


Marine Elegance Toilet

Installation and Maintenance Instructions

Manufactured after August 2016

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, injury or death to personnel that may result from improper installation or operation of this product.*

WARNING: HAZARD OF SHOCK OR FIRE



Always use recommended fuse, circuit breaker and wire size.

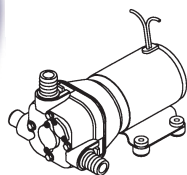
Motors used with this product are "Ignition Protected". They are not however, explosion-proof as defined in 46CFR 110.15-65(e), Subchapter J-Electrical Engineering.

DO NOT run continuously for more than 30 seconds.

Pressurized Freshwater Model



Sea Water Model (Remote Pump)



Description:

Our Marine Elegance toilet is available in 12V or 24V DC. Bowls are available in four models: standard with angled back, standard with straight back, tall with angled back and tall with straight back. Fresh water model utilizes onboard freshwater, the Sea water model utilizes a remote pump installed between raw water source and bowl. Sea/Fresh model can switch between fresh and raw water source.

Flush control options available:

1. **Smart Toilet Control:** provides timed operation and independent control of water and discharge.
2. **Multifunction Flush Panel:** provides momentary operation and independent momentary control of water and discharge.
3. **Momentary Flush Switch:** providing only the ability to flush with no independent control of water or discharge.
4. **Touchless Flush Sense Control:** designed to activate a flush cycle without touching the control. Simply wave your hand within 2" of the sensor.
5. **Wireless Remote Bluetooth Control:** program your STC wirelessly up to 50 ft away from the toilet. Eliminates the need to route wires through bulkheads and cabinetry.

Model and Serial Number:

 **RARITAN**
The Most Dependable Name on the Water
 1-800-352-5630
www.raritaneng.com

IMPORTANT SAFETY INSTRUCTIONS:

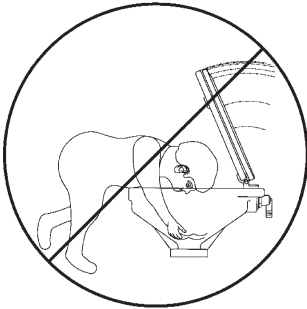
WARNING: HAZARD OF FLOODING - Always shut off seacock(s) before leaving the boat unattended.



Double clamp all below waterline hose fittings and check frequently for integrity.

WARNING:

Young children should NOT be left unsupervised around toilet. Serious injury or death could occur. Children can drown in water retained in the bowl. Seat and/or lid could close and strike child. Always replace circuit breaker and fuses with same rating. Use Raritan parts to maintain ignition protection requirements.



Cleaning Instructions

IMPORTANT: Do not use cleaners that contain ammonia, ethyl acetate, phosphoric acid or concentrated chlorine bleach. Do not allow acids, such as vinegar, and other cleaners to sit for extended periods of time in the toilet. These may cause damage to the toilet. Do not use abrasive cleaners or cleaning pads. Flushing fresh water through toilet when leaving for extended periods is recommended.

Using C.P. a bio-enzymatic toilet bowl cleaner (available from Raritan Engineering Part# 1PCP32) will keep the bowl clean and fresh smelling.

Toilets mounted at or below the waterline must have a vented loop installed in the discharge line. The top of the vented loop must be a minimum of 4" (10cm) above the waterline at the boat's greatest angle of heel (see vented loop manufacturer's instructions).

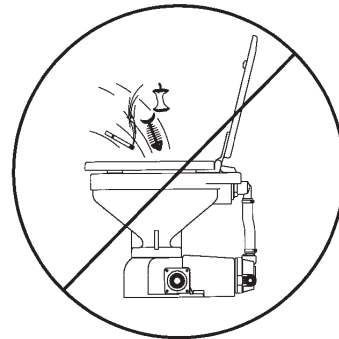
Sea Water Models must also have a vented loop installed between the intake pump and the toilet bowl.

Double clamp all below waterline connections.

Recommended Visual Inspection

- ✓ For leaks at toilet and hose connections
- ✓ Hose clamps
- ✓ Condition of hoses
- ✓ Seacocks
- ✓ Condition of wires and connections
- ✓ In-Line Strainer (if you have one)

- No special toilet paper is required.
- Water should appear in the bowl within ten seconds. If not, see troubleshooting section.
- Hard objects or stringy substances (paper towels, feminine hygiene products, filter cigarettes, etc.) must not be thrown into the toilet as they will cause damage.
- Always shut off seacock(s) before leaving the boat unattended.



Operation: Please see instructions included with control to see how to operate your unit.

Winterizing:

- Improper winter lay up is a major cause of marine toilet failure.
- Use only nontoxic antifreeze.
- Flush toilet several times to clear waste from system.
- Dispose of all antifreeze in accordance with local and federal regulations.
- Winterize holding tanks, plumbing, treatment systems (MSD's), etc. independently following manufacturer's instructions.

Pressurized Freshwater Models

Parts Required

- 1" (25 mm.) or 1 1/2" (38 mm.) I.D. discharge hose, approximately 3 feet (1 m.) long
- Two buckets
- Nontoxic antifreeze approximately 1 quart (1 liter)

Steps

1. Close discharge seacock (if one exists).
2. Shut off intake water at source.
3. Turn off power to unit.
4. Disconnect and drain discharge hose.
5. Disconnect intake hoses from water solenoid and place in one of the buckets.
6. Connect short hose to toilet's discharge and place in other bucket.
7. Pour antifreeze in bowl.
8. Turn on power to unit and flush until antifreeze is removed from the bowl and water is drained from the solenoid and hose.
9. Disconnect power to toilet.
10. Reconnect intake hoses to water solenoid.

