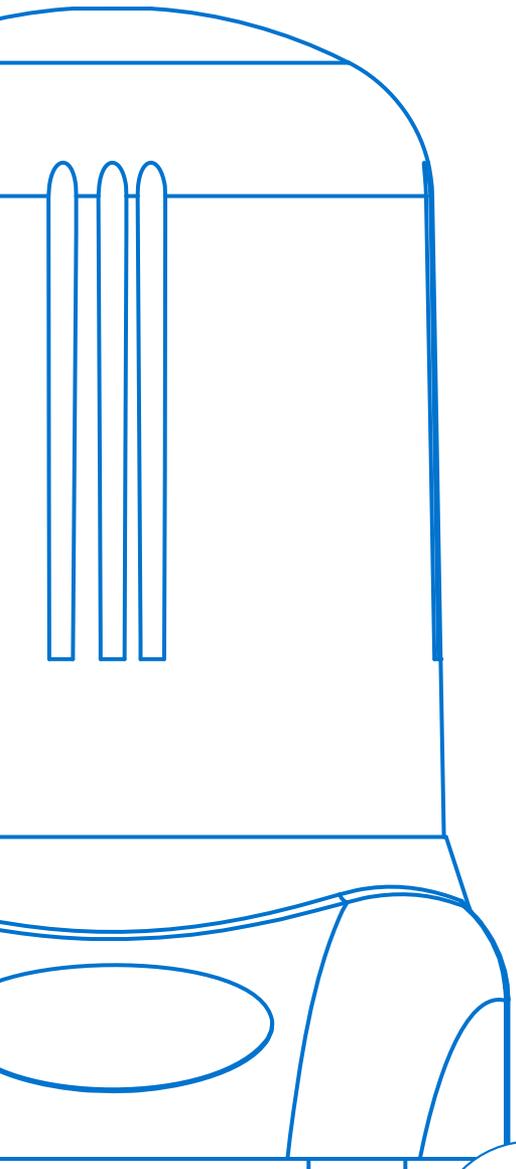
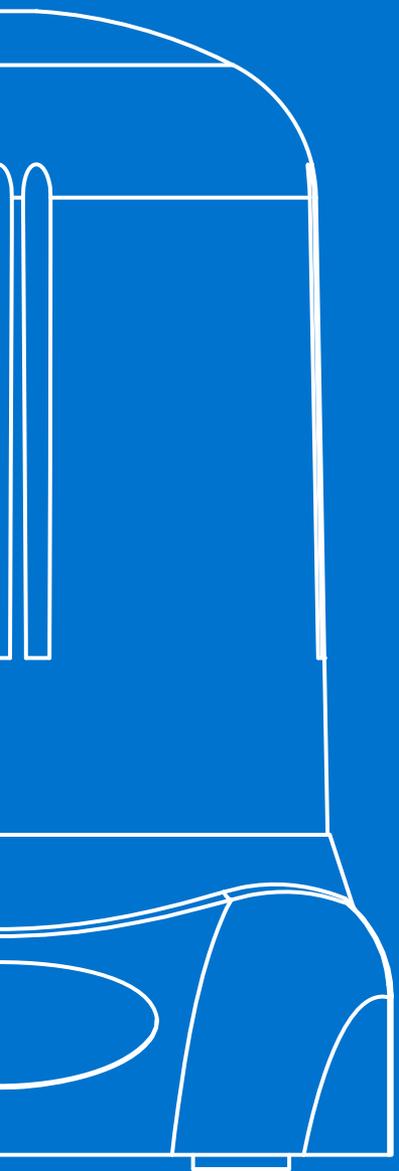


WATER GUARDIAN

USER GUIDE





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Water Guardian User Guide

About The Water Guardian Drinking Water System

- The CB Tech Water Guardian Drinking Water System (Model# MPADC) is designed for use on the countertop next to the sink. It connects to the existing faucet with a diverter valve that allows free selection between filtered and unfiltered water.
- The Water Guardian includes accessories and fittings required for installation.
- If installation or operation assistance is required, please contact your Dealer.

Water Guardian Features

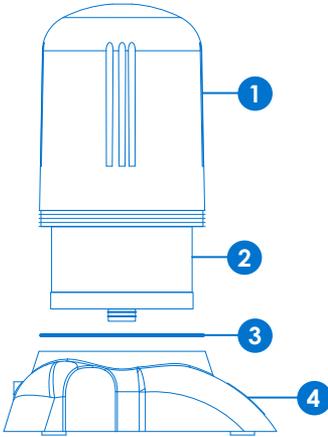
- Easy and convenient to use; provides delicious, clear, healthier drinking water whenever you need it.
- Better-tasting beverages - coffee, tea, juices, and drinks of all kinds.
- Use for food preparation, improving the taste of fruits and vegetables.
- Highest quality water for cooking - better pasta, sauces, soups, etc.
- Your pets will love it too!
- Guaranteed quality backed by an outstanding customer satisfaction guarantee and warranty.
- Cost-effective solution to meet your budget and replaces costly bottled water
- Attaches easily to your faucet without tools.
- Reliable protection for all of your family's drinking water needs.

