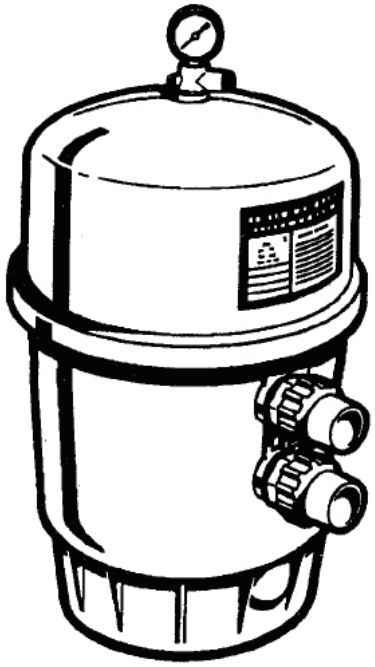
HAYWARD®

OWNER'S MANUAL

INSTALLATION, OPERATION, & PARTS



Models C2000 C3000 C4000 C5000
SUPER STAR-CLEAR™ CARTRIDGE FILTERS

MODEL	EFFECTIVE FILTRATION RATE		DESIGN FLOW RATE	
	FT^2	M^2	GPM	LPM
C2000	225	20.9	77	291
C3000	325	30.2	122	462
C4000	425	39.5	150	568
C5000	525	48.8	150	568
MAXIMUM WORKING PRESSURE FOR ALL MODELS 50 PSI (3.45 BAR)				

SAVE THIS INSTRUCTION MANUAL

NOTICE: THIS MODEL HAS BE DISCONTINUED.

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Basic safety precautions should always be followed, including the following: Failure to follow instructions can cause severe injury and/or death.

⚠ This is the safety-alert symbol. When you see this symbol on your equipment or in this manual, look for one of the following signal words and be alert to the potential for personal injury.

⚠ WARNING Warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.

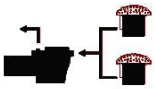
⚠ CAUTION Warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.

The **NOTICE** label indicates special instructions that are important but not related to hazards.

⚠ WARNING READ, UNDERSTAND, AND FOLLOW ALL SAFETY AND OPERATION INSTRUCTIONS. FAILURE TO FOLLOW SAFETY AND OPERATION INSTRUCTIONS CAN RESULT IN SEVERE PERSONAL INJURY OR DEATH.

⚠ WARNING – SUCTION ENTRAPMENT HAZARD.
Suction in suction outlets and/or suction outlet covers that are, damaged, broken, cracked, missing, or unsecured can cause severe injury and/or death due to the following entrapment hazards:

Hair Entrapment- Hair can become entangled in suction outlet cover.
Limb Entrapment- A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.
Body Suction Entrapment- A negative pressure applied to a large portion of the body or limbs can result in an entrapment.
Evisceration/ Disembowelment Entrapment- A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover that is, damaged, broken, cracked, missing, or unsecured can result in evisceration/ disembowelment entrapment.
Mechanical Entrapment- There is potential for jewelry, swimsuit, hair decorations, finger, toe or knuckle to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.



⚠ WARNING - TO REDUCE THE RISK OF ENTRAPMENT HAZARDS:

- A minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [1 meter] apart, as measured from near point to near point.
- Dual suction fittings shall be placed in such locations and distances to avoid "dual blockage" by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- The maximum system flow rate shall not exceed the flow rating of any listed (per ASME/ANSI A112.19.8M-1987) suction outlet cover installed.
- Never use Pool or Spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- In addition two or more suction outlets per pump installed in accordance with latest NSPI, IAF Standards and CPSC guidelines, follow all National, State, and Local codes applicable.
- Installation of a vacuum release system, which relieves entrapping suction, is recommended.

⚠ WARNING – Failure to remove pressure test plugs and/or plugs used in winterization of the pool/spa from the suction outlets can result in an increased potential for suction entrapment as described above.

⚠ WARNING Failure to keep suction outlet components clear of debris, such as leaves, dirt, hair, paper and other material can result in an increased potential for suction entrapment as described above.

⚠ WARNING Suction outlet components have a finite life, the cover/grate should be inspected frequently and replaced at least every ten years or if found to be damaged, broken, cracked, missing, or not securely attached.

