

Marine *Elegance* Comfort Height

Model 241E with Smart Handle Installation 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 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.

Description:

Marine Elegance Comfort Height Elongated Toilet is available in 12VDC, 24VDC, and 120VAC/240VAC. Fresh Water Model utilizes onboard pressurized fresh water. The Raw Water Model utilizes a remote intake pump to pump raw (outside) water to the bowl. The Sea/Fresh model utilizes both and can safely switch between pressurized fresh water and raw water sources.

IMPORTANT: Discharge and Inlet Pump / Valve MUST BE wired for proper operation and programming.

"02" model:

The "02" model is designed to work as a momentary unit using only microswitches to activate the motors. It is also a "fail safe" mode for the toilet control in the 03 model.

"03" model:

The "03" model is a Smart Toilet Control Handle (STCH) which provides timed operation while still having momentary functionality if toilet control is removed.

Operation of handle:

Pull Handle Forward:

"02" Pull forward and inlet runs until handle is released.

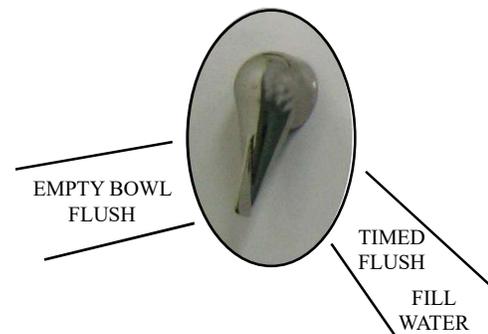
"03" Pull forward and release. This will start the timed flush cycle.

Push Handle Backward:

"02" and "03" Push and hold: runs just the discharge pump for a "dry bowl" flush.



FLUSH LEVER POSITIONS



1-800-352-5630

www.raritaneng.com

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" (10 cm) above the waterline at the boat's 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**

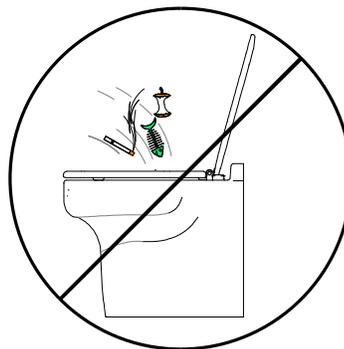
IMPORTANT: Do not use cleaners that contain ammonia, ethyl acetate, phosphoric acid or concentrated chlorine bleach. Do not allow acids, such as vinegar, and other cleaners to sit for extended periods of time in the toilet. These may cause damage to the toilet. Do not use abrasive cleaners or cleaning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

Recommended 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, treatment systems (MSD's), etc. independently following manufacturer's instructions.

Winterizing Pressurized Fresh Water 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 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" (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 pump intake hose and discharge hose.
4. Connect short hoses to toilet's pump intake and toilet's 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 (1.2 m) 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 5 gallons (19 liters) per minute. Minimum pressure 5 PSI (34.5 KPA)

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.

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	

Hose Sizes

INLET

1/2" (13 mm) for Fresh Water model

3/4" (19 mm) for Raw Water model

DISCHARGE

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

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	Toilet Discharge 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

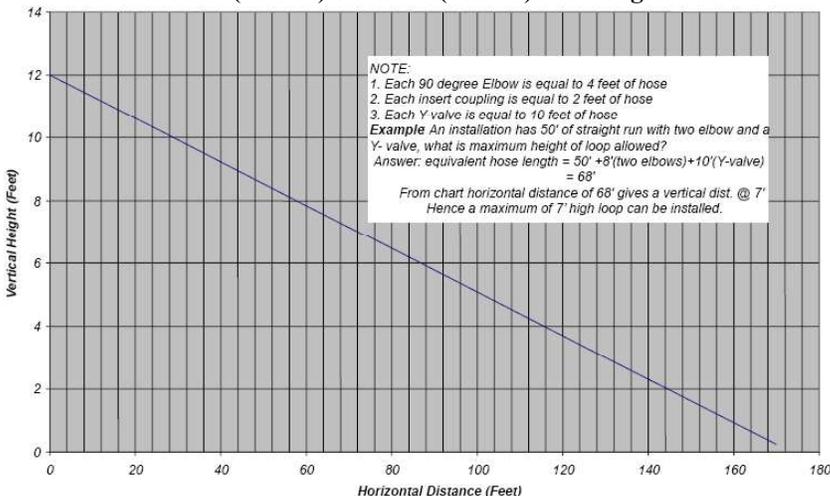
Pressurized Fresh Water Model

Units Voltage	Circuit Breaker/ Fuse size	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 Intake Pump Only (Raw Water and Sea/Fresh Models)

Units Voltage	Circuit Breaker/ Fuse size	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

