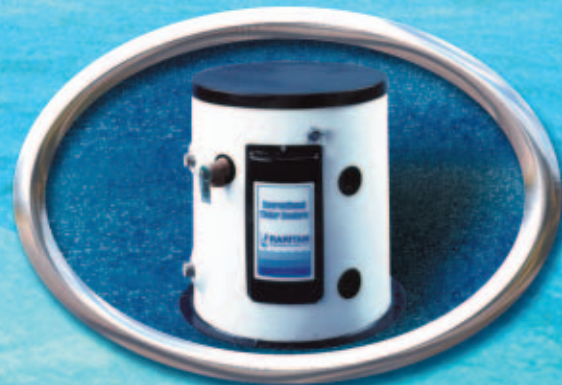




*Established 1958*

# **RARITAN**

*Marine Products for Power & Sail*





## *TO OUR CUSTOMERS, TRADING PARTNERS and FRIENDS:*

This Catalog represents a significant shift in content from our previous catalogs. We have set out to provide more complete descriptions and more comprehensive information about each of our products and their use. We have also included exploded parts views to help in identifying products, and their component parts. There is also a section containing product dimensions. All three sections are cross-referenced for ease of use. Raritan has always emphasized the maintainability and reparability of our products. The inclusion of parts views is an enhancement to our ongoing efforts to make maintenance as easy as possible.

Raritan has worked for forty-five (45) years to bring quality, outstanding service and product reliability to our customers. Our customers continue to be our focus. To help ensure that we build and maintain the quality and reliability of our products, we have been ISO 9001 certified for seven years, and met the requirements for the latest ISO standard, ISO 9001:2000, in January of 2003. We have a dedicated customer service staff in both Millville and Fort Lauderdale, and trained product experts who help meet peak demand for customer assistance.

Continuing our tradition of “Innovation Through Experience”, we are pleased to introduce three new products and product enhancements in this catalog:

- The first is our US Coast Guard Certified Type II Marine Sanitation Device (MSD), the “ManaGerm”... This product builds on our experience with the Lectra/San and marine toilets, and provides a treatment system for larger vessels (page 12),
- The second is an extension of the Lectra/San, called “Hold N’ Treat, that allows the use of the Lectra/San in No Discharge areas by holding the effluent, and batch processing it in areas where treated discharge is permitted (page 11), and
- We are introducing an elongated bowl version of the Atlantes for use on larger vessels (see page 23 for dimensions).

Please look at the catalog for a further description of each of these new products.

Raritan strives to be a company that is easy to do business with. We are small enough to be personal, yet large enough to continue to develop new products. We welcome your suggestions for improvements, and look forward to continuing to build our relationship with you in coming years.

Sincerely,

Arthur “Bret” Bretnall, Jr.

# TABLE OF CONTENTS

Which Raritan Toilet is right for my application? .....	4
<b>Electric Toilets</b>	
Atlantes .....	5
Crown Head II and Crown Head .....	6
SeaEra and SeaEra Conversion Kit .....	7
PHEII .....	8
<b>Manual Toilets</b>	
PHII .....	8
PHC and Compact II .....	9
<b>Marine Sanitation Devices</b>	
Lectra/San® MC Type I .....	10
Purasan Type I .....	11
Hold n' Treat .....	11
ManaGerm Type II .....	12
Semi-custom Holding Tanks .....	18
<b>Plumbing/Galley</b>	
Sea Fresh System .....	12
1700 Series Water Heater .....	13
Icer-Ette .....	14
Galley Flow System .....	15
In-line and Raw Water Strainer .....	17
<b>Boating Necessities</b>	
Ruddermaster .....	16
Tank Monitor .....	18
Reverse Polarity Alarm .....	19
Circuit breakers, Solenoids and Switches .....	19
Vented loops, Sanitation Hose and valves .....	22
Super Lube .....	22
Toilet Water Kit .....	21
<b>Raritan Organics, Cleaning and Maintenance Products</b>	
K.O. Kills Odors! .....	20
C.P. Cleans Potties! .....	20
B.C. Bilge Cleaner! .....	20
C.U. Cleans Up! .....	21
R.C. Raritan Concentrate .....	21
<b>Dimensional Drawings</b>	
Atlantes, Crown Head and Crown HeadII .....	23
SeaEra .....	24
PHII and PHEII .....	25
PHC and Compact II .....	26
<b>Repair Parts and Exploded Views</b>	
Determining proper repair kits for electric toilets .....	27
Atlantes .....	28,29
Crown Head .....	30,31
Crown Head II .....	32,33
SeaEra .....	34,35
List of Repair kit contents for electric toilets .....	36
Determining proper repair kits for manual toilets .....	37
Compact II .....	38,39
PHII and PHEII .....	40,41
List of Repair kit contents for manual toilets .....	42
Water Heater and Ruddermaster repair parts .....	43
Galley Flow .....	44,45
Icer-Ette .....	46,47
Lectra/san .....	48,49
Purasan .....	50,51



**Raritan Engineering  
Company, Inc.**  
Is a Proud Member of:



# Which Raritan toilet is right for my application?

	Manual	Electric	12, 24, 32 VDC	120/240 VAC	Household-style Bowl	Marine-style Bowl	White	Bone	Black	Pressurized Freshwater	Seawater Intake Pump	Macerates	Repair Kits Available	Standard Features
<b>Atlantes</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Uses as little as 1 quart of water per flush. Includes adjustable timed operation. Freshwater model only draws 11 amps.
<b>Compact II</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Smaller footprint than PHII. No hoses in front of the pump. Wet or dry bowl flush.
<b>Crown Head</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Easy access to macerator. Built-in deodorant system.
<b>Crown Head II</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Quieter operation than original Crown Head. Optional Deluxe Control allows for timed or momentary operation & dry bowl flush.
<b>PHII</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Large cylinder offers efficient flushing. Wet or dry bowl flush.
<b>PHEII</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Easily converts to manual operation. Efficient pumping action. Wet or dry bowl flush.
<b>SeaEra</b>	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	Diaphragm intake pump. Freshwater model draws only 13 amps. Retro-fit kit to convert almost any toilet.

## All Toilets

- Easy to clean and maintain
- Certified Installers NOT REQUIRED

FOR MORE DETAILED INFORMATION ON ALL OF OUR PRODUCTS VISIT OUR WEBSITE

# Atlantes®

## New Inlet Diaphragm Pump Design

- Pump can be run dry without damage
- Less power consumption
- Draws river, lake or sea water

Every Atlantes conserves water with three flush options: normal (3 quarts/2.85 liters), water saver (1 quart/.95 liters) and dry flush.

### Self-contained Model (A5\* or A6\*)

- All working parts are contained inside the one-piece porcelain bowl for convenience
- Quick and easy raw water flush installation

### Freshwater Solenoid Model (A5F\* or A6F\*)

- Whisper Flush<sup>SM</sup> design for quiet operation
- Less maintenance and odors than raw water models
- Connects to vessels existing pressurized system

### Remote Intake Pump Model (A5R\* or A6R\*)

- Reduces noise levels
- Easier access to intake pump, more flexible installation when long runs are required

### ALL Atlantes Models

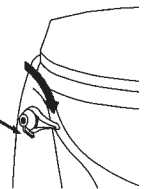
- Simple and flexible installation for mounting above or below waterline.
- Available with integral flush lever (A5) or wall-mounted switch panel (A6).
- Sea Fresh Systems available for all remote seawater pump (R) and Freshwater solenoid (F) models.
- Available for 12, 24, 32V DC or 120/240V AC.

Coming Soon -  
Elongated Bowl



#### A5 models

A flush lever on the side of the bowl activates an adjustable timed flush and allows selection of water saver, normal or dry bowl flush mode.



#### A6 models

All the features of the A5 models but are supplied with a Wall-Mount, adjustable time, touch pad flush control.



**NEW**

#### A4 models

Supplied with just the discharge pump and a momentary flush control, you supply the intake water.

Intake flush water systems available from Raritan if needed.



### Product Models

A Atlantes	4	Momentary switch (no intake pump)	Bowl Color White (standard)	Pump style Integral pump (standard)	12	Specify Voltage 120/240	additional options available - Contact Technical Support
	5	Flush Lever			24		
	6	Wall switch	A Bone	R Remote	32		
			B Black	Sea water Pump	24T		
			F Freshwater Solenoid				

To order the correct unit for your installation make one selection from each column above.

#### Examples:

A512 - Atlantes, Flush Lever, white bowl, integral intake pump, 12V  
 A6BR24 - Atlantes, Wall Switch, black bowl, remote intake pump, 24V  
 Approximate Shipping weight: 74lbs (33.6 kg)

For Dimensions see page 23, the exploded parts view and parts list are located on pages 28 & 29.

# Crown Head™ II

Mid-priced electric macerating toilet.

## Freshwater Solenoid Model (C2F\*)

- Whisper Flush<sup>sm</sup> design for quiet operation
- Less maintenance and odors than raw water models

## Remote Intake Pump Model (C2R\*)

- NEW** Diaphragm intake pump can be run dry without damage
- Reduces noise levels
  - Easier access to intake pump



### Product Models

C2	Crown head II	Straight Discharge (standard)	Bowl Color		Remote Intake pump (standard)	12	Specify Voltage
			White bowl, marine-size (standard)	F		24	
9	90° Discharge	A	Bone bowl, household-style	Freshwater Solenoid	32	120/240	
		W	White bowl, household-style		24T		

To order the correct unit for your installation make one selection from each column above. **Sample:** C2912 - Crown Head II, white bowl marine size, 90° discharge 12V

Approximate Shipping weight: 60 lbs (27 kg)

\*specify voltage

For Dimensions see page 23, the exploded parts view and parts list are located on pages 32 & 33.

# Crown Head™

The electric macerating toilet preferred by boaters for years, well-known for reliable durability

- Classic, dependable design
- Flushing action with powerful centrifugal macerating pump
- Simple and flexible installation for mounting above or below waterline
- Base cover includes built-in deodorant system

### Product Models

C	Crown head	White bowl, marine-size (standard)		Straight Discharge (standard)	12	Specify Voltage
		W	White, bowl household-style		9	
		A	Bone, bowl household-style		32	120/240
					24-T	

To order the correct unit for your installation make one selection from each column above. **Sample:** C912 - Crown Head, white bowl marine-size, 90° discharge, 12V  
Approximate Shipping weight: 50 lbs (23 kg)



For Dimensions see page 23, the exploded parts view and parts list are located on pages 30 & 31.

# SeaEra™

More advanced design features and Excellent replacement for less durable competitive units

## Integral Intake Model (160MI\* or 160HI\*)

- Quick and easy raw water flush installation

## Freshwater Solenoid Model (160MF\* or 160HF\*)

- Whisper Flush<sup>sm</sup> design for quiet operation
- Less maintenance and odors than raw water models
- Connects to vessels existing pressurized system

## Remote Intake Pump Model (160MR\* or 160HR\*)

- Reduces noise levels
- Easier access to intake pump, more flexible installation when long runs are required

## ALL SeaEra Models

- Bowl can be rotated 90° for mounting in confined space
- Heavy-duty marine push button switch included
- Straight discharge fits both 1 1/2" (38mm) and 1" (25mm) discharge line with no adapters
- Freshwater models include a vacuum breaker, raw water models include an inline strainer
- Available for 12, 24, 32V DC or 120/240V AC.



Integral Sea Water Model

### Optional Switch part #SWF100

Offers the option to fill or empty the bowl along with momentary flushing of the toilet for remote pump or freshwater solenoid models only.



## Product Models

160	SeaEra	H Household-style white bowl M Marine-size, white bowl L Conversion Kit	I Integral pump R Remote Seawater Pump F Freshwater Solenoid	0 Straight Discharge 9 90° Discharge	12 Specify Voltage 24 32 24T 120/240	03 SWF100 momentary fill/dry flush switch
-----	--------	---	--	---	---	---

To order the correct unit for your installation make one selection from each column above.

**Sample:** 160HF012 - SeaEra, Household-style, Pressurized Freshwater, straight discharge, 12V.

**Sample Conversion Kit:** 160LI912 - SeaEra Conversion Kit, Integral pump, 90° discharge, 12V

Approximate Shipping weight: 38-40 lbs (17-18 kg)

\*specify voltage

For Dimensions see page 24, the exploded parts view and parts list are located on pages 34 & 35.

# SeaEra™ Conversion Kit

An economical way to replace your electric or manual toilet.

Save the toilet bowl and seat - just replace the lower base.

Three basic models (all include heavy duty push button):

**Pressurized freshwater -**

includes solenoid valve and vacuum breaker

**Seawater with integral pump - includes strainer**

**Seawater with remote intake pump - includes strainer**

**Fits most existing marine bowls.**

Approximate Shipping weight: 12-16 lbs (6-8 kg)



# PHII and PHEII

**A non-macerating manual or electric toilet that is highly rated by the industry. Reliable, high-quality design uses sea or lake water.**

## PHII and PHEII

- Excellent choice for sail and mid-size power boats
- Can be used with on-board treatment systems (such as the Lectra/San®) and/or holding tanks
- Easy to convert from manual to electric with Raritan's upgrade kit.
- Choice of full-size household-style or marine-size white porcelain bowl
- Pump can be mounted on either left or right side
- Can be ordered with straight discharge fitting, 90° is standard



## Pump Design

- Simple design means economical, trouble-free operation
- Powerful flushing action
- Dry pumping is easier because air vent reduces back pressure
- Simple, flexible installation for mounting above or below waterline
- Easy to clean and maintain
- Double action piston pump simultaneously draws new flush water as it discharges the wastewater
- Units manufactured after 1992 use a cartridge seal to improve pump housing longevity

## Electric Model

- Can be switched to manual operation within minutes
- Available for 12 or 24V DC operation

## Partial list of Models

<u>Part #</u>	<u>Description</u>
PHII	PHII, Manual Operation, White marine-size bowl
PHHBII	PHII, Manual Operation, White household-style bowl
PHEII12	PHEII, Electric Operation, White marine-size bowl, 12V
PHEHBII12	PHEII, Electric Operation, White household-style bowl, 12V
PHECKII12	PHII, Electric Conversion Kit (manual to electric) 12V
PHIIPUMP	PHII, Pump assembly complete

For Dimensions see page 25, the exploded parts view and parts list are located on pages 40 & 41.

Approximate Shipping weight: 30-41 lbs (14-19 kg)



# PHC

## Compact base PHII Pump

Lower cost than PHII. The PHC utilizes the powerful PHII pump on the space saving Compact II toilet base.

- Good choice for sailboats and mid-size powerboats
- Powerful flushing action
- Dry pumping is easier because air vent reduces back pressure
- Double action piston pump simultaneously draws new flush water as it discharges the wastewater
- Can be used with on-board treatment systems (such as the Lectra/San®) and/or holding tanks
- Choice of full-size household-style or marine-size white porcelain bowl
- Can be mounted for pumping on either left or right side



For Dimensions see page 26, the exploded parts view (PH II Pump) and parts list are located on pages 40 & 41.

## Compact II No Electric Required

Raritan's most economical toilet. Great Value in a manual toilet

- Fits in small spaces - ideal for small powerboats and sailboats
- Easy and quiet operation - no complicated hand or foot valves
- Simple, flexible installation for mounting above or below waterline
- Conserves water - boaters can switch to dry pump option
- Can be mounted for pumping on either left or right side



For Dimensions see page 26, the exploded parts view and parts list are located on pages 38 & 39.

### Model

<u>Part#</u>	<u>Description</u>
PHC	PHII with Compact II base
CPHII	Compact II Hand Toilet
CPIIRFK	Compact II Retrofit Kit (converts Compact to Compact II)
CPIIPUMP	Compact II Pump Assembly Complete

Approximate Shipping weight: 26 lbs (12kg)

# Lectra/San<sup>®</sup> LST/MC<sup>™</sup>

## No Holding Tank Odors

**Smallest, most popular U.S. Coast Guard certified Type I Marine Sanitation Device for environmentally friendly treatment of waste and legal overboard discharge on inspected and uninspected vessels up to 65 feet.**

### Environmentally Friendly

- Generates its own natural disinfectant from salt water
- Coated electrodes use salt water to kill bacteria and viruses without adding harmful chemicals to the sea
- Discharges with treatment levels that are safe for environmentally sensitive areas
- Microprocessor control (MC) monitors conditions inside the treatment unit and automatically informs users of changes in water conditions

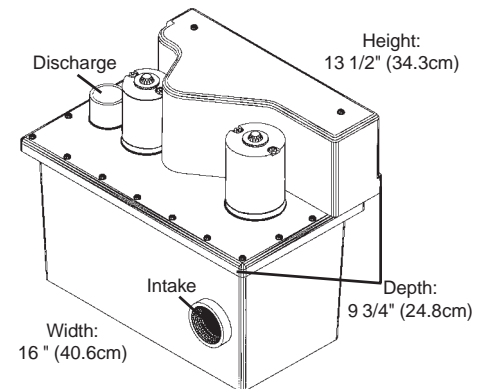
### Simple to Use

- One-step activation with toilet switch or LST/MC<sup>™</sup> touch pad automatically activates toilet and treatment system
- Light sequence on the Control Indicator Panel indicates system functions and changes in salt and voltage conditions
- Eliminates the need for bulky holding tanks in areas that have not been declared No Discharge Zones by the U.S. EPA
- Treats each flush as waste is generated
- Can be used with two marine toilets in most installations
- Easy to install
- Can be used with both manual and electric toilets
- Available for 12, 24 and 32V DC
- Options: (1) toilet sensor starts treatment unit when manual toilet is flushed, (2) dual control for use with two toilets and (3) salt feed systems; required when using fresh or brackish water, three models to choose from

### Sample of Models

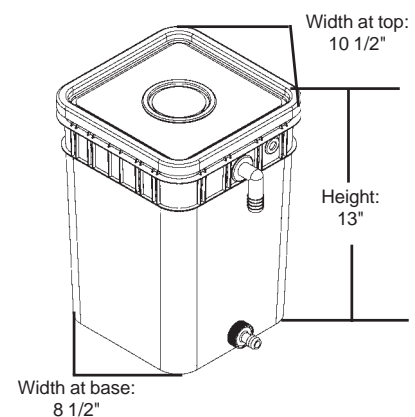
Part #	Description
LST12MC	Lectra/San MC, Type I MSD, 12V
LSTMDC	Lectra/San MC Dual Control
31-605	LSTMC: Manual Toilet sensor assy. for 3/4" hose
31-3001	Two Gallon Salt Feed Unit Complete
31-3002	Four Gallon Salt Feed Unit Complete
32-3003	Four Gallon Salt Feed Tank w/pump, 12V
32-6001	LST/LSTMC Retrofit Kit, 12V
32-601RFK	LSTEC/LSTMC Retrofit Kit, 12V

Approximate Shipping Weight: 20 lbs (9 kg)



An exploded parts view and parts list are located on pages 48 & 49.