Before You Begin

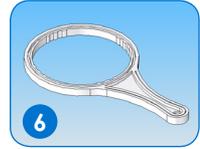
CB Tech Drinking Water Systems (DWS) have been extensively tested and certified by NSF International to provide the highest level of assurance that the device will perform as claimed. Please read this manual before proceeding with the installation and use of your system. Installation, operation, and maintenance requirements are essential to the performance of your system – failure to follow any instructions or operating parameters contained herein may lead to product damage or product failure.

- Replacement filters can be purchased from the Dealer where the Water Guardian was originally purchased.
- Actual filter life depends on the amount of water used and the level of impurities in the water. See section **Regarding Filter Capacity (Pg 8)** for additional details.
- The Water Guardian is not intended for use with microbiologically unsafe water or non-municipally-treated water. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts. See section **Frequently Asked Questions (Pg 17)** for additional details.
- Do not allow water to freeze in the system. If the system is exposed to freezing temperatures, drain water from the system and remove the filter. Allow the filter to thaw before replacing and reusing.
- Do not allow water to sit in the system for extended periods of time (e.g., 10 days or more) without use. See section **Flushing / Disinfecting The System (Pg 10)** for additional details.
- To dispose of the used filter, remove it from the housing and place in normal refuse. Filters disposed in a normal landfill will not release any chemical contaminants and may continue to adsorb additional contaminants in the landfill.
- Check for compliance with any state or local laws and regulations before use.

Water Guardian Drinking Water System



1. Housing Top (MCL-AD)
2. Filter Cartridge (CBTAD)
3. Black Gasket (MC357)
4. Housing Bottom (MCB-AD)
5. Hose and Diverter Valve (MC6400)
6. Hand Tool (MC008)



Specifications

Model Name:	Water Guardian (MPADC)
Approximate Filter Capacity:	750 Gallons
Replacement Filter Type:	CBTAD
Approximate Flow Rate:	0.75 gpm @60 psi
House Composition:	Polypropylene
Rubber Items:	Silicone
Outlet:	1/4" stem
Inlet:	3/8" stem
Working Pressure Range:	30 psi (2.1 kg/cm ²) to 100 psi (7.0 kg/cm ²)
Operating Temperature Range:	32° F (0° C) to 100° F (38° C) - for cold water use only
Particle Retention Size:	0.5 micron (sub-micron)
Certified By:	NSF International

Installation

Inspect Your Drinking Water System

1. Inspect your DWS to confirm that it has been received in good condition and that all parts are included.
2. Determine a countertop location for system placement, factoring in distance to the faucet for diverter valve and hose connection.
3. Inspect the system housing to confirm that the housing top and bottom are securely connected.
 - a. With the system sitting upright, slide the hand tool over the top so that the ridges on the tool fit into the grooves on the housing top.
 - b. While holding the system base in place, firmly turn the hand tool clockwise to tighten the housing top.

Connect The Hose To The Housing

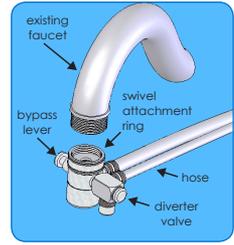
1. On the diverter valve and hose, locate the two stems at the end of the hose opposite the diverter valve. Identify the large stem (Inlet Stem) and small stem (Outlet Stem).
2. On the DWS, locate the two ports on the bottom rear of the system housing. Identify the lower, large port (Inlet Port) and upper, small port (Outlet Port).
3. Insert the Inlet Stem into the Inlet Port by slowly pushing the stem straight into the port as far as possible. Confirm the connection by pushing the stem in again.
4. Insert the Outlet Stem into the Outlet Port by slowly pushing the stem straight into the port as far as possible. Confirm the connection by pushing the stem in again.



Connect The Hose And Diverter Valve To The Faucet

1. Remove the aerator or screen (if present) from the end of the faucet. If facing the open end of the spout, rotate the aerator counter-clockwise to loosen and remove.

2. Attach the diverter valve directly to the faucet spout. If the threads of the diverter valve do not match the threads of the faucet, use one of the included faucet adapters to connect the diverter valve and faucet. If facing the open end of the spout, rotate the diverter valve and/or adapter clockwise to tighten. **NOTE:** When using a faucet adapter, the rubber washer in the adapter always faces up toward the faucet.