Discharge maximum recommended:
1" (25 mm) or 1 1/2" (38 mm) hose length

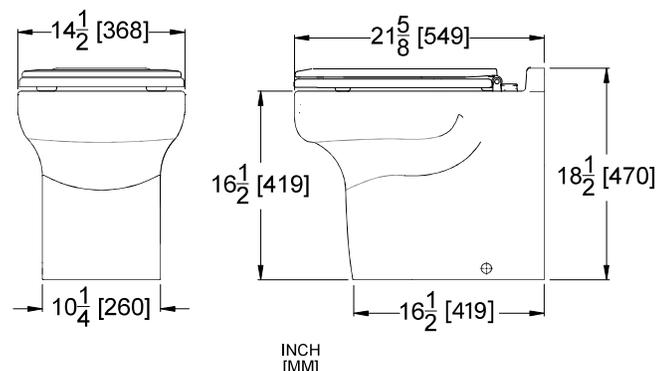


Water Consumption:

Water Saver : 2 pint*

Regular Flush: 2 quarts

* requires timing adjustment



Parts included with all models:

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

Parts included with Raw Water Model:

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

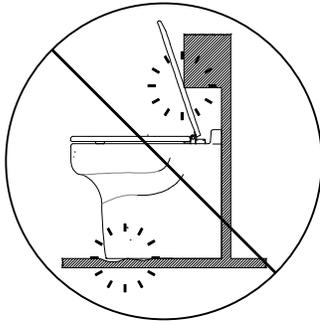
Additional parts required (not included):

- 1" (25 mm) or 1 1/2" (38 mm) I.D. discharge hose
- Reinforced intake hose:
Raw: 3/4" (19 mm)
Fresh: 1/2" (13 mm)
- 3/4" (19 mm) and 1" (25 mm) or 1 1/2" (38 mm) 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

MOUNTING

Mounting Toilet

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



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

Installing the seat and discharge hose support strapping

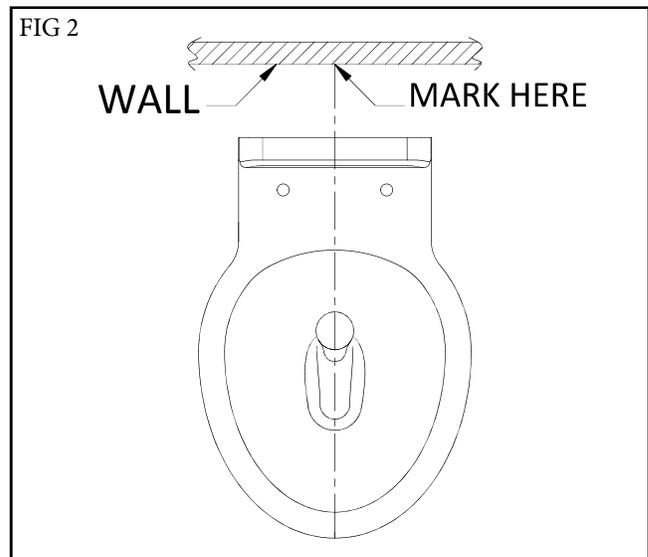
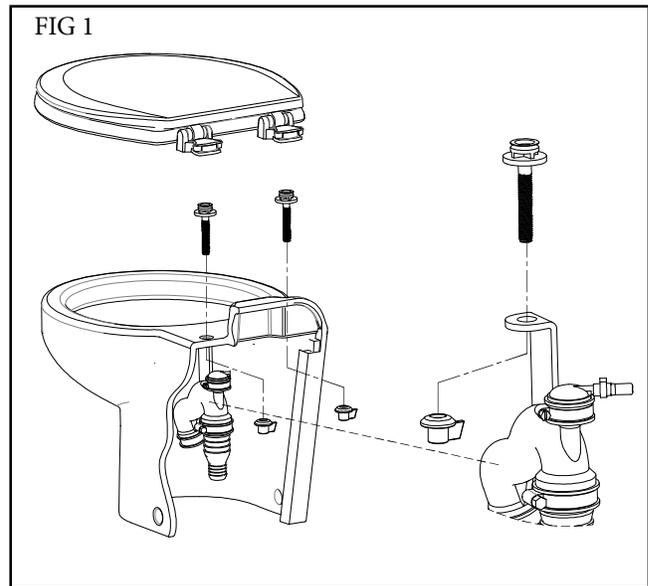
Discharge Hose Support Strap

Important: Discharge Hose must be supported. Attach support strap to seat bolt as shown in FIG 1.

For Pressurized Fresh Water and Raw Water Models, using through deck plumbing.