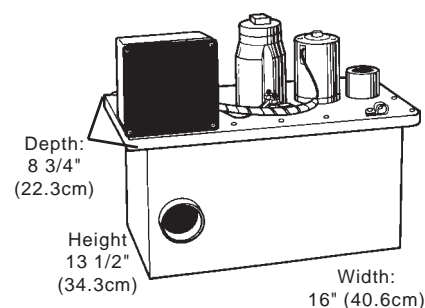
### Optional - 4 gallon salt feed tank



# Purasan™

**On-board sewage treatment device for freshwater lakes and rivers. Neutralizes waste, making it sanitary and safe for boaters and the marine environment.**

- U.S. Coast Guard approved Type I Marine Sanitation Device for vessels up to 65 feet in length - can be used with Atlantes, Crown Head II and Crown Head
- Electronically controlled two-minute treatment cycle
- Low power consumption
- Easy to change tablet cartridge, neutralizes bacteria in waste water
- Toilet and treatment cycle are activated with a single push of a button
- A single tablet cartridge can be used for many treatment cycles
- Alleviates the need for holding tanks in most areas



## Sample of Models

Part #	Description
PST12	Purasan, Type I MSD, 12V, for use with Crown Head
PST12-01	Purasan, Type I MSD, 12V, for use with Atlantes
41-135	Purasan Tablet Cartridge

Approximate Shipping weight: 22lbs (10 kg)

An exploded parts view and parts list are located on pages 50 & 51.

# Hold n' Treat<sup>patent pending</sup>

**Batch Processor - Use your holding tank in a No Discharge Zone and treat the contents with the Lectra/San MC to Type I standard where treated discharge is allowed**

## WHAT IS A BATCH PROCESSOR ?

- A batch processor collects toilet waste in a holding tank while in No Discharge Zones
- Allows processing through a Lectra/San®MC with batch processing controller when in areas legal for overboard discharge of treated waste.

## HOW DOES IT WORK ?

- With switch ON Controller monitors the tank level
- At high level a macerator pump transfers untreated waste into the Lectra/San®MC
- Treatment cycling continues four times and then stops for a "cool-down" period
- Treatment cycling continues with "cool-down" periods until low level in tank is reached

Processing Controller

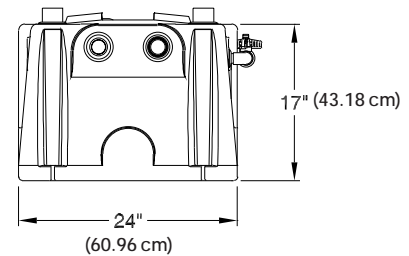
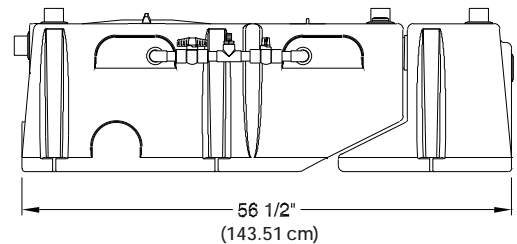


Key Switch

# ManaGerm™

Effective reliable treatment of onboard sewage for up to 12 persons per day. The ManaGerm is an aerobic biological sewage treatment system. The System uses air, water and the natural occurring bacteria to biologically convert waste to water and carbon dioxide (a harmless odorless gas)

- USCG Certified Type II Marine Sanitation Device also compliant with IMO Resolution MEPC2(VI)
- Tank made of lightweight corrosion resistant polyethylene
- Easy installation - Simple maintenance
- No moving parts in contact with sewage
- Quiet, durable aeration pump included
- Uses very little electricity
- Operates with fresh, brackish and salt water
- For use on inspected and uninspected vessels
- Works best with macerating toilets



## Sample of Models

Part #	Description
6400121	Managem

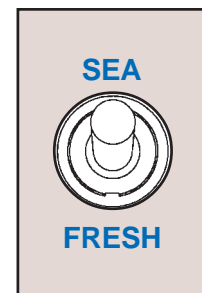
Approximate Shipping weight: 100lbs (45 kg)

# Sea Fresh System<sup>Patented</sup>

## Reduces Toilet Maintenance

The Sea Fresh System offers boaters “the best of both worlds.” The System allows the user to conveniently select, with the “flip of a switch,” either sea/lake/river (raw) water or pressurized freshwater for toilet flushing.

- Allows boaters to conserve on-board pressurized freshwater while underway by flushing with raw water
- Reduces calcium build-up in toilet and plumbing lines by using pressurized freshwater flushing while dockside
- Boaters don't have to stop using their toilets if their on-board pressurized fresh water supply is low
- Simple to install
- Helps reduce or eliminates raw water odors
- Safe built-in protection of potable water system
- Can be adapted to other manufacturers' electric toilets
- Available for 12, 24 or 32V DC



(Actual Size)

SEA FRESH switch makes it easy to select between raw or on-board pressurized freshwater. Contact Raritan for correct model numbers.

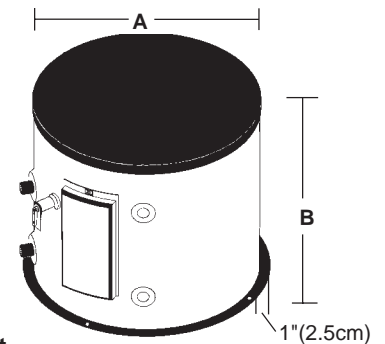
# 1700 Series Water Heater

**World-renowned water heater specially designed for the marine environment. Provides the comfort and convenience of reliable hot water.**



- Simple installation – retrofits to most on-board pressure systems
- Proven long-life design
- Withstands the rigors of the marine environment
- Glass-lined steel tank is more durable than stainless steel
- Attractive polymer jacket resists corrosion from dampness
- Ignition-protected, adjustable thermostat
- Round tanks are designed to withstand more pressure than square tanks
- Glass-lined steel tank for long life and high efficiency
- Environmentally friendly CFC-free foam insulation
- Replaceable magnesium anode to protect tank and neutralize acids in the water
- The tank is covered by a five-year Limited Warranty
- Each unit is assembled by hand, individually tested and backed by Raritan's two-year Limited Warranty and legendary technical support team
- Available in 6, 12 and 20 gallon models – with or without engine heat exchangers
- Available for 120V AC or 240V AC

A parts list is located on page 43.



Size	Capacity	A	B	Shipping Wt.
6 gal.	6 gallon	14 1/2"(36.9cm)	16 1/4"(41.9cm)	36lbs/16kg
12 gal. w/o HE	11 gallon	18 3/4"(47.6cm)	16 1/4"(41.9cm)	62lbs/28kg
12 gal. w/HE	10 gallon	18 3/4"(47.6cm)	16 1/4"(41.9cm)	65lbs/29kg
20 gal. w/o HE	8 gallon	18 3/4"(47.6cm)	24 1/4"(60.6cm)	81lbs/37kg
20 gal. w/ HE	17.5 gallon	18 3/4"(47.6cm)	24 1/4"(60.6cm)	81lbs/37kg

HE = Heat Exchanger

## Product Models

17 Water Heater	06 six gallon	0 without heat exchanger	1 120V AC	01 GAZ heat exchanger fittings
	12 twelve gallon	1 with heat exchanger	2 220V AC	02 METRIC heat exchanger fittings
	20 twenty gallon			03 4500 W heating element 240VAC only

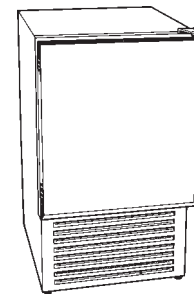
# Icer-ette™

**A dependable, environmentally friendly, fully automatic ice making machine designed specifically for marine applications.**

- Quick, simple installation
- Wrap around evaporator coil ensures an evenly cooled interior
- Produces up to 22 pounds of crescent-shaped ice a day
- Removable ice bucket stores 11 pounds of ice
- Ice production stops automatically when ice bucket is full
- Great addition to a wet bar
- No drain required
- Magnetically sealed door has sturdy stainless steel hinges and locking link
- Unique door lock holds the door closed in rough seas or open when unit is shut down to allow proper ventilation
- CFC-free refrigerant with ozone depletion rating of zero
- Noncorrosive materials, fittings and fasteners
- Door can be hinged for right-hand or left-hand opening
- Each unit is assembled by hand, individually tested and backed by Raritan's one-year Limited Warranty and legendary technical support team
- Two sizes and several door color combinations that complement any boat interior
- Available for 120V AC, 60 HZ and 240V AC, 50 HZ



**Model 85**



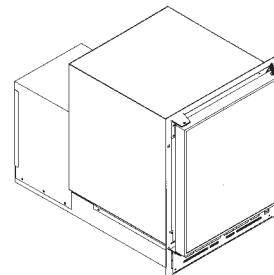
Height:  
flange - 25 1/4" (64.1cm)  
cabinet - 24" (61cm)

Width:  
flange - 15 3/8" (39.1cm)  
cabinet - 14" (35.6cm)

Depth:  
14 1/2" (36.8cm)



**Model 84**



Cabinet Height:  
Cabinet - 18 3/8"(46.7cm)  
Flange - 19 1/2"(49.5cm)

Depth:  
22 1/4" (56.5cm)

Base Height:  
12 3/4" (32.4cm)

An exploded parts view and parts list are located on pages 46 & 47.

## Product Models

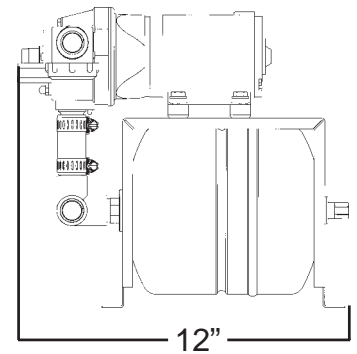
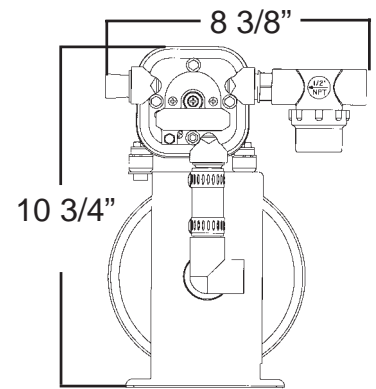
		Cabinet type	Door Type	
84 Icer-ette short	B Built-in - has flange	4 Vinyl	05 Stainless steel	1 120V AC
85 Icer-ette tall	F Free-standing - no flange	5 Stainless steel	06 White	2 220V AC
			07 Black	
			08 Neutral	
			09 Antique white	

Approximate Shipping weight: 66 - 75 lbs (30 - 34 kg)

# Galley Flow System

Automatically provides a dependable source of pressurized, evenly flowing freshwater for on-board showers and sinks.

- Can be run dry without damage to pump
- Delivers water at a flow rate of 3.8 gallons (14 liters) per minute
- Operates on pressures of 20 (138kPa) to 40 psi (276kPa)
- Self-priming up to 6 feet (1.8M) lift
- 4.3 - 9 amp draw depending on pressure
- Compact size and single component installation
- Ignition protected
- In-line strainer with stainless steel mesh included to protect pump from debris
- Marine tough coat protective finish on pressure tank
- ½" Female NPT inlet and outlet ports
- Ball bearing motor protected by thermal breaker
- Inlet connection from either side of pump housing
- Built-in check valve
- Each unit is individually tested and backed by Raritan's one-year Limited Warranty and legendary technical support team
- Available for 12, 24, 32V DC
- Pressure tank and pump can be purchased separately or as a complete system
- Replaces our GM and GMPT models



## Product Models

19 Galley Flow	00 complete system	12 12 VDC
	10 pump and motor	24 24 VDC
	01 tank only	32 32 VDC
		01 tank only

To order the correct unit for your installation make one selection from each column above.

Model Samples:

190024 - Galley Flow System 24 VDC

191012 - Galley Flow Pump and Motor 12 VDC

190101 - Galley Flow Tank only

Approximate Shipping weight: 11 lbs (5 kg)

## Specifications

Units Voltage	Amp. draw @ nominal voltage
12 VDC	10
24 VDC	7
32 VDC	5

An exploded parts view and parts list are located on pages 44 & 45.

# Ruddermaster™

Rudder angle indicators are economical steering aids and rudder position monitors.

- Ready for installation with all necessary components needed – meter, calibration box and sending unit
- Constant monitoring of rudder angle position from 0 to 45 degrees
- Great aid for docking or close maneuvering
- Available in four models:
  - MK2 model is water resistant and backlit
  - MK445 model uses a compact flush mount meter with an edgewise readout
  - MK5 and MK6 models use easy to read panoramic meters
- MK445, MK5 and MK6 models operate on all standard voltages (6, 12, 24 and 32V DC) – Specify voltage when ordering an MK2
- Repeater units are available for multiple station readouts
- Any model can be ordered with longer wire (30 feet [9.1m] standard)

Select an area where the Ruddermaster can be easily viewed by the navigator, but also where the Ruddermaster will not be affected by washdown spray or by direct exposure to the elements. Ruddermasters are not water resistant except for the MK2.

## Models and Options

Part #	Description
MK2*	Panaramic 2" round Meter
MK445	Edgewise 3 3/4" Flush mount Meter
MK5	Panaramic 4 1/2" Flush mount Meter
MK6	Panaramic 3 1/2" Flush mount Meter
MK2R*	Repeater Unit with MK2 Meter
MK445R	Repeater Unit with MK445 Meter
MK5R	Repeater Unit with MK5 Meter
MK6R	Repeater Unit with MK6 Meter

Any model can be special ordered with longer wire by adding length to (suffix) part #. Example: MK445-60

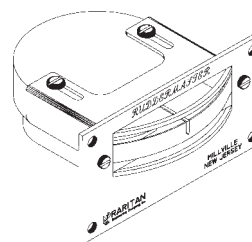
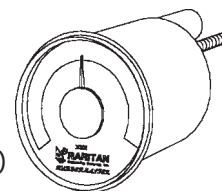
\* Specify Voltage

Approximate Shipping Weight: 3 lbs (1.4 kg)



### MK2

Diameter:  
2" (5.1cm)  
Depth:  
2 3/8" (6.1 cm)

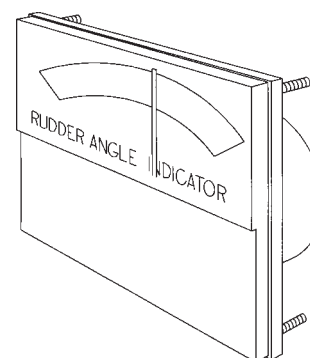


### MK445

Height:  
2" (5.1cm)  
Depth:  
3" (6.1 cm)  
Width:  
3 3/4" (9.5 cm)

### MK5

Height:  
4" (10.2cm)  
Depth:  
1 1/8" (2.9 cm)  
Width:  
5 1/8" (13 cm)



### MK6

Height:  
2 7/8" (7.3 cm)  
Depth:  
1 1/8" (2.9 cm)  
Width:  
3 3/4" (9.5 cm)

A parts list is located on page 43.



# In-line Strainer

The in-line Strainer protects marine equipment and reduces toilet odors caused by marine life and debris in sea and lake water.

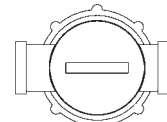
- Inexpensive, compact protection for expensive parts
- Easy to install and maintain
- Clear, high-strength plastic bowl
- Convenient 1/2" female NPT connections
- 20 mesh plastic removable filter for easy cleaning
- Can be mounted away from pumps for convenient access
- Reduces toilet odors and maintenance

## Model

Part #	Description
163000	In-Line Strainer

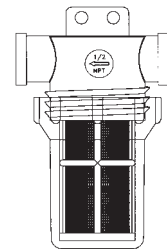


Top View



Depth:  
2 5/16"  
(7.46 cm)

Width:  
3 5/8" (9.21 cm)



Height:  
5 3/4" (14.61 cm)

Base Diameter:  
2 3/16" (5.56cm)

# Raw Water Strainer

The in-line Strainer protects marine equipment and reduces toilet odors caused by marine life and debris in sea and lake water.

- Inexpensive protection for expensive parts
- Easy to install and maintain high capacity raw water strainer
- Easily visible, clear, high-strength body
- Convenient 1 1/2" female NPT connections
- 15 mesh removable plastic filter for easy cleaning
- Each unit is individually pressure tested

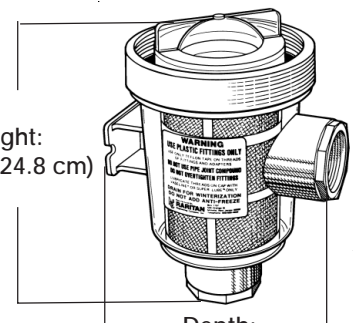
## Model

Part #	Description
RWS	Raw Water Strainer

Approximate Shipping Weight: 3 lbs (1.4 kg)



Height:  
9 3/4" (24.8 cm)



Depth:  
7 1/2" (2.9 cm)

# Tank Monitor

## New for 2004 - Front Panel Calibration

The finest holding tank monitor. Available with easy-to-read tank level indicators. Monitors up to four tanks from one convenient location.

### Ease of installation

- All parts are mounted outside of the tanks – eliminates need for special tank fittings
- No internal probes or floats
- Flush-mounted indicator panel has a smooth surface (no protruding switches or gauge)

### Ease of Use

- Reliable electronic design perfected for the marine environment
- Can be used with any polyethylene or fiberglass tank for fresh or waste water.
- Easy to use
- No maintenance required
- Gold-plated connectors ensure consistent and trouble-free performance
- Low power consumption
- Available for 12, 24 or 32V DC installations

### Model

Part #	Description
15100*	Tank Monitor (*12,24 or 32 V)
15101	Tank Sensor Module Kit

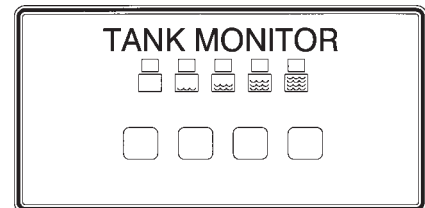
Tank Monitor comes with face plate and material to monitor two tanks. Purchase a Tank Sensor Kit for each additional tank up to four tanks.