Diverter Valve Attachment

- a. **If Your Faucet Has an Outside Thread (male connector):** For many faucets with an outside thread, the diverter valve can attach directly to the faucet. If the diverter valve does not attach to the faucet, attach the inside thread (female connector) adapter, part # MC106 or MC105, to the faucet, and then attach the diverter valve to the adapter.



Diverter Valve Attachment with adapter

- b. **If Your Faucet Has an Inside Thread (female connector):** The diverter valve cannot directly connect to a faucet with a female connector. Attach the outside thread (male connector) adapter, part# MC108, to the faucet and then attach the diverter valve to the adapter.



*MC700 Adapters
Many installations do not require an adapter

- c. **If Your Faucet Requires More Room for the Diverter Valve Connection:** Some faucets, particularly sprayer hose faucets, require additional room for the diverter valve connection. If this applies, attach the long adapter, part# MC257, to the opening of the faucet spout/sprayer, and then attach the diverter valve to the adapter. The DWS may need to be repositioned on the sink to allow enough room for sprayer faucet use.
- d. **If the Adapters Do Not Fit Your Faucet:** Although the adapters included with your DWS allow connections with many standard faucets, they do not cover every type of available faucet connection. If none of the adapters allow the diverter valve to connect to your

faucet, please contact your Dealer to request either part# MC109 or part# MC719 as possible adapter solutions. **NOTE:** When connected properly, the hose from the diverter valve should lead toward the back of the faucet and sink.

3. The diverter valve features a bypass lever with a button on the left and right sides of the diverter valve. Press the left button to bypass the DWS and select the unfiltered water spout (larger opening). Turn on your faucet to let unfiltered water flow out of the diverter valve and to make sure that the diverter valve is properly connected.
4. Turn off the faucet.

Prepare Your System For Use

1. Using a paper towel or cloth, dry off all connections and the DWS housing.
2. Make sure that all connections are tightly secured.
3. Remove any air from the system.
 - a. Turn the DWS housing upside down, and then turn on the faucet.
 - b. Press the right button on the diverter valve to select the filtered water spout. The water will flow through the DWS and emerge from the smaller opening on the diverter valve.
 - c. Allow water to flow through the DWS and filtered water spout for one minute.
 - d. Press the left button to select the unfiltered water spout, and then turn off the faucet.
4. Turn the DWS right side up and place it on the counter.
5. Remove any loose carbon from the system.
 - a. Turn on the faucet and press the right button on the diverter valve to select the filtered water spout.
 - b. Allow water to flow through the DWS and filtered water spout for 30 minutes. This will purge any loose carbon from the system.

- c. Press the left button to select the unfiltered water spout, and then turn off the faucet.
6. Check all connections to make sure that there are no leaks.
7. Congratulations! Your system is now ready for use!

Operation

1. For unfiltered water, press the left button on the diverter valve. Water from the faucet will emerge from the unfiltered water spout.
2. For filtered water, press the right button on the diverter valve. Water from the faucet will flow through the DWS before emerging from the filtered water spout.

Maintenance

Regarding Filter Capacity

1. Exact filter capacity varies in proportion to the amount of water used and the level of impurities in the water being processed. For contaminants reduced through physiochemical adsorption, the filter capacity is 750 gallons. For contaminants reduced through mechanical filtration, capacity claims are inapplicable due to broad variations in the quality and quantity of physical matter in the drinking water. Excessive physical matter will cause the DWS to clog, diminishing flow rate but reducing the contaminants from the resultant water stream.
2. For optimum performance and to maintain the Manufacturer's warranty against defects on your system housing, it is essential that the filter be replaced when the first of the following occurs:
 - a. Annually
 - b. When the system is near or has reached its rated capacity
 - c. When the flow rate diminishes
 - d. When the filter becomes saturated with bad tastes and/or odors.

Removing The Old Filter Cartridge

1. Before opening the DWS housing, place a pan or basin beneath the housing.
2. With the faucet off, press the right button on the diverter valve to select the filtered water spout and flush water out of the DWS.
3. When the flow of water stops, press the left button on the diverter valve to stop the filtered water spout.
4. With the system sitting upright, slide the hand tool over the top so that the ridges on the tool fit into the grooves on the housing top.
5. Hold the base steady and use the hand tool to turn the DWS counter-clockwise to loosen. Once the top is loose enough, you can complete rotating it counter-clockwise by hand.
6. Lift the housing top off of the base, leaving the black gasket on the bottom of the base.
7. Remove the old filter cartridge by pulling it upward and slightly twisting until it is released from the base.
8. Dispose of the old filter in your waste container.
9. Rinse out the inside of the system housing, hand washing if necessary.