Integral and Remote Intake Pump Models

Parts Required

- 3/4" (19 mm.) I.D. intake hose approximately 3 feet (1 m.) long.
- 1" (25 mm.) or 1 1/2" (38 mm.) I.D. discharge hose approximately 3 feet (1 m.) long.
- Two buckets
- Nontoxic antifreeze approximately 1 quart (1 liter)

Steps

1. Close the intake and discharge seacocks.
2. Turn off power to unit.
3. Disconnect and drain intake hose and discharge hose .
4. Connect short hoses to toilet's intake and discharge.
5. Place one bucket under hose connected to toilet's discharge.
6. Pour nontoxic antifreeze in other bucket.
7. Place hose connected to intake pump into bucket with antifreeze.
8. Turn on power to unit and flush toilet until antifreeze begins to be discharged from toilet.
9. Disconnect power from toilet.

RECOMMISSIONING

1. Using the buckets, hoses and approximately one gallon (3.8 liters) of clean fresh water, flush antifreeze out of the toilet (see Winterizing). Dispose of antifreeze in accordance with local and federal regulations.
2. Reconnect the intake and discharge hoses and open both seacocks and water source valve.
3. Check all connections for leaks with several test flushes.

SYSTEM START-UP

1. Open seacock(s).

NOTE: Pressurized freshwater models; open water source valve.

2. Turn on power to toilet.
3. Flush toilet per Operation Instructions.
4. Check for leaks.

IMPORTANT: If toilet does not flush properly or if water does not enter the bowl within 10 seconds, refer to Troubleshooting.

Plumbing

Maximum suction of Intake Pump (Maximum height above waterline)	4 ft (1.2m) from Intake Pump
Maximum height of discharge vented loop	10 ft (3 m) from base of toilet loop
Pressurized water source minimum requirements	Minimum flow rate 3 gallons (113 liters) per minute. Minimum pressure 5 PSI (34.5 KPA)

CONVERSIONS								
Wire - AWG to mm ²								
AWG	16	14	12	10	8	6	4	2
mm ²	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0
Feet to Meters								
Feet	10	15	20	25	30	40	50	
Meter	3.1	4.6	6.1	7.6	9.2	12.2	15.2	

NOTES: for Wiring

1.	Distances are from source to unit and back to source.
2.	Distance from power source to remote intake pump MUST be included when determining total distance. Same wire size MUST be used for lower base and remote intake pump.
3.	Recommended conductor wire minimum AWG (mm ²) for 3% voltage drop.
4.	Recommended conductor sizes are based on 105°C rated insulation. Refer to ABYC Standards for other insulation ratings.
5.	For 120/240 VAC units use 12VDC specifications from transformer to unit.

Hose Sizes

INLET

1/2" (12.7 mm.) for freshwater model

3/4" (19 mm.) for sea water model

Discharge

1" (25.4 mm.) or 1 1/2" (38 mm.)

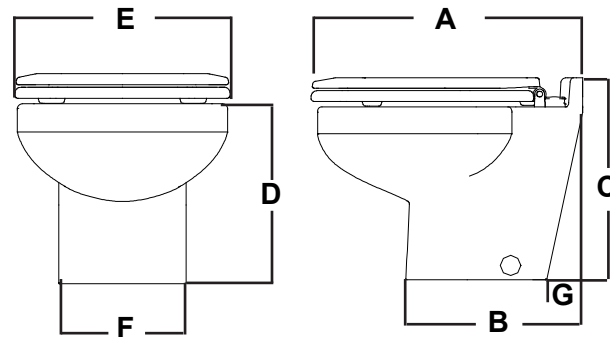
Sea Water Model - Recommended Wire and Fuse/Circuit Breaker Size

Units Voltage	Circuit Breaker/fuse size (amps)	Elegance toilet Amp. draw @ nominal Voltage/	Remote Pump Only Amp. draw @ nominal voltage	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	30	18	10	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG
24 VDC	20	10	5	14 AWG	14 AWG	12 AWG	10 AWG	10 AWG

Pressurized Freshwater Model - Recommended Wire and Fuse/Circuit Breaker Size

Units Voltage	Circuit Breaker/fuse size (amps)	Amp. draw @ nominal voltage	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	25	18	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG
24 VDC	15	10	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG

SIZE inch (mm.)



Bowl type	A	B	C	D	E	F	G
Angled Back	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	2 1/8 (54)
Straight Back	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	NA
Tall Angled Back	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	2 1/8 (54)
Tall Straight Back	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	NA

Parts included with all models:

1. Toilet bowl assembly
2. Mounting bracket kit
3. Seat
4. Flush control - includes User and Installation guides. (In some cases distribution points may package and sell controls separately.)
5. User guide and Installation guide with labels

Additional Parts included with sea water model:

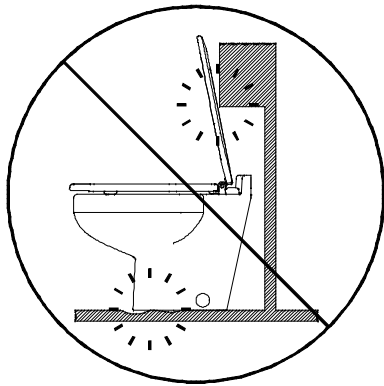
1. Remote pump assy.
2. Relay for remote pump (Momentary Flush Switch and SeaFresh models only)

Mounting Toilet

Mounting surface must be flat and solid.