Approximate Shipping Weight: 1 lbs (.45 kg)

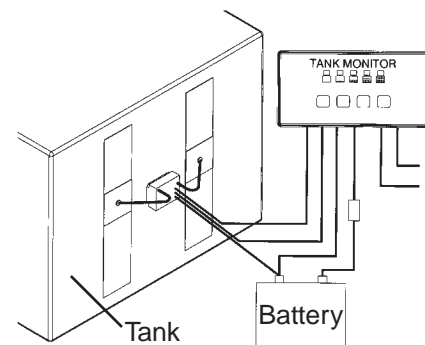


*Not for use with metal tanks or fuel tanks*

Width: 4 1/2" (11.4cm)



Height:  
2 1/4"  
(5.7cm)



# Semi-Custom Holding Tanks

The finest quality holding tanks. Over 100 tanks to choose from, simply add the fittings you want where you want them. Our tanks are made of cross-linked polyethelene with 3/8" walls for increased protection from odor permeation. Call technical service for assistance with your tank.



## Reverse Polarity Alarm

- Audible warning if neutral wire of incoming 120V AC shore power line is "HOT"
- Essential aid for traveling boaters when connecting to unfamiliar dockside power
- Enclosed in a corrosion resistant housing
- Meets ABYC E11 requirements

<u>Part #</u>	<u>Description</u>
<b>RPA</b>	Reverse Polarity Alarm



## Raritime

- Sealed solid state timer and solenoid converts momentary push button to timed operation
- Adjustable from 1 - 30 seconds for electric toilets, horns and other timed applications

<u>Part #</u>	<u>Description</u>
<b>RTC*</b>	Raritime (*specify 12, 24 or 32V)



## Continuous Duty Solenoid

- Use with Push Button Switch to take high current load off switch
- Reduces need for long runs of heavy wire

<u>Part #</u>	<u>Description</u>
<b>CDS*</b>	Continuous Duty Solenoid (*specify 12, 24 or 32V)



## E.T.A. Circuit Breakers

- Push-pull type breaker for 12 and 24V DC
- Available in 60 amp

<u>Part #</u>	<u>Description</u>
<b>CBK60</b>	E.T.A. Circuit Breaker



## Carlingswitch Circuit Breaker

- Toggle type, positive action breaker

<u>Part #</u>	<u>Description</u>
<b>LSBH</b>	Carlingswitch Circuit Breaker 60 amp



## Push Button Switch

- Single pole momentary push button switch
- Rated at 15 amp 12V with resistive load

<u>Part #</u>	<u>Description</u>
<b>PBS</b>	Push Button Switch



## Heavy Duty Push Button Switch

- Single pole momentary push button switch with protective rubber cover
- Rated at 35 amp 12V with resistive load

<u>Part #</u>	<u>Description</u>
<b>164000</b>	Heavy Duty Push Button Switch



# Raritan Organics

All natural products to help preserve and protect the marine environment

## *K.O. Kills Odors!*

**K.O. is a holding tank treatment specially formulated for today's marine market. Unlike chemical products, K.O.'s bioactive formula breaks down and neutralizes odor-causing waste materials instantly. Eliminates holding tank odors at their source. K.O. works when nothing else will!**

- Odor-killing bacteria digests liquids, solid waste and paper
- Does not require adding "tissue digesters" or other "boosters" to be effective
- A small amount of K.O. can easily keep a boat odor-free between pumpouts
- A safe, non-chemical and nonpolluting product

<u>Part #</u>	<u>Description</u>
1PKO22	K.O. Kills Odors! Bioactive treatment 22 oz. (.65 liters)
1PKOGAL	K.O. Kills Odors! Bioactive treatment 1 gal. (3.79 liters)



## *C.P. Cleans Potties!*

**Eliminates the worst raw odors from the intake line without brushing. The only toilet bowl cleaner Raritan recommends for Raritan toilets. C.P. is the only bowl cleaner that can be combined with K.O.**

- The first bowl cleaner to combine a specialized strain of bacteria with 100% biodegradable cleaning agents
- Specially designed to make the bowl shine like never before and keep the entire system odor-free
- Leaves toilet bowls, drains and sumps sparkling clean
- A safe, non-chemical, nonpolluting product destroys odors on contact
- Can also be used to clean sinks, showers and basins

<u>Part #</u>	<u>Description</u>
1PCP22	C.P. Cleans Potties! Bioenzymatic 22oz. (.65 liters)



## *B.C. Bilge Cleaner !*

**B.C. is an outstanding bilge and engine cleaner it emulsifies oil, grease, dirt and sludge better than any competing bilge cleaner, deodorizing as it cleans. Since B.C. has no odor of its own, you're left with a fresh-smelling bilge as well as a clean one.**

- Emulsifies grease, oil and sludge
- Removes slime, dirt, bacteria, fungi and molds
- Non-polluting and safe on any surface

<u>Part #</u>	<u>Description</u>
1PBC22	B.C. Bilge Cleaner! detergent/surfactant 22 oz. (.65 liters)



## *C.U. Cleans Up!*

**C. U. removes dirt, grime, exhaust stains, that impossible black streak at the water line and yes – even spider droppings on decks, hulls, canvas, sails, upholstery and deck furniture. Even fenders and power cords come shining clean with a minimum of effort using C.U. Unlike other cleaners, C.U. contains no harmful solvents or alkali. C.U. will not harden vinyl.**

- Removes dirt, grime, mildew and exhaust stains
- Cleans up bird and spider droppings
- non-polluting and safe on any colorfast surface

<u>Part #</u>	<u>Description</u>
1PCU22	C.U. Cleans Up! General purpose 22 oz. (.65 liters)



## *Non - Organic*

### *R.C. Raritan Concentrate!*

**R.C. Raritan Concentrate is a toilet deodorant and lubricant for the internal components of the toilet. R.C. is a non-organic product.**

- Toilet bowl deodorant
- Emulsifies materials that cause odors
- Lubricates the internal components of the toilet
- Recommended for Atlantes ADS and Crown Head deodorant bottle
- Not for use in combination with K.O.

<u>Part #</u>	<u>Description</u>
CON22	Raritan Concentrate 22 oz. (.65 liters)



### *Toilet Water Kit*

**Toilet Water Kit introduces a small amount of R.C. Raritan Concentrate into incoming flush water and deodorizes the water as it comes into the toilet bowl.**

- Toilet bowl deodorant
- Emulsifies materials that cause odors
- Lubricates the internal components of the toilet
- Fits toilets with 3/4" inlet lines

<u>Part #</u>	<u>Description</u>
TWK	Toilet Water Kit



## Vented Loops

- Needed for below waterline installations
- Models for intake and discharge
- Discharge loop helps keep water in toilet bowl

Part #	Description
VL3/4	Intake Vented Loop 3/4"



## Raritan Check Valve

- Stops unwanted backflow of water
- Helps to maintain pump prime
- Installs in a 3/4" I.D. plumbing hose line
- Not for pressurized lines

Part #	Description
RCV	Raritan Check Valve



## Sealect "Y" Valve

- Provides many discharge options
- 1 1/2" barbed fittings

Part #	Description
YV	"Y" Valve



## Raritan Sanitation Hose

- Marine Grade 1 1/2" discharge hose
- Smooth interior allows waste to flow freely

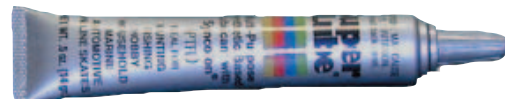
Part #	Description
SH	Sanitation Hose (sold by the foot)



## Super Lube

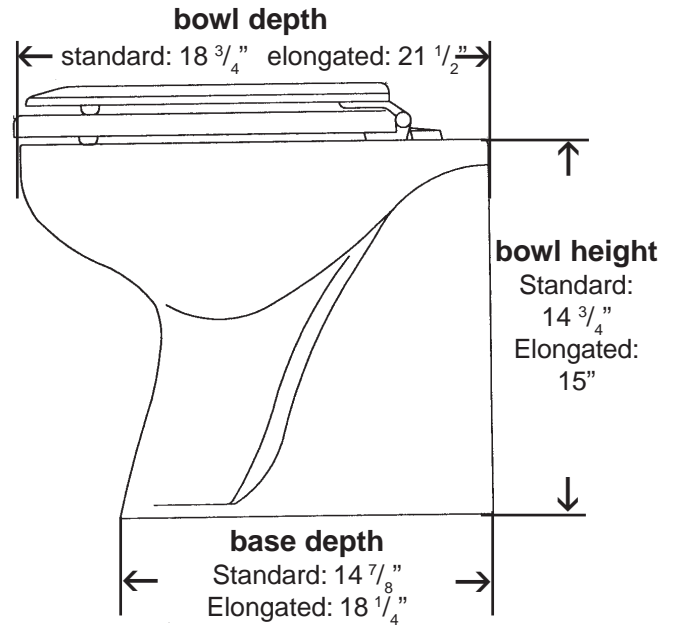
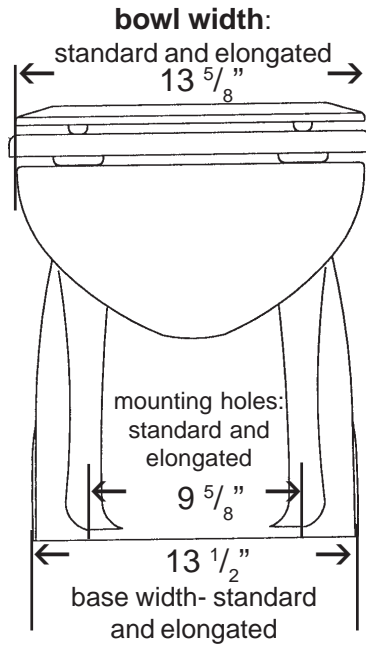
- Multi-purpose synthetic based lubricant

Part #	Description
SL	Super Lube 1/2 oz tube



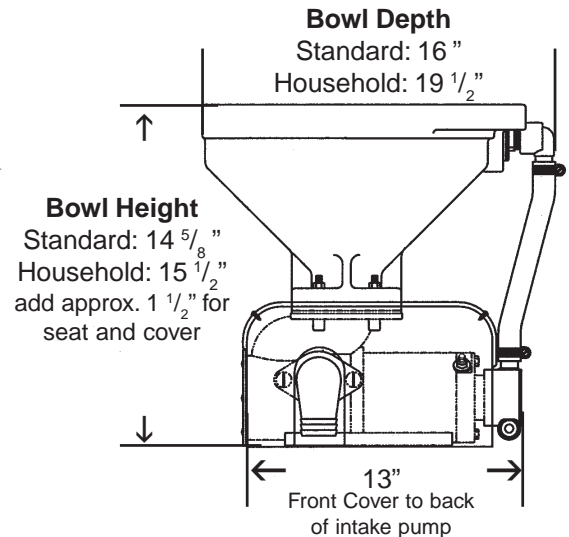
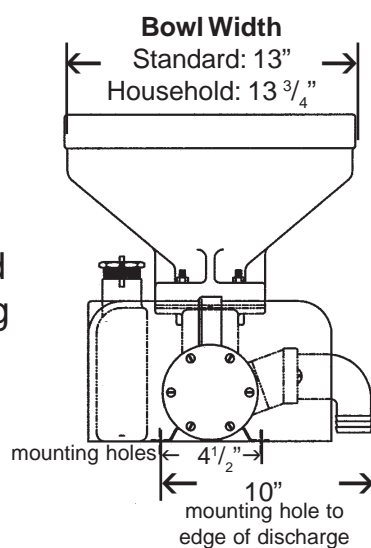
# Atlantes Dimensions

Product information for the Atlantes is located on Page 5 of this catalog

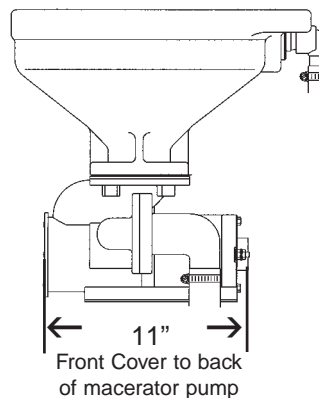


# Crown Head II & Crown Head Dimensions

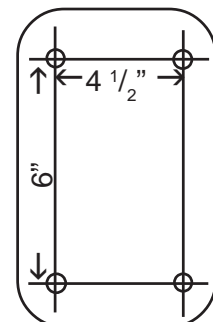
Product information for the Crown Head and Crown Head II is located on Page 6 of this catalog



Bowl Height and width are the same for the Crown Head and Crown Head II the base depth is less on the Crown Head II as the intake pump is mounted remotely

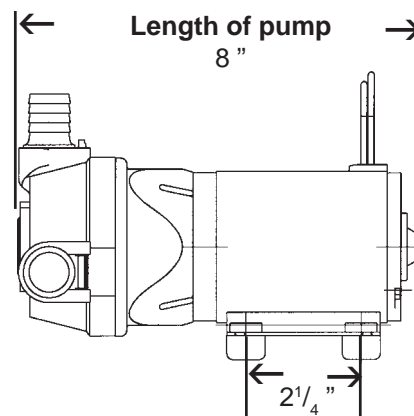
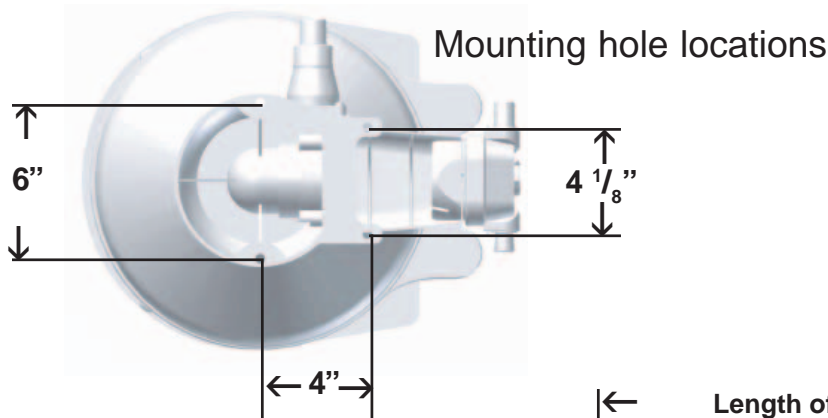
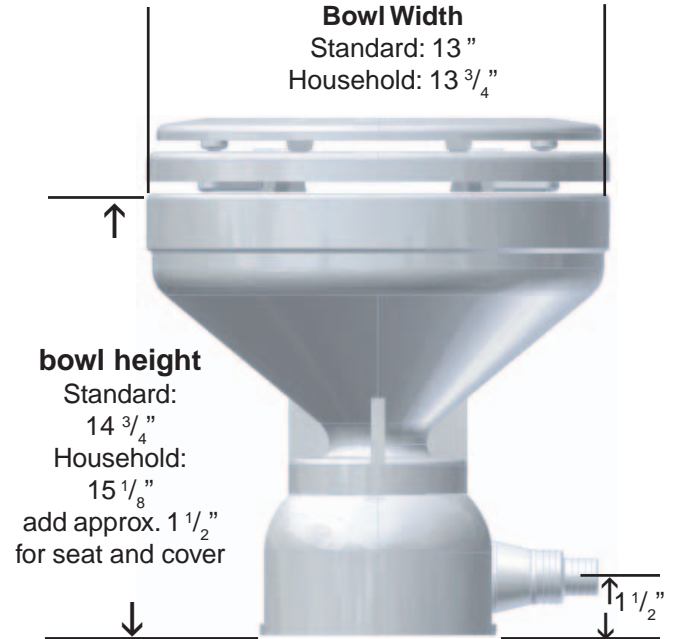
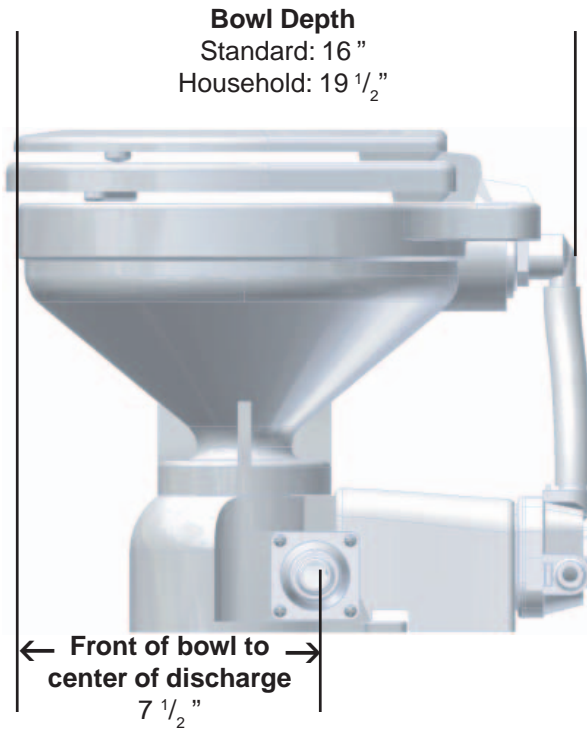


Crown Head and Crown Head II base mounting holes



# SeaEra Dimensions

Product information for the SeaEra is located on Page 7 of this catalog

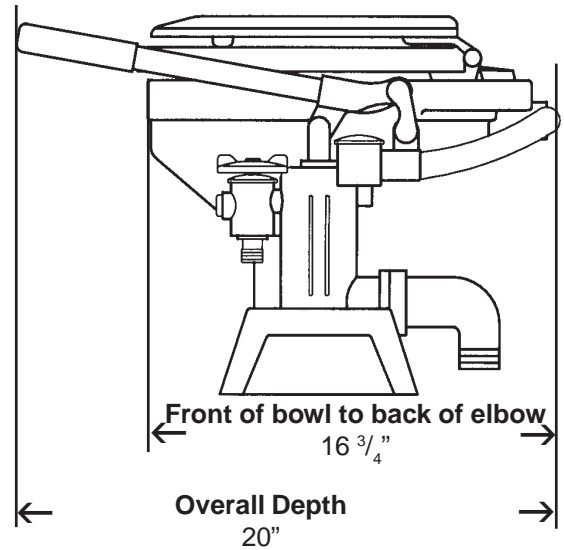
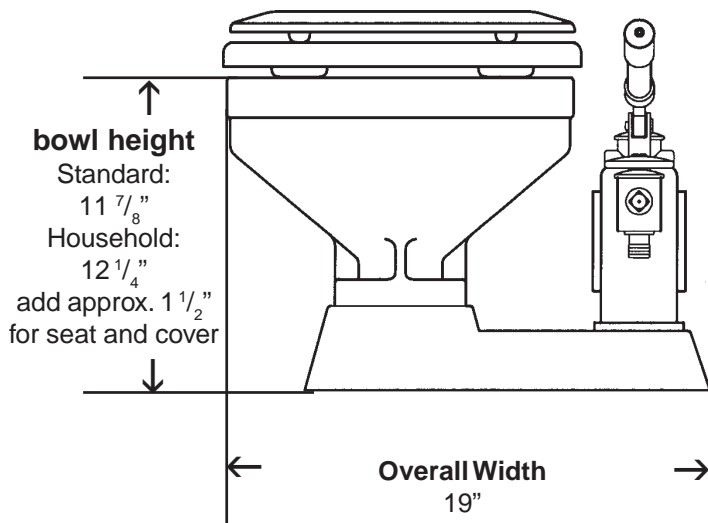