Installing The New Filter Cartridge

1. If you have not done so already, remove the plastic wrapper and instruction wrap from around the new filter cartridge.
2. Insert the new filter in the center port of the housing base, twisting slightly. Push straight down on the filter to ensure that it is firmly in place.
3. Place the housing top over the filter and back onto the base. Turn it clockwise to tighten. If necessary, use the hand tool to tighten the housing top onto the base.
4. Proceed to section **Prepare Your System For Use (Pg 7)** to complete the installation.



Flushing / Disinfecting The System

CB Tech recommends that you not allow water to sit in the system for extended periods of time without use. If a system is left unused for more than 10 days, it may need to be flushed / disinfected before resuming normal use.

1. Remove the filter cartridge by following the directions in section **Removing The Old Filter Cartridge (Pg 9)**.
2. Add 5 to 7 drops of bleach to the inside of the system housing.
3. Reconnect the top of the housing without a replacement filter cartridge installed.
4. Turn the DWS housing upside down, and then turn on the faucet.
5. Press the right button on the diverter valve to select the filtered water spout, and allow the system to fill up with the water/bleach solution.
6. Once water begins to flow out of the diverter valve, press the left button to stop the filtered water spout, and turn off the faucet.
7. Turn the DWS housing right side up, and let the system soak for at least 30 minutes.
8. With the faucet off, select the filtered water spout on the diverter valve to flush the water/bleach solution out of the system.
9. When the flow of water stops, open, clean, and rinse out the inside of the system housing.
10. Follow the directions in section **Installing The New Filter Cartridge (Pg 9)**.

Warranty

CB Tech Warranty: CB Tech warrants to the original retail customer its DWS and components to be free of defects in material and workmanship for use under normal care.

The capacity of the filter cartridge depends upon the amount of impurities in the water to be processed.

Except as otherwise expressly provided above, CB Tech makes no warranties, express or implied, arising by law or otherwise, including without limitation the implied warranties of merchantability and fitness for a particular purpose, to any person. This limited warranty may not be altered, varied, or extended except by a written instrument executed by CB Tech. The remedy of repair or replacement as provided under this limited warranty is exclusive. In no event shall CB Tech be liable for any consequential or incidental damages to any person whether occasioned by negligence of the manufacturer, including without limitation damages of loss of use, cost of substitution, property damage, or other monetary loss.

Warranty is valid only if the DWS is operated within conditions listed herein. The warranty begins from the date of purchase.

Contaminant Reduction Performance



The Water Guardian is NSF-certified to reduce a broad array of contaminants of aesthetic and health concern. The following are contaminants treated by the Water Guardian.

NSF/ANSI 42 - Aesthetic Effects

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
CHLORAMINE as Aesthetic Effect (As Monochloramine)	>97%	3.0 mg/L +/- 10%	0.5 mg/L
CHLORINE as Aesthetic Effect	99%	2.0 mg/L +/- 10%	> or = 50%
PARTICULATE, (Nominal Particulate Reduction, Class 1, Particles 0.5 TO <1 µm)	Class 1 > 99%	At Least 10,000 particles/mL	> or = 85%

NSF/ANSI 53 - Health Effects

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
ALACHLOR*	>98%	0.050	0.001
ASBESTOS	>99.9%	10 ⁷ to 10 ⁸ fibers/L; fibers greater than 10 micrometers in length	99% reduction requirement
ATRAZINE*	>97%	0.100	0.003
BENZENE*	>99%	0.081	0.001
BROMODICHLOROMETHANE (TTHM)*	>99.8%	0.300	0.015
BROMOFORM (TTHM)*	>99.8%	0.300	0.015
CARBOFURAN (Furadan)*	>99%	0.19	0.001
CARBON TETRACHLORIDE*	98%	0.078	0.0018
CHLORDANE	>99.5%	0.04 +/-10%	0.002
CHLORO BENZENE (Monochlorobenzene)*	>99%	0.077	0.001
CHLOROPICRIN*	99%	0.015	0.0002
CHLOROFORM (TTHM)* (surrogate chemical)	>99.8%	0.300	0.015
Cryptosporidium (CYST)	99.95%	minimum 50,000/L	99.95% reduction requirement
CYST (Giardia; Cryptosporidium; Entamoeba; Toxoplasma)	99.95%	minimum 50,000/L	99.95% reduction requirement
2, 4-D*	98%	0.110	0.0017
DBCP (see Dibromochloropropane)*	>99%	0.052	0.00002
1,2-DCA (see 1,2-DICHLOROETHANE)*	95%	0.088	0.0048
1,1-DCE (see 1,1-DICHLOROETHYLENE)*	>99%	0.083	0.001
DIBROMOCHLOROMETHANE (TTHM; Chlorodibromomethane)*	>99.8%	0.300	0.015
DIBROMOCHLOROPROPANE (DBCP)*	>99%	0.052	0.00002
o-DICHLOROBENZENE (1,2 Dichlorobenzene)*	>99%	0.080	0.001
p-DICHLOROBENZENE (para-Dichlorobenzene)*	>98%	0.040	0.001
1,2-DICHLOROETHANE (1,2-DCA)*	95%	0.088	0.0048
1,1-DICHLOROETHYLENE (1,1-DCE)*	>99%	0.083	0.001
CIS-1,2-DICHLOROETHYLENE*	>99%	0.170	0.0005
TRANS-1,2- DICHLOROETHYLENE*	>99%	0.086	0.001
1,2-DICHLOROPROPANE (Propylene Dichloride)*	>99%	0.080	0.001
CIS-1,3- DICHLOROPROPYLENE*	>99%	0.079	0.001