⚠ WARNING To reduce risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times. The ANSI/NSPI-4 Standard (above-ground and on-ground pools) advises that components such as the filtration system, pumps, and heaters be positioned to prevent their being used as a means of access to the pool by young children.

⚠ WARNING Remove clamp tape before installation. Do not leave tape exposed to sun.

⚠ WARNING Check for Joint leaks prior to operating. Refer to Pump instruction Booklet for pump information.

⚠ WARNING **COMPONENT SEPARATION HAZARD**

Pool and spa water circulation systems operate under hazardous pressure during start up, normal operation, and possibly after pump shut off. Pressure in system can cause violent separation of the upper filter body if safety and operation instructions are not followed. Component separation can result in severe personal injury or death

- Do not operate water circulation system if a system component is assembled improperly, damaged, missing, or not a genuine Hayward component.
- Before servicing water circulation system, verify all system and pump controls are in OFF position and filter manual air relief valve is in OPEN position.
- Verify that upper and lower filter bodies are properly secured with filter body clamp and spring nut assembly. Tighten spring nut assembly with a 7/8” socket wrench until bolt extends 1/8” past the nut, and each spring coil touches the next coil. Never rely on hand tightening the spring nut assembly.
- Insure filter manual air relief valve body is in LOCK position in filter upper body.
- Before starting the system pump, verify that all system valves are set in a position to allow water from the filter to return back to the pool.
- Do not change filter control valve position while system pump is running.
- Before starting the system pump, the manual air relief valve must be in the OPEN position.
- When starting system pump, stand at least 10 feet away from filter.
- If water leakage appears at tank clamp, shut off system pump before returning to filter to service leak.
- Return to filter to close manual air relief valve only when a steady stream of water (Not air or air and water mix) is discharged from the manual air relief valve.

⚠ WARNING **ELECTROCUTION HAZARD**

Direct water discharge from the filter manual air relief valve must be directed away from electrical devices.

It is required that licensed electricians do all electrical wiring. All electrical wiring MUST be in conformance with applicable local codes, regulations and the National Electrical Code (NEC).

⚠ WARNING To avoid dangerous or fatal electrical shock, turn OFF power to motor before working on electrical connections.

⚠ WARNING Failure to bond pump to pool structure will increase risk for electrocution and could result in injury or death. To reduce the risk of electric shock, see installation instructions and consult a professional electrician on how to bond pump. Also, contact a licensed electrician for information on local electrical codes for bonding requirements.

GENERAL INFORMATION

Your **Hayward Super Star-Clear™** cartridge filter combines superior water filtration with ease of operation and totally corrosion-free construction. With filtration ratings to 9000 gallons (34 Kl) per hour, they are designed for continuous or intermittent operation, for installation above or below the pool water line, for fresh or salt water swimming pools or spas. Super Star-Clear™ filters utilize multiple reusable, reinforced polyester filter cartridge elements to provide a high degree of water clarity and long filter cycles with minimum care.

	Height		REQUIRED CLEARANCE			
			SIDE		ABOVE	
	IN	CM	IN	CM	IN	CM
C2000	32.5	83	18	46	15	38
C3000	34.5	88	18	46	16	41
C4000	40.5	103	18	46	18	46
C5000	46.5	118	18	46	22	56

INSTALLATION

⚠ WARNING This product should be installed and serviced only by a qualified professional.

Only simple tools (screwdriver and wrenches), plus pipe sealant for plastic adapters, are required to install and/or service the filter.

1. The filter system should be installed, not more than 6 feet above pool water level, or below the pool water level, on *a level* concrete slab, very firm ground, or equivalent. Select a well drained area, one that does not flood when it rains. Position the filter so that the piping connections, control valve and winter drain are convenient and accessible for operation, service and winterizing.
2. Position filter so the tank can drain by gravity.
3. If practical, place pump and filter in the shade to shield it from continuous, direct heat from the sun.
4. Connect the pool suction plumbing between the skimmer, pool outlet and the pump.
5. Install the pool return plumbing.
6. If pressure gauge is not installed, apply Teflon tape to the gauge threads and carefully screw the gauge into the air relief valve.

