow for at least 5 minutes before use.


CAUTION

The initial quality of the water will not be optimal unless the tap runs for at least 5 minutes before use.

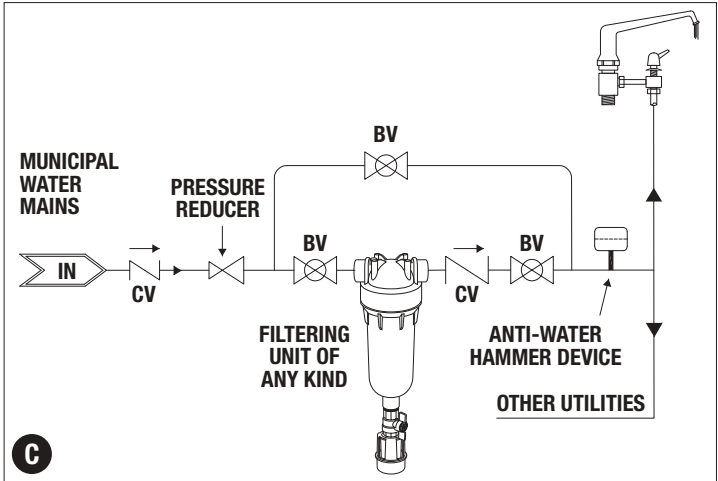
7 - Use (check the label on the package to identify the filter housing series and model)

- Refer to Figure C for installation layout.
- REVOLVE series of filter housing with plastic threaded connections are certified by IAPMO RT against NSF/ANSI Standards 42, 61, 372-lead free, CSA B483.1 for the filtration of drinking water. Do not use for the filtration of drinking water, do not use for filtration of water that is unsafe or of unknown quality. Systems certified for cyst reduction may be used on waters that contain filterable cysts.
- Check for the filter model from the label applied on the product package and from the legend "Sticker Legend" printed on the package.
- Respect the working parameters shown in the label affixed to the filter housing.
- If pressure exceeds the working conditions, protect the product with a pressure reducer.
- Keep protected from light. Supply cold water only, with pH in the range of drinking water.
- Use only REVOLVE HOT filters for hot water filtration (applicable working temperature on product's label).
- Protect from excessive cold or heat: do not expose to temperature below 39°F (4°C) or above 113°F (45°C).
- For temperature above 113°F (45°C) use the REVOLVE HOT model which can stand up to 176°F (80°C).
- Protect from back-flows of water with a non-return valve.
- Protect from hammering with an anti-hammering device.
- Should the filter be unused for 1 week or more remove the cartridge, wipe clean and store in clean, dry place. Insert the cartridge back into the filter only prior to use.

CAUTION

 The values of the maximum working temperature and the maximum working pressure shown in the label affixed to the filter housing are intended as maximum working parameters and must not be exceeded. Use of the filter housing under higher pressure conditions could cause ruptures.

INSTALLATION LAY OUT



8 - Accessories, spare parts and filter cartridges

Accessories and spare parts are available through the Lancaster Water Treatment Authorized Distributors wholesalers and retailers network. In case of difficulties contact Lancaster Water Treatment by e-mail at info@lancasterwatergroup.com.

NOTICE

Use only original Lancaster Water Treatment spare parts.
The use of non-original Lancaster Water Treatment spare parts voids the warranty.

10 - Maintenance

Routine maintenance consists in cleaning the filter cartridge with a back-wash in counter-current operation by opening the bottom drain valve for 15-20 seconds. If the cartridge is not perfectly clean after washing, repeat the operation with the same procedure one or more times until the desired cleanliness is reached. If acceptable cleanliness is not achieved for a good filter operations, follow the procedure as described below.

- Opening the drain-valve generates a pressure-drop in the filter that pushes the cartridge downward, automatically reversing water flow from the inside (countercurrent) out of the cartridge (see Fig. E1). This water flow in counter-current carries particles and substances deposited on the cartridge to the drain.
- Closing the drain-valve after a couple of seconds returns pressure distribution to its initial conditions and the internal spring returns the cartridge to its service position (see Fig. E2).

The REVOLVE filter features a drain funnel, which is a device designed to protect potable water from pollution by backflow.