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
DINOSEB*	99%	0.170	0.0002
EDB (see ETHYLENE DIBROMIDE)*	>99%	0.044	0.00002
ENDRIN*	99%	0.053	0.00059
Entamoeba (see CYSTS)	99.95%	minimum 50,000/L	99.95% reduction requirement
ETHYLBENZENE*	>99%	0.088	0.001
ETHYLENE DIBROMIDE (EDB)*	>99%	0.044	0.00002
Furadan (see CARBOFURAN)*	>99%	0.19	0.001
Giardia Lamblia (see CYST)	>99.95%	minimum 50,000/L	99.95% reduction requirement
HALOACETONITRILES (HAN)*			
BROMOCHLOROACETONITRILE	98%	0.022	0.0005
DIBROMOACETONITRILE	98%	0.024	0.0006
DICHLOROACETONITRILE	98%	0.0096	0.0002
TRICHLOROACETONITRILE	98%	0.015	0.0003
HALOKETONES (HK):*			
1,1-DICHLORO-2-PROPANONE	99%	0.0072	0.0001
1,1,1-TRICHLORO-2-PROPANONE	96%	0.0082	0.0003
HEPTACHLOR*	>99%	0.25	0.00001
HEPTACHLOR EPOXIDE*	98%	0.0107	0.0002
HEXACHLOROBUTADIENE (Perchlorobutadiene)*	>98%	0.044	0.001
HEXACHLOROCYCLOPENTADIENE*	>99%	0.060	0.000002
LEAD (pH 6.5)	>99.3%	0.15 +/- 10%	0.010
LEAD (pH 8.5)	>99.3%	0.15 +/- 10%	0.010
LINDANE*	>99%	0.055	0.00001
MERCURY (pH 6.5)	>99%	0.006 +/- 10%	0.002
MERCURY (pH 8.5)	>99%	0.006 +/- 10%	0.002
METHOXYCHLOR*	>99%	0.050	0.0001
Methylbenzene (see TOLUENE)*	>99%	0.078	0.001
Monochlorobenzene (see CHLOROENZENE)*	>99%	0.077	0.001
MTBE (methyl tert-butyl ether)	>96.6%	0.015 +/- 20%	0.005
POLYCHLORINATED BIPHENYLS (PCBs , Aroclor 1260)	>99.9%	0.01 +/- 10%	0.0005
PCE (see TETRACHLOROETHYLENE)*	>99%	0.081	0.001
PENTACHLOROPHENOL*	>99%	0.096	0.001
Perchlorobutadiene (see HEXACHLOROBUTADIENE)*	>98%	0.044	0.001
Propylene Dichloride (see 1,2 -DICHLOROPROPANE)*	>99%	0.080	0.001
RADON	>94.9%	4000 ± 1000 pCi/L	300 pCi/L
SIMAZINE*	>97%	0.120	0.004
Silvex (see 2,4,5-TP)*	99%	0.270	0.0016
STYRENE (Vinylbenzene)*	>99%	0.150	0.0005
1,1,1-TCA (see 1,1,1 - TRICHLOROETHANE)*	95%	0.084	0.0046
TCE (see TRICHLOROETHYLENE)*	>99%	0.180	0.0010
1,1,2,2-TETRACHLOROETHANE*	>99%	0.081	0.001
TETRACHLOROETHYLENE*	>99%	0.081	0.001
TOLUENE (Methylbenzene)*	>99%	0.078	0.001
TOXAPHENE	>92.9%	0.015 +/- 10%	0.003
Toxoplasma (see CYSTS)	99.95%	minimum 50,000/L	99.95% reduction requirement
2,4,5-TP (Silvex)*	99%	0.270	0.0016
TRIBROMOACETIC ACID*		0.042	0.001
1,2,4 TRICHLOROENZENE (Unsymtrichlorobenzene)*	>99%	0.160	0.0005
1,1,1-TRICHLOROETHANE (1,1,1-TCA)*	95%	0.084	0.0046
1,1,2-TRICHLOROETHANE*	>99%	0.150	0.0005
TRICHLOROETHYLENE (TCE)*	>99%	0.180	0.0010
TRIALOMETHANES (ITHM) (Chloroform; Bromoform; Bromodichloromethane; Dibromochloromethane)	>99.8%	0.300	0.015
TURBIDITY	>99%	11 +/- 1 NTU	0.5 NTU
Unsym-Trichlorobenzene (see 1,2,4-TRICHLOROENZENE)*	>99%	0.160	0.0005
Vinylbenzene (see STYRENE)*	>99%	0.150	0.0005
XYLENES (TOTAL)*	>99%	0.070	0.001