Mounting toilet to deck

1. Mark deck and walls where center of bowl will be, FIG 2



MOUNTING

2. Place Mounting Template on deck, against the wall with arrow located on center mark and secure with tape (FIG 3)

3. Drill holes for floor mounting brackets at location (FIG 4)

4. Line up outside edges of floor mounting brackets with adjacent lines (Lines A, FIG 3) on mounting template. Secure brackets to deck using mounting screws and flat washer (FIG 5)

5. Drill holes for hoses and wires

NOTE: Check outside diameter of hoses and adjust accordingly.

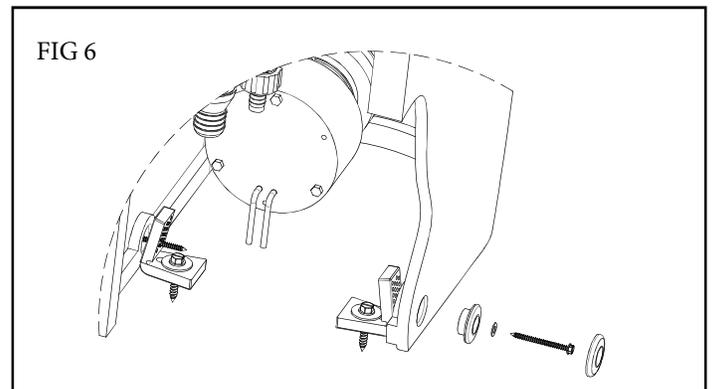
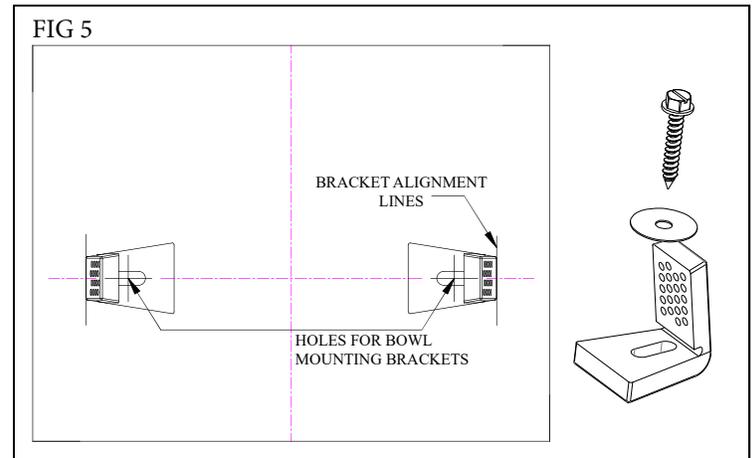
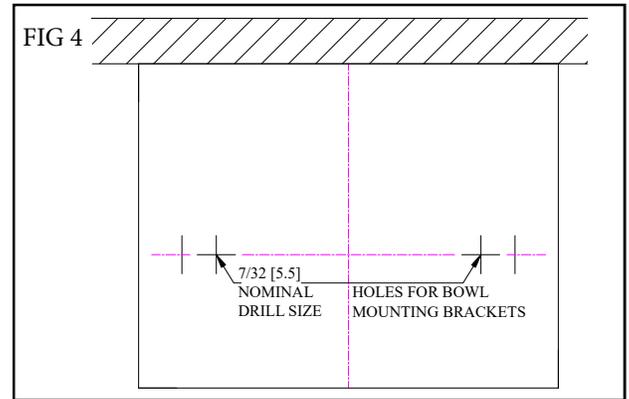
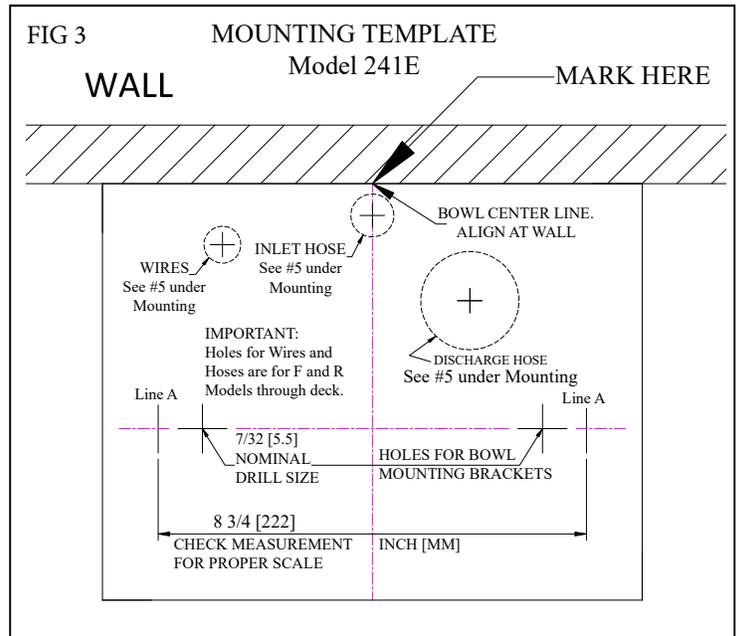
- **Discharge Hose Opening:**
1 1/2" Hose: 2" (51 mm)
1" Hose: 1 1/2 (38 mm)