Dimensions for this diaphragm pump apply to all current SeaEra, Atlantes and Crown Head II remote intake pump models

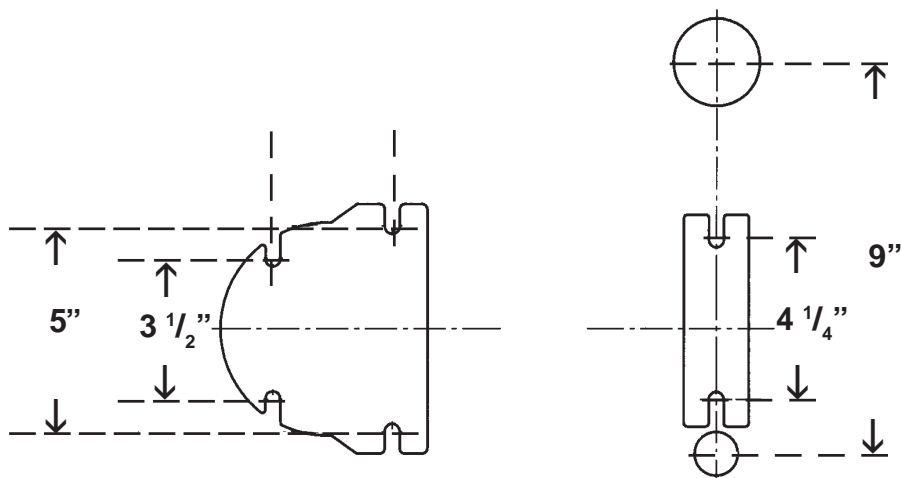


# PHII Dimensions

Product information for the PHII and PHEII is located on Page 8 of this catalog

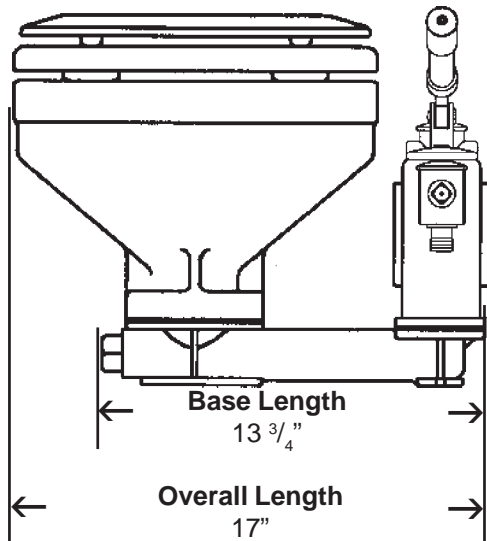


PHII and PHEII base dimensions as viewed from bottom of unit



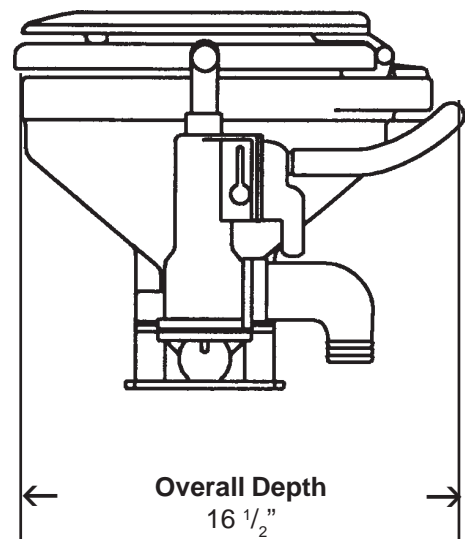
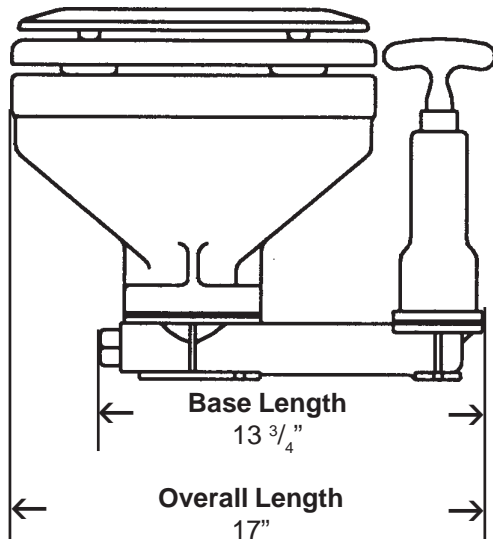
## PHC Dimensions

Product information for the PHC and Compact II is located on Page 9 of this catalog



Side view dimensions are the same as the PHII located on page 25 of this catalog.

## Compact II Dimensions



# Repair Parts and Exploded Views

Most parts are available to be purchased individually, to simplify annual overhaul or repairs we also provide kits that contain the most commonly ordered parts.

The following pages contain exploded parts views of current production items and charts to determine the proper repair kits. Should you require assistance please do not hesitate to contact us.

## DETERMINING PROPER REPAIR KITS FOR ELECTRIC TOILETS:

Product Name	RETROFITS	Repair Kit for Complete Unit	Intake Pump	Discharge Pump
<b>ATLANTES</b> Pressurized Freshwater Model e.g. AF12 01/90 - Current		N/A	N/A	ATDISRK
<b>ATLANTES</b> Remote or Integral Impeller Pump 01/90 - 06/02		order intake and discharge pump kits	ATPUMPRK	ATDISRK
<b>ATLANTES</b> Remote or Integral Diaphragm Pump 06/02 - current		order intake and discharge pump kits	DIAPUMPRK	ATDISRK
<b>CROWN HEAD</b> DEEP DRAFT(DD) -12V draws 50 amps. 01/67 - 01/87	<b>CR1</b> - Converts DD to CD series macerator	CDRK	CHPUMPRK	
<b>CROWN HEAD</b> STANDARD - 12V draws 30 amps. 01/65 - 01/87		CHRK	CHPUMPRK	CHDISRK
<b>CROWN HEAD</b> CD SERIES (Centrifugal Discharge) 12V draws 36 amps. 02/87 - Current		CSRK	CDPUMPRK	CDDISRK
<b>CROWN HEAD II</b> Pressurized Freshwater Model e.g. C2F12 12/90 - Current		N/A	N/A	CDDISRK
<b>CROWN HEAD II</b> Models with SPP Intake Impeller Pump 12/90 - 4/95		order intake and discharge pump kits	CDPUMPRK	CDDISRK
<b>CROWN HEAD II</b> Models with AM200 Intake Impeller Pump 04/95 - 06/02		order intake and discharge pump kits	ATPUMPRK	CDDISRK
<b>CROWN HEAD II</b> Models with Intake Diaphragm Pump 06/02 - Current		order intake and discharge pump kits	DIAPUMPRK	CDDISRK
<b>PHE and PHEII refer to chart for manual toilets</b>				
<b>SEAERA</b> All models			DIAPUMPRK	SEADISRK

Refer to Page 36 for a listing of parts contained in the above repair kits

## Atlantes Parts List

<b>PART #</b>	<b>DESCRIPTION</b>
1118(8)	1/4" Locking Star Washer
1124(2)	1/4-20 x 1/2" Rnd. Hd. Screw S/S
1222AW	90° Discharge w/Flange
1222B	Straight Discharge
1226B(7)	1/4-20 Nut S/S
1236AW	Spud Assembly
1236E	Bowl Elbow
1239(2)	Flat Washer
162100W	Upper Housing Assembly
162135	Cone Seal (4)
162200W	Middle Housing Assembly
162225	O-Ring
162300W	Lower Housing Assembly
162305	Lower Housing
162310	Diaphragm
162315	Piston (4)
162320	Piston Seat (4)
162325A	Bearing Plate Assembly
162405	3/4" Hose Barb 90° Fitting
162410	3/4" Hose Barb Straight
162415	Plug Fitting
162420 (3)	Fitting Clip
162425	O-Ring
1660*A	Pump Motor
31-102	Motor Shaft Seal
41-260	Bowl Elbow (Freshwater Units not shown)
AM001+	Atlantes Bowl (white)
AM011	Elbow: 3/4" 90 degree FIPT x FIPT
AM012	Nipple: 3/4" x 2" PVC SCH. 80
AM020A	Pump Mounting Bracket
AM028	Bushing
AM030+	Atlantes Seat & Cover (white)
AM031	Discharge Connection (3 pieces)
AM060*	Continuous Duty Solenoid
AM101*A	Motor
AM110	Discharge Pump Back
AM114	Discharge Pump "O" Ring
AM120W	Discharge Impeller Assy.
AM130	Discharge Pump Body
AM132	Discharge Macerator Teeth
AM140	Discharge Cover
AM141	Discharge Cover O-Ring
AM203	Remote Inlet Pump Base (not shown)
AM502§	Flush Lever
AM503§	Water Saver Lever
AM503W	Lever Assembly Complete (parts included §)
AM504	Flush Control Nut
AM505§	Flush Cam
AM506§	Water Saver Cam
AM507W	Timer Mounting Plate and Splash Guard for A5
AM510	Intake Pump Mounting Bracket
AM515	Atlantes Pump Mounting Bracket
AM516	Intake "L" Hose
AM517	Intake "J" Hose
AM521	Fuse/Solenoid Bracket
ATC*	Flush Control Circuit Board
AWH01	Wire Harness (not shown)
C252	Fuse Block
C254	Joker Valve
CH121	Macerator
CH42 (2)	3/4" Reinforced Hose
CH43(5)	Hose Clamp S/S
F005	1/4-20 x 5/16 SS Hex SOC
F012	#6 1/4" Pan Hd. S/S Screw
F020	#10 x 1/2 STSM Screw
F030(1)	1/4-20 x 2" Rnd. Hd. Screw S/S
F035(3)	Isolation Nut
F069	1/4" Fiber Washer
F071	Nylon Shoulder Washer (not shown)
F084§	8-32 x 1/2" Flat Hd. Hex Socket Screw S/S
F086VT(2)	1/4-20 x 1 3/4" Rnd. Hd. Screw S/S

<b>PART #</b>	<b>DESCRIPTION</b>
F111(4)	10-32 S/S Nut
F122VT(2)	10-32 x 3/8" Set Screw S/S
F142VT(8)	10-32 x 5/8" Pan Hd. S/S Screw (not shown)
F144(2)	#10 S/S Flat Washer
F145VT(1)	10-32 x 1 3/4" Pan Hd. SLTD S/S Screw
F146VT(2)	1/4-20 x 1 1/4" Rnd Hd. Screw S/S W/VT
F147VT(2)	3/8-16 x 1 1/2" Rnd Hd. Screw S/S
F148VT(8)	8-32 x 7/16" S/S Truss Hd. Screw
F153	#4 x 1/2 Oval Screw
F161 (4)	#6 x 1/2 Hex Hd Screw
F162VT	Mounting Bolt
F170	6-32 x 7/8 Screw
HLWQB(2)	1/4" Split Lock Washer
HSB1	1/4-20 Brass Screw
JHSD*	1" Intake Solenoid Valve, Marinized (not shown)
M23A(17)	#10 Lockwasher S/S
M30(2)	1/4-20 Brass Nut
M31(4)	1/4" Brass Flat Washer
RNI	Nylon Shoulder Washer
RPR2(2)	1/8 1/4" Pop Rivet
RTAH24D	Transformer/Rectifier for 120/240 VAC (not shown)

### A6 WALL SWITCH FLUSH CONTROL

1226A	1/4-20 X 1 1/4" Rnd. Hd. Screw S/S
31-604	Cable for Control Panel (14 ft.)
AM028	Bushing
AM507AW	Timer Mounting Plate and Splash Guard for A6
ATW*	Flush Control PCB Assy.
ATW640	A6 Wall Panel with Bezel Back Plate (White)
ATW640A	A6 Wall Panel with Bezel Back Plate (Bone)
ATW640B	A6 Wall Panel with Bezel Back Plate (Black)
F012(2)	#6 1/4 Pan Hd. S/S Screw

### SOLENOID VALVE

CWPS*A	1/2" GC Solenoid Valve
CWPSMB	Mounting Bracket for CWPS*
PLA7 (2)	1/2" MPT to 3/4" Barbed Nipple

### ATMOSPHERIC VACUUM BREAKER

PLA5	1/2" MPT PVC Nipple
PLA6	1/2" FPT to 3/4" Barbed Elbow
PLA7	1/2" MPT to 3/4" Barbed Nipple
PLAVB0-5	Atmospheric Vacuum Breaker

### T-CHECK VALVE PARTS LIST

31-307D	Valve Body
31-307D1	Outlet Adapter
31-307E	"O" Ring
31-307W	T-Check Valve Assembly Complete
31-308W	Siphon Check Valve
CH8	Check Valve Spring
CH12	Check Ball

### DEODORANT/SALT FEED PARTS LIST (ADS)

31-301	Salt Feed Tank
31-302	Salt Feed Tank Cap
31-304C	Plastic Tubing Clamp
31-304F	Bulkhead Fitting
31-304G	Bulkhead Fitting Nut
31-304H	Bulkhead Fitting Seal
31-304W	Assembly (includes part #'s 31-304C, 31-304F, 31-304G, 31-304H, 31-305)
31-305	PVC Clear Tubing 1/4"

### CIRCUIT BREAKER/FUSES

	Volts DC	A and AR Models		AF Models	
		Fuse A	Fuse B	Fuse A	Fuse B
Circuit Breaker	12	AM093(20A)	AM091(15A)	AM092(4A)	AM091(15A)
	24	AM091(15A)	AM094(10)	AM092(4A)	AM094(10A)
Fuse	32	EF10(10A)	34-218(5A)	34-218(5A)	34-218(5A)

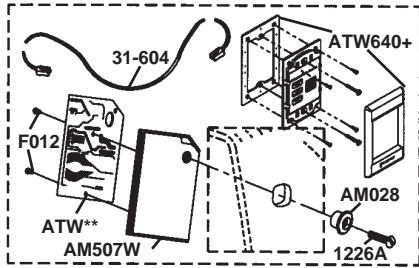
§Parts are NOT included with Wall Switch Flush Control Models

+CHOICE OF COLOR

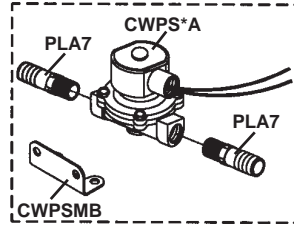
\*SPECIFY VOLTAGE

# EXPLODED PARTS VIEW FOR ATLANTES TOILETS (MANUFACTURED AFTER JUNE 2002)

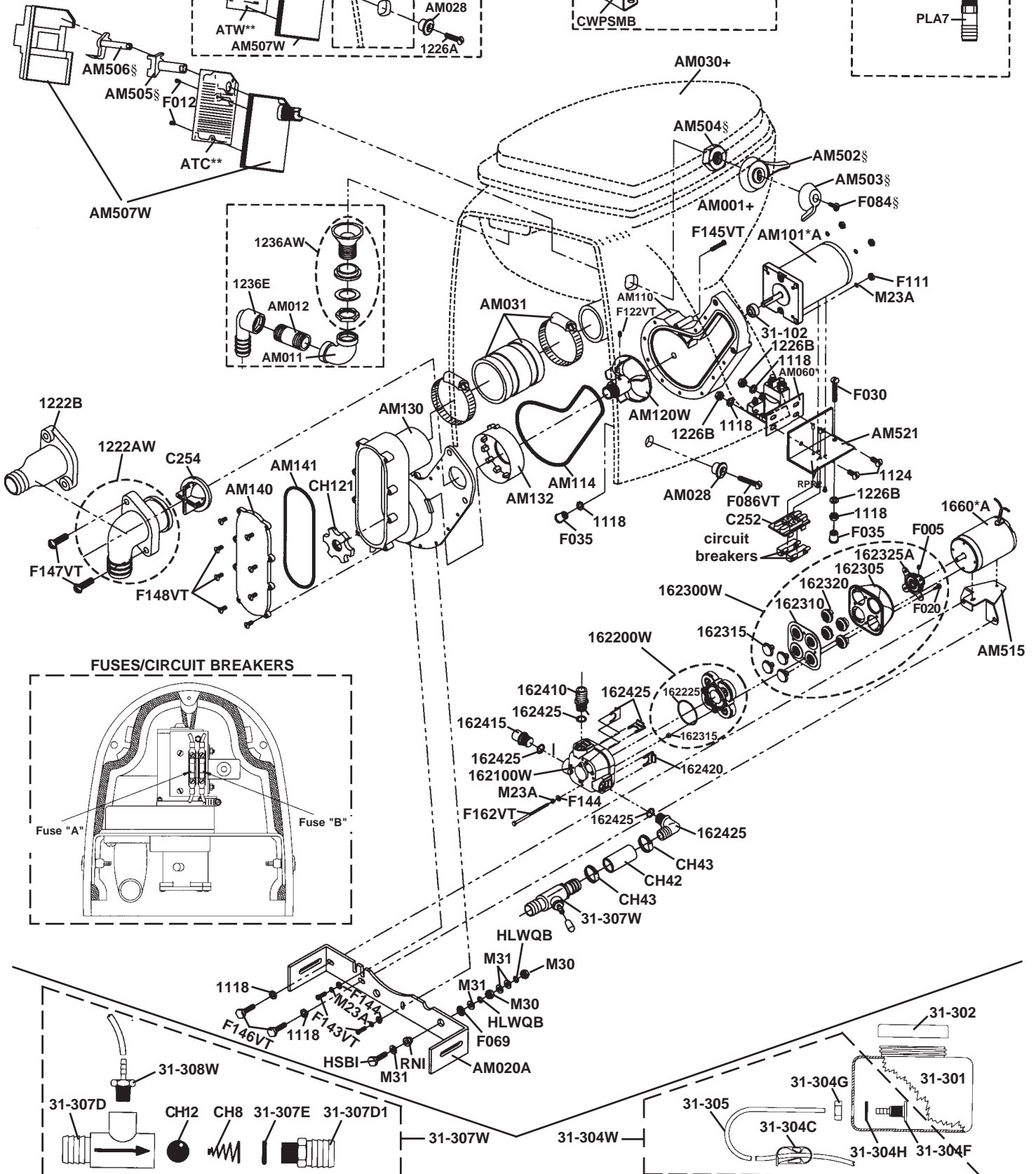
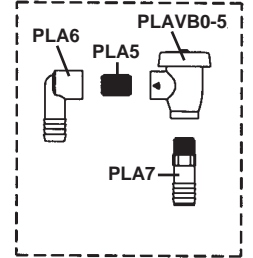
## A6 WALL SWITCH FLUSH CONTROL