Standard 401 Incidental Contaminants / Emerging Compounds

Substance	Percent Reduction**	Influent challenge concentration (mg/L unless specified)	Maximum permissible product water concentration (mg/L unless specified)
Group I			
Atenolol	>95.2%	200 ± 20%	0.00003 mg/L
Carbamazepine	>98.3%	1400 ± 20%	0.0002 mg/L
DEET	>95.5%	1401 ± 20%	0.0002 mg/L
Linuron	>96.2%	140 ± 20%	0.00002 mg/L
Meprobamate	>94.9%	400 ± 20%	0.00006 mg/L
Metolachlor	>98.5%	1400 ± 20%	0.0002 mg/L
Trimethoprim	>96.2%	140 ± 20%	0.00002 mg/L
Group II			
TCEP	>97.9%	5000 ± 20%	0.0007 mg/L
TCP	97.8%	5000 ± 20%	0.0007 mg/L
Group III			
Bisphenol A	99%	2000 ± 20%	0.0003 mg/L
Estrone	>96.4%	140 ± 20%	0.00002 mg/L
Ibuprofen	>95.2%	400 ± 20%	0.00006 mg/L
Naproxen	>96.7%	140 ± 20%	0.00002 mg/L
Nonyl phenol	>97.5%	1400 ± 20%	0.0002 mg/L
Phenytoin	>95.2%	200 ± 20%	0.00003 mg/L

Footnotes

*Chloroform was used as a surrogate for claims of reduction of Volatile Organic Chemicals (VOC). CB Tech Systems tested at >99.8% actual reduction of Chloroform. Percent reduction shown herein reflects the allowable claims for VOCs as per tables in the Standard.**Percent reduction reflects actual performance of CB Tech product as specifically tested (at 200% of capacity). Percent reduction shown for VOCs reflects the allowable claims for Volatile Organic Chemicals/Compounds as per Tables. Chloroform was used as a surrogate for VOC reduction claims: the CB Tech Systems' actual reduction rate of Chloroform was >99.8% as tested (at 200% of capacity).***NSF Standard 401 has been deemed as "incidental contaminants / emerging compounds". Incidental contaminants are those compounds that have been detected in drinking water suppliers at trace levels. While occurring at only trace levels these compounds can affect the public acceptance/perception of drinking water quality.

1. **Do not use with water that is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.**
2. CB Tech Drinking Water Systems have been certified, as indicated, by NSF International for compliance to NSF/ANSI Standard Nos. 42, 53 & 401.
3. The CB Tech Drinking Water Systems have been certified by the State of California Department of Public Health for the reduction of specific contaminants listed herein.
4. Chloroform was used as a surrogate for claims of reduction of VOCs. CB Tech Systems tested at >99.8% actual reduction of Chloroform. Percent reduction shown herein reflects the allowable claims for VOCs as per tables in the Standard.
5. 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 disinfected water that may contain filterable cysts.
6. Filter life will vary in proportion to the amount of water used and the level of impurities in the water being processed. For optimum performance, it is essential that the filter be replaced on a regularly scheduled basis as follows: (a) annually; (b) when the unit's rated capacity has been reached; (c) the flow rate diminishes; or (d) the filter becomes saturated with bad tastes and odors.
7. CB Tech Drinking Water System Housings are warranted for a lifetime (provided that filter has been changed at least once per year). All exterior hoses and attachments to the System are warranted for one year. Please see the Owner's Manual for complete product guarantee and warranty information.
8. Please see the Owner's Manual for installation instructions and operating procedures.
9. In compliance with New York law, it is recommended that before purchasing a water treatment system, NY residents have their water supply tested to determine their actual water treatment needs. Please compare the capabilities of the CB Tech unit with your actual water treatment needs.
10. While testing was performed under standard laboratory conditions, actual performance may vary.
11. The list of substances which the treatment device reduces does not necessarily mean that these substances are present in your tap water.