STARTING THE PUMP and FILTER SYSTEM

⚠ WARNING

Before Starting the Pump

1. Verify the filter body clamp and spring nut assembly properly assembled, filter manual air relief valve is installed, and no filter components are missing, damaged or not genuine Hayward components.
2. Close filter drain.
3. Open all system valves to allow normal system operation.
4. Place the manual air relief valve in OPEN position. (Counter clock wise 2 full turns.)

⚠ WARNING

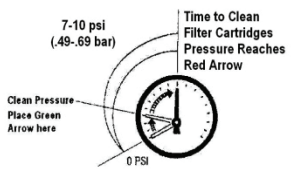
Starting Pump

1. Stand at least 10 feet away from filter before starting pump. If water leakage appears at tank clamp, shut off system pump. Wait until water stops flowing before returning to filter to service leak.
2. Return to filter to close manual air relief valve only when a steady stream of water (not air or, air and water mix) is discharged from the manual air relief valve.

OPERATION

FILTERING

Filtration starts as soon as flow is steady through the filter. As the filter removes dirt from the pool water, the accumulated dirt causes a resistance to flow. As a result, the gauge pressure will rise and the flow will decrease. When the pressure rises 7-10 psi (.49-.69 bar) above the starting pressure, or when the flow decreased below the desired rate, clean or replace the filter cartridges. Once your filter is running and there is a pressure reading, line up the green arrow with the current reading. When the pressure rises to or above the red or second arrow, it is time to clean your filter.

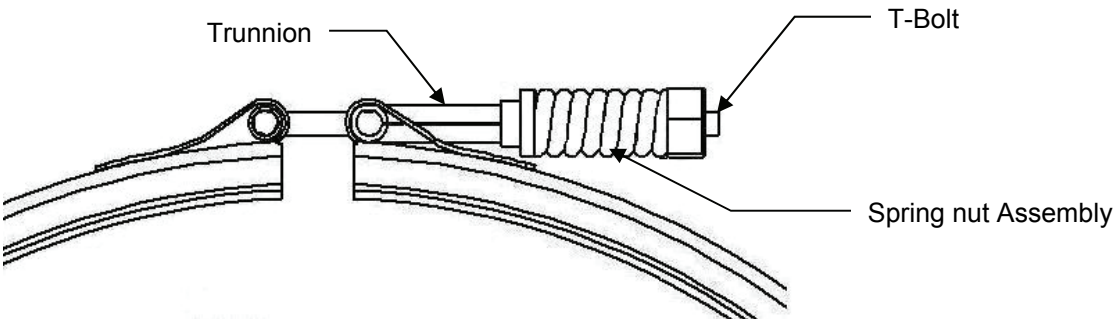


MANUAL CLEANING

⚠ WARNING

1. Shut off the pump.
2. If filter is located below water level, close valves (or block off suction and discharge lines) to prevent backflow of water from pool.
3. Open filter Manual Air relief valve to open position to relieve pressure.
4. Remove filter drain plug and drain water from system.

FILTER DISASSEMBLY INSTRUCTIONS



1. All system and pump controls must be in the OFF position before servicing.
2. Place manual air relief valve in the OPEN position to release filter pressure.
3. Remove filter drain plug and drain water from system.
4. Using a 7/8” socket wrench, loosen the spring nut assembly.
5. Holding both ends of the filter body clamp, remove spring nut assembly from clamp T-Bolt. Carefully spread the clamp ends and remove the clamp by lifting over the tank flanges and head. Take care not to bend or distort the clamp during removal.
6. Lift off upper filter body.

Do Not Grasp the filter Manual Air Relief assembly to remove or lift the filter head up. You may break the assembly.

REMOVING CARTRIDGES

1. Lift off top closure plate.
2. Remove cartridges from bottom collector manifold by using slight rocking motion and lifting up.
3. Clean Cartridge.

CLEANING CARTRIDGES

The Cartridge filter element can be cleaned by pressure washing inside and outside with a garden hose. After hosing cartridge, for best results, allow the cartridge to dry and carefully brush the pleated surface to remove fine particles.

You may find some debris on the cartridge pleats, which may not have been removed with hosing. In such a case soak the cartridge in a solution of Filter Element Cleaner (found at pool dealers).

⚠ CAUTION Follow chemical manufacturer’s directions for use. Always use caution when handling pool chemicals. After cleaning, flush with water.

⚠ CAUTION Always use caution when handling Muriatic acid. After cleaning cartridge, flush with water.