## SOLENOID VALVE



## ATMOSPHERIC VACUUM BREAKER



## CROWN HEAD PARTS LIST

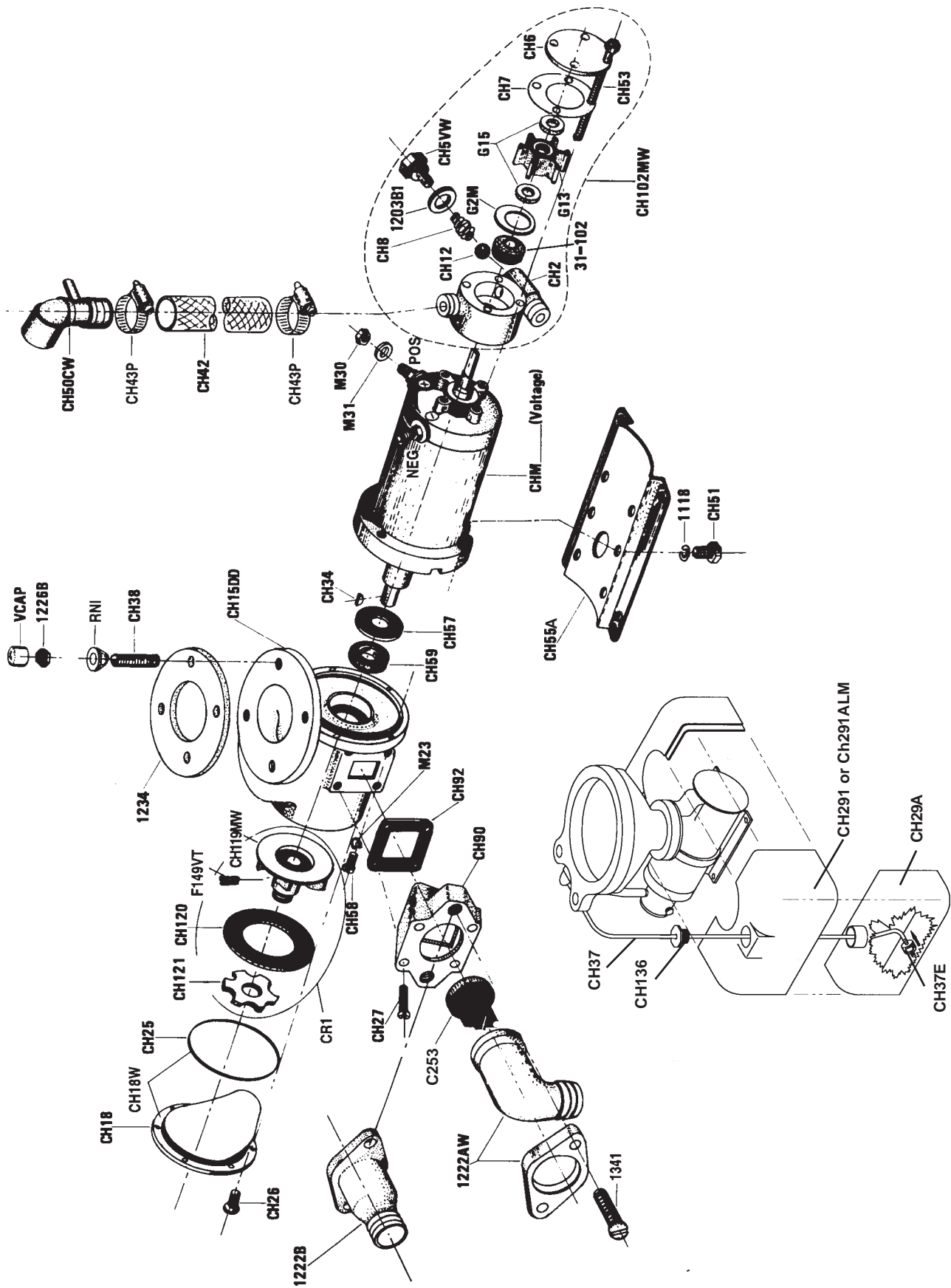
(Quantities are one unless otherwise indicated)

Before ordering, locate required part on exploded parts view to be sure you are ordering the correct part for your CROWN HEAD.

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1118	Lockwasher (4)	G13	Pump Impeller
1203B1	“O” Ring	G15	Impeller Washer (2)
1222AW	Discharge Ell and Flange	G13W	Impeller (G13), Washers [2] (G15), Pump Gaskets (CH7 and CH7A)
1222B	Straight Discharge	G2M	Impeller Wear Plate
1222BW	Straight Discharge Assembly (Incl. 1222B, CH90, CH92, [2]1115, C253, [4]CH27)	M23	Lockwasher (4)
1226B	Bowl Mounting Nut (4)	M30	Hex Nut, Brass (2)
1341	Discharge Screw (2)	M31	Flat Washer, Brass (2)
31-102	Motor Shaft Seal	RNI	Nylon Bowl Mounting Washer (4)
C253	Joker Valve	VCAP	Vinyl Cap (bowl nut cover)
CH102MW	Intake Pump Assembly, complete	<b>MISCELLANEOUS RELATED PARTS</b>	
CH119MW	Discharge Impeller Assy. (Incl. CH119M, [2]F149VT)	<u>Part No.</u>	<u>Description</u>
CH12	Check Ball	1234	Bowl Gasket (fits all Raritan toilets)
CH120	Discharge Pump Wall	1236AW	Bowl Spud Assembly
CH121	Macerator	1237W	Standard Bowl, Round Top Rim (white only), incl. 1236AW
CH136	Siphon Cap for Shroud Bottle	1238A	Seat and Cover for Standard Bowl (white only)
CH15DD	End Bell	1244W	Hi-Boy Bowl (household size), Oval Top Rim (available in white or almond - other designer colors, contact factory), includes 1236AW
CH18W	Front Cover (w/“O” ring)	1245	Seat and Cover for Hi-Boy Bowl
CH2	Pump Body (w/shaft seal)	CDS*	Continuous Duty Solenoid Relay
CH25	Front Cover “O” Ring	CHTT9	Hose Clamp for 1 1/2” I.D. Hose
CH26	Front Cover Screw (6)	CON	Raritan Concentrate, Carton of (12) 2 oz. vials
CH27	Mounting Screw (4)	CSRK	Overhaul Kit (Centrifugal DischargeSeries) Includes: CH25, CH92, 1234, CH12, G13, CH8, CH37E, RNI, CH120, C253, CH59, 31-102, CH7, G15, 1203B1 and CH57
CH291	Shroud (2 pcs.)	CDPUMPRK	Crown Head CD Series & CHII Intake Pump Overhaul Kit (built before 4/95) Includes:1203B1, CH12, G13, G2M, 31-102, CH7 and G15
CH291ALM	Shroud, Almond (2 pcs.)	CDDISRK	Crown Head CD Series Discharge Overhaul Kit; Includes: 1234, CH120, CH57, CH92, C253, CH25 and CH59
CH29A	Shroud Bottle (Concentrate Reservoir)	CR1	Discharge Impeller and Macerator Assy. (incl. CH120, CH121, F149VT[2], and CH119MW)
CH29B	Shroud Screw (2)	PBS	Pushbutton Switch
CH29A1W	Shroud Assembly, Complete w/bottle, cap and siphon	RHT4	Inline Check Valve for 1 1/2” I.D. Hose
CH336W	Siphon Assembly, Complete (Incl. CH136, CH37, CH37E)	RTC*	Raritan Off-delay Timer
CH34	Woodruff Key	RTCH24D	Rectified Transformer (for 120 or 240 VAC input)
CH37	Siphon Tubing	SH	1 1/2” Discharge Hose
CH37E	Siphon Check Valve	SL	Super-Lube General Purpose Waterproof Marine Grease, 1/2 oz. tube
CH38	Bowl Stud (4)	VL 3/4	Vented Loop 3/4”
CH42	Hose	VL 1 1/2	Vented Loop 1 1/2”
CH43P	Hose Clamp (2)	YV	“Y” Valve for 1 1/2” I.D. Hose
CH5VW	Pump Plug, Vented(Incl. 1203B1 O Ring)		
CH50CW	Bowl Elbow w/Siphon Intake		
CH51	Base Screw (4)		
CH52	Rubber Mounting Strip (2) not shown		
CH53	Pump Mounting Screw (4)		
CH55A	Base Plate		
CH57	Slinger		
CH58	End Bell Screw (4)		
CH59	Seal with Stainless Steel Spring		
CH6	Pump Cover Plate		
CH7	Pump Gasket		
CH7A	Pump Gasket (Mfg. before 1988 not shown)		
CH8	Check Valve Spring		
CH90	Discharge Adapter		
CH92	Adapter Gasket		
CHM*	Motor		
F149VT	Set Screw (2)		

\*Specify Voltage

# crown head - Centrifugal Discharge Series



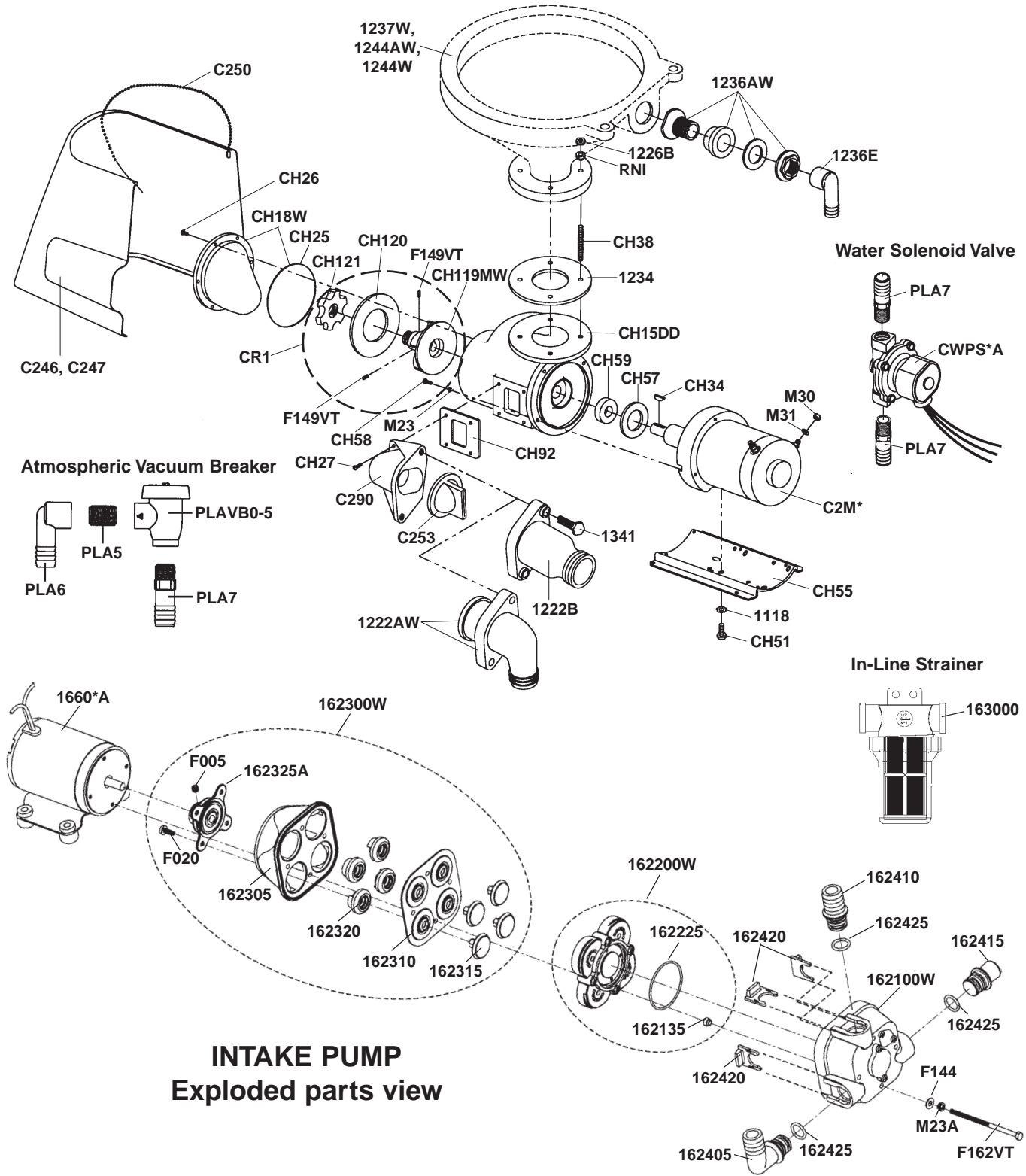
## CROWN HEAD II - Parts List

<b>Part #</b>	<b>Description</b>	<b>Part #</b>	<b>Description</b>
1118	Lockwasher (4)	CH119MWD	Discharge Impeller Assy. includes CH119M, F149VT [2])
1222AW	90 Degree discharge (opt.)	CH120	Discharge Pump Wall
1222B	Straight discharge	CH121	Macerator
1226B	1/4" - 20 S/S Hex Nut (4)	CH15DD	End Bell
1234	Bowl Gasket	CH18W	Front Cover w/"O" Ring
1236AW	Bowl Spud Assembly	CH25	Front Cover "O" Ring
1236E	Bowl Elbow	CH26	Front Cover Screw (6
1237W	Marine-size Bowl Assembly (White) (Not shown)	CH27	Mounting Screw (4)10-32x5/8" S/S
1238A	Marine-size Seat and Cover (White) (Not shown)	CH34	Woodruff Key
1244AW	Household-style Bowl Assembly, (Bone) includes 1236AW	CH38	Bowl Stud (4)
1244W	Household-style Bowl Assembly, (White) includes 1236AW	CH51	Base Mounting Screw (4)
1245	Household-style Seat and Cover (White) (Not shown)	CH52	Rubber Mounting Strip (2), (Not shown)
1245A	Household-style Seat and Cover (Bone) (Not shown)	CH55	Base Plate
1341	Discharge Screw (2)	CH57	Rubber Slinger
162000W	Intake Pump Assembly includes 162100W, 162200W, 162300W	CH58	Fillister Head Screw (4) 10-32x3/4" S/S
162100W	Upper Housing Assembly	CH59	Seal
162200W	Middle Housing Assembly	CH92	Square Rubber Gasket
162300W	Lower Housing Assembly	CR1	Discharge Impeller and Macerator Assembly includes CH120, CH121, F149VT(2), CH119MW
162135	Cone Seal	F005	Set Screw
162225	O-Ring	F020	Piston Fastener (4)
162305	Lower Housing includes 162315	F144	Mounting Bolt Washer (4)
162310	Diaphragm includes 162315	F149VT	Set Screw (2)
162315	Piston (4)	F161	Cap Fastener (4)
162320	Piston Seat (4) includes 162315	F162VT	Mounting Bolt
162325A	Bearing Plate Assembly includes F005, 162315	LWPLUG	3/8" Plastic Plug
162405	3/4" Hose Barb - 90° Fitting	M23A	#10 Lockwasher (4)
162410	3/4" Hose Barb - Straight Fitting	M30	1/4" - 20 Brass Nut (4)
162415	Plug Fitting	M31	#14 Brass Washer (4)
162420	Fitting Clip (3)	RNI	Nylon Shoulder Washer (4)
162425	Fitting O-Ring (3)	<b>WATER SOLENOID VALVE</b>	
163000	In-line Strainer	CWPS*A	1/2" GC Solenoid Valve
164000	Heavy Duty Push Button Switch (Not shown)	CWPSMB	Mounting Bracket for CWPS (Not shown)
1660*A	Remote Motor	PLA7	Male Adapter 1/2 MNPTx3/4 Barb (2)
166000	Diaphragm Intake Pump Assembly 12V includes 162100W, 162200W, 162300W, 1660*A	<b>ATMOSPHERIC VACUUM BREAKER</b>	
166100	Diaphragm Intake Pump Assembly 24V includes 162100W, 162200W, 162300W, 1660*A	PLAVB0-5	Atmospheric Vacuum Breaker
166200	Diaphragm Intake Pump Assembly 32V includes 162100W, 162200W, 162300W, 1660*A	PLA5	1/2" MPT PVC Nipple
31-102	Motor Shaft Seal w/316 Spring (Not shown)	PLA6	1/2" FPT to 3/4" Barbed Elbow
C2M*	Crown Head II Motor, 12, 24, 32 VDC	PLA7	Male Adapter 1/2 MNPTx3/4 Barb
C246	Lower Cover, Bone, Household-style	<b>ADDITIONAL ACCESSORIES AVAILABLE</b>	
C247	Lower Cover, White, Household-style	C2DC*	Crown II Deluxe Control (Not shown)
C250	Beaded Wire Tie	FWSC	Fresh Water Strainer (Not shown)
C253	Joker Valve	RTC*	Raritime Solid State Timer with solenoid (Not shown)
C290	Discharge Adapter	SH	Sanitation Hose (Not shown)
		SWF100+	Flush Control (Not shown)
		TWK	Toilet Water Kit (Not shown)
		VL1½W	Vented Loop 1½" (Not shown)

