



RAINBOW™ DYNAMIC® SERIES

POOL/SPA IN-LINE CARTRIDGE FILTER

INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS



INSTALLER'S IMPORTANT SAFETY NOTE

When installed in conjunction with a gas heater, be sure to equip it with a fireman's switch or install a check valve between the heater and the filter. Make sure all pressure or flow switches are set properly.

PLUMBING HINTS AND OPERATION FEATURES:

The DYNAMIC® SERIES filter is available in 4 models: The RDC-25 & 50 and RDC-25S & 50S. The RDC-25 & 50 are equipped with 1½" female pipe thread inlet and outlet ports and the RDC-25S & 50S have 1½" socket, solvent weld type ports for use with rigid or flexible piping. The Cartridge Housing is constructed of heat resistant ABS to better withstand the harsher environment of spa/hot tub use. The Manifold is made of PVC for strength, safety and durability. If piping is other than PVC, consult piping manufacturer for correct solvent cement for your application. Misuse of solvent cements may result in leakage.

SPRING ACTUATED BY-PASS

Both models have a built-in spring actuated by-pass which allows 100% filtration of the water on low speed of two speed pumps. During high speed operation, the spring opens, permitting unrestricted flow and maximum hydrotherapy action. Before installation this by-pass can be easily removed and a plug, which is supplied, inserted to disable by-pass allowing 100% filtration at all times.

WHERE TO INSTALL

The Dynamic Series filter must be installed on the pressure side of the pump with flow arrow on bottom manifold pointing in direction of water flow. For ease of maintenance, the bottom of filter cartridge housing should be no closer than 1½" from floor to allow easy cartridge housing removal.

INSTALLATION INSTRUCTIONS

Be sure to install a valve on both inlet and outlet of filter when filter TOP will be located BELOW water level. The valves will prevent out flow of water during filter maintenance. Filter should be as near to vertical as possible.

RDC-25 & 50

Wrap male pipe threads of fitting to be installed with 3 full wraps of thread-seal tape or utilize other suitable pipe joint sealing compound. Tighten fitting as much as possible by hand, then tighten another 1½ to 2 turns more using proper wrench. DO NOT OVERTIGHTEN

RDC-25S & 50S

Disassemble manifold from cartridge housing to prevent excess solvent cement from entering filter. Be careful not to let cement foul operation of the by-pass assembly. Choose correct solvent cement such as Weldon #710, #711 or equal. Follow standard solvent cement cutting, priming and plumbing procedures to install piping.

FILTER OPERATION

1. Make sure lock ring is secure. Close drain and vent valves.
2. Make sure inlet and outlet valves are open (if used).
3. Start pump. The filter's design will automatically eliminate all air.

MAINTENANCE

When the filter cartridge has collected a considerable amount of debris and the flow has decreased to an undesirable level, it is time to clean or replace the cartridge.

On installations where the by-pass is not used, you may find it beneficial to install a pressure gauge to help monitor the cartridge condition. On the top inlet side of the manifold there is an area to drill and tap a hole to accommodate a pressure gauge. If a gauge is installed, then a 10 P.S.I. rise in pressure over that of a clean cartridge is a good rule to follow as a cleaning indicator. TO MAINTAIN WARRANTY PROTECTION, USE ONLY RAINBOW LIFEGARD CARTRIDGES.

CLEANING THE CARTRIDGE

1. Shut off pump and timers.
2. Close inlet and outlet valves (if used).
3. Open air vent valve and drain valve to empty cartridge housing of water.
4. Turning counter clockwise, remove cartridge housing lock ring.
5. Remove cartridge housing.
6. Remove cartridge from housing.
7. Remove cartridge gaskets (one each in bottom of cartridge housing and one on manifold).
8. Using a garden hose and nozzle or other high pressure device, hose cartridge clean with a jet stream of water. Work top to bottom on each pleat. CAUTION: Do not use a brush which can damage the material. To remove collected sun tan lotions and body oils that hosing will not remove . . . soak cartridge in warm water with detergent added. To remove calcium deposits (a white chalky material) soak cartridge in a one part Muriatic Acid to ten parts water solution. (Use caution and read warnings on Muriatic Acid container. Wear protective clothing, gloves and goggles for eye protection). **USE A PLASTIC CONTAINER ONLY.** Calcium deposits indicate a high spa/pool pH and should be corrected by adding acid to the spa/pool in very small amounts until the pH reads between 7.2 and 7.6 (7.4 is ideal). If condition persists consult a spa/pool dealer or service company familiar with local water condition problems.

NOTE: Commercially available filter element cleaners are safe to use and may be obtained from your spa/pool store or dealer.

INSTALLING THE CARTRIDGE

1. Clean and install cartridge gaskets.
2. Clean and lubricate cartridge housing O-ring with a Lifeguard Silicone only. Use of other lubricants may damage the filter.
3. Place cartridge over cartridge support at bottom of cartridge housing.
4. Push cartridge housing into manifold being careful not to damage cartridge housing O-ring.
5. Raise lock ring and thread onto manifold clockwise. Hand tight is sufficient.

