



SEA FRESH SYSTEM

INTAKE WATER SELECTION KIT

INSTALLATION, OPERATION and MAINTENANCE INSTRUCTIONS

THE FOLLOWING ARE CAUTIONARY STATEMENTS THAT MUST BE READ AND FOLLOWED DURING BOTH INSTALLATION AND OPERATION

WARNING:  *Raritan Engineering Company, Inc. recommends that a qualified person or electrician install this product. Equipment damage, injury to personnel or death could result from improper installation. Raritan Engineering Company, Inc. accepts no responsibility or liability for damage to equipment, or injury or death to personnel that may result from improper installation or operation of this product.*

WARNING:  **Hazard of Flooding** - Any installation made below the waterline must have vented loops positioned properly and all hose connections should be double-clamped. Both intake and discharge seacocks should always be in the closed position when the toilet is not in use. Failure to do so may result in flooding, property damage and loss of life.

IMPORTANT: These instructions are supplemental to the instructions outlined in the toilet **INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS. ALL WARNINGS, CAUTIONARY STATEMENTS, AND INSTRUCTIONS applicable must be followed.**

INTRODUCTION

The Sea Fresh System allows, at the “flip of a switch”, the choice of using either pressurized fresh water or seawater for flushing the toilet.

OPERATION

Simply place the *intake water selection switch* in the desired position and flush the toilet as you normally would.

To use sea/lake water for flushing; place the *intake water selection switch* in the **SEA** position.

To use pressurized fresh water for flushing; place the *intake water selection switch* in the **FRESH** position.

For specific instructions on **FLUSHING THE TOILET** see the **OPERATION** section of the toilet manual.

MAINTENANCE

Refer to the **MAINTENANCE** Section of the toilet manual.

TIP: To reduce odors and mineral build-up; when leaving the boat unattended for an extended period,

flush the toilet with fresh water several times to remove seawater from the toilet.

WINTERIZATION

Refer to the **WINTERIZATION** Section of the toilet manual.

SYSTEM COMPONENTS

Note: For the components supplied with the toilet, refer to the toilet manual.

Kit # SF1*01 for A5 and A6 model Atlantes and Crown II with the Deluxe Control contain the following components:

1	CWPS*A	1/2” GC Solenoid Valve
1	CWPSMB	Water Solenoid Valve Mounting Bracket
2	RCV	Check Valve
1	PLAVB0-5	Atmospheric Vacuum Breaker
1	EST1	Intake Water Selection
1	CDS*	Solenoid Relay
1	WASF01	Cable: CDS* to EST1
1	WASF02	Cable: CWPS* to EST1

In Addition to the components listed above; the following kits contain:

SF1*02 Crown II

1	CDS*	Solenoid Relay
1	PBS	Push Button Switch
1	WASF03	Cable: CDS* to PBS

#SF1*03 Crown II with Raritime

- 1 RTC* Raritime Control
- 1 PBS Push Button Switch
- 1 WASF03 Cable: CDS* to PBS

* Specify Voltage

Additional Parts Needed: 5/16" (M8) screws/bolts (for mounting the CDSs), 1/4" (M6) screws/bolts (for mounting the Intake Pump and CWPS), 3/4" hose or piping, fittings, hose clamps, shut off valve, wire (for the Intake Pump) and wire terminals.

INSTALLATION

NOTE: For discharge plumbing and general intake plumbing refer to the **INSTALLATION** section of the toilet manual.

PLUMBING

WARNING

- **Hazard of Flooding:** For below waterline installations, a separate vented loop for the intake pump must be installed as outlined in the toilet manual. The Atmospheric Vacuum Breaker must NOT be considered as a vented loop for the intake pump. The vacuum breaker should be installed a minimum of six (6) inches (15cm) above the toilet bowl rim OR the water line at highest angle of heel, which ever is GREATER. The vented loop should be installed before the vacuum breaker and a minimum of three (3) inches (7.5 cm) above the vacuum breaker. See Figure 1B.
- **To prevent contamination of the Potable Water Supply, All Components Must Be Installed As Outlined In These Instructions and the Toilets Instructions.**