\* Specify Voltage  
+ Specify Color



# CROWN HEAD II - EXPLODED PARTS VIEW (Manufactured after June 2002)

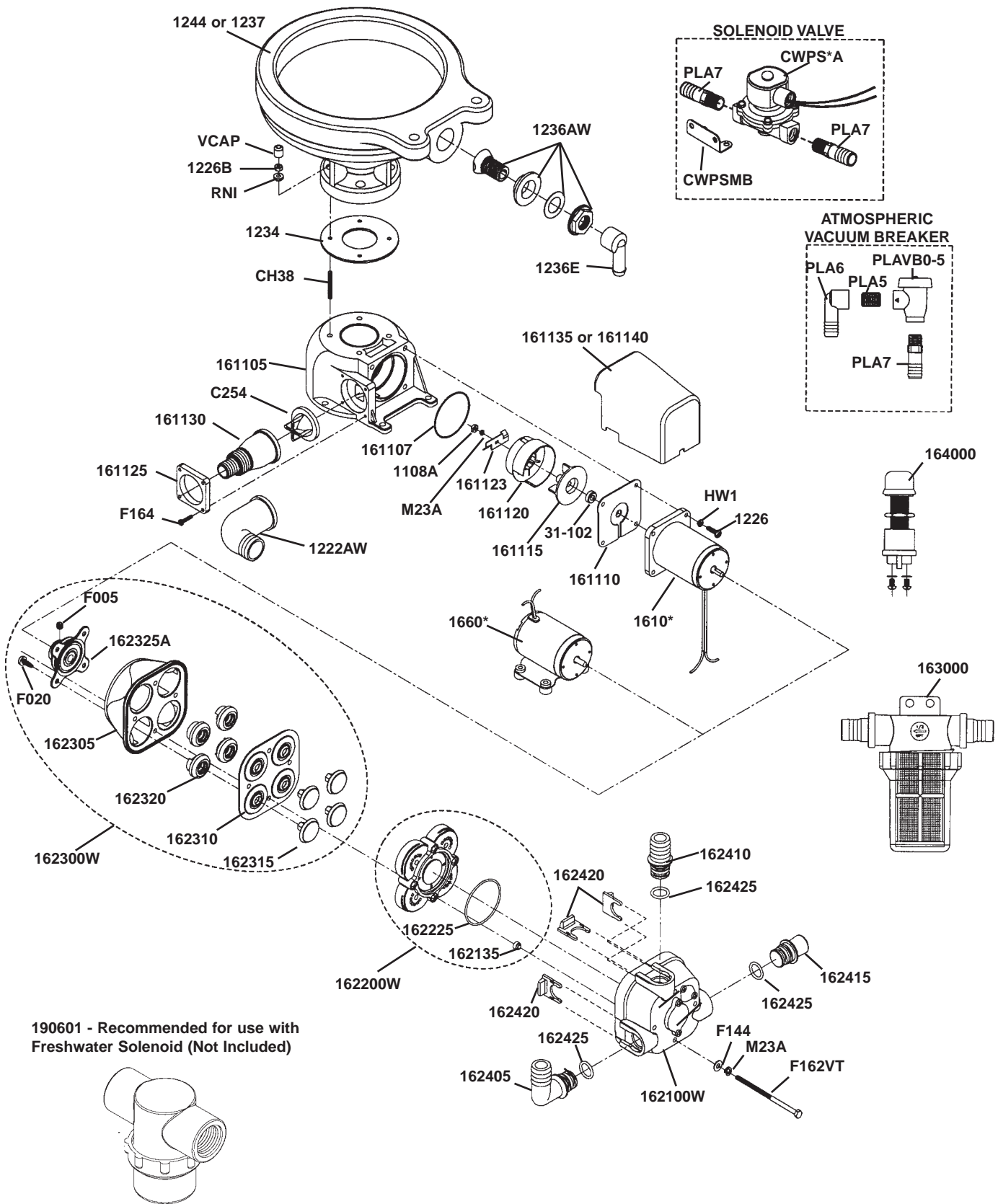


## SeaEra PARTS LIST

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1108A	Macerator Nut	164000	Push Button Switch
1222AW	90° Discharge Fitting	31-102	Shaft Seal
1226	Mounting Screw (4)	41-260	Bowl Elbow (Freshwater Models Only)
1226B	1/4-20 Hex Nut (4)	C254	Joker Valve
1234	Bowl Gasket	CH38	1/4-20 Threaded Stud (4)
1236AW	Bowl Spud Assembly	F005	Set Screw
1236E	Bowl Elbow	F020	Piston Fastener (4)
1237	Marine-size Bowl	F144	Mounting Bolt Washer (4)
1244	Household-style Bowl	F162VT	Mounting Bolt
1610*	Motor	F164	Discharge Mounting Flange Fastener(4)
161105	Base	HW1	Mounting Screw Lockwasher (4)
161107	Seal Plate O-Ring	M23A	Macerator Lockwasher (5)
161110	Seal Plate	<b>Additional Parts Included with</b>	
161115	Impeller	<b>INTEGRAL MODELS</b>	
161120	Impeller/Macerator Housing	161140	Motor Cover Integral
161123	Macerator Blade	<b>Additional Parts Included with</b>	
161125	Discharge Mounting Flange	<b>REMOTE MODELS</b>	
161130	Discharge Fitting	161135	Motor Cover
162135	Cone Seal	1660*	Intake Motor
162225	O-Ring	166000	Remote Intake Pump, 12V DC
162305	Lower Housing includes #162315	166100	Remote Intake Pump, 24V DC
162310	Diaphragm includes #162315	166200	Remote Intake Pump, 32V DC
162315	Piston (4)	<b>Additional Parts Included with</b>	
162320	Piston Seat (4) includes #162315	<b>FRESHWATER MODELS</b>	
162325A	Bearing Plate Assembly includes #162315	161135	Motor Cover
162405	3/4" Hose Barb - 90° Fitting	PLAVB0-5	Atmospheric Vacuum Breaker
162410	3/4" Hose Barb - Straight Fitting (2)	PLA5	1/2" MPT PVC Nipple
162415	Plug Fitting	PLA6	1/2" FPT to 3/4" Barbed Elbow
162420	Fitting Clip (3)	PLA7	1/2" GC Solenoid Valve
162425	Fitting O-Ring (4)	CWPS*A	1/2" GC Solenoid Valve
162100W	Upper Housing Assembly	CWPSMB	Water Solenoid Valve Mounting Bracket
162200W	Middle Housing Assembly	<b>Repair Kits</b>	
162300W	Lower Housing Assembly	DIAPUMPRK	Diaphragm Pump Repair Kit
163000	Inline Strainer	SEADISRK	SeaEra Discharge Repair Kit

\* Specify DC Voltage (12, 24, 32)

# SeaEra Exploded Parts View



## LIST OF PARTS CONTAINED IN ELECTRIC TOILET REPAIR KITS:

<b>ATDISRK</b>	<b>ATLANTES DISCHARGE PUMP KIT</b>	<b>QTY</b>	<b>CHDISRK</b>	<b>CROWN HD.(PRE-10/87)</b>	<b>QTY</b>
31-102	MOTOR SHAFT SEAL	1	1234	BOWL GASKET WHITE	1
AM031	2 X 2 PVC CONNECTION	1	C253	C253 JOKER VALVE RED	1
AM114	DISCHG.PUMP O-RING	1	CH117W	FLAPPER VALVE ASSY STD.	1
AM141	O-RING	1	CH25	CH: FRONT COVER O-RING	1
C254	C254 JOKER VALVE	1	CH57	RUBBER SLINGER	1
SL1CC	SUPER LUBE: 1CC PACKET	2	CH59	SEAL: 316 S/S SPRING	1
VT	VIBRA-TITE PACKETS	2	CH91	ROUND RUBBER GASKET	1
			CH92	SQUARE RUBBER GASKET	1
			M13	O-RING	2
<b>ATPUMPRK</b>	<b>ATLANTES &amp; CHII (POST 4/95)</b>	<b>QTY</b>	<b>CHPUMPRK</b>	<b>CROWN HD.(PRE-10/87), GM,</b>	<b>QTY</b>
31-102	MOTOR SHAFT SEAL	1	CH11	PUMP SHAFT SEAL	1
31-307E	O-RING:T-CHECK ASSY/RCV	1	CH12	CHECK BALL: 5/8	1
AM220	INLET PUMP IMPELLER	1	CH7A	PUMP GASKET	1
AM231	ATLANTES INLET PUMP FRONT	1	G13	G13W PUMP IMPELLER	1
AM514	O-RING	1	G15	TEFLON IMPELLER WASHER	2
CH12	CHECK BALL: 5/8	1	G2AS	BRASS WEAR PLATE	1
G15	TEFLON IMPELLER WASHER	2	G4	PLUG WASHER	1
G2AS	BRASS WEAR PLATE	1	SL1CC	SUPER LUBE: 1CC PACKET	2
SL1CC	SUPER LUBE: 1CC PACKET	4			
<b>CDDISRK</b>	<b>CROWN HD. CD SERIES DISCH</b>	<b>QTY</b>	<b>DIAPUMPRK</b>	<b>DIAPHRAGM PUMP KIT</b>	<b>QTY</b>
1234	BOWL GASKET WHITE	1	162200W	MIDDLE HOUSING	1
C253	C253 JOKER VALVE RED	1	162310	DIAPHRAGM	1
CH120	DISCHG.PUMP WALL, BLACK	1	162315	PISTON	4
CH25	CH: FRONT COVER O-RING	1	162425	O-RING	3
CH57	RUBBER SLINGER	1	F172	SCREW: 10 X 1/2	4
CH59	SEAL: 316 S/S SPRING	1			
CH92	SQUARE RUBBER GASKET	1			
SL1CC	SUPER LUBE: 1CC PACKET	2			
<b>CDPUMPRK</b>	<b>CROWN HD.CD SERIES</b>	<b>QTY</b>	<b>SEADISRK</b>	<b>SEAERA DISCHARGE KIT</b>	<b>QTY</b>
1203B1	PH: INLET VALVE O-RING	1	1234	BOWL GASKET WHITE	1
31-102	MOTOR SHAFT SEAL	1	161107	O-RING	1
CH12	CHECK BALL: 5/8	1	31-102	MOTOR SHAFT SEAL	1
CH7	PUMP GASKET	1	C254	C254 JOKER VALVE	1
G13	G13W PUMP IMPELLER	1	RNI	NYLON SHOULDER WASHER	4
G15	TEFLON IMPELLER WASHER	2	SL1CC	SUPER LUBE: 1CC PACKET	1
G2M	WEAR PLATE	1	VCAP	VINYL CAP	4
SL1CC	SUPER LUBE: 1CC PACKET	2			

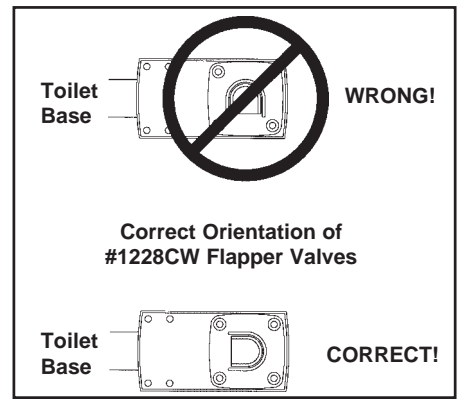
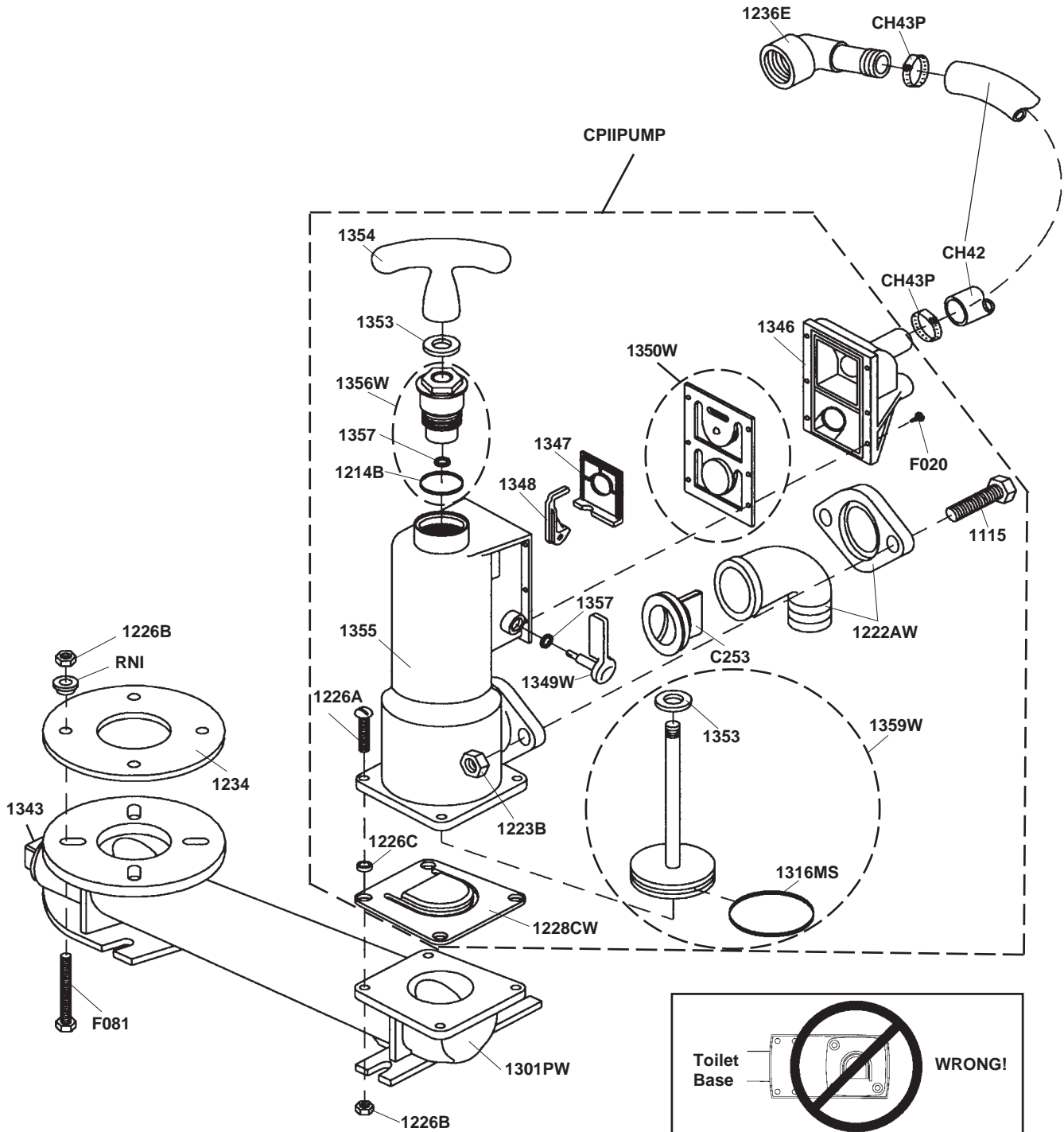
## DETERMINING PROPER REPAIR KITS FOR MANUAL TOILETS:

<b>Product Name</b>	<b>RETROFITS</b>	<b>Repair Kit</b>
<b>COMPACT</b> 0/72 - 1994	<b>CPRKII</b> Converts CP to CPII	CPRK
<b>COMPACT II</b> 1994 - Present		CPRKII
<b>PH &amp; PHE</b> PH = Manual only PHE = electric or manual 01/68 - 11/81	<b>PHIIPUMP</b> Converts a PH to PHII	PHRK
<b>PHII &amp; PHEII</b> Inlet knob - 1/4 turn Piston - U cup seal with snap ring 11/81 - 06/92	<b>PHECKII -</b> Converts manual PHII to Electric operation	PHRKII
<b>PHII &amp; PHEII</b> Inlet knob - 1/4 turn Piston - hex head nut seal 06/92 - Current		PHRKIIC

## PARTS FOR COMPACT II MARINE TOILETS

<b>Part No.</b>	<b>Part Name</b>	<b>Part No.</b>	<b>Part Name</b>
1115	3/8 - 16 x 1 1/2 Hex HD S/S	CH42	Hose (3/4" I.D.)
1214B	"O" Ring	CH43P	Hose Clamp, Nylon (2)
1222AW	90° Discharge Ell w/flange	F020	#10 Self-Tapping Screw (6)
1222B	Discharge Fitting - Straight (Optional, not shown)	F081	Hex head Cap S/S Screw (1/4-20 x 2") (4)
1223B	3/8 - 16 S/S Nut (2)	<b>MAJOR SUBASSEMBLIES</b>	
1226A	1/4 - 20 x 1 1/4", RH S/S Screw(4)	CPIILBA	Compact II Pump and Base Assy, Complete
1226B	1/4 - 20 Nut, S/S (8)	CPIIPUMP	Compact II Pump Assy. Complete
1226C	Plastic Spacer Washer (4)	<b>BOWL AND SEAT</b>	
1228CW	Flapper Valve Assembly	1234	Bowl Gasket
1301PW	Toilet Base Assembly (w/drain plug)	1236AW	Spud Assembly (supplied w/bowls) (not shown)
1316MS	Piston "O" Ring	1236E	Bowl Elbow
1343	Plastic Drain Plug, 1½" NPT	1237W	Marine-size Bowl Assembly (w/1236AW spud assy.)
1346	Check Valve Housing	1238A	Marine-size Seat and Cover
1347	Separator Plate	RNI	Shoulder Washer (4)
1348	Cam	<b>ADDITIONAL ACCESSORIES</b>	
1349W	Shutoff Handle w/seal	<b>163000</b>	In-Line Strainer
1350W	Check Valve Assy. (1350,1351 & 1352)	<b>1PCP22</b>	C.P., Cleans Potties, Bio-enzymatic, 22 oz.
1353	Bumper Washer (2)	<b>TWK</b>	Raritan Toilet Water Kit. Allows Raritan "Concentrate" to be metered into the flush water.
1354	Flushing Handle	<b>CON22</b>	Raritan "Concentrate" head deodorant and lubricant. Used with TWK. Replacement bottle 22oz.
1355	Pump Housing, Compact II	<b>CPRKII</b>	Compact II Repair Kit
1356W	Seal Cartridge Assy. (1214B & 1357)	<b>SH</b>	1 1/2" I.D. Sanitation Hose (sold by the foot)
1357	U-Cup Seal (2)	<b>SL</b>	Super-Lube 1/2 oz. tube
1359W	Piston Rod Assy.(1316MS, 1353 & 1359A)		
C253	Joker Valve		

# EXPLODED PARTS VIEW, COMPACT II MARINE TOILET



## PARTS FOR RARITAN PHII AND PHEII MARINE TOILET

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
1115	3/8"-16 x 1 1/2" Hex Head S/S Bolt(2)	1106W	Coupling w/Sleeve, complete
1124	1/4"- 20 x 1/2" R.H. Machine Screw	1108A	Motor Mounting Nut (2)
1200CW	Pump Housing	1109*	Motor (12, 24, 32, 120V DC)
1201	Intake and Discharge Valve Ball (2)	1110	"O" Ring
1202	Intake and Discharge Valve Gasket (2)	1112	Link
1203BW	Intake Valve Body w/"O" Rings (1203B, 1203B1, 1203B2, 1203B3)	1113	Link Pin, Worm Gear Pin
1203W	Air Valve Assembly	1115	3/8" - 16 x 1 1/2" Hex Head S/S Bolt
1204B	Intake Valve Cap	1115A	3/8" - 16 Hex Jam Nut S/S
1206W	Handle	1116BW	Connecting Rod Assy. (1116B, 1114B, 1114D)
1209BW	Valve Handle	1117B	Crank Bolt
1210	Handle Socket	1118	Lock Washer (4)
1210A	Cotter Pin (4)	1119/1119A	Hex Head Screw (4)
1211PL	Piston Rod Yoke	1120W	Worm Gear Assy.(1111, 1113, 1120)
1212W	Piston Rod Assembly w/"O" Ring (1232MS)	1122	"O" Ring
1213W	Piston Rod Seal Assembly, Pre-6/92, (Incl. 1213A, B, C, D)	1123	Gear Box Cover
1213A	"U" Cup Seal (Pre-6/92)	1124	1/4"- 20 x 1/2" R.H. Machine Screw(4)
1213B	Delrin Washer (Pre-6/92)	M23A	#10 Lockwasher S/S (2)
1213C	Snap Ring (Pre-6/92)		
1213D	White Neoprene Washer (Pre-6/92)		
1214W	Piston Shaft Seal Cartridge Assy (1214, 1214A, 1214B) Fits pumps mfg. after 6/92		
1216	Clevis Pin (3)		
1217	Discharge Valve Cap		
1218	Fulcrum Link (2)		
1222AW	90° Discharge w/Flange (Std.)		
1222B	Straight Discharge (Opt.)		
1223B	Flange Nut 3/8"-16 S/S (2)		
1226	Housing Screw 1/4"-20 x 1" S/S (4)		
1226B	Nut, 1/4"-20 S/S (8)		
1228CW	Flapper Valve Assembly (1/2" Holes)		
1232MS	Piston "O" Ring		
1234	Bowl Gasket		
1236E	Bowl Elbow		
1246W	Base Cover (2 pcs.)		
1248W	Base w/Plug		
1249	Base Plug		
1250W	Base and Cover Assy.(1246W and 1248W)		
C253	Joker Valve		
CH42	Hose (3/4" I.D.)		
CH43P	Hose Clamp (2)		
F005	1/4"- 20 x 5/16" S/S Socket Set Screw		
F081	Bowl Bolt 1/4"-20 x 2 S/S Hex head		
LWS	Intake and Discharge Valve Spring (2)		
RNI	Nylon Shoulder Washer		