NOTICE

The above described operating modes and the back-wash cleaning occur in excellent conditions with minimum 26 psi (1.8 bar) supply pressure.

In time, routine cartridge cleaning may become difficult due to high dirt loads blinding the cartridge net.

In this case, additional cartridge cleaning is required as follows:

- shut-off water flow upstream from the filter;
- open the drain-valve and run the water flows until empty;
- open the filter by unscrewing the sump from the head using the supplied wrench;
- remove the cartridge (wearing protective gloves to prevent scratches due to cartridge materials);
- clean the cartridge under a jet of cold water and use a soft brush to remove impurities;
- insert the clean cartridge back in the sump;
- screw the sump to the head;

follow the procedure under “FILTER START-UP” to put the filter in service.

CAUTION

In case of persistent encrustations onto the filter net or if the pressure difference between the two gauges remains above 14.5 psi (1 bar) after cleaning the filter, replace the filter cartridge with a new one.

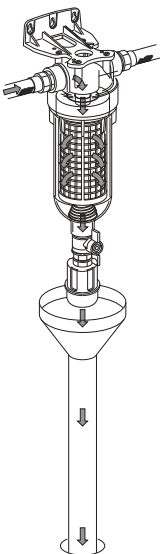
CAUTION

Filter cartridges and the housing sump have an average working life, for that reason we recommend replacing plastic net cartridges at least every 24 months and stainless steel net cartridge at least every 48 months. The housing sump must be replaced with a new one at least every 5 years. Spare parts and cartridges are available through the Lancaster Water Treatment authorized distributors. In case of difficulties contact info@lancasterwatergroup.com.

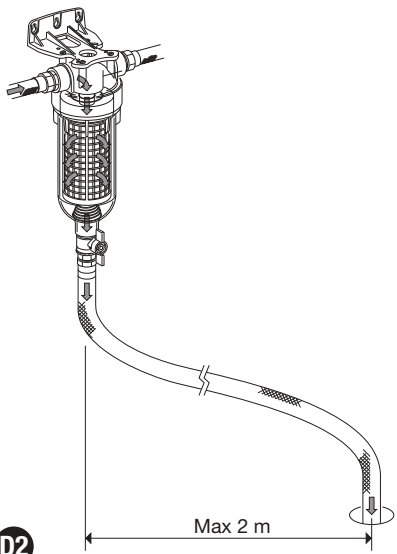
Follow the local regulation in force when disposing cartridges and sumps.

CAUTION

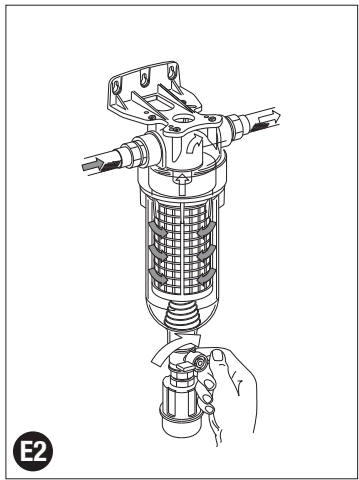
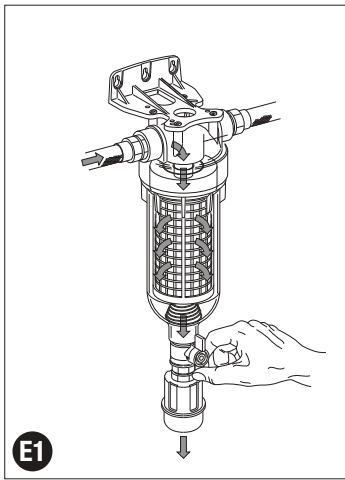
After carrying out maintenance operations, run a faucet downstream of the filter for at least 5 minutes before using the water.