Seat must open more than 90 degrees.

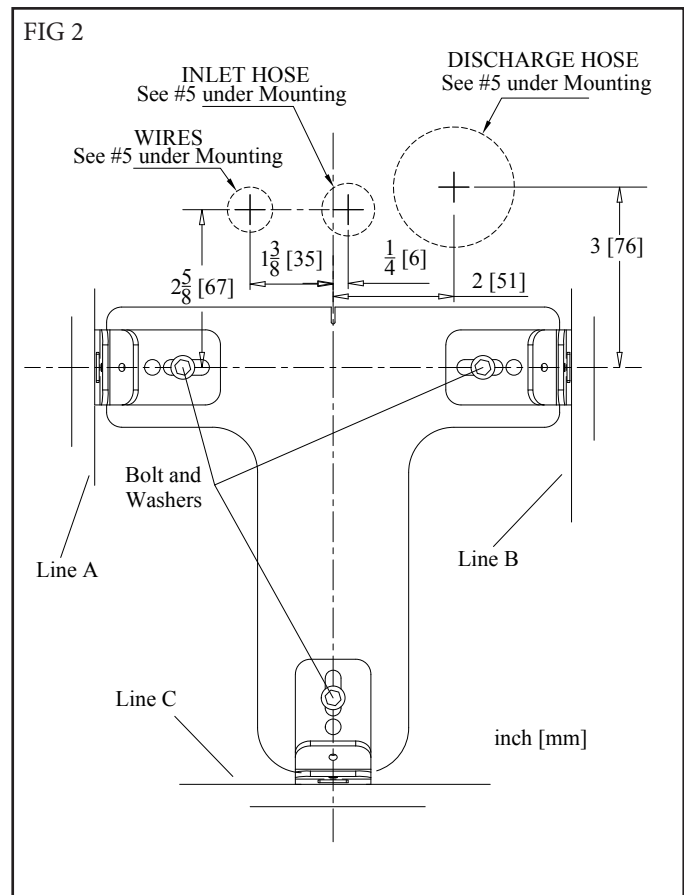
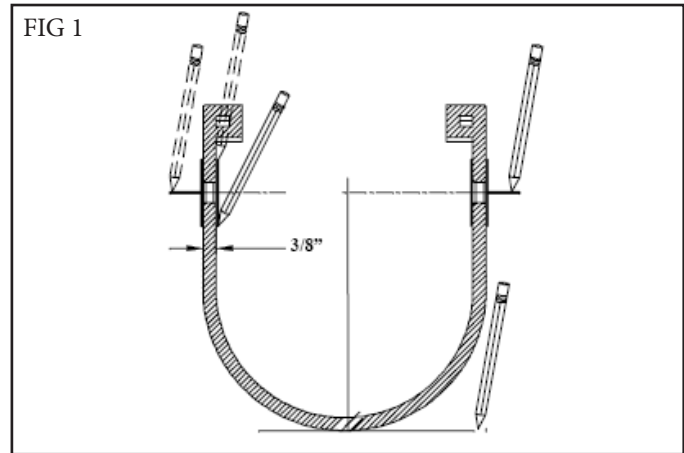
1. Place the toilet and mark mounting holes' center line, and outside of the bowl (FIG 1). Draw a center line between two holes. Mark front hole outside and center and draw a line perpendicular to first center line.



2. Mark three lines A, B, and C, 3/8" from outside lines.
3. Line up outside edges of the brackets with marked lines A, B, and C.
4. Secure bracket assembly to deck. Using three #14 self threading bolts and flat washers. Other types of fasteners may be used if so desired.
Note: place bolts as close to mark lines A, B, and C as possible
5. Drill holes for discharge hose (2"(51 mm.) for 1 1/2" hose; 1 1/2"(38 mm) for 1" hose), inlet hose (7/8" (22 mm.) and wires (3/4"(19 mm.) using dimensions shown in FIG 2.
Note: check outside diameter of the hoses and adjust hole sizes accordingly.
6. Complete plumbing and wiring before installing toilet.

Additional Parts Required:

- 1" (25 mm.) or 1 1/2" (38 mm.) I.D. discharge hose
- 3/4" (19 mm.) I.D. reinforced intake hose
- 3/4" (19 mm.) and 1" (25 mm.) or 1 1/2" (38 mm.) hose clamps (two for each connection below waterline)
- Wire
- Terminals
- Fuse/circuit breaker



PLUMBING

WARNING: HAZARD OF FLOODING

Toilets mounted at or below the waterline, at greatest angle of heel, and connected to a Seacock/ Thru Hull Fitting(s) MUST have VENTED LOOPS installed in toilet discharge plumbing and between raw water intake pump and toilet bowl.

Install vented loops per manufacturer's instructions.

Sea Water Models installed below the waterline MUST have a vented loop installed between the intake pump and the toilet bowl.

Double clamp all below-waterline connections.