- **Inlet Hose Opening:**
FRESH: 7/8" (22 mm)
RAW: 1" (25 mm)

- **Wiring Hole Opening:**
3/4" (19 mm)

6. Complete plumbing and wiring before installing toilet.

7. Mount toilet to mounting brackets as shown in FIG 6.



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. Double clamp all below-waterline connections.

IMPORTANT

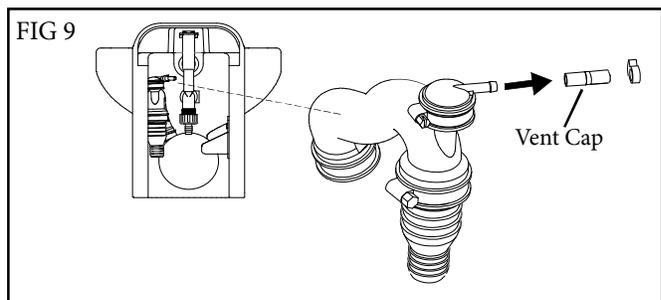
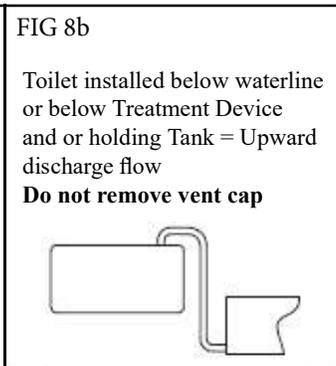
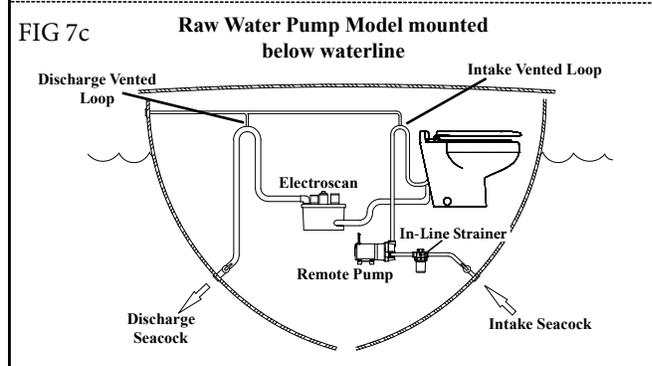
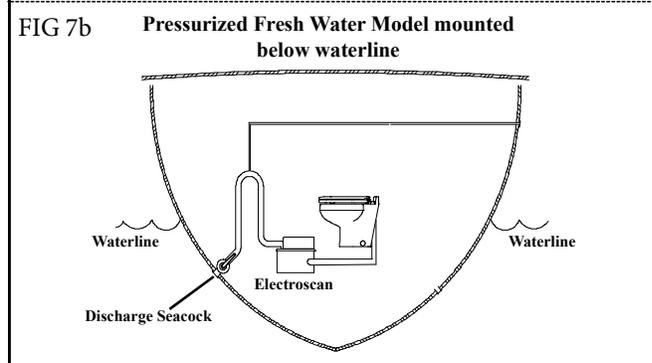
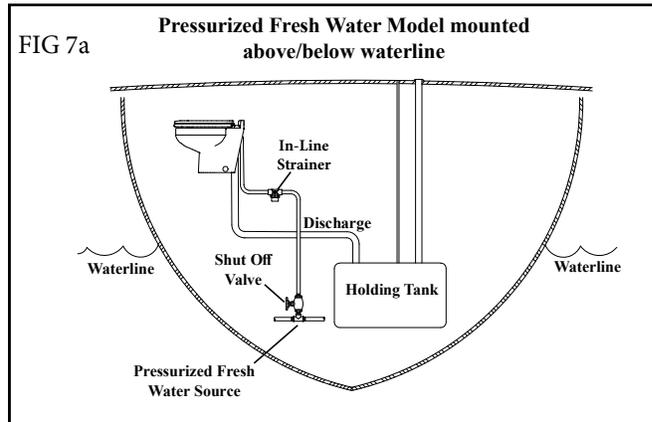
- Discharging untreated sewage is forbidden in all U. S. waters within the three-mile limit.
- Fittings and 90° bends should be kept to a minimum.
- In-Line Strainer may be installed on raw water models to prevent clogs.
- Thru-hull fittings and seacocks must be installed where they are easily accessible.
- Use only quality reinforced hoses such as Raritan SANIFLEX HOSE.
- Secure all hoses properly.

