# 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 or death could result from improper installation. Raritan Engineering Company, Inc. accepts no responsibility or liability for damage to equipment, injury or death 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.

**DO NOT** run continuously for more than 30 seconds.

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.

#### Pressurized Fresh Water Model



#### Remote Raw Water Pump Model







#### **Description:**

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 pressurized fresh water. The Raw 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:

**Smart Toilet Control (STC):** Provides timed operation and independant control of water and discharge.

Multifunction Flush Panel (221600 [White] or 221600B [Black]): Provides momentary operation and independent momentary control of water and discharge.

**Momentary Flush Switch (PRS):** Providing only the ability to flush with no independent control of water or discharge.

#### **Wireless Remote Bluetooth Control (STCBL):**

Program your STC wirelessly up to 50 ft away from the toilet. Eliminates the need to route wires through bulkheads and cabinetry.

#### **IMPORTANT SAFETY INSTRUCTIONS:**

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 boats greatest angle of heel (see vented loop manufacturer's instructions).

Raw Water Models must also have a vented loop installed between the intake pump and the toilet bowl. Double clamp all below waterline connections.

Always replace circuit breaker and fuses with same rating . Use Raritan parts to maintain ignition protection requirements.

#### **WARNING:**

Young children should NOT be left unsupervised around toilet. Serious injury or death could occur. A sharp blade is used for maceration of waste. Children can drown in water retained in the bowl. Seat and/or lid could close and strike child.

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



#### **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.

#### **Recommend Visual Inspection**

- ✓ No leaks at toilet and hose connections
- ✓ Hose clamps
- ✓ Condition of hoses
- √ Seacocks
- ✓ Condition of wires and connections
- ✓ In-Line Strainer (if installed)
- 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, cigarette filters, etc.) must not be thrown into the toilet as they will cause damage.
- Always shut off seacock(s) before leaving the boat unattended.



#### **SYSTEM START-UP**

1. Open seacock(s).

**NOTE**: Pressurized fresh water 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.

#### 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, Marine Sanitation Devices (MSD's), etc. independently following manufacturer's instructions.

#### Winterizing Pressurized Fresh Water Models Parts Required

- 1" (25mm) or 1 1/2" (38mm) I.D. discharge hose, approximately 3 feet (1m) 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 intake and discharge hose.
- 5. Disconnect intake hoses from toilet 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.

#### Winterizing Raw Water Models

#### **Parts Required**

- 3/4" (19mm) I.D. intake hose approximately 3 feet (1m) long.
- 1" (25mm) or 1 1/2" (38mm) I.D. discharge hose approximately 3 feet (1m) 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 pump intake hose and discharge hose.
- 4. Connect short hoses to toilet's pump 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 1 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.

#### **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		
Pressurized water source minimum requirements	Minimum flow rate 3 gallons (11.5 liters) per minute. Mini- mum pressure 5 PSI (34.5 KPA)		

#### **NOTES:** for Wiring

110	1 LS. 101 Willing
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 (mm²) 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.

CONVERSIONS Wire - AWG to mm <sup>2</sup>											
<b>AWG</b> 16 14 12		2	10 8			6	4	2			
mm²	1.5	2.5	5 4	.0	6.0	)	10.0	)	16.0	25.0	35.0
			Fe	et t	o N	Ле	ters	5			
Feet	10	1	15 20			25		3	0	40	50
Meter	3.1	4	1.6	6.1		7.6		9	.2	12.2	15.2

#### **Hose Sizes**

#### **INLET**

1/2"(13mm) for Fresh Water model 3/4" (19mm) for Raw Water model

#### DISCHARGE

1"(25mm) or 1 1/2"(38mm)

#### **Recommended Wire and Fuse/Circuit Breaker Sizes**

Raw Water Model (sizes based on both remote intake and discharge pumps amps added together)

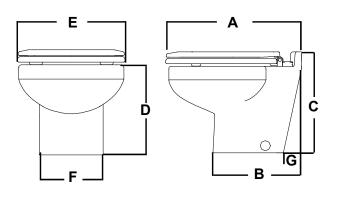
Units Voltage	Circuit Breaker/ Fuse size (amps)	Toilet Dicharge amps draw	Remote Pump Only amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	30	18	10	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG
24 VDC	20	10	5	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG

#### **Pressurized Fresh Water Model**

Units Voltage	Circuit Breaker/ Fuse size (amps)	Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	25	18	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG
24 VDC	15	10	16 AWG	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG

Remote Raw Water Pump Only (Raw Water and Sea/Fresh Models)

Units Voltage	Circuit Breaker/ Fuse size (amps)	Amp Draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	15	10	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG
24 VDC	10	5	16 AWG	16 AWG	16 AWG	16 AWG	14 AWG	12 AWG



#### SIZE inch (mm.)

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

#### Parts included with all models:

- 1. Toilet bowl assembly
- 2. Mounting bracket kit
- 3. Seat and Cover
- 4. Flush control includes QR Operation and Installation Guides
- 5. QR code for Installation and Maintenence Guide
- 6. Warning Labels

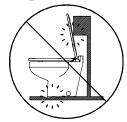
#### Parts included with Raw Water Model:

- 1. Remote pump assembly
- 2. Sea/Fresh models include relay for remote pump

#### **MOUNTING**

#### **Mounting Toilet**

Mounting surface must be flat and solid. Seat must open more than 90 degrees.



**NOTE:** For plumbing and wiring routed thru deck only.

Steps 1-5 see FIG 1

- 1. Place toilet in location to be mounted.
- 2. Trace outside edge of bowl. Mark center of mounting holes.
- 3. Offset traced line 7/16" (11mm) (Lines indicated A, B, & C).
- 4. To mount bracket, drill (3) 7/32" (5.5mm) holes, offset 1" (25mm) from Lines A, B, & C.
- 5. Drill holes for hoses and wires:

**NOTE:** Check outside diameter of hoses and adjust accordingly.

• Discharge Hose:

1 1/2" Hose: 2" (51mm) 1" Hose: 1 1/2 (38mm)

• Inlet Hose:

FRESH: 7/8" (22mm) RAW: 1" (25mm)

• **Wires:** 3/4" (19mm)

#### **Mount Bracket**

Using lag bolt and washer, attach bracket, with upright edge, lined up with lines A, B, & C (FIG 2)

#### **Mount Toilet**

**NOTE:** Complete plumbing and wiring before installing toilet.

Use screw, with flat washer, through bushing to attach bowl to mounting bracket (FIG 2a and 2b).

After screws are tightened, add cap to cover bushings.

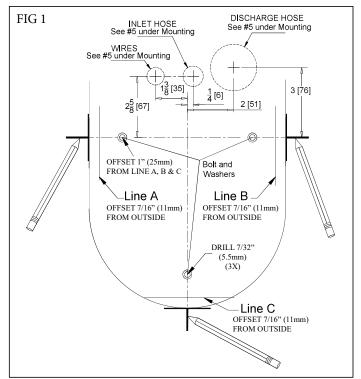
#### Additional parts required (not included):

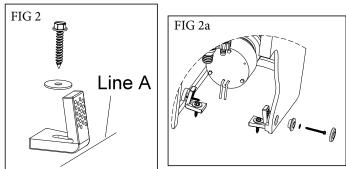
- 1" (25mm) or 1 1/2" (38mm) I.D. discharge hose
- Reinforced intake hose:

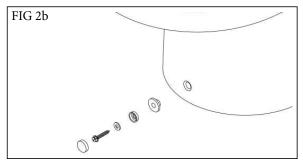
**Raw:** 3/4" (19mm)

Fresh: 1/2" (13mm)

- 3/4" (19mm) and 1" (25mm) or 1 1/2" (38mm) hose clamps (two for each connection below waterline)
- Wire (See specification chart)
- Terminals
- Fuse/circuit breaker (See specification chart)
- Strainers are optional and recommended: Fresh Water Strainer part 190601 Raw Water Strainer part 163000







#### **IMPORTANT**

- Discharging untreated sewage is forbidden in all U. S. waters within the three-mile limit.
- Fittings and 90° bends should be kept to a minimum.
- Thru-hull fittings and seacocks must be installed where they are easily accessible.
- Use only quality reinforced sanitation hoses such as Raritan Saniflex (SFH)
- Double clamp all below waterline connections.

