Capital WATER SOFTENER INC.

Aqua Bella

R.O. DRINKING WATER SYSTEM MODELS:

- **CP-TFC-NM50-RO**
- **CP-TFC-M50-RO**

Performance Data Sheet

Tested and Certified by NSF International against NSF/ANSI Standard 58 for the reduction of: Arsenic (Pentavalent), Barium, Cadmium, Chromium (Hexavalent), Chromium (Trivalent), Copper, Fluoride, Lead, Nitrate, Nitrite, Radium 226/228, Selenium and TDS.

This reverse osmosis system contains replaceable treatment components critical for effective performance. It is the user's responsibility to, and the manufacturer strongly recommends that the user, periodically test the product water to verify that system is performing satisfactorily.

A note for systems with the Water Quality Monitor:

The monitor offers a dual function. The monitor is designed to be able to monitor your membrane rejection and there is a multifunction timer for the filter modules. You will be alerted by an amber LED light when membrane drops to 75% rejection or less. You will be alerted when your filter timer ends, you can set it for 3 months, 6 months or 1 year.

"PUSH TO TEST" button. When the LED lights are green, everything is performing well. When the "MEMBRANE" indicator light is amber, it is time to change the membrane module. When the "FILTERS" LED light is amber, it is time to change the Pre and Post Filter modules and In-Line Filter.

Once you have serviced your R.O. Drinking Water System and have the new filters in place PRESS & HOLD the "PUSH TO TEST" button to reset for filter timer. The circuit board is powered by a lithium coin cell battery model CR2032. It is recommended that the battery be changed when the Pre and Post Filter modules and In-Line Filter are changed. Battery life could be up to 2 years, depending upon frequency of testing.

If Aquabella replacement filters and membranes are not used, health related contaminant reduction claims are invalid.

AQUABELLA R.O. DRINKING WATER SYSTEM
MODEL CP-TFC-NM50-RO AND CP-TFC-M50-RO

REDUCTION PERFORMANCE CLAIMS: This system has been tested according to NSF/ANSI 58 for reduction of the substances listed below. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 58. Retesting occurs every five years. Testing was performed under standard laboratory conditions. Actual performance may vary.

	NSF/ANSI 58 Standard Requirements		Actual Test Results
	Influent Challenge Concentration (mg/l)[1]	Maximum Allowable Product Water Concentration (mg/l)[1]	Average % Reduction[2]
Arsenic (Pentavalent)[3]	0.30 ± 10%	0.010	99
Barium	10.0 ± 10%	2.0	98
Cadmium	0.03 ± 10%	0.005	99
Chromium (Hexavalent)	0.30 ± 10%	0.1	99
Chromium (Trivalent)	0.30 ± 10%	0.1	98
Copper	3.0 ± 10%	1.3	93
Fluoride	8.0 ± 10%	1.5	90
Lead	0.15 ± 10%	0.010	99
Nitrate + Nitrite (both as N)[4]	30.0 ± 10%	10.0	77
Nitrate (as N)[4]	27.0 ± 10%	10.0	76
Nitrite (as N)[4]	3.0 ± 10%	1.0	79
Radium 226/228[5]	25 pCi/l ± 10%	5 pCi/l	80
Selenium	0.1 ± 10%	0.05	95
Total Dissolved Solids	750 ± 40 mg/l	187	94

Test Parameters:

pH	7.5±0.5
Turbidity	≤ 1 NTU
Temperature	77°±2° F
Pressure	50 psig

1 Unless otherwise indicated.
2 Average based upon actual test data.
3 This system has been tested for the treatment of water containing pentavalent arsenic (also known as As(V), As(+5), or arsenate) at concentrations of 0.30 mg/L or less. This system reduces pentavalent arsenic, but may not remove other forms of arsenic. This system is to be used on water supplies containing a detectable free chlorine residual at the system inlet or on water supplies that have been demonstrated to contain only pentavalent arsenic. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic. Please see the Arsenic Facts section of the Performance Data Sheet for further information.
4 This system is acceptable for treatment of influent concentrations of no more than 27 mg/L nitrate and 3 mg/L nitrite in combination measured as N and is certified for nitrate/nitrite reduction only for water supplies with a pressure of 280 kPa (40 psig) or greater.
5 The reduction of Radium was verified by using Barium as a surrogate under NSF/ANSI Standard 58.

APPLICATION GUIDELINES/SPECIFICATIONS AND FEATURES

Water Supply Parameters	
Water Pressure:	40–100 psig (280–690 kPa)
Water Temperature:	40°–100° F (4°–38° C)
pH Operating Range:	4–11
Optimum rejection at pH:	7.0 - 7.5
Max. T.D.S. Level:	2000 ppm

Chemical	Limit
Hardness:	<170 mg/l
Iron:	<0.1 mg/l
Manganese:	<0.05 mg/l
Hydrogen Sulfide:	0

Water supplies that exceed limits for Hardness, Iron, Manganese and Hydrogen Sulfide require pretreatment.