Residual Water in the Bowl

The Marine Elegance is equipped with an Integral Vent to maintain water, up to 4" (10 cm), in the bowl when the plumbing lines are routed downward (See FIG 8a and FIG 8b). The Smart Toilet Control (STC) is designed to add water at the end of the flush cycle. For vent to work properly in downward installation, the vent cap must be removed (see FIG 9).

NOTE: If any of the discharge hose runs higher than the internal Integral Vent, DO NOT REMOVE THE VENT CAP.

To enable Integral Vent, remove Vent Cap (FIG 9), connect 1/4" hose and connect hose to a deck vent fitting (Reference FIG 7c). Hose and deck fitting not included.



Discharge Lines

Raritan Sanitation Hose is recommended

SaniFlex Hose Part numbers:

SFH 1 1/2 inch (38 mm)

SFH1 1 inch (25 mm)

1. Connect sanitation hose to discharge fitting on toilet.

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

221147 for 1 1/2" (38 mm) hose

221148 for 1" (25 mm) 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" (13 mm) I.D. hose to pressurized fresh water supply.
2. Install a shut off valve in intake line before toilet.
3. Connect hose from shut off valve to inlet fitting of water solenoid valve at the toilet.

Mounting Remote Pump

1. Remote pump uses 3/4" (19 mm) 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, part 163000 (recommended) to avoid clogs.
5. Secure remote pump to the floor using four bolts through the pump base (FIG 11).

Connecting Remote Pump

Remote 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 12).

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

1. Slide fitting clips to open position (FIG 13)
2. Select inlet port to be used.
3. Install appropriate fittings into inlet and outlet ports.

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

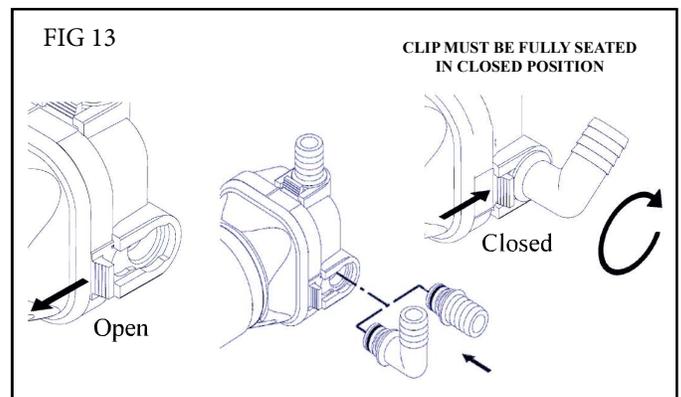
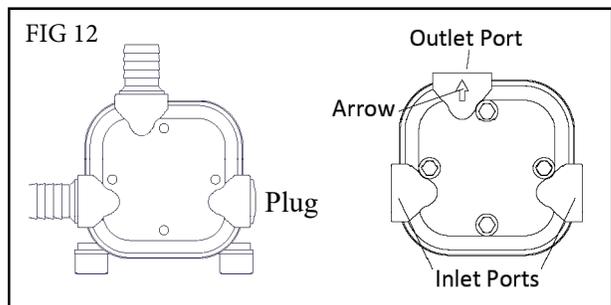
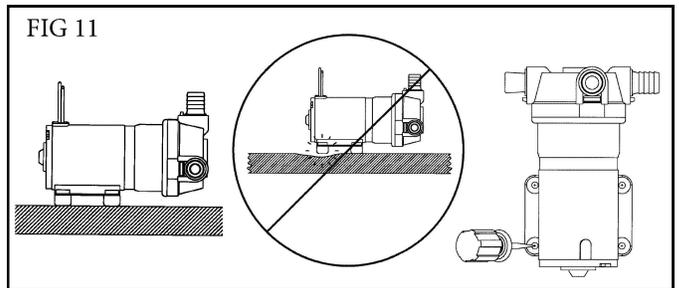
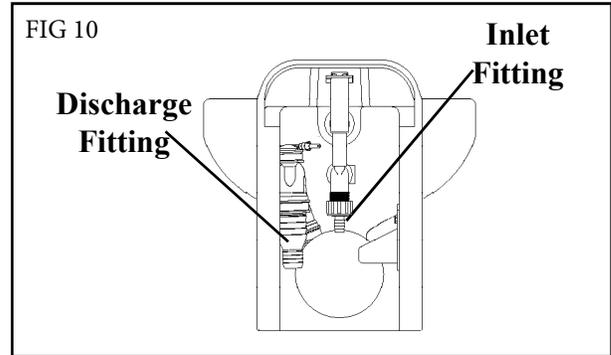
4. Install the plug fitting into unused inlet port.