#### WARNING: HAZARD OF FLOODING

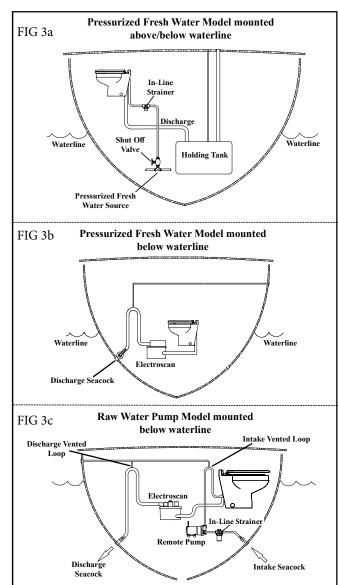
Toilets mounted at or below the waterline, at greatest angle of heel, and connected to a Seacock/Thru Hull Fitting(s) MUST have VENTED LOOPS installed in toilet discharge plumbing and between raw water intake pump and toilet bowl. Install vented loops per manufacturer's instructions.

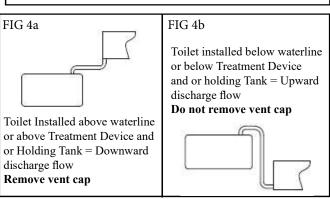
#### **Residual Water in the Bowl**

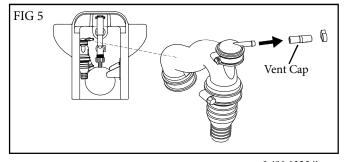
The Marine Elegance is equipped with an Integral Vent to maintain water in the bowl when the plumbing lines are routed downward (See FIG 4a and FIG 4b).

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 Integral Vent, remove Vent Cap (FIG 5), connect 1/4 hose and connect hose to a deck vent fitting (Reference FIG 3C). Hose and deck fitting not included.







#### **DISCHARGE LINES**

Raritan Sanitation Hose is recommended. Use part number SFH for 1 1/2" (38mm) hose or SFH1 for 1" (25mm) hose

1. Connect sanitation hose to discharge fitting on toilet.

**NOTE:** Discharge fitting is designed for 1" (25mm) or 1 1/2" (38mm) hose. 1 1/2" (38mm) hose is secured at top of fitting and 1" (25mm) is secured at the bottom. It is not necessary to remove the 1" (25mm) barb if using 1 1/2" (38mm) hose. Use the fitting as is.

2. Run hose to appropriate device (e.g.: treatment system, holding tank, etc.).

**NOTE:** If installation requires routing through the backwall rather than the floor, 90 degree kits are available:

Use part # 221147 for 1 1/2" (38mm) hose or 221148 for 1" (25mm) hose.

# INTAKE LINES Pressurized Fresh Water Models

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

- 1. Connect 1/2 (13mm) I.D. hose to pressurized fresh water supply.
- 2. Install a shut off valve in intake line before water solenoid valve.
- 3. Connect hose from shut off valve to inlet port of water solenoid valve at the toilet.

#### **Mounting Remote Pump**

- 1. Remote pump uses 3/4" (19mm) ID hose for connection.
- 2. Locate remote pump between thru hull fitting and toilet bowl.
- 3. Locate in an area away from berth to keep noise level down.
- 4. Use Inline Strainer (optional) to avoid clogs.
- 5. Secure remote pump to the floor using four bolts through the pump base (FIG 8).

#### **Connecting Remote Pump**

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 9).

**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°.

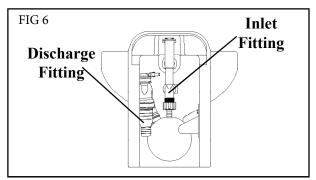
4. Install the plug fitting into unused inlet port.

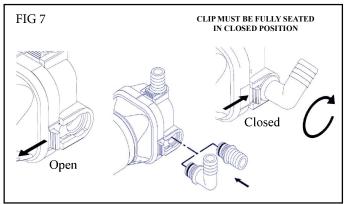
# IMPORTANT: Do NOT install plug fitting into outlet port! Damage to pump will occur!

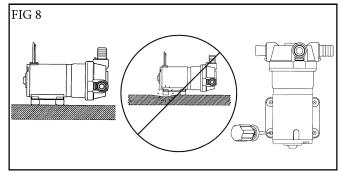
- 5. Slide fitting clips back to closed position (FIG 7)
- 6. Connect hose from seacock to inlet port of intake pump. If used, strainer is in-line. Use hose clamps (not included).

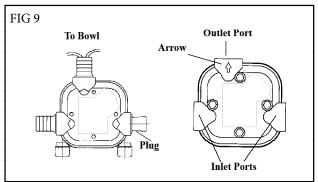
# IMPORTANT: Double clamp all below waterline hose connections!