D1



D2



10 - Troubleshooting

MALFUNCTION	CAUSE	REMEDY
Water does not run from faucets	<ul style="list-style-type: none"> a. Cartridge clogged b. Sump broken c. By-pass closed 	<ul style="list-style-type: none"> a. Clean the cartridge following the maintenance procedure b. Replace the sump and o-ring c. Open the closed cut-off valve or by-pass
Unfiltered water runs from faucets	<ul style="list-style-type: none"> a. Cartridge broken b. Spring broken c. Cartridge gasket damaged 	<ul style="list-style-type: none"> a. Replace the cartridge b. Replace the spring c. Replace the cartridge gasket
The cartridge does not clean during self-cleaning operation	<ul style="list-style-type: none"> a. Insufficient pressure in the sump b. Cartridge not correctly positioned in the sump 	<ul style="list-style-type: none"> a. Check the drain hose: if pinched or bent, correct the problem b. Rotate the cartridge clockwise or counterclockwise so that it moves vertically without strain in the bowl
Water leaks between the filter head and sump.	<ul style="list-style-type: none"> a. Sump o-ring damaged 	<ul style="list-style-type: none"> a. Replace the o-ring and lubricate.
Water leaks from connections between pipes and from the sides of the filter IN/OUT ports	<ul style="list-style-type: none"> a. Sealant insufficient 	<ul style="list-style-type: none"> a. Add a few turns of sealing tape and tighten fittings until snug
Water leaks between the sump and drain valve	<ul style="list-style-type: none"> a. Drain valve gasket damaged 	<ul style="list-style-type: none"> a. Replace the gasket

11 - Filter Housing and Cartridge Disposition

Filters housings and used filter cartridges must be disposed of in accordance with applicable rules and regulations.

12 - Limited Warranty

Limited Warranty/Products Warranty LANCASTER WATER GROUP warrants to the original purchaser ("purchaser") that the following products will be free of defects of material and workmanship when sold for the time period listed for each product as follows:

LANCASTER WATER GROUP warrants new LANCASTER WATER TREATMENT products to be free from defects of material and workmanship for a period of 1 year (12 months) of service, if the 1 year of service falls within 24 months from date of manufacture.

Cartridge Type Filter (cartridge excluded) - 1 year from date of installation.
(Continued on next page)

If a product fails to function within the stated time period, LANCASTER WATER GROUP will remedy the defect. The purchaser shall immediately notify LANCASTER WATER GROUP of any defect. If the purchaser does not notify LANCASTER WATER GROUP of such defects within the applicable Warranty Period, LANCASTER WATER GROUP shall have no further liability or obligation to purchaser therefore. After notifying LANCASTER WATER GROUP of a defect and receiving permission and an Authorization Number to return the product, the purchaser may return the product to LANCASTER WATER GROUP (freight pre-paid by purchaser) for repair and/or replacement. If LANCASTER WATER GROUP determines that the warranty has not been breached, the product shall be repaired or replaced, at LANCASTER WATER GROUP's sole option, free of charge. In the event LANCASTER WATER GROUP determines that it is unable to correct a defective component part or product, LANCASTER WATER GROUP may, at its sole option, provide purchaser with a full refund or merchandise credit in the amount of the purchaser's price of purchase.

The foregoing limited warranty does not cover failure to function caused by damage to the product while in purchaser's possession, improper installation, unreasonable use or abuse of the product, failure to provide or use of improper maintenance failure to follow written installation and use instructions, neglect, accident, or maintenance of products which have been altered or repaired by any person receiving such product during the warranty period.

LANCASTER WATER GROUP will also not be responsible for any damage or losses, direct or indirect, arising from any cause whatsoever, nor for damage to or modification, abrasives, corrosion, and/or electrolysis improper voltage supply, lightning or careless handling; nor for labor, transportation or other damages incurred in the replacement or repair of defective parts. In these cases repair will be subject to reconditioning charges in effect at the time.

THE REMEDIES PROVIDED IN THE PREVIOUSLY EXPRESSED LIMITED WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES AVAILABLE TO THE PURCHASER. NO OTHER EXPRESS WARRANTIES ARE MADE. ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE LIMITED IN DURATION AS SET FORTH ABOVE. IN NO EVENT SHALL LANCASTER PUMP BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to purchaser. This warranty gives purchaser specific legal rights and purchaser may also have other rights which vary from state to state. The purchaser must maintain proof of purchase of the product to prove date of purchase in the unlikely event of a warranty claim.

NOTICE

We recommend that before installing a water filtration system you have the water tested to determined actual water filtering needs.

NOTICE

Use only original Lancaster Water Treatment spare parts. The use of non-original Lancaster Water Treatment spare parts voids the warranty.

MAINTENANCE DATA COLLECTION

DATE	TYPE OF MAINTENANCE

NOTES