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

5. Slide fitting clips back to closed position (FIG 13).
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.



**WIRING CONTROLS
FOLLOW THE INSTRUCTIONS INCLUDED
WITH FLUSH CONTROL**

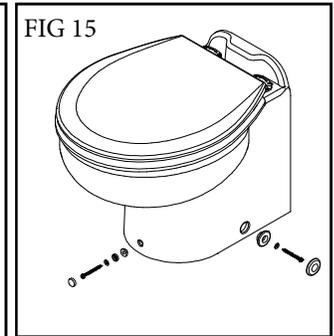
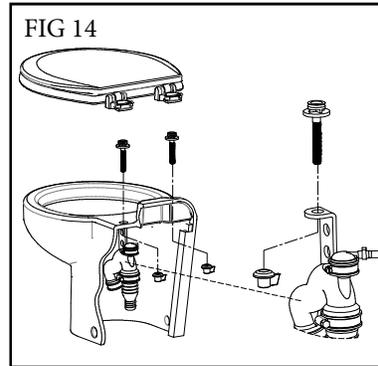
Connect Hoses and wiring to toilet

- Route wire from control per wiring diagrams.
- Install seat. Install discharge support strap between seat nut and the bowl (FIG 14).

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

Mount toilet

- Install mounting bushings, bolts. (FIG 15)
- Tighten bolts being careful to not overtighten (Do not exceed 30 inch lb. when tightening)
- 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.

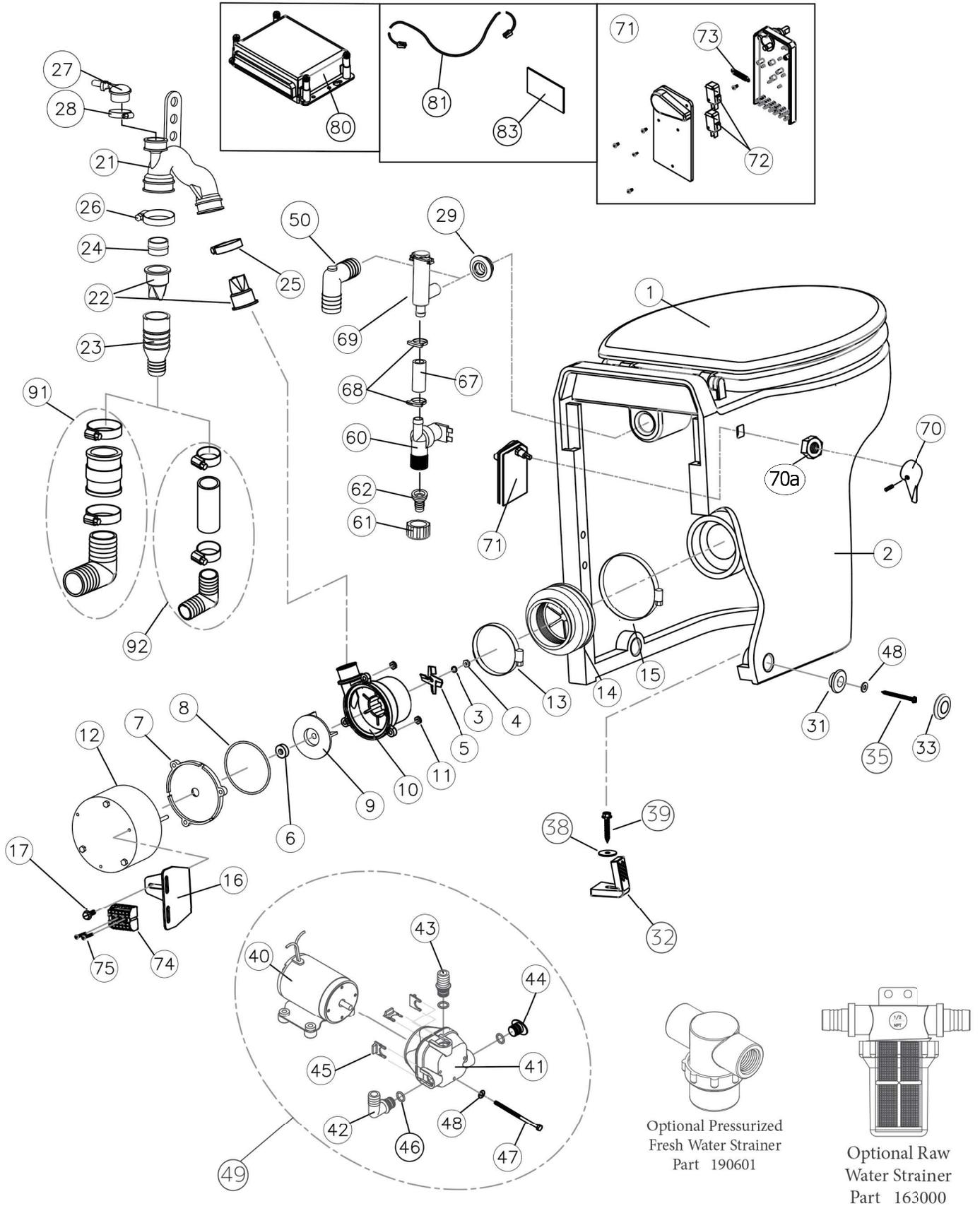
Any questions regarding servicing or operation of the Marine Elegance should be directed to our Technical Support Department in Millville, NJ. Please have model and serial number available before calling.