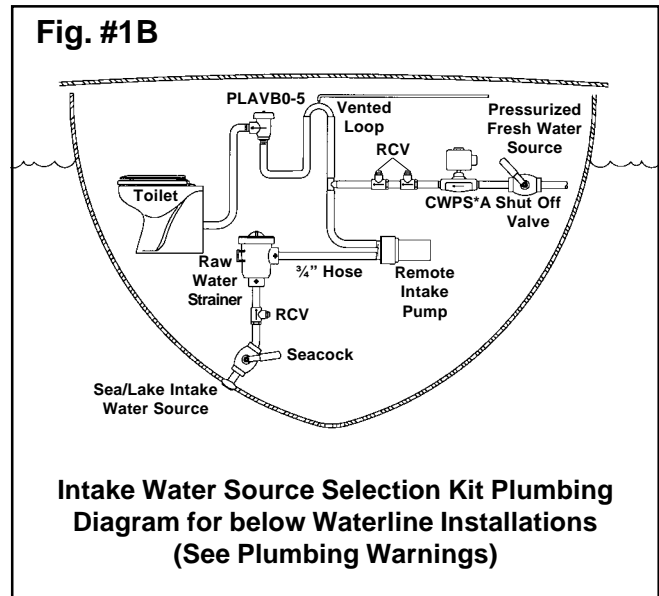
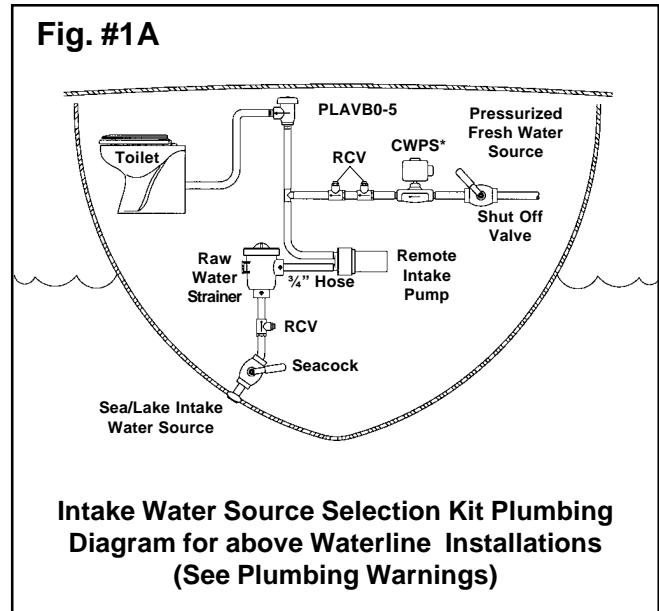
IMPORTANT

- The Atmospheric Vacuum Breaker may leak water under certain circumstances. Locate the Atmospheric Vacuum Breaker where spillage is not objectionable.
- Excessive leakage may indicate a malfunctioning vacuum breaker.
- Do not install any valves between the Atmospheric Vacuum Breaker and the Toilet.

- **To reduce odors and maintenance, installation of a strainer (such as Raritan Engineering Company Raw Water Strainer #RWS) in the seawater intake line is recommended.**
- **The pressurized fresh water system must be minimum of 5 p.s.i. (34.5 kPa).**

For *above* waterline installations, plumb per Fig. 1A.

For *below* waterline installations, plumb per Fig. 1B.



ELECTRICAL

WARNING: HAZARD OF ELECTRICAL SHOCK AND BURN. BE CERTAIN THAT THE ELECTRICAL POWER IS OFF BEFORE PROCEEDING.

FOR WIRE AND FUSE SIZES, REFER TO THE TOILET MANUAL.

Intake Water Selection Switch

1. Drill a 1/2" (12.5mm) hole in the location where the switch will be installed.

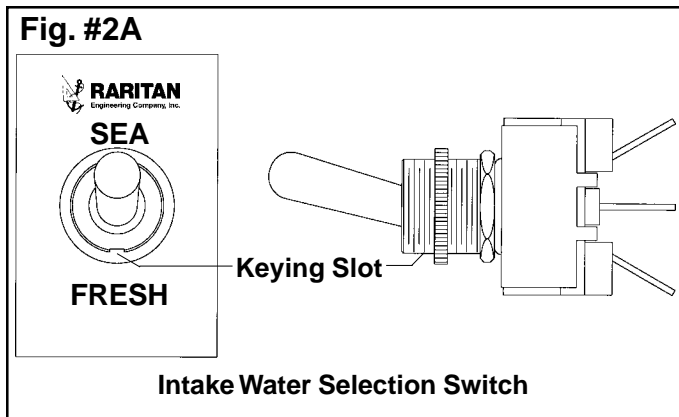
TIP: It may be desirable to locate the Intake Water Selection Switch where it is not readily accessible to anyone who flushes the toilet.