### PARTS FOR ELECTRIC DRIVE

<u>Part No.</u>	<u>Part Name</u>
1100W	Gear Box Housing Assembly
1102	Worm
1104	Ball Bearing
1105	Snap Ring
1106AS	Rubber Connection w/Sleeve

### PHC PARTS

<u>Part No.</u>	<u>Description</u>
1226A	Housing Screw 1/4"-20 x 1 1/4" S/S (4)
1226C	Plastic Spacer Washer (4)
1301PW	Toilet Base Assembly (1301P, 1343)
F081	Bowl Bolt 1/4"- 20 x 2" S/S Hex head

### RARITAN INSTALLATION ACCESSORIES

<u>Part No.</u>	<u>Description</u>
163000	In-Line Strainer
164000	Push button switch
1PCP22	C.P., Cleans Potties, Bio-enzymatic, 22 oz.
CHTII	Compact holding tank - 5 gallons
CON22	Concentrate 22 oz. bottle
SH	Sanitation Hose (sold by the foot)
SL	Super Lube 1/2 oz. tube
TWK	Toilet Water Marine Head Disinfectant Kit
VL 3/4	Vented Loop 3/4"
VL 1 1/2	Vented Loop 1 1/2"
YV	"Y" Valve

### BOWL & SEAT

<u>Part No.</u>	<u>Description</u>
1236AW	Spud assy.
1237W	Marine-size Bowl assy.
1244W	White Household-style Bowl assy.
1238A	Marine-size seat & cover
1245	Household-style seat & cover
1PCP22	Clean Potties, Bio-enzymatic, 22 oz.
VCAP	Vinyl Cap

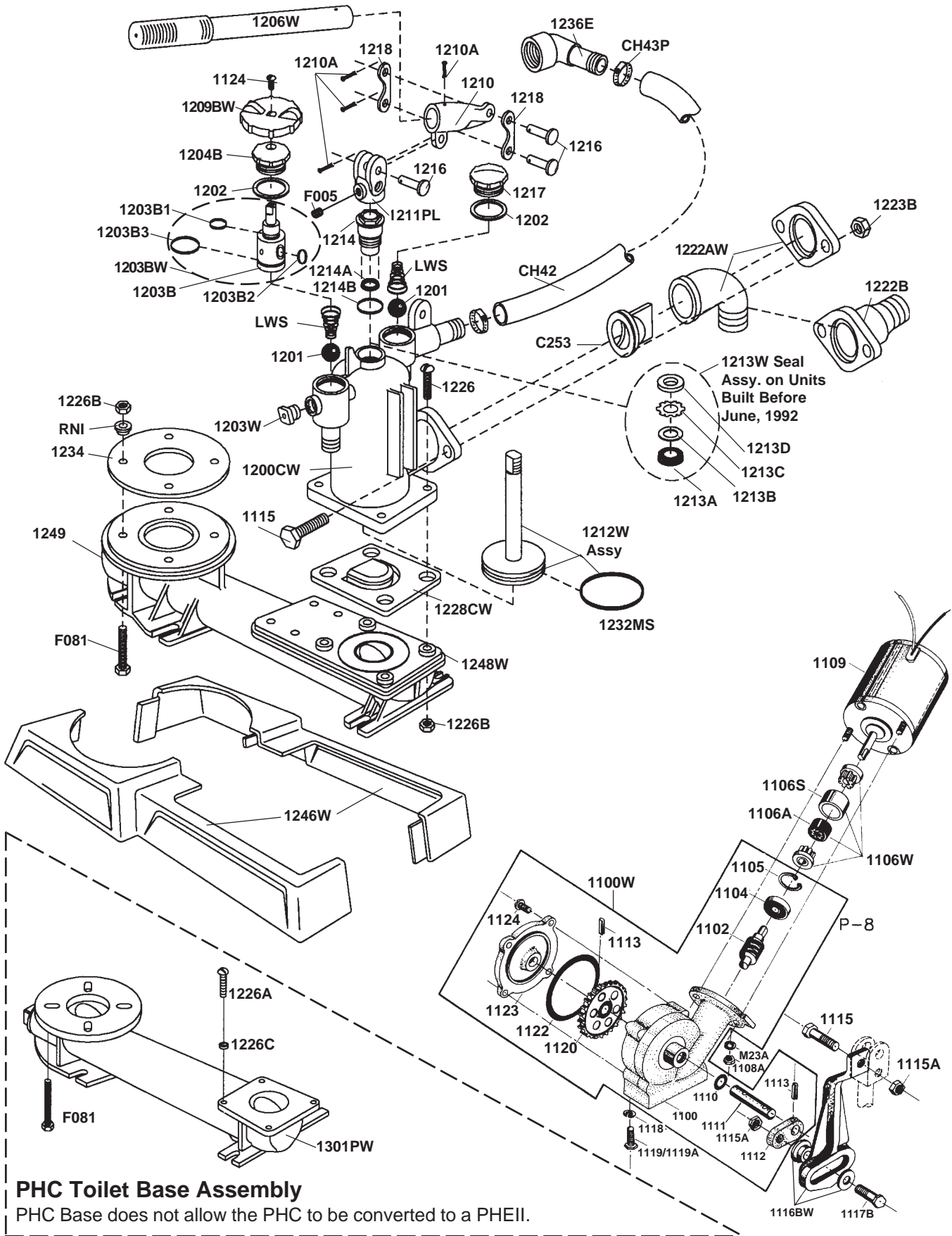
### OVERHAUL KITS

<u>Part No.</u>	<u>Description</u>
PHRKII	PHII&PHEII-U-cup Seal (mfg.before6/92)
PHRKIIC	PHII&PHEII-Cartridge Seal (mfg.after 6/92)
PHIIPUMP	PHII Pump replacement assembly

\*Specify Voltage



# EXPLODED PARTS VIEWS, PHII MARINE TOILET AND PHECKII ELECTRIC CONVERSION UNIT



## PHC Toilet Base Assembly

PHC Base does not allow the PHC to be converted to a PHEII.

<b>CPRK</b>	<b>COMPACT REPAIR KIT</b>	<b>QTY</b>
1226C	PLASTIC SPACER WASHER	4
1228CW	FLAPPER VALVE	1
1234	BOWL GASKET WHITE	1
1304B	SHUT OFF VALVE	1
1305C	SHUT OFF VALVE SHAFT SPRI	1
1306	VALVE SHAFT RETAIN.RING	1
1307 01	VALVE SHAFT O RING	2
1308S	SPRING WASHER	2
1308	WASHER-1/4 NOMIAL TYPE B,	2
1309 01	8-32 X 5/8 PAN HD SLTD M	1
1310W	CHECK VALVE ASSY	2
1314	DELRIN GASKET: CHECK VALV	1
1316	PISTON O-RING	1
1318	PLASTIC WASHER	1
1320	PISTON ROD SEAL	1
1321	SEAL SNAP RING	1
1345 01	WHITE RUBBER WASHER	2
C253	RTO:C253 JOKER VALVE RED	1
CH44	FIBER WASHER	1
RNI	NYLON SHOULDER WASHER	4
SL1CC	SUPER LUBE: 1CC PACKET	2

<b>CPRKII</b>	<b>COMPACT II: REPAIR KIT</b>	<b>QTY</b>
1214B	O-RING	1
1226C	PLASTIC SPACER WASHER	4
1228CW	FLAPPER VALVE	1
1234	BOWL GASKET WHITE	1
1316MS	COMPACT II: MULTISEAL O-R	1
1350W	COMPACT II: INLET FLAPPER	1
1353	COMPACT II: BUMPER WASHER	2
1356	1356W CPII:CARTRIDGE	1
1357	COMPACT II: U-CUP SEAL	2
C253	C253 JOKER VALVE RED	1
RNI	NYLON SHOULDER WASHER	4
SL1CC	SUPER LUBE: 1CC PACKET	2

<b>PHRK 01</b>	<b>PH &amp; PHE REPAIR KIT</b>	<b>QTY</b>
1110	O-RING	1
1202	PH: VALVE CAP GASKET	2
1213A	PH: U-CUP	1
1213B	PH: DELRIN WASHER	1
1213C	SNAP RING	1
1213D	WHITE NEOPRENE WASHER	1
1226C	PLASTIC SPACER WASHER	4
1228CW	FLAPPER VALVE	1
1232MS	PISTON MULTISEAL O-RING	1
1234	BOWL GASKET WHITE	1
C253	C253 JOKER VALVE RED	1
RNI	NYLON SHOULDER WASHER	4
SL1CC	SUPER LUBE: 1CC PACKET	3

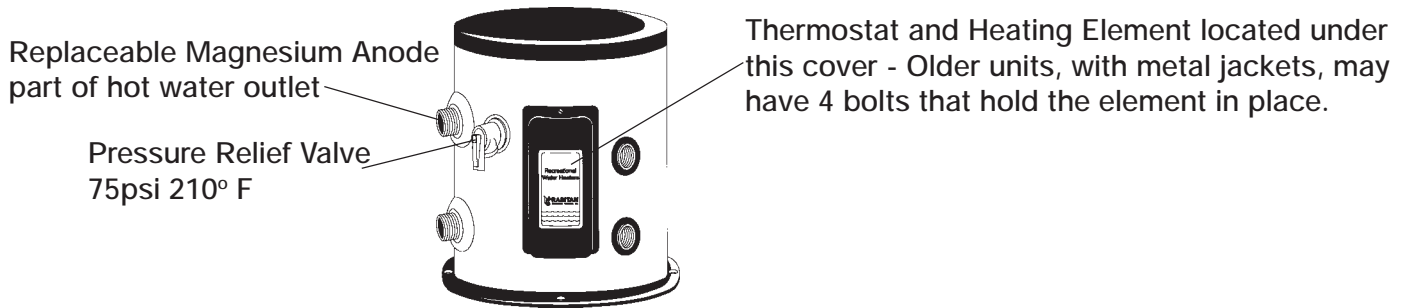
<b>PHRKII</b>	<b>PHII AND PHEII REPAIR KIT</b>	<b>QTY</b>
1201	PH: 3/4 VALVE BALL	2
1202	PH: VALVE CAP GASKET	2
1203B1	PH: INLET VALVE O-RING	1
1203B2	PH:INLET VALVE O-RING	1
1203B3	PH: INLET VALVE O-RING	1
1213A	PH: U-CUP	1
1213B	PH: DELRIN WASHER	1
1213C	SNAP RING	1
1213D	WHITE NEOPRENE WASHER	1
1226C	PLASTIC SPACER WASHER	4
1228CW	FLAPPER VALVE	1
1232MS	PISTON MULTISEAL O-RING	1
1234	BOWL GASKET WHITE	1
C253	C253 JOKER VALVE RED	1
RNI	NYLON SHOULDER WASHER	4
SL1CC	SUPER LUBE: 1CC PACKET	3

<b>PHRKIIC</b>	<b>PHII &amp; PHEII REPAIR KIT</b>	<b>QTY</b>
1201	PH: 3/4 VALVE BALL	2
1202	PH: VALVE CAP GASKET	2
1203B1	PH: INLET VALVE O-RING	1
1203B2	PH:INLET VALVE O-RING	1
1203B3	PH: INLET VALVE O-RING	1
1214A	SHAFT SEAL	1
1214B	O-RING	1
1214	1214W PHII: PISTON	1
1226C	PLASTIC SPACER WASHER	4
1228CW	FLAPPER VALVE	1
1232MS	PISTON MULTISEAL O-RING	1
1234	BOWL GASKET WHITE	1
C253	C253 JOKER VALVE RED	1
RNI	NYLON SHOULDER WASHER	4
SL1CC	SUPER LUBE: 1CC PACKET	3

# LIST OF REPAIR PARTS FOR RUDDERMASTER AND WATER HEATERS:

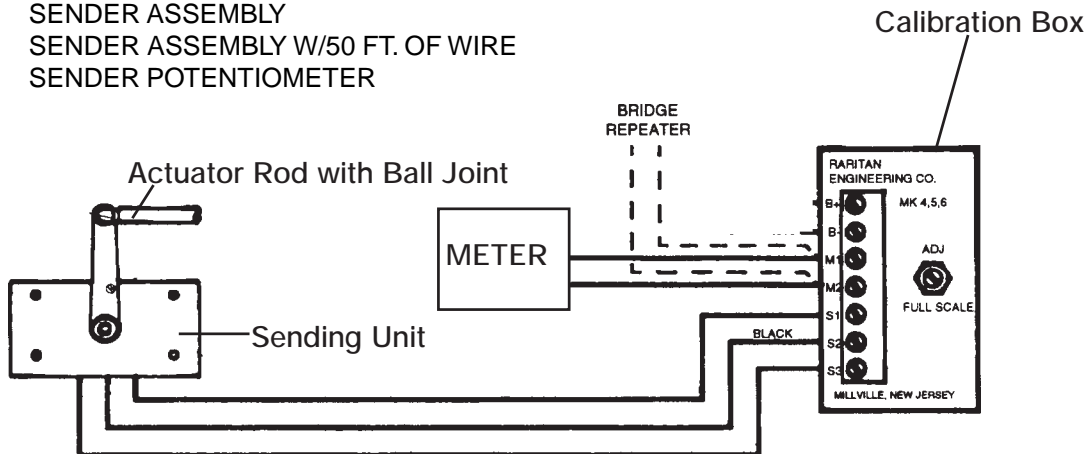
## Water Heater Repair Parts:

1790010	12/20 GALLON MAGNESIUM ANODE
1790610	6 GALLON MAGNESIUM ANODE
WH16	WATER HEATER THERMOSTAT ASSEMBLY
WH1A	BOLT-ON 1250W/115 VAC HEATING ELEMENT W/GASKET
WH1A-S	SCREW-IN 1250W/115 VAC HEATING ELEMENT W/GASKET
WH1B	BOLT-ON 1250W/240 VAC HEATING ELEMENT W/GASKET
WH1B-S	SCREW-IN 1250W/240 VAC HEATING ELEMENT W/GASKET
WH1D-S	SCREW-IN 4500W/240 VAC HEATING ELEMENT W/GASKET
WH3	PRESSURE RELIEF VALVE 75PSI



## Ruddermaster Repair Parts:

MK2M12	METER: 2 IN.CHROME, 12 V
MK2MB12	METER: 2 IN.BLACK, 12V
MK2R12	MK2 REPEATER UNIT
MK2RB12	MK2B REPEATER UNIT
MK445M	METER: 2 1/2 IN. EDGEWISE
MK445R	MK445 REPEATER UNIT
MK5R	MK5 REPEATER UNIT
MK6M	METER: 3 1/2 IN. PANEL
MK6R	MK6 REPEATER UNIT
MKCB	CALIBRATION BOX
MKCBP	CALIBRATION POTENTIOMETER
MKDRW	ACTUATOR ROD ASSEMBLY W/BALL JOINTS
MKSII	SENDER ASSEMBLY
MKSII50	SENDER ASSEMBLY W/50 FT. OF WIRE
MKSP	SENDER POTENTIOMETER



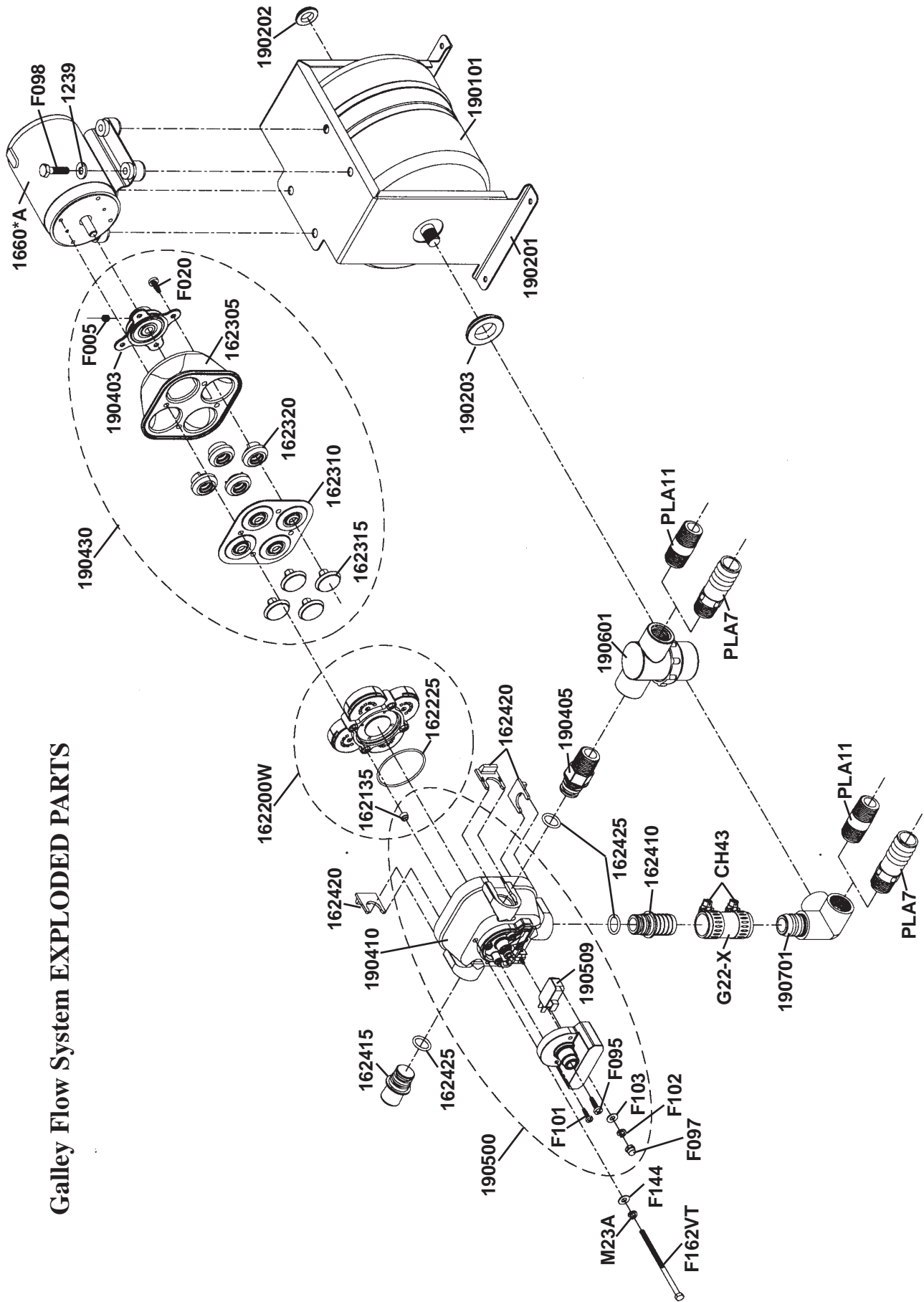
**Galley Flow System PARTS LIST**  
**(Quantities are one unless otherwise indicated)**

Before ordering, locate required part on exploded parts view to be sure you are ordering the correct part.