IMPORTANT

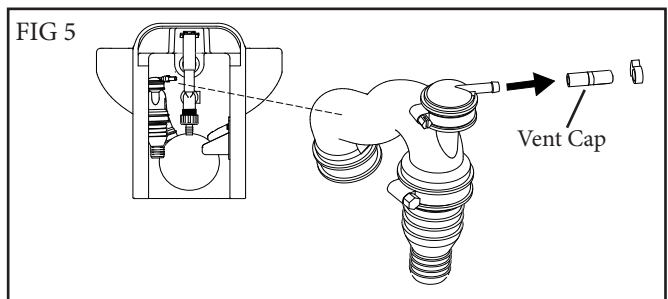
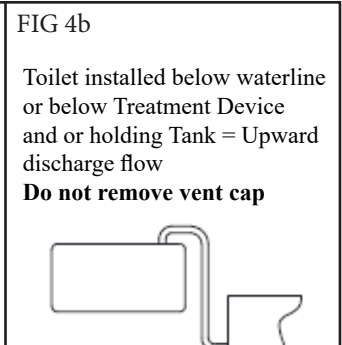
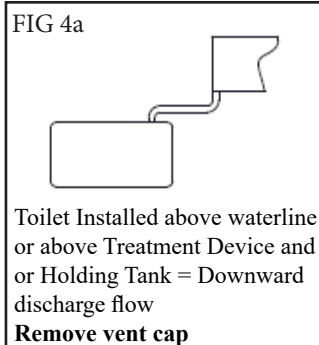
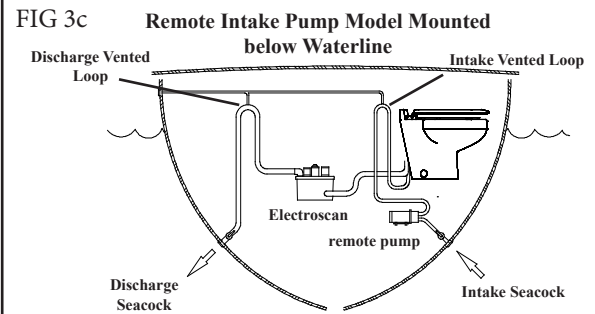
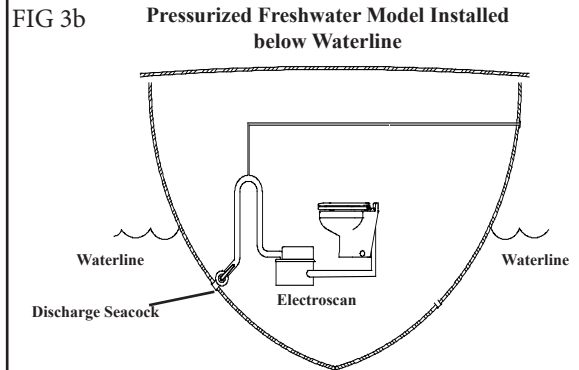
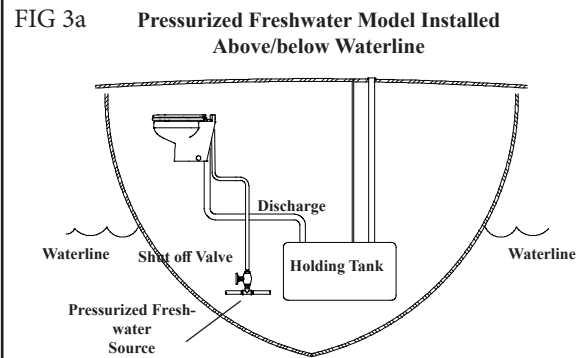
- Fittings and 90° bends should be kept to a minimum.
- In-Line Strainer may be installed on Sea Water Models per Installation Instructions. This will prevent clogs.
- Discharging untreated sewage is forbidden in all U. S. waters within the three-mile limit.
- Thru-hull fittings and seacocks must be installed where they are easily accessible.
- Use only quality reinforced hoses such as Raritan Saniflex (SFH)
- Secure all hoses properly.

Residual Water in the Bowl

The Marine Elegance is equipped with an integral vent to maintain water in the bowl when the plumbing lines are routed downward (See FIG 4a and FIG 4b).

The Smart Toilet Control (STC) is designed to add water at the end of the flush cycle. The toilet will not hold more than about 4" in the bowl. If any of the discharge hose runs higher than the internal integral vent, DO NOT REMOVE THE VENT CAP. For vent to work properly in downward installation, the vent cap must be removed (see FIG 5).

To enable vent, remove Vent Cap (FIG 5).



Discharge Lines

Raritan Sanitation Hose is recommended

Part numbers:

SFH 1 1/2 inch

SFH1 1 inch

1. Connect quality sanitation hose 1" (25 mm.) or 1 1/2"(38 mm.) discharge fitting on toilet.
2. Run hose to appropriate device (i.e.: treatment system, holding tank, etc.).

Inlet Lines

1. Connect 1/2"(13 mm.) hose to pressurized supply or 3/4"(19 mm.) hose to remote pump

Intake Lines

Pressurized Freshwater Models

1. Install a shut off valve in intake line before water solenoid valve.
2. Connect hose from shut off valve to inlet port of water solenoid valve at the toilet.

NOTE: To avoid malfunction of water solenoid due to debris in water, installation of Freshwater Strainer (190601) is recommended.

Mounting Remote Pump

1. Locate remote pump between thru hull fitting and toilet bowl.
2. Locate in an area away from berth to keep noise level down.
3. Use Inline Strainer (optional) to avoid clogs.
4. Secure remote pump to the floor using four bolts through the pump base (FIG 9).