Caution: Do not use with water that is microbiologically unsafe or of unknown quality, without adequate disinfection before or after the system.

DRINKING WATER SYSTEM ASSEMBLY COMPONENTS

Sediment/Carbon Prefilter: Sediment/Carbon CS Module A, Part No. S3551A-01
Membrane Type: Membrane 50GPD CS Module A, Part No. S35715A-01
Sediment/Carbon Post Filter: Sediment/Carbon CS Module A, Part No. S3551A-01
In-Line Carbon Post Filter: In-line Activated Carbon Post Filter, Part No. S7206W-JG

Refer to owner's manual for proper operation, installation instructions, warranty information, service interval recommendations, parts and service availability. See the test kit(s) for sampling instructions.

SYSTEM RATING

System Production: 14 gallons per day (53 liters per day) **Recovery Rating:** 36% **Efficiency Rating:** 26%
Measured at 50 psig, 77°±2°F, 750±40 mg/L T.D.S., per section 6 of NSF/ANSI standard 58 product water to pressurized storage tank. Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed. Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage. Sodium Chloride was used as a surrogate for T.D.S. System rating determined by laboratory testing at NSF.

MEMBRANE RATING

Membrane Production: 38-57 gallons per day (143–214 liters per day) **Membrane T.D.S. Reduction:** 96% minimum
Note: Measured at industry standard condition of 65 psig, 77°F, 250 ppm T.D.S., and discharging to atmosphere. Actual system production and contaminant reduction will depend upon water temperature, pressure, pH and T.D.S. level, membrane variation and usage pattern.

ADDITIONAL STATE OF IOWA INFORMATION

FOR IOWA USE ONLY

Seller Name

Address

Phone

Seller Signature

Customer Signature

Date
(Signatures required prior to sale only in Iowa and signed sheet to be retained by seller for two years.)

Arsenic Facts

Arsenic (As) is a naturally occurring contaminant found in many ground waters. It generally occurs in two forms (valences or oxidation states): pentavalent arsenic (also known as As(V), As(+5), or arsenate) and trivalent arsenic (also known as As(III), As(+3), or arsenite). In natural ground water, arsenic may exist as trivalent arsenic, pentavalent arsenic, or a combination of both. Although both forms of arsenic are potentially harmful to human health, trivalent arsenic is considered more harmful than pentavalent arsenic. More information about arsenic and its toxicity can be found on the U.S. Environmental Protection Agency website.

This system is designed to remove only pentavalent arsenic. This treatment system does not provide a feature for conversion of trivalent arsenic to pentavalent arsenic. The system may remove some trivalent arsenic; however, it has not been evaluated for its ability to remove trivalent arsenic.

Trivalent arsenic is generally more difficult to remove from drinking water than pentavalent arsenic. Trivalent arsenic can be converted to pentavalent arsenic in the presence of an effective oxidant such as free chlorine. The arsenic in water containing detectable free chlorine or that has been treated with another effective oxidant will be in the pentavalent arsenic form. Treatment with chloramine (combined chlorine) is not sufficient to ensure complete conversion of trivalent arsenic to pentavalent arsenic.

Consumers using public water supplies can contact their utility to verify whether free chlorine treatment chemicals are being used. Private water supplies and waters that do not have detectable free chlorine residuals should be analyzed to determine the form(s) of arsenic present and the potential need for oxidation of trivalent arsenic to pentavalent arsenic.

Arsenic does not generally impart color, taste or smell to water, therefore, it can only be detected by a chemical analytical test. Public water supplies are required to monitor treated water for total arsenic (trivalent arsenic plus pentavalent arsenic) and the results are available to the public from the utility. Consumers using private water sources will need to make arrangements for testing. A total arsenic test usually costs about $15-$30 and it is recommended the test be conducted by a certified laboratory. Local health departments or environmental protection agencies can help provide consumers with a list of certified laboratories. Some laboratories may also be able to analyze specifically for (speciate) the two forms of arsenic present in a water sample if requested.

This treatment system was tested under laboratory conditions as defined in NSF/ANSI 58 Reverse Osmosis Drinking Water Treatment Systems and was found to reduce 0.30 mg/L influent arsenic challenge concentration in the test water to less than 0.010 mg/L, under standard testing conditions. Actual performance of the system may vary depending on specific water quality conditions at the consumer's installation. Following installation of this system, the consumer should have the treated water tested for total arsenic to verify arsenic reduction is being achieved and the system is functioning properly.

The pentavalent arsenic removal component of this system (the R.O. membrane) must be replaced at the end of its useful life. Typical membrane life expectancy is three years. Local conditions may dictate more frequent changes. For replacement parts contact the local dealer who supplied the unit or contact the factory for the dealer nearest you.

Capital WATER SOFTENER INC.

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