2. Attach the label over the hole and install the switch.

See Figure 2A

3. Install the switch with the keying slot downward.

See Figure 2A

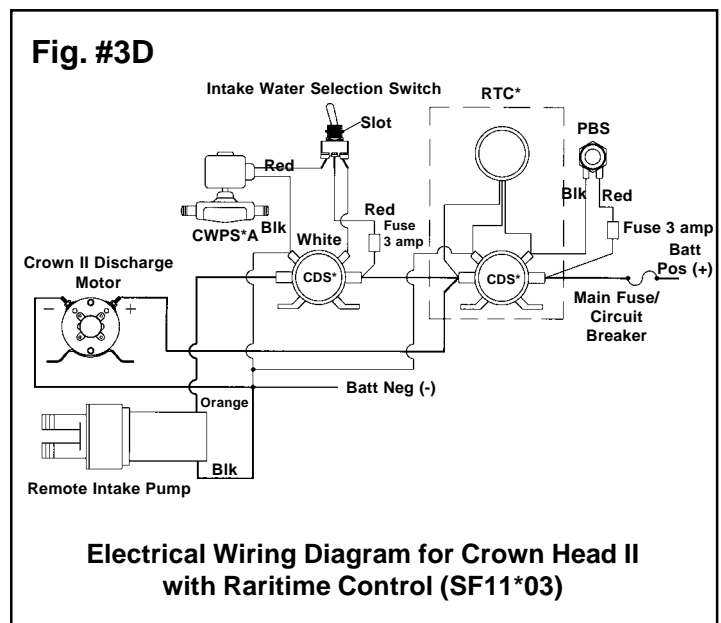
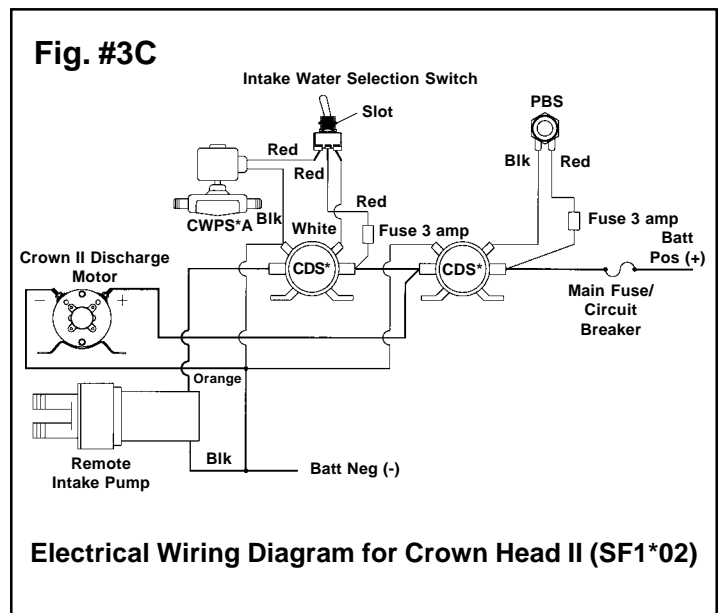
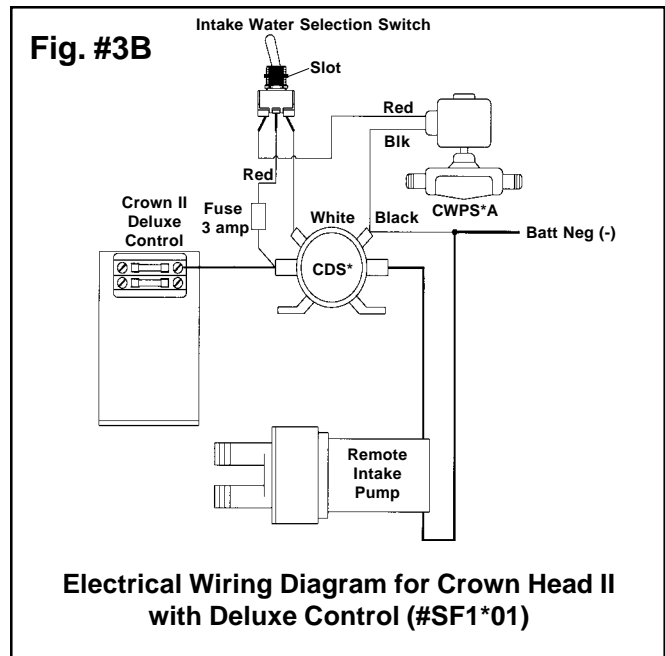
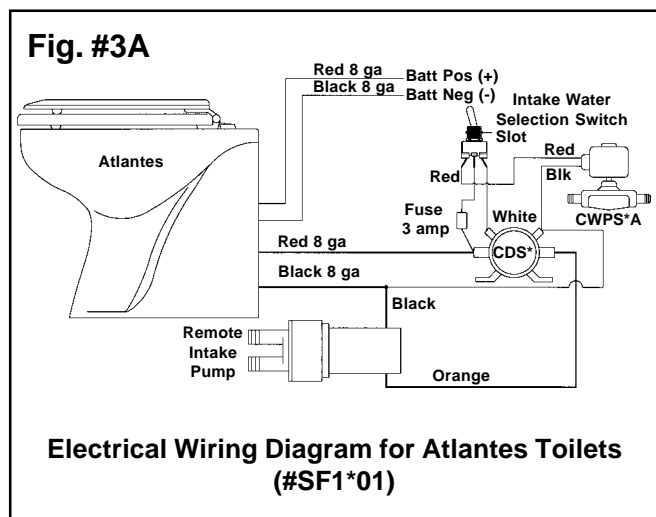