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

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

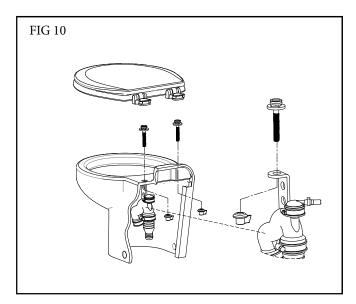
#### **Connect Hoses and wiring to toilet**

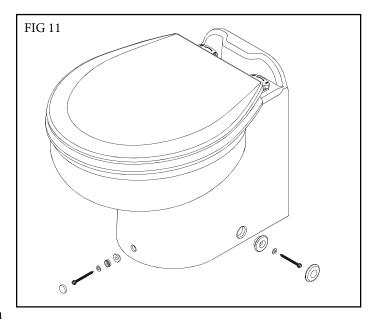
- 5. Route wire from control per wiring diagrams.
- 6. Install seat. Install discharge support strap between seat nut and the bowl (FIG 10).

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.





#### **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

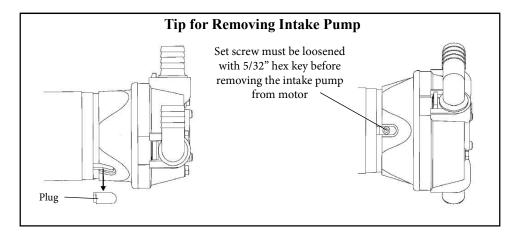
working on toilet.

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.

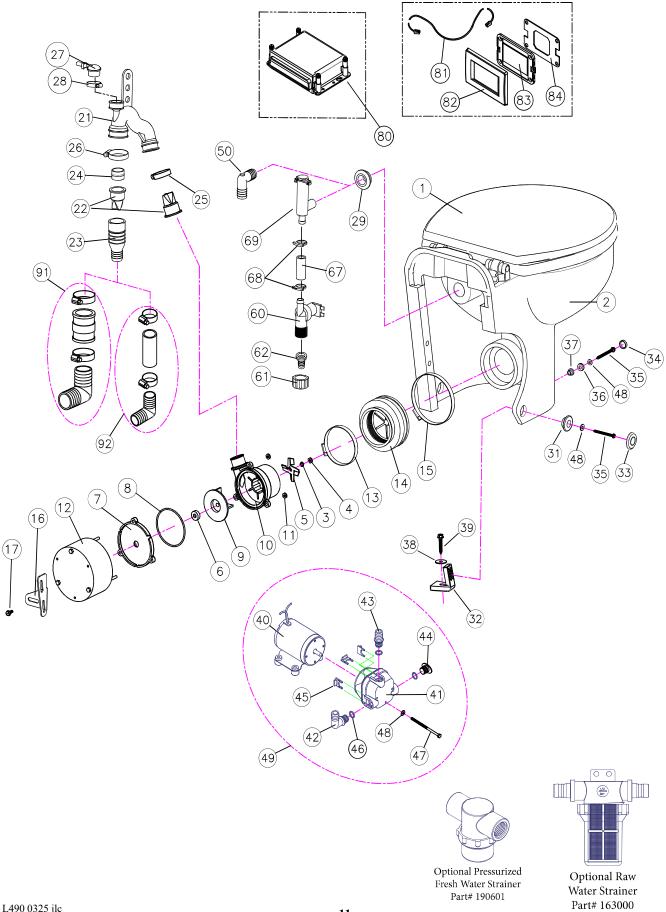
PROBLEM	POSSIBLE CAUSE	SOLUTION
1. Poor pumpout, especially solids.	1C. Clogged vents.	<ul> <li>1A. Be sure discharge seacock is open. Clear line, remove clog.</li> <li>1B. Replumb to eliminate bends and ells.</li> <li>1C. Clean holding tank vent and vented loop vents</li> <li>1D. Clean or replace affected parts. Replace hose if needed.</li> <li>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).</li> </ul>
2. Poor water flow, especially at front of bowl (or no water flow).	<ul> <li>2A. Toilet not level.</li> <li>2B. Restriction in intake line.</li> <li>2C. Intake Pump sucking air.</li> <li>2D. Low voltage.</li> <li>2E. Clogged strainer.</li> </ul>	<ul> <li>2A. Raise rear of toilet; check with level.</li> <li>2B. Be sure seacock is open. Clear line-remove clog.</li> <li>2C. Check all connections from intake thru-hull to intake pump to be sure no air leaks are present.</li> <li>2D. See 1E, above.</li> <li>2E. Remove or Clear debris from strainer.</li> </ul>
3. Foul odors from toilet area.	<ul><li>3A. "Marine life" lodged in rim of bowl.</li><li>3B. Permeated discharge hose.</li><li>3C. Sewage remaining in discharge line.</li></ul>	<ul> <li>3A. Remove and flush bowl with pressure hose to remove all material. Install strainer in intake line to avoid recurrence.</li> <li>3B. Replace hose with Raritan Saniflex Hose (#SFH).</li> <li>3C. Flush toilet longer; replace hose if permeated; reroute hose making a shorter run if possible.</li> </ul>
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.	<ul><li>5A. Leaking Bowl Throat adapter.</li><li>5B. Leak at shaft seal.</li><li>5C. Leak from bowl spud.</li></ul>	<ul><li>5A. Tighten adapter clamps.</li><li>5B. Check seal and motor shaft.</li><li>5C. Check and reseat bowl grommet</li></ul>