Remote Sea Water Models

Intake pump fittings are interchangeable to allow more flexibility during installation. Inlet ports are located on either side of intake pump. Outlet port (to toilet bowl) is at top of intake pump (FIG 8).

NOTE: To avoid poor pump performance installation of strainer (163000) is recommended

1. Slide fitting clips to open position (FIG 7).
2. Select inlet port to be used.
3. Install appropriate fittings into inlet and outlet ports.

NOTE: The 90° fitting can be rotated 360°.

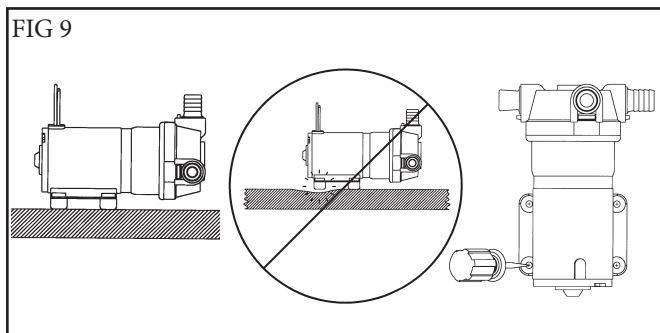
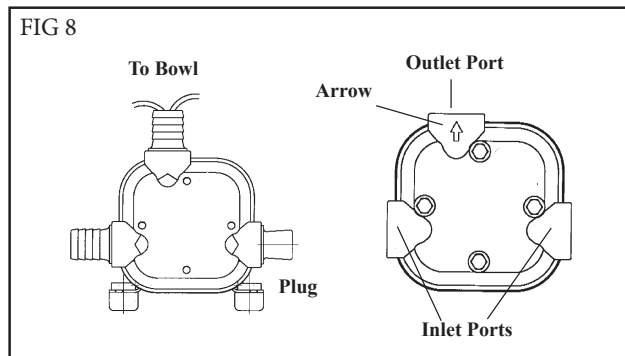
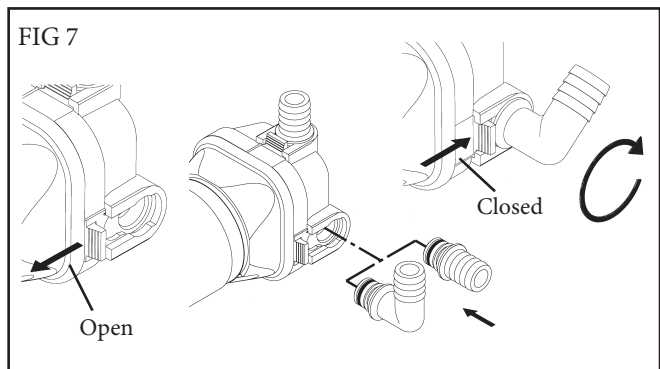
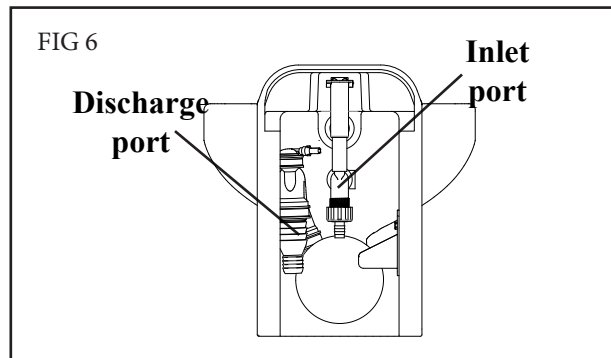
4. Install the plug fitting into unused inlet port.

IMPORTANT: Be sure not to install plug fitting into outlet port! Damage to pump will occur!

5. Slide fitting clips back to closed position (FIG 7)
6. Connect hose from seacock to inlet port of intake pump. If used, strainer is in-line. Use hose clamp provided.

IMPORTANT: Double clamp all below waterline hose connections!

7. Connect hose from outlet port of intake pump to bowl elbow located on back of toilet bowl.



Mounting controls:

Refer to instruction enclosed with control.

Install the Warning Label (L322) where it can be easily seen.

WIRING

WARNING: Hazard of Shock and Fire

- Always use proper wire, wire connectors and fuse/circuit breaker. See Specification Chart.
- Secure wire properly.
- Do not connect appliances to toilet circuit.
- Make sure power is off before proceeding.
- Use proper wire terminals for all wire connections.

1. Determine proper wire size by measuring distance from:
 - Power Source to push button to toilet motor and back to power source.
 - Remote pump units - also include distance from power source for remote pump to remote pump and back. Same wire gauge must be used for both lower base and remote pump.
2. Select proper wire and fuse/circuit breaker size from Specifications on Installation page.
3. Install fuse/circuit breaker in positive line at source.
4. Wire control to the toilet and battery using one of the wiring diagram supplied with the control.

Connect Hoses and wiring to toilet

5. Route wire from control per wiring diagrams.
6. Install seat. Install discharge support strap between seat nut and the bowl (FIG 10).

Caution: To avoid kinking, do not pull on the discharge hose. Be certain there is no pressure on the discharge line.