Troubleshooting

Water flow is frequently interrupted by air

Purge any residual air from the system:

1. Turn the system housing upside down.
2. Turn on the filtered water faucet.
3. Allow water to flow for one minute.
4. Turn off the filtered water faucet.

Odor – rotten eggs, no discoloration on the filter

A rotten egg odor is a sign that H₂S (hydrogen sulfide) gas is present in your water source.

If hydrogen sulfide gas is present in your water source, it is recommended that you rotate DWS usage between 2 filter cartridges. When the DWS emits the rotten egg smell, remove the filter and allow it to dry upside down to allow the gas to dissipate (the filter can be reused once dry). Use the second filter in the unit while the first filter is drying.

Odor – rotten eggs, with discoloration on the filter

A rotten egg odor is a sign that H₂S (hydrogen sulfide) is present in your water source. Filter discoloration can determine the source:

- orange/brownish colors – iron
- blackish colors – manganese
- slimy/blotchy colors – decaying organisms

When hydrogen sulfide comes from a source that discolors the filter cartridge and creates a strong rotten egg odor, the only recommended solution is to change the filter cartridge.

Color – milky color in the water

Milky color in the water is typically caused by air bubbles in the water. Higher than normal water pressure through the DWS can create these small air bubbles, but they do not affect system performance.

For countertop systems, turn on the water and engage the diverter valve while slightly reducing the water flow. Less water pressure through the system can prevent air bubbles from forming.

Color – black color in the water

Black color in the water is typically caused by residual carbon dust from the filter.

Allow water to run through the DWS for approximately 30 minutes to flush the filter. Residual carbon dust may initially color the water black.

Flow rate – the water flow rate is slow

The filter is designed to restrict its flow rate when clogged with particulates or other solid contaminants.

When the water flow rate slows to the point of inconvenience, or at one year of use, it is time to replace the filter cartridge. If other water sources are on while using the DWS, turn them off to check if they are affecting the flow rate.

Taste/Odor – miscellaneous

The carbon block filter may have become saturated with the tastes and odors treated in your drinking water.

To resolve this, change the filter.

Bypass lever – sticking (hard to move)

Minerals in the water can build up on the diverter valve, causing the bypass lever to stick and preventing the buttons from being pressed easily.

A sticking bypass lever can be solved by lubricating it or by dissolving the mineral deposits.

Lubrication – requires vegetable oil; because lubrication does not dissolve the mineral deposits, it may need to be performed periodically.

1. Unscrew the diverter valve and remove from the faucet.
2. Pour a small amount of vegetable oil in the inlet hole.
3. Push the left and right buttons on the diverter valve several times to lubricate it thoroughly.
4. Reconnect the diverter valve to the faucet.

Dissolving – requires vinegar; may cause discoloration to the metal.

1. Unscrew the diverter valve and remove from the faucet.
2. Soak the diverter valve in a bowl of vinegar for 10 minutes.
3. Rinse the diverter valve and reconnect to the faucet.

Bypass lever – stuck (cannot be pressed)

The bypass lever can occasionally become stuck due to the presence of air in the tubing. This can prevent the buttons from being pressed.

1. Unscrew the diverter valve and remove from the faucet.
2. Press the left and right buttons to test it. If they press in easily, then removing the diverter valve freed the air in the tubing.
3. Reconnect the diverter valve to the faucet.

Frequently Asked Questions

Will low pH or acidic water affect the filter?

No. Mineral components can determine the pH of water, and minerals dissolved in solution in the water pass through the system unfiltered.

- pH 7 = neutral
- pH > 7 = alkaline
- pH < 7 = acidic

Does deionized water or soft water have an effect on CB Tech water?

No. Because CB Tech filters do not treat the natural minerals dissolved in water, the hardness or softness of water has no effect on the resultant filtered CB Tech water.

Can the CB Tech system be used during an emergency or when the water is turned off?

Yes. During an emergency or when the source water is off, you can hand pump or siphon water through the CB Tech system.

CAUTION: The CB Tech system is not intended for use where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. To disinfect questionable source water, add 1/4 tsp. of household bleach per gallon of source water; the CB Tech system will remove this solution from the water during the filtering process. Hand pump kits and emergency kits are available from CB Tech.

What causes white particles to appear in CB Tech water when it is frozen or boiled?