### Marine Elegance PARTS LIST

		Mai me Elegance i A	IKISL	131	
ItemNo.	Part No.	Description			
1	1245SC	Seat & Cover (Slow Close-White)	_	IOT SHOWN	. 5
1	1245ASC	Seat & Cover (Slow Close-Bone)	221175	L Bolt for Pump M	
2	221100W	ME Bowl, Std Hgt, Angled Back, White	F188	Well Nut 10-32 (2)	
2	221100AW	ME Bowl, Std Hgt, Angled Back, Bone			
2	221101W	ME Bowl, Std Hgt, Straight Back, White	FLUSH	CONTROL OP	TIONS
2	221101AW	ME Bowl, Std Hgt, Straight Back, Bone			
2	231100W	ME Bowl, Tall, Angled Back, White		TOILET CONTROL	
2	231100AW	ME Bowl, Tall, Angled Back, Bone	80	STC548W	Smart Toilet Control Circuit Board
2	231101W	ME Bowl, Tall, Straight Back, White			(12 & 24 VDC)
2	231101AW	ME Bowl, Tall, Straight Back, Bone	81	STC545	Control Cable 7 ft
3	M23A	#10 Lockwasher SS (5)	82	221524	Wall Switch Cover Plate White
4	1108A	10-32 SS Nut	82	221524A	Wall Switch Cover Plate Bone
5	53145	Macerator Blade	83	STC543	Touch Panel w/Back Plate
6		Motor Shaft Seal	84	221525	Touch Panel Gasket
7	31-102 221110		0.	221020	Todoli i diloi Gdollot
		Discharge Pump Seal Plate	MIII TIFI	INCTION FLUSH P	ANEL (NOT SHOWN)
8	221105	O-Ring	221600	Multifunction Flus	,
9	161115	Impeller		Multifunction Flus	
10	221115	Discharge Pump Macerator Housing			
11	31-114	Lock Nut 10-32 W/Nylon(3)	221524	Wall Switch Plate	
12	221012	Discharge Motor 12 V		Wall Switch Plate	
12	221024	Discharge Motor 24V	221601	Fill/Empty Switch	
13	221125	Bowl Throat Adapter Clamp - Pump		/ Fill/Empty Switch	
14	221120	Bowl Throat Adapter	221602	Flush Switch, Bla	
15	221130	Bowl Throat Adapter Clamp - Bowl		/ Flush Switch, Wh	
16	221155	Pump Mtg. Bracket, Angled Back Bowl	221603	Switch Actuator-F	lush, Horizontal Panel, Black
16	221156	Pump Mtg Bracket, Striaght Back Bowl	221603W	/ Switch Actuator-F	lush, Horizontal Panel, White
17	F193VT	Screw 10-32 X 3/8 W/VT	221604	Switch Actuator-F	ill/Empty, Horizontal Panel, Black
21	221141W	Discharge Hose (Includes #22 thru #28)	221604W	/ Switch Actuator-F	ill/Empty, Horizontal Panel, White
22	221135W	Joker Valve (2) (Also includes #24)	221605	Switch Actuator-F	lush, Vertical Panel, Black
23	221145	Discharge Adapter Fitting	221605W	/ Switch Actuator-F	lush, Vertical Panel, White
24	221146	Joker Valve Insert	221606	Switch Actuator-F	ill/Empty, Vertical Panel, Black
25	221160	Discharge Hose Clamp (small)	221606W		ill/Empty, Vertical Panel, White
26	221165	Discharge Hose Clamp (large)			,
27	VLVE	Vent Valve Assembly	MOMEN	TARY FI USH SWIT	CH (NOT SHOWN)
		•	PRS	Momentary Flush	
28	FC001A	Vent Valve Hose Clamp	1110	World Hary Flagin	Owner