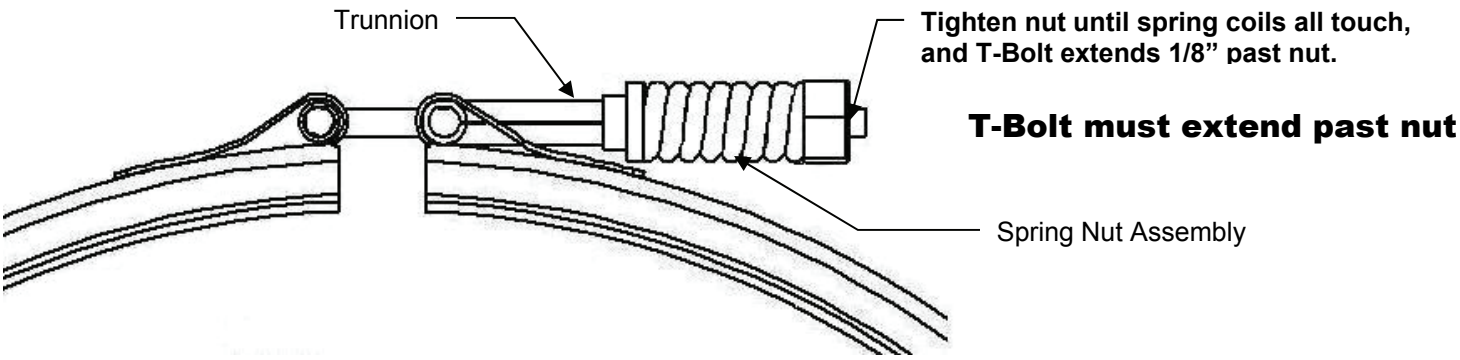
RE-INSTALLING CARTRIDGES

1. Flush and drain any dirt or debris from the bottom of the filter tank.
2. Carefully replace the cartridges over the hubs on the bottom manifold.
3. Place top closure plate securely on top of cartridges.

Clean O-ring and Seal Surface

⚠ WARNING

1. Clean and lightly lubricate tank O-ring (We recommend Jack's 327 Lubricant or other Non-petroleum based silicon lubricant). Carefully place the O-ring over filter tank lip.
2. Clean upper filter body flange sealing surface.



Filter Re-Assembly Instructions

⚠ WARNING

1. Re-assemble upper filter body. Insure that the filter body seal is in place and all operation labels on all filter components are visible from a convenient location. Press down firmly and evenly to set the filter head in place.
2. Re-assemble filter clamp to tank flanges. Hold clamp ends to position clamp on tank flanges with the T-Bolt and trunnion adjacent to the safety and operation labels on the tank. Do not bend or distort filter clamp during positioning.
3. Insert clamp T-Bolt into clamp trunnion and thread spring nut assembly onto clamp T-Bolt with spring end towards trunnion.
4. Using a 9/16" socket wrench, tighten spring nut assembly while tapping outer band of Filter Body Clamp with rubber mallet to insure proper seating of upper and lower tank bodies and clamp. Tighten spring nut assembly until bolt extends 1/8" past the nut, and each spring coil touches the next coil. **Never rely on hand tightening of spring nut assembly.**
5. Follow Operation Instructions for "Starting the Filter" (Page 4)

VACUUMING

Vacuuming can be performed directly into the filter whenever needed. Clean cartridges after vacuuming, if required.

WINTERIZING

⚠ CAUTION

Winterizing Filter

In areas where subfreezing temperatures can be expected, the filter should be drained. Remove and clean the cartridges.
Reinstall cartridges in filter tank.
Be sure to leave the drain plug unattached during the winter season to avoid cracking the filter tank.

⚠ CAUTION

READ AND FOLLOW ALL INSTRUCTIONS.

Algae are a form of plant life, which can vary in size from a few thousandths of an inch to the size of a small tree. Of the many forms of algae, those most frequently found in swimming pool water are microscopic in size and green in color. Algae readily grows in sunlight and can, under favorable conditions quickly overgrow a swimming pool turning it completely green in just a few hours. Maintaining a chlorine level of at least 1.0 ppm in the pool water at all times is the most effective way to prevent algae growth in swimming pools. The chlorine level should be checked at least once a day using a suitable test kit.