Because the Water Guardian does not reduce any natural minerals present in water, these minerals may solidify when the water is frozen and appear as white flakes or specks when the water is melted or boiled.

Many natural minerals in water are beneficial to your health, and their existence in drinking water (in normal quantities) is not cause for alarm. Minerals can be removed by reverse osmosis technology, which is available through the CB Tech AquaRO Drinking Water System.

Why does the CB Tech system reduce Volatile Organic Chemicals, but not natural minerals?

Minerals are dissolved in solution and do not have an actual physical size; thus, the minerals pass through the system unfiltered.

Should sediment be removed with a standard filter first?

In areas with excessive sedimentation, pre-filtration can help extend the operational efficiency of the CB Tech filter; however, in most areas it is unnecessary.

CB Tech Drinking Water Systems utilize a double-filter mechanic. The outer material is a pre-filter that protects the solid carbon block from prematurely clogging with large sediment.

Why is the compressed solid carbon block filter more efficient than (loose) granular activated carbon filters?

CB Tech's densely compacted solid carbon block filters force water through microscopic pores of carbon – much smaller than those of granular activated carbon – thus more effectively reducing particulate matter and contaminants that affect the quality, taste, and odor of the water.

What is the difference between a “water softener” and a CB Tech Drinking Water System?

Water softeners are not designed to treat drinking water for contaminants; instead, they are designed to adjust the hardness (mineral content) of the water. CB Tech systems do not remove dissolved minerals from the water, because natural minerals often found in water are considered beneficial to good health.

Soft water is often desirable for bathing and laundering purposes, and may extend the life of hot water heaters and boilers. However, soft water is not recommended for use on plants or lawns. CB Tech recommends that you bypass a water softener when installing your CB Tech Drinking Water System.

Can the CB Tech Drinking Water System be used with untreated water?

CB Tech systems are designed to be used with municipally treated water; they are not intended to be used where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the unit. Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts. To disinfect questionable source water, add 1/4 tsp of household bleach per gallon of source water; the CB Tech system will remove this solution from the water during the filtering process.

Water Guardian Accessories

Water Guardian Replacement Filter (CBTAD)

The Water Guardian replacement filter utilizes Solid Carbon Block technology for optimal performance, and is certified to treat aesthetic contaminants, health contaminants and emerging compounds.

Water Guardian Hand Tool (MC008)

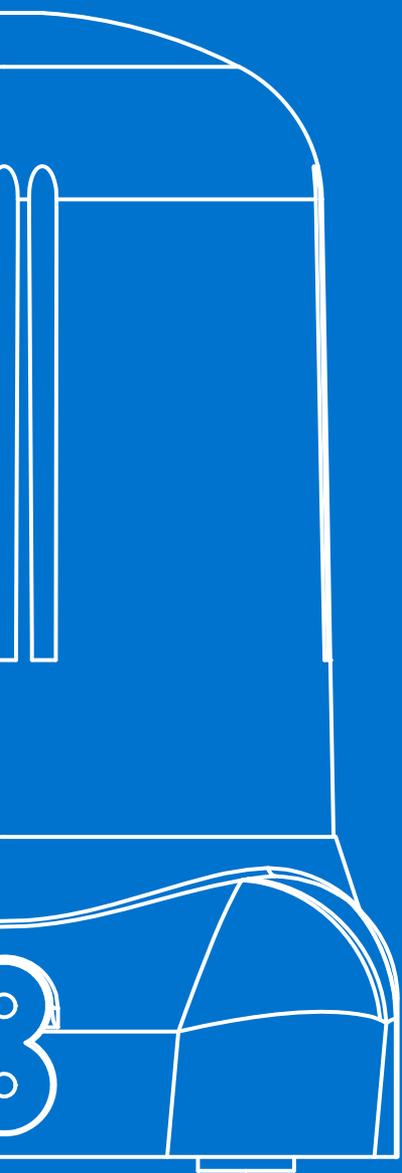
Hand tool used to open Water Guardian

Water Guardian Hose/Diverter Valve (MC6400)

This hose and diverter valve connects your Drinking Water System directly to your existing faucet. It allows you to switch the water flow between unfiltered and filtered water.

More Information and Products at
www.CarbonBlockTech.com

If this device is not maintained or operated as specified in this owner's manual, there is a risk of exposure to contaminants. This drinking water filtration system is certified for the reduction of contaminants such as Lead, Mercury, VOCs, Cysts & Toxaphene. For the complete list of contaminants and more information, visit the manufacturer's website at www.CarbonBlockTech.com or the California State Water Resources Control Board at <http://www.waterboards.ca.gov/>.





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