29	221150	Spud Seal	MOLINTI	NG BDACKET ASS	SEMBLY (includes items 31-39, 48)
31	221210	ME Bowl Mtg Bushing White (2)	241130W		et w/Hardware, White
31	221210A	ME Bowl Mtg Bushing Bone (2)			
32	241130M	ME Mtg Bowl "L" Brackets (3)	2411306	w wounting brack	et w/Hardware, Bone
33	221215	ME Bowl Mtg Cap White(2)	DEDAID	DEDI 405 KITO	
33	221215A	ME Bowl Mtg Cap Bone (2)		REPLACE KITS	D : 1617   1   10 0 00 104)
34	F196	ME Front Mounting Cap White	MERK		Repair Kit (includes #6, 8, 22 and 24)
34	F196A	ME Front Mounting Cap Bone	22100**		Assembly (includes #3 thru 12 and 21
35	F200A	Screw ME Bowl Mtg (3)		thru 28)	
36	F195	Washer Cup	162400	Fitting Kit (include	s parts 42, 43, 44 and 46)
37	RNI	Nylon Shoulder Washer	DIAPUM	1PRK Raw Wate	r Pump Repair Kit
38	F321	Washer Fender Style (3)			
39	F189	Screw #14 x 1 1/2"	ADDITIO		CCESSORIES AVAILABLE FROM RARITAN
		55.51. // · · · · · · // _	91	221147	1 1/2 inch Thru Wall Discharge Kit
REMOTE	RAW WATER PU	ΛP	92	221148	1 inch Thru Wall Discharge Kit
40	166012A	Intake Pump Motor 12VDC	1PCP32		C.P. Cleans Potties, 32 OZ
40	166024A	Intake Pump Motor 24VDC	1PCHGA		Cleans Hoses, Tanks and MSD (gal)
41	162000W	Remote Intake Pump w/o Motor	SFH		Sanitation Hose 1 1/2" (sold by foot)
			SFH1		Sanitation Hose 1" (sold by foot)
42	162405	3/4" Hose Barb 90° Fitting (2)	RTME12		Power Converter for 120/240 VAC
43	162410	3/4" Hose Barb Straight (2)			
44	162415	Plug Fitting	KO2		Deodorant System (Seawater Models)
45	162420	Fitting Retaining Clip (3)	1PKO32		Kills Odors, 32oz
46	162425	O-ring (3)	190601		Fresh Water Strainer
47	F162VT	Inlet Pump Mounting Bolt (4)	163000		Sea Water Strainer
48	F144	#10 Washer SS Flat (4)			
49	166000	Complete Remote Pump 12VDC	STCTSA	•	Sensor (Sensa Level TM)
49	166100	Complete Remote Pump 24VDC		For use with STC	
50	PLA26	Elbow Adapter 3/4 X 1/2	STCFL:	-	Sensor (Float Switch) For use with
PRESSU	IRIZED FRESH WA	TER		STC Flush Contro	I.
60	221351	Solenoid Valve 12VDC			
60	221352	Solenoid Valve 24VDC			
61	221356	ME Nut 3/4 BSP			
62 67	221357	ME Hose Adapter, Straight			** Specify Voltage
67 69	221335	Hose 1/2"			, ,9-
68	221340	Hose Clamps 1/2" (2)			
69	221300	Vacuum Breaker Assembly			L490 0325 ilc
		10			E 170 0525 Jie

## **Marine Elegance Exploded View**



#### 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.
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- 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.
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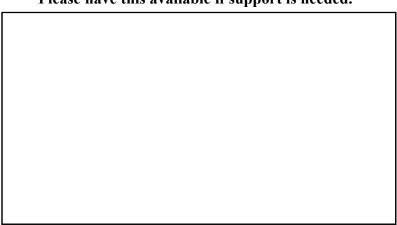
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