If an algae condition develops and the pool water "blooms" green, super-chlorination of the pool will be necessary to clear it. Add un-stabilized granular chlorine, or liquid chlorine. Follow chemical manufacturer's recommendation for super-chlorination. The algae will quickly become inactive and can then be removed by the filter. Live algae, on the other hand, multiply so fast that the filter cannot keep up with its growth rate.

When correctly used, commercial algaecides are effective against algae, though algaecides should be used in conjunction with, and not as a substitute for, regular chlorination or super-chlorination.

PLEASE REALIZE . . .

Pure, clear swimming pool water is a combination of two factors—adequate filtration and proper water chemistry balance. One without the other will not give the clean, clear water you desire.

Your filter system is designed for continuous operation. However, this is not necessary for most swimming pools. You can determine your filter operation schedule based on your pool size and usage. Be sure to operate your filtration system long enough each day to obtain at least one complete turnover of your pool water.

To properly sanitize your pool, maintain a free chlorine level of 1 to 3 ppm and a pH range of 7.2 to 7.6. Insufficient chlorine or an out of balance pH level will permit algae and bacteria to grow in your pool and make it difficult for your filter to properly clean the pool water.

SERVICE AND REPAIRS

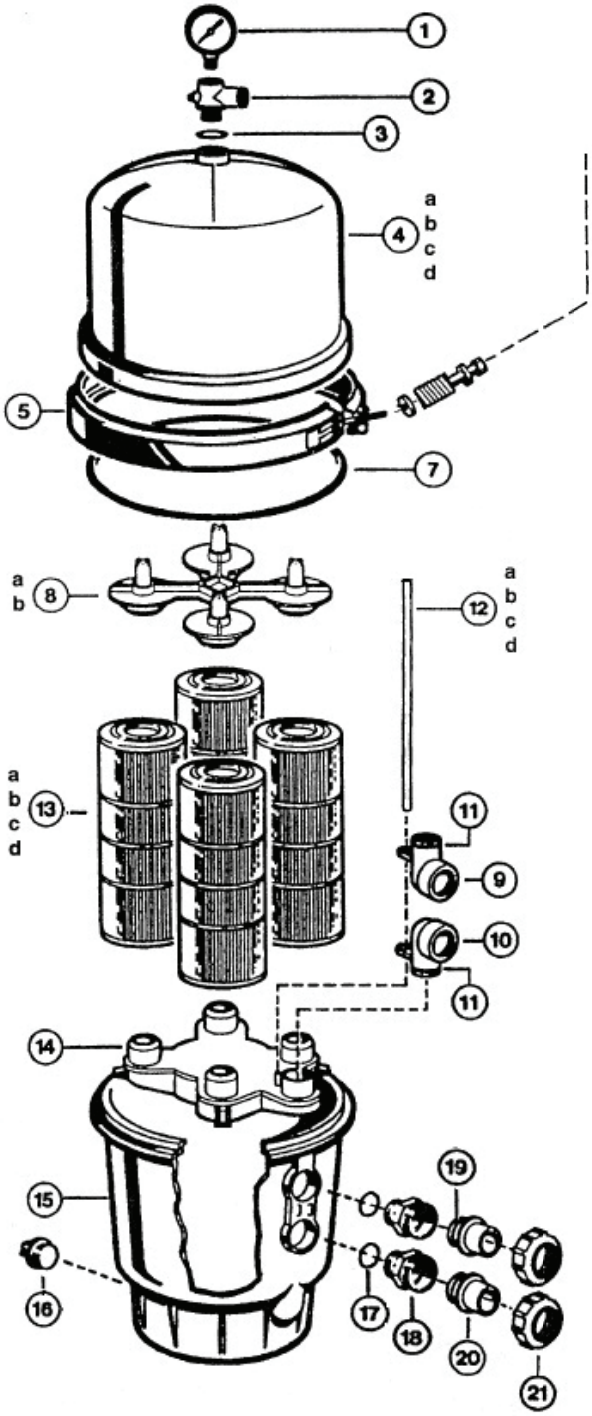
Consult your local authorized Hayward dealer or service center. No returns may be made directly to the factory without the expressed written authorization of Hayward Pool Products, Inc.