Mount toilet

7. Install mounting bushings, bolts. (FIG 11)
8. Tighten bolts being careful to not overtighten (Do not exceed 30 inch lb. when tightening)
9. Install caps over mounting bolts.

FIG 10

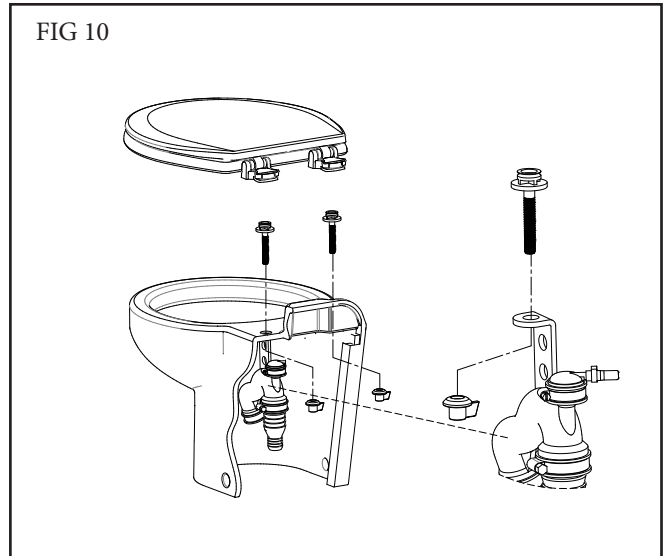
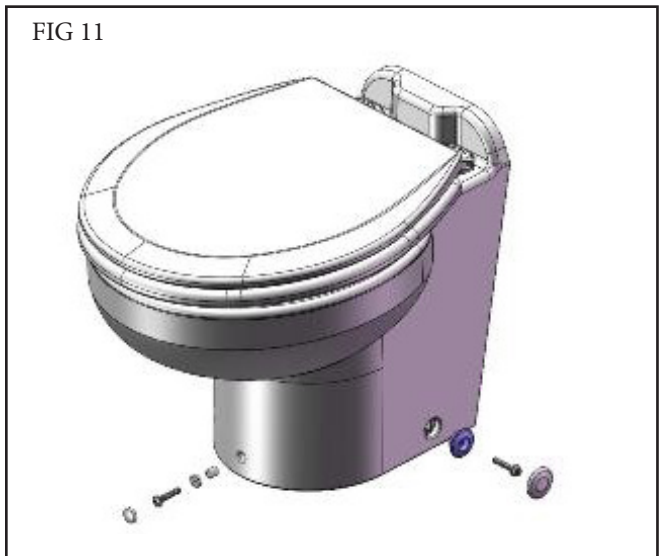


FIG 11



TROUBLESHOOTING

WARNING: HAZARD OF ELECTRIC SHOCK - Before beginning any work on the toilet, be sure that all power to the unit has been turned off.

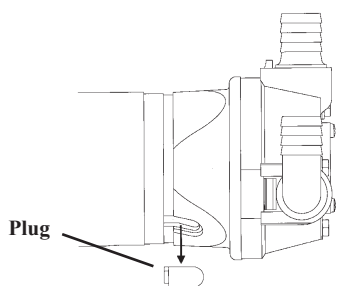
WARNING: HAZARD OF FLOODING - Make sure seacocks are in the CLOSED or OFF position before working on toilet.

NOTE: The following information reflects the most probable causes and solutions to problems although not every possible cause and solution is provided.

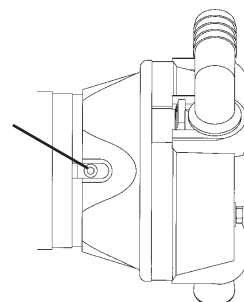
Any questions regarding servicing or operation of the Marine Elegance should be directed to our Technical Support Department in Millville, NJ. Please have model and serial number available before calling.

PROBLEM	POSSIBLE CAUSE	SOLUTION
1. Poor pumpout, especially solids.	1A. Clogged discharge line. 1B. Plumbing restrictions, bends and ells. 1C. Clogged vents. 1D. Mineral buildup in hoses and fittings. 1E. Low voltage.	1A. Be sure discharge seacock is open. Clear line, remove clog. 1B. Replumb to eliminate bends and ells. 1C. Clean holding tank vent and vented loop vents 1D. Clean or replace affected parts. Replace hose if needed. 1E. Check voltage at toilet while toilet is running . If less than nominal voltage of toilet (12 or 24), check condition of batteries and wire sizes. Check terminals and wire connections for corrosion (heat at terminals and junctions indicates a bad or corroded connection).
2. Poor water flow, especially at front of bowl (or no water flow).	2A. Toilet not level. 2B. Restriction in intake line. 2C. Intake Pump sucking air. 2D. Low voltage. 2E. Clogged strainer.	2A. Raise rear of toilet; check with level. 2B. Be sure seacock is open. Clear line-remove clog. 2C. Check all connections from intake thru-hull to intake pump to be sure no air leaks are present. 2D. See 1E, above. 2E. Remove or Clear debris from strainer.
3. Foul odors from toilet area.	3A. "Marine life" lodged in rim of bowl. 3B. Permeated discharge hose. 3C. Sewage remaining in discharge line.	3A. Remove and flush bowl with pressure hose to remove all material. Install strainer in intake line to avoid recurrence. 3B. Replace hose with Raritan Saniflex Hose (#SFH). 3C. Flush toilet longer; replace hose if permeated; reroute hose <u>making a shorter run if possible</u> .
4. Bowl fills while underway.	4A. Pressure buildup at seacocks.	4A. Close intake, then discharge seacock to determine which is causing problem. If discharge, be sure the vent or vented loop is clean. If intake, there is too much pressure on seacock; contact Raritan Technical Support.
5. Water leaking from under unit.	5A. Leaking Bowl Throat adapter. 5B. Leak at shaft seal. 5C. Leak from bowl spud.	5A. Tighten adapter clamps. 5B. Check seal and motor shaft. 5C. Check and reseal bowl grommet