Atlantes (A5 and A6 models) and Crown II with Deluxe Control: See Figure 3A for the Atlantes electrical wiring diagram. (# SF1*01)

See Figure 3B for the Crown II with deluxe Control electrical diagram. (# SF1*01)

Crown II: See Figure 3C for the Crown II electrical wiring diagram. (#SF1*02)

See Figure 3D for the Crown II (Raritime) electrical wiring diagram. (#SF1*03)



LIMITED WARRANTY

Raritan Engineering Company warrants to the original purchaser that this product is free of defects in materials or workmanship for a period of one year from the product's date of purchase. Should this product prove defective by reason of improper workmanship and/or materials within the warranty period, Raritan shall, at its sole option, repair or replace the product.

1. TO OBTAIN WARRANTY SERVICE, Consumer must deliver the product prepaid, together with a detailed description of the problem, to Raritan at 530 Orange St., Millville, N.J. 08332, or 3101 SW 2nd Ave. Ft. Lauderdale, FL 33315. When requesting warranty service, purchaser must present a sales slip or other document which establishes proof of purchase. **THE RETURN OF THE OWNER REGISTRATION CARD IS NOT A CONDITION PRECEDENT OF WARRANTY COVERAGE.** However, please complete and return the owner Registration Card so that Raritan can contact you should a question of safety arise which could affect you.
2. **THIS WARRANTY DOES NOT COVER** defects caused by modifications, alterations, repairs or service of this product by anyone other than Raritan; defects in materials or workmanship supplied by others in the process of installation of this product; defects caused by installation of this product other than in accordance with the manufacturer's recommended installation instructions or standard industry procedures; physical abuse to, or misuse of, this product. This warranty also does not cover damages to equipment caused by fire, flood, external water, excessive corrosion or Act of God.
3. **ANY EXPRESS WARRANTY NOT PROVIDED HEREIN, AND ANY REMEDY FOR BREACH OF CONTRACT WHICH BUT FOR THIS PROVISION MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, IS HEREBY EXCLUDED AND DISCLAIMED. ALL IMPLIED WARRANTIES SUCH AS THOSE OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, IF APPLICABLE, AS WELL AS ANY IMPLIED WARRANTIES WHICH MIGHT ARISE BY IMPLICATION OF LAW, ARE EXPRESSLY LIMITED TO A TERM OF ONE YEAR. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG A LIMITED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**
4. **UNDER NO CIRCUMSTANCES SHALL RARITAN BE LIABLE TO PURCHASER OR ANY OTHER PERSONS FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHERWISE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.**
5. No other person or entity is authorized to make any express warranty, promise or affirmation of fact or to assume any other liability on behalf of Raritan in connection with its products except as specifically set forth in this warranty.
6. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.



RARITAN
Engineering Company, Inc.

530 Orange Street, P.O. Box 1157, Millville, NJ 08332 USA
Telephone: 856-825-4900 FAX: 856-825-4409
www.raritaneng.com
Southern Office and Plant:
3101 SW Second Avenue, Fort Lauderdale, FL 33315 USA
Telephone: 954-525-0378 FAX: 954-764-4370