<b>Part No.</b>	<b>Description</b>	<b>Part No.</b>	<b>Description</b>
1239	1/4" Flat S/S Washer (4)	F097	1/4-20 x 1 Hex Hd Screw (4)
1660*A	Galley Flow Motor	F101	6-32 x 3/8 Hex Hd S/S Screw (2)
162135	Cone Seal (4)	F102	#6 Lockwasher S/S
162225	O-Ring	F103	#6 Flat Washer S/S
162305	Lower Housing includes 162315 (4)	F144	#10L 18-8 S/S Washer (4)
162310	Diaphragm includes 162315 (4)	F162VT	Mounting Bolt (4)
162315	Piston (4)	G22-X	3/4 NYL Reinforced Hose (sold by the foot)
162320	Piston Seat (4) includes 162315 (4)	M23A	Lockwasher (4)
162410	3/4" Hose Barb Straight	PLA7	Male Adapter 1/2 MPT x 3/4 Barb
162415	Plug Fitting	PLA11	1/2 x 2" Nipple
162420	Fitting Clip (3)	162200W	Middle Housing Assembly
162425	O-Ring (3)	190400	Galley Flow Inlet Pump Assembly includes 162200W, 190410, 190430
190101	Tank: .8 Gallon Steel with Internal Bladder	190403	Bearing Plate Assembly includes 162315 (4) and F005
190201	Mounting Frame for Tank	190410	Upper Housing Assembly includes 162135 (4)
190202	Rubber Grommet	190430	Lower Housing Assembly
190203	Rubber Grommet	190450	Pump and Pressure Switch Assembly includes 162200W, 162420 (3), 190430, 190500
190405	1/2" NPT Fitting	190500	Galley Flow Pressure Switch and Upper Housing Assembly
190509	Galley Flow Micro Switch	1910*	Galley Flow Pump with Motor, In-Line Strainer and Pressure Switch
190601	In-Line Strainer, Female		
190701	Side ell Sub-Assy. for Tank		
CH43	Hose Clamp #10 43H Series (2)		
F005	1/4-20 x 5/16 SS Hex SOC		
F020	#10 x 1/2 STSM Screw (4)		
F095	#8 x 3/4 Phil Pan Screw		
F097	Acorn Nut for Wire		
		DIAPUMPRK	Diaphragm Pump Repair Kit includes 162200W, 162310, 162315 (4), 162425 (3)

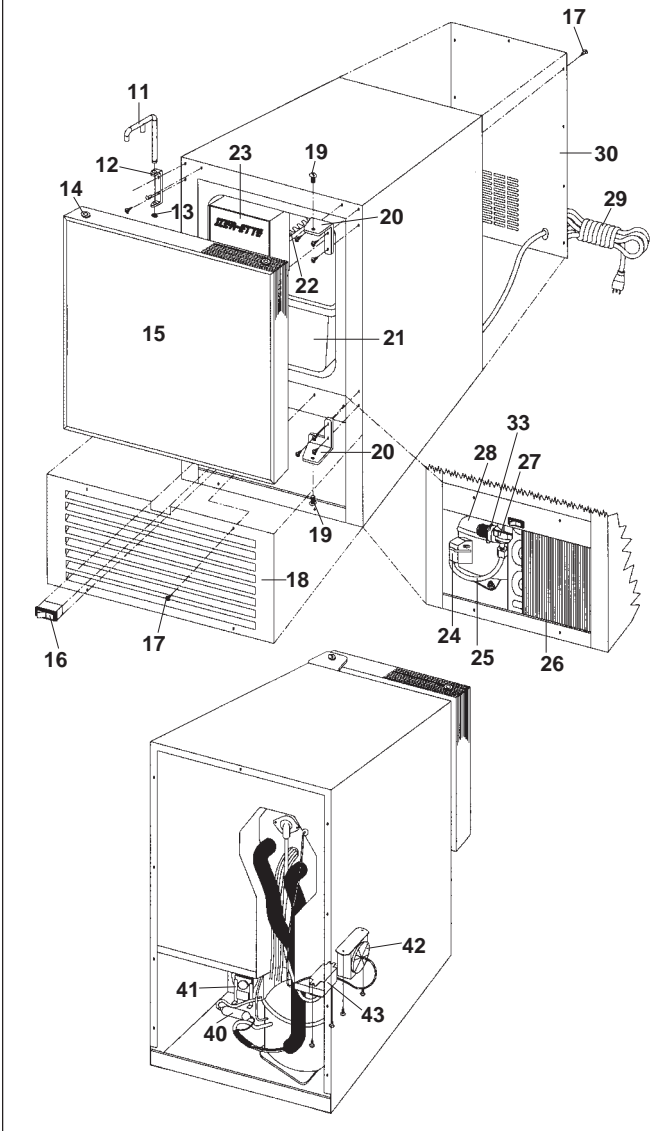
\* Specify Voltage (12V, 24V, 32V)

# Galley Flow System EXPLODED PARTS

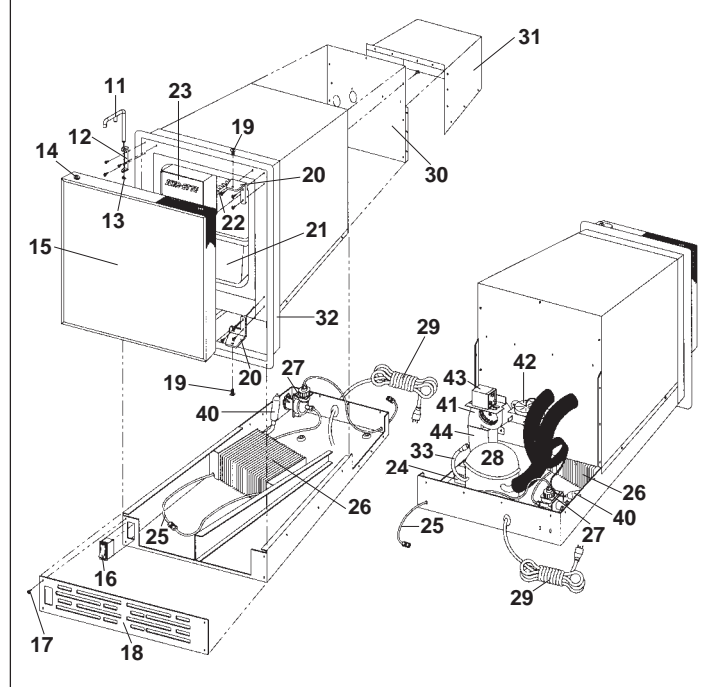


Item	Description	Part #	Mod. 84	84 240V		Mod. 85	85 240V
1	Wiring Harness		I44W	I44W220		I44	I44220
2	Module Assembly (628366)		I34M-1	I34M220		I34M-1	I34M220
3	Thermostat		I34T	I34T		I34T	I34T
4	Ice Maker Mold w/ Heating Element		I34MH	I34MH220		I34MH	I34MH220
11	Door Lock Link		I19B	I19B		I19B	I19B
12	Door Retainer Bracket		I17	I17		I17	I17
13	Link Retaining Ring		I306	I306		I306	I306
14	Nylon Snap Bushing		I21	I21		I21	I21
15	S/S Door Assy. White Laminate Door Assy Black Laminate Door Assy. Neutral White Laminate Door Assy. Antique White Laminate Door Assy.		I7W I61W I701W I610W I611W	I7W I61W I701W I610W I611W		I7W I61W I701W I610W I610W	I7W I61W I701W I610W I610W
16	On-Off Rocker Switch		I37S	I37S		I37	I37
17	8-32 x 1/2 Hex Head Type F 18-8 S/S Screws		F088	F088		F088	F088
18	Grille		I9S	I9S		I9	I9
19	1/4 -20 x 1/2 RH S/S Screw		I124	I124		I124	I124
20	Hinge Set (Top & Bottom)		I12	I12		I12	I12
21	Ice Bucket		I90	I90		I90	I90
22	Ice Maker		I34W	I34220W		I34W	I34220W
23	Ice Maker Front Cover		I34A	I34A		I34A	I34A
24	Relay w/ overload protector		I1806-1	I1806-2		I1806-1	I1806-2
25	Water line Tubing		I93SW	I93SW		I93W	I93W
26	Condenser Coil		I24S	I24S		I24	I24
27	Water Valve		I34B	I34B220		I34B	I34B220
28	Compressor (Includes #33 and #40)		I1800A-1W	I1800A-2W		I1800A-1W	I1800A-2W
29	Power Cord		I41	I41220		I41	I41220
30	Rear Panel		I11S	I11S		I11	I11
31	Back Enclosure Cover		I20A	I20A		N/A	N/A
32	Flange Flange with Holes		I99S	I99S		I99 I99H	I99 I99H
33	Service Valve w/ Tube		I101	I101		I101	I101
40	Drier		I30A01	I30A01		I30A01	I30A01
41	Motor and/or Blower Assembly		I28 (Motor/Blower Assembly)	I28220		I25 (Fan Motor Only-I27 Fan blades not included)	I25220
42	Cold Control		I33	I33		I33	I33
43	Relay		I52	I52220		I52	I52220
44.	Air Duct		I29	I29		N/A	N/A

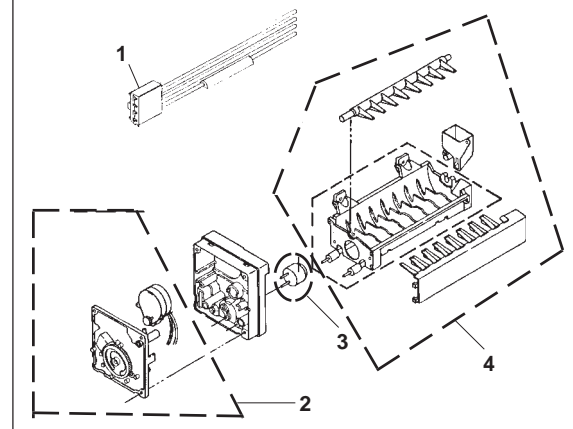
### Exploded View of Model 85 Icer-ette



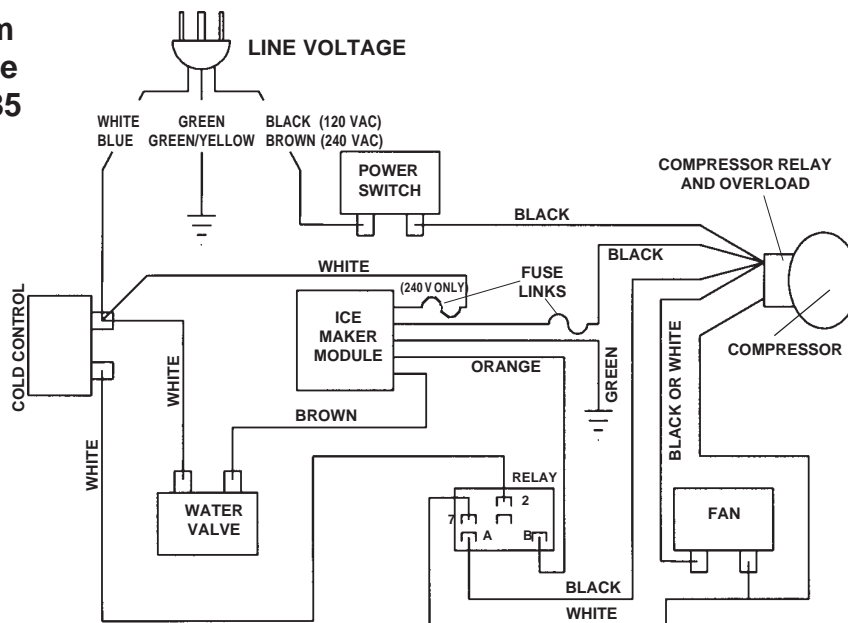
### Exploded View of Model 84 Icer-ette



### Exploded view of Item #22



### Wiring Diagram Raritan Icer-ette Series 84 and 85

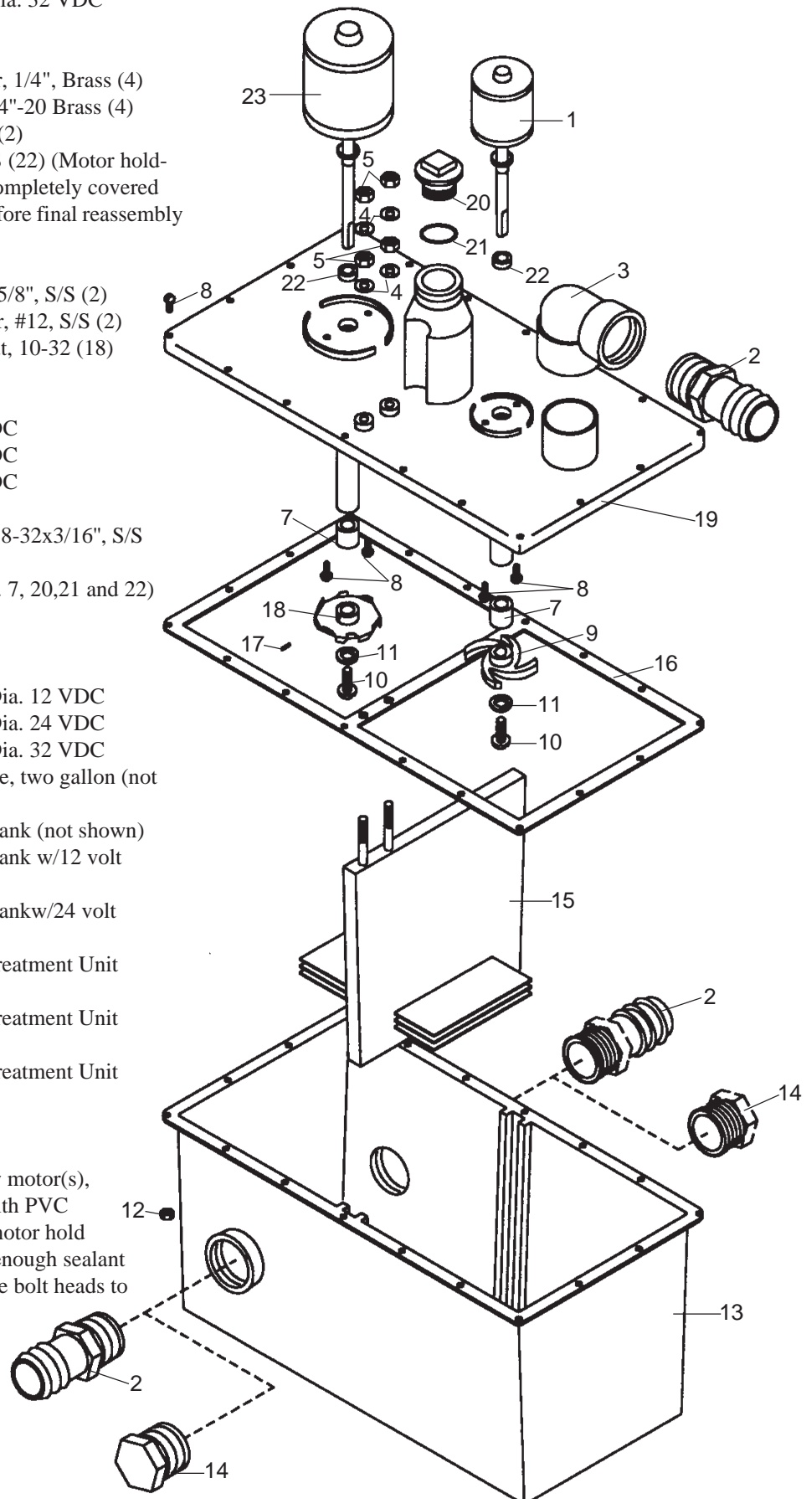


## EXPLODED PARTS VIEW OF COMPLETE TREATMENT UNIT

Item	Part No.	Description
1	32-102A**	Mixer Motor 2 1/2" Dia. 12 VDC
1	33-102A**	Mixer Motor 2 1/2" Dia. 24 VDC
1	34-102A**	Mixer Motor 2 1/2" Dia. 32 VDC
2	31-121	Hose Fitting (2)
3	31-120	Discharge Elbow 90°
4	M30	Electrode Flat Washer, 1/4", Brass (4)
5	M31	Electrode Lug Nut, 1/4"-20 Brass (4)
7	31-103	Motor Shaft Bushing (2)
8	31-106	10-32x7/8"RHMS,S/S (22) (Motor hold-down bolts must be completely covered with silicone caulk before final reassembly to prevent leaking.)
9	31-109	Mixer Impeller
10	31-110-1	Impeller Bolt, 12-24x5/8", S/S (2)
11	31-110-2	Impeller Lock Washer, #12, S/S (2)
12	31-114	Cover Hold Down Nut, 10-32 (18)
13	31-115	Treatment Tank
14	31-122	Intake Plug
15	32-5000	Electrode Pack 12 VDC
15	33-5000	Electrode Pack 24 VDC
15	34-5000	Electrode Pack 32