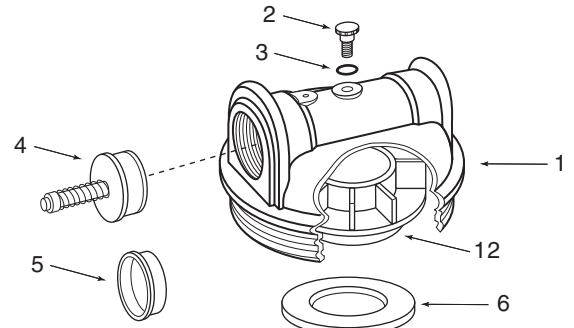
CAUTION: NEVER USE ANY TYPE OF LUBRICANT ON LOCK RING OR MATCHING THREADS ON FILTER.

6. Be sure air vent and drain valves are closed. Lubricate O-ring seals occasionally with Lifeguard Silicone.
7. Open inlet and outlet valves (if used).
8. Start pump. Filter is now operational. Remember, a good cleaning job and properly maintained water chemistry in your spa/pool ensures long and trouble free filter operation.

WINTERIZING YOUR FILTER

If freezing temperatures occur in your area, the filter must be drained when not in use. Drain and/or remove cartridge housing. Clean cartridge and store indoors in a dry place.

By-pass plug for applications where 100% filtration is desired at all times. Remove #4 by-pass assembly by inserting a rod or pipe through manifold outlet port and tap on by-pass assembly to remove. Insert #5 by-pass plug through inlet port and into manifold until firmly seated.

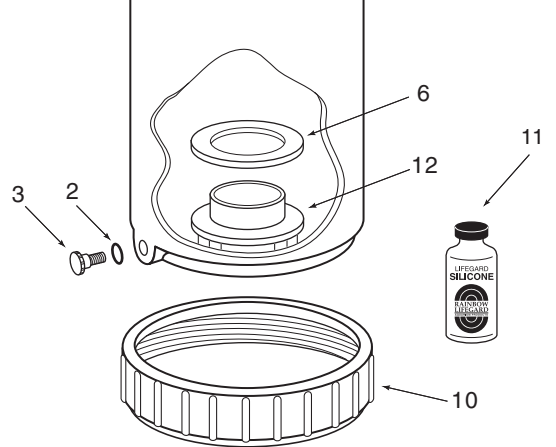
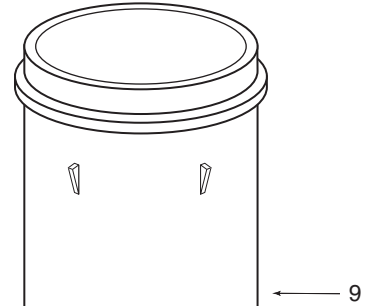
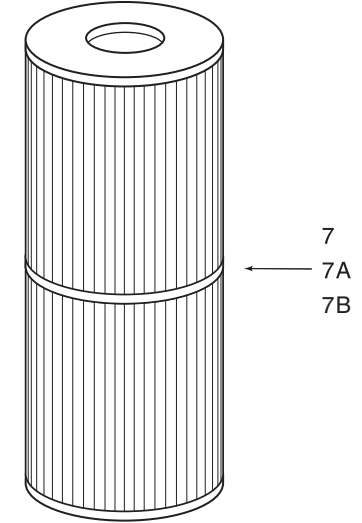


DYNAMIC® SERIES

RDC-25 & RDC-25S, RDC-50 & RDC-50S IN LINE CARTRIDGE FILTER
PARTS BREAKDOWN DRAWING

Item	Part No.	Qty.	Description
1	R172213	1	Manifold only (1½" FPT)
1	R172213S	1	Manifold only (1½" socket)
2	R172224	2	Drain & vent valve
3	R172221	2	O-ring for drain & vent valve
4	R172226	1	By-pass assembly
5	R172225	1	Plug to disable by-pass
6	R172222	2	Cartridge gasket
7	R173428	1**	25 Sq. ft. cartridge, 6 oz.
7A	R173429	1**	25 Sq. ft. cartridge, 3 oz.
7B	R173434	1**	50 Sq. ft. cartridge.
8	R172223	1	O-ring for cartridge housing
9	R172212	1	Cartridge housing
10	R172214	1	Lock ring
11	R172036	Optional	Silicone lubricant
12	R172232	2	Support ring gasket

**All three cartridges are interchangeable



WARRANTY

The DYNAMIC® SERIES V Filter is warranted to be free from defects in material and workmanship for 1 year from date of purchase.

Pentair Water Pool and Spa, Inc. (Pentair) will not be liable for any labor cost of removing or replacing the filter or replacing filter parts and owner agrees to prepay all shipping charges to Pentair El Monte, California. Cartridges and replaceable parts are not guaranteed after the first year because of normal wear and expected service replacement. Use of other manufacturer's replacement parts voids warranty.

This warranty does not cover failure in service due to: improper or faulty installation; fire, freezing, abuse, neglect, damage incurred in shipping; or extend to any incidental, consequential or contingent damages whatsoever. **PLEASE NOTE:** Some states do not allow the exclusion of limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

The foregoing warranties are exclusive and all other express warranties are void. Implied warranties, including but not limited to the implied warranties of merchantability and fitness for particular purpose shall not extend beyond the duration of the express warranties provided herein. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