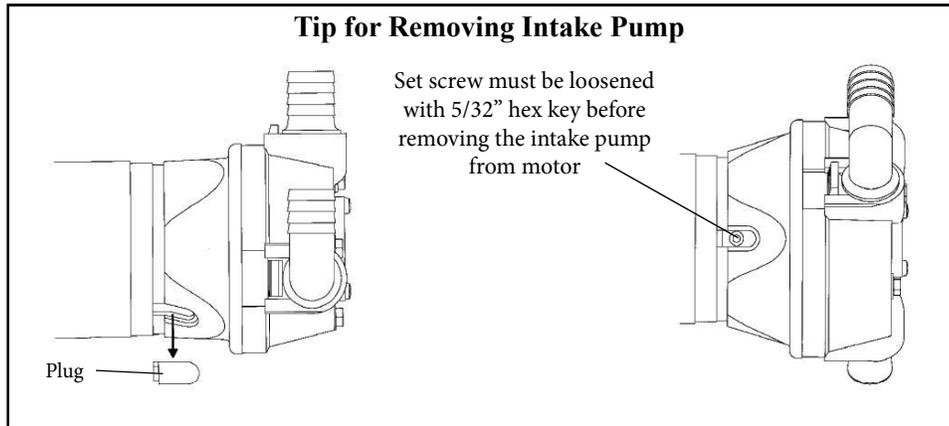
PROBLEM	POSSIBLE CAUSE	SOLUTION
1. Poor pumpout, especially solids.	1A. Clogged discharge line. 1B. Plumbing restrictions, bends and ells. 1C. Clogged vents. 1D. Mineral buildup in hoses and fittings. 1E. Low voltage.	1A. Be sure discharge seacock is open. Clear line, remove clog. 1B. Replumb to eliminate 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 making a shorter run if possible.
4. Bowl fills while underway.	4A. Pressure buildup at seacocks.	4A. Close intake, then discharge seacock to determine which is causing problem. Be sure the vented loop(s) are installed and vent is functional. If the water pressure from seacock is outside: 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. 5D. Leak at vacuum breaker	5A. Tighten adapter clamps. 5B. Check seal and motor shaft. 5C. Check and reseal bowl grommet 5D. Clean by gently pressing down and turning 1/4 turn clockwise. Remove cap and remove plastic piston, clean. Replace parts if needed.