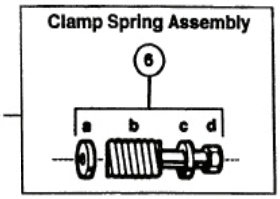
POOL CHEMISTRY GUILDLINES

SUGGESTED POOL CHEMISTRY LEVELS		ACTION REQUIRED TO CORRECT POOL CHEMISTRY	
		TO RAISE	TO LOWER
pH	7.2 to 7.6	Add Soda Ash	Add Muriatic Acid or Sodium Bisulphate
TOTAL ALKALINITY	100 to 130 ppm	Add Sodium Bicarbonate	Add Muriatic Acid
CHLORINE (UNSTABILIZED)	0.3 to 1.0 ppm	Add Chlorine Chemical	No action - chlorine will naturally dissipate
CHLORINE (STABILIZED)	1.0 to 3.0 ppm	Add Chlorine Chemical	No action - chlorine will naturally dissipate
CHLORINE STABILIZER (Cyanuric Acid)	40 to 70 ppm	Add Stabilizer	Dilution - partially drain & refill pool with water that has not been treated with Cyanuric Acid.

PROBLEM SOLVING LIST

REMEDY	LOW WATER FLOW	SHORT FILTER CYCLES	POOL WATER WON'T CLEAR UP
	1. Check skimmer and pump strainer baskets for debris. 2. Check for restrictions in intake and discharge lines. 3. Check for air leak in intake line (indicated by bubbles returning to pool). 4. Backwash (Clean) Filter	1. Check for algae in pool and super-chlorinate as required. 2. Be sure chlorine and pH levels are in proper range (adjust as required).	1. Check chlorine, pH and total alkalinity levels and adjust as required. 2. Be sure flow rate through filter is sufficient. 3. Operate filter for longer periods.





⚠ WARNING

It is critical that the Clamp Spring Assembly be used in the exact order illustrated. If any of the individual components in the clamp assembly, is damaged or missing the entire filter MUST be replaced.

Parts
Super Star-Clear Models C2000, C3000, C4000, C5000

Ref NO.	Part Number	DESCRIPTION	No. Required /Comments
1	ECX270861	Pressure Gauge	1
2	DEX2400S	Air Relief Valve /Gauge Adapter	1
3	DEX2400Z3A	O-ring (Package of 3)	1
4a	DEX2400BT	Filter Head (C2000)	Discontinued
4b	DEX3600BT	Filter Head (C3000)	Discontinued
4c	DEX4800BT	Filter Head (C4000)	Discontinued
4d	DEX6000BT	Filter Head (C5000)	Discontinued
5	DEX2400J	Clamp Assembly	Discontinued
6a	DEX2400J4	Washer with Small Hole	Discontinued
6b	DEX2400JS	Spring	Discontinued
6c	DEX2400J3	Washer with Large Hole	Discontinued
6d	DEX2400JN	Brass Sleeve Nut	Discontinued
7	DEX2400K	Filter Tank O-ring	Discontinued
8a	CX3000DA	Top Closure (C3000, C4000)	1
8b	CX5000DA	Top Closure (C5000)	1
9	CX3000F1B	Buttress Thread Inlet Elbow	1
10	CX3000FB	Outlet Elbow Assembly	Discontinued
11	DEX360M	O-Ring	1
12a	CX800Z4	Air Tube (C2000)	1
12b	CX3000Z3	Air Tube (C3000)	1
12c	CX4000Z3	Air Tube (C4000)	1
12d	CX5000Z3	Air Tube (C5000)	1
13a	CX480XRE	Cartridge Element (C2000)	4
13b	CX580XRE	Cartridge Element (C2000)	4
13c	CX880XRE	Cartridge Element (C2000)	4
13d	CX1280XRE	Cartridge Element (C2000)	4
14	CX3000C	Bottom Manifold	1
15	DEX2400A1T	Filter Body	Discontinued
16	SP1022CBLK	1 ½" Drain Plug with O-ring	1
17	SX200Z3 SX360Z1	O-ring (Prior to 1995) O-Ring after 1995	2
18	DEX360F DEX360FB	Bulkhead V-thread Bulkhead Buttress Tread	Discontinued
19	SX200Z4PAK2	Valve/Union O-ring (Set of 2)	1
20	SX240F	1 ½"SKT x 2" Slip Connector	2
21	SX200R	Locknut	2