Tip for Removing Intake Pump



Set screw must be loosened with 1/8" hex key before removing the intake pump from motor



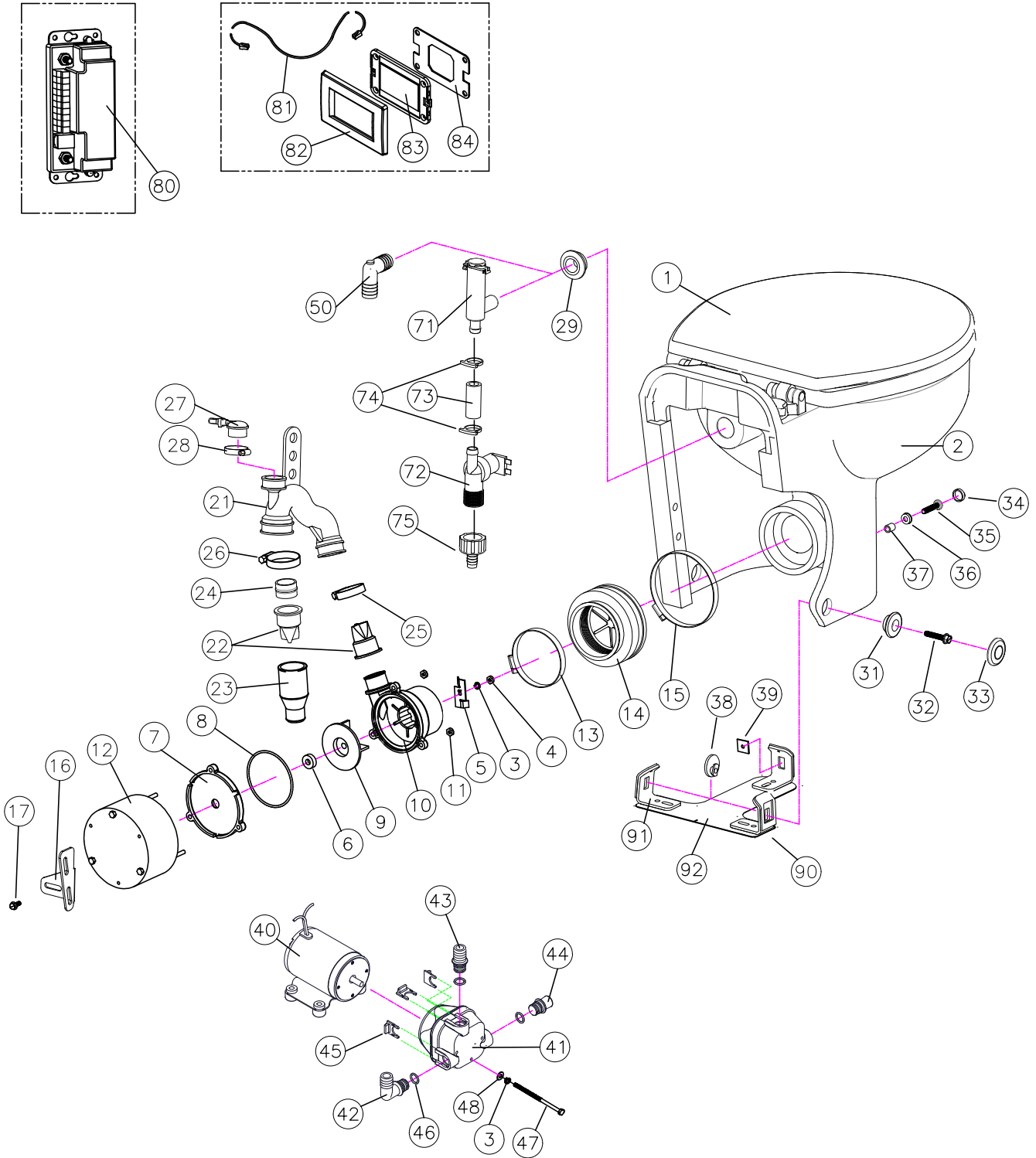
Marine Elegance PARTS LIST

EXPLODED PARTS

ItemNo.	Part No.	Description		
1	1245SC	Seat & Cover (Slow Close)	71	221300 Vacuum Breaker Assembly
1	1245A	Seat & Cover (Almond)	72	221351 Solenoid Valve 12VDC
2	221100W	ME Bowl, Std Hgt, Angled Back, White	72	221352 Solenoid Valve 24VDC
2	221100AW	ME Bowl, Std Hgt, Angled Back, Almond	73	221335 Hose 1/2"
2	221101W	ME Bowl, Std Hgt, Straight Back, White	74	221340 Hose Clamps 1/2" (2)
2	221101AW	ME Bowl, Std Hgt, Straight Back, Almond	75	221356 ME Nut 3/4 BSP
2	231100W	ME Bowl, Tall, Angled Back, White	75	221357 ME Hose Adadpter Straight
2	231100AW	ME Bowl, Tall, Angled Back, Almond		
2	231101W	ME Bowl, Tall, Straight Back, White	PARTS NOT SHOWN	
2	231101AW	ME Bowl, Tall, Straight Back, Almond	221175	L Bolt (2)
3	M23A	#10 Lockwasher SS (5)	F321P	Washer Fender Style (3)
4	1108A	10-32 SS Nut	F188	Well Nut 10-32 (3)
5	161123	Macerator Blade	F144	Washer #10L 18-8 SS (2)
6	31-102	Motor Shaft Seal		
7	221110	Discharge Pump Seal Plate	FLUSH CONTROL OPTIONS	
8	221105	O-Ring	SMART TOILET CONTROL	
9	161115	Impeller	80	STC548W Smart Toilet Control (12 & 24 VDC)
10	221115	Discharge Pump Macerator Housing	81	STC545 Control Cable 7 ft
11	31-114	Lock Nut 10-32 W/Nylon(3)	82	221524 Wall Switch Cover Plate White
12	221012	Discharge Motor 12 V	82	221524A Wall Switch Cover Plate Almond
12	221024	Discharge Motor 24V	83	STC543 Touch Panel w/Back Plate
13	221125	Bowl Throat Adapter Clamp - Pump	84	221525 Touch Panel Gasket
14	221120	Bowl Throat Adapter	MULTIFUNCTION FLUSH PANEL (NOT SHOWN)	
15	221130	Bowl Throat Adapter Clamp - Bowl	221600	Multifunction Flush Panel
16	221155	Pump Mtg. Bracket, Angled Back Bowl	221524	Wall switch plate
16	221156	Pump Mtg Bracket, Striaight Back Bowl	221601	Fill/Empty Switch
17	F193VT	Screw 10-32 X 3/8 W/VT	221602	Flush Switch
21	221141W	Discharge Hose	221603	Switch Actuator-Flush, Horizontal Panel
22	221135W	Joker Valve (2) (Also includes #24)	221604	Switch Actuator-Fill/Empty, Horizontal Panel
23	221145	Discharge Adapter Fitting	221605	Switch Actuator-Flush, Vertical Panel