Marine Elegance Comfort Height PARTS LIST - Smart Handle

Item#	Part No.	Description	PARTS NOT SHOWN	
1	241101SC	Seat & Cover (Slow Close)	221175	L Bolt for Pump Mounting Bracket (2)
2	241101W	ME Bowl, Comfort Hgt, White	221170A	Discharge Hose Support Strap
3	M23A	#10 Lockwasher SS (5)	F188	Well Nut 10-32 (2)
4	1108A	10-32 SS Nut		
5	53145	Macerator Blade		
6	31-102	Motor Shaft Seal	MOUNTING BRACKET ASSEMBLY	
7	221110	Discharge Pump Seal Plate	241130W	Mounting Bracket w/Hardware (includes items 31 thru 39, 48)
8	221105	O-Ring		
9	161115	Impeller		
10	221115	Discharge Pump Macerator Housing		
11	31-114	Lock Nut 10-32 W/Nylon(3)		
12	221012	Discharge Motor 12 VDC		
12	221024	Discharge Motor 24 VDC		
13	221125	Bowl Throat Adapter Clamp - Pump		
14	221120	Bowl Throat Adapter	81	STC545 Control Cable 7 ft
15	221130	Bowl Throat Adapter Clamp - Bowl	83	STC543W Touch Panel w/Back Plate
16	221158	Discharge Pump Support Bracket for part 241101		
17	F193VT	Screw 10-32 X 3/8 W/VT		
21	221141W	Discharge Hose (includes items 22 thru 28)		
22	221135W	Joker Valve (2) (includes item 24)		
23	221145	Discharge Adapter Fitting		
24	221146	Joker Valve Insert		
25	221160	Discharge Hose Clamp (small)		
26	221165	Discharge Hose Clamp (large)		
27	VLVE	Vent Valve Assembly		
28	FC001A	Vent Valve Hose Clamp		
29	221150	Spud Seal		
31	221210	ME Bowl Mtg Bushing (2)		
32	241130M	ME Mounting "L" Brackets (2)		
33	221215	ME Bowl Mounting Cap (2)		
35	F200A	Screw Mtg, 18-8 SS Hex Slotted #8 x 1 1/4" (2)		
38	F321	ME Washer Fender Style (2)		
39	F189	ME Screw: Bowl Mounting (2)		
REMOTE RAW WATER PUMP				
40	166012A	Intake Pump Motor 12 VDC		
40	166024A	Intake Pump Motor 24 VDC		
41	162000W	Remote Intake Pump w/o Motor (includes items 42 thru 48)		
42	162405	3/4" Hose Barb 90° Fitting		
43	162410	3/4" Hose Barb Sraight		
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)		
49	166000	Complete Remote Pump 12 VDC		
49	166100	Complete Remote Pump 24 VDC		
50	PLA26	Elbow Adapter 3/4 x 1/2		
PRESSURIZED FRESH WATER				
60	221351	Solenoid Valve 12 VDC		
60	221352	Solenoid Valve 24 VDC		
61	221356	ME Nut 3/4 BSP		
62	221357	ME Hose Adapter, Straight		
67	221335	Hose 1/2"		
68	221340	Hose Clamps 1/2" (2)		
69	221300	Vacuum Breaker Assembly		
			FLUSH CONTROL OPTIONS	
			SMART TOILET CONTROL	
			80	STC548W Smart Toilet Control Circuit Board (12 & 24 VDC)
			81	STC545 Control Cable 7 ft
			83	STC543W Touch Panel w/Back Plate
			HANDLE ASSEMBLY	
			70	AM665W Handle replacement with set screw
			70a	F104 Brass Panel Nut
			71	AV600W Handle Flush Control Replacement
			72	AM667 Microswitch V7 Series, 25A at 250 VAC
			73	AM666 Spring .250 X 1.375, 316 S/S
			74	ETB3 Terminal Block, 3 Poles, Push Connection
			75	F108 Screw: #4 X 7/8 Phil. Flat Head, Type B Self Threading, 18-8 S/S (2)
			REPAIR / REPLACE KITS	
			MERK	Discharge Pump Repair Kit (includes items 6, 8 and 22)
			2210012	Discharge Pump Assembly 12 VDC (includes items 3 thru 12 and 21 thru 28)
			2210024	Discharge Pump Assembly 24 VDC (includes items 3 thru 12 and 21 thru 28)
			FWK12	12 v Fresh Water Inlet Assy (includes items 60 thru 69)
			FWK24	24 v Fresh Water Inlet Assy (includes items 60 thru 69)
			162400	Fitting Kit (includes items 42, 43, 44, 46)
			DIAPUMPRK	Raw Water Pump Repair Kit
			ADDITIONAL OPTIONAL ACCESSORIES AVAILABLE FROM RARITAN	
			91	221147 1 1/2 inch Thru Wall Discharge Kit
			92	221148 1 inch Thru Wall Discharge Kit
			1PCP32	C.P. Cleans Potties, 32 OZ
			1PCHGAL	Cleans Hoses, Tanks and MSD (gal)
			1PKO32	Kills Odors, 32oz
			KO2	Deodorant System (Seawater Models)
			SFH	Sanitation Hose 1 1/2" (sold by foot)
			SFH1	Sanitation Hose 1" (sold by foot)
			190601	Fresh Water Strainer
			163000	Sea Water Strainer
			RTME12D	Power Converter for 120/240 VAC
			STCTSA	Holding Tank Full Sensor (Sensa Level TM) For use with STC Flush Control.
			STCFL	Holding Tank Full Sensor (Float Switch) For use with STC Flush Control.

Marine Elegance Comfort Height Exploded View - Smart Handle





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.
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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.



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 www.raritaneng.com

Thank you for purchasing a Raritan Marine *Elegance* Comfort Height with Smart Handle

SCAN for
Owners Manual



L442 0425

Model and Serial #:
Please have this available if support is needed.

SCAN for
Warranty Form



If you prefer a printed version of the Owners Materials:
Email: info@raritaneng.com

Questions on installation?
Email: techsupport@raritaneng.com



Do not return this product to store.

PLEASE RETAIN FOR YOUR RECORDS