24	221146	Joker Valve Insert	221606	Switch Actuator-Fill/Empty, Vertical Panel
25	221160	Discharge Hose Clamp (small)	MOMENTARY FLUSH SWITCH (NOT SHOWN)	
26	221165	Discharge Hose Clamp (large)	PRS	Momentary Flush Switch
27	VLVE	Vent Valve Assembly	MOUNTING BRACKET ASSEMBLY	
28	FC001	Vent Valve Hose Clamp	90	221230W Mounting Bracket w/Hardware (includes items 31-39, 91 & 92)
29	221150	Spud Seal	91	221205 Bowl Mtg Bracket (3)
31	221210	ME Bowl Mtg Bushing (2)	92	221230 Mounting Bracket Base
31	221210A	ME Bowl Mtg Bushing Almond (2)	REPAIR KITS	
32	F186	Screw Bowl Mtg (2)	MERK	Discharge Pump Repair Kit (includes #6, 8, 22 and 24)
33	221215	ME Bowl Mtg Cap (2)	22100**	Discharge Pump Assembly (includes #3 thru 12 and 21 thru 28)
33	221215A	ME Bowl Mtg Cap Almond	ADDITIONAL ACCESSORIES AVAILABLE FROM RARITAN	
34	F196	ME Front Mounting Cap	221147	1 1/2 inch Thru Wall Discharge Kit
34	F196A	ME Front Mounting Cap Almond	221148	1 inch Thru Wall Discharge Kit
35	F187	Screw ME Bowl Mtg	1PCP32	C.P. Cleans Potties, 32 OZ
36	F195	Washer Cup	1PCHGAL	Cleans Hoses, Tanks and MSD (gal)
37	F199	Bushing Bowl Mtg	SFH	Sanitation Hose 1 1/2" (sold by foot)
38	221240A	Cam Nut (2)	SFH1	Sanitation Hose 1" (sold by foot)
39	F197	Cage Nut	163000	Seawater Inline Strainer
REMOTE INTAKE PUMP UNITS			RTME12D	Power Converter for 120/240 VAC
40	166012A	Pump Motor 12VDC	KO2	Deodorant System (Seawater Models)
40	166024A	Pump Motor 24VDC	1PKO32	Kills Odors, 32oz
41	162000W	Remote Intake Pump w/o Motor	STCTSA: Holding Tank Full Sensor (Sensa Level TM) For use with STC Flush Control.	
42	162405	3/4" Hose Barb 90° Fitting	STCFL: Holding Tank Full Sensor (Float Switch) For use with STC Flush Control.	
43	162410	3/4" Hose Barb Straight		
44	162415	Plug Fitting		
45	162420	Fitting Retaining Clip (3)		
46	162425	O-ring (3)		
47	F162VT	Inlet Pump Mounting Bolt (4)		
48	F144	#10 Washer SS Flat (4)		
50	PLA26	Elbow Adapter 3/4 X 1/2		

** Specify Voltage

EXPLODED PARTS



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. 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.



530 Orange Street
Millville, NJ 08332 USA
Telephone: 856-825-4900
FAX: 856-825-4409
www.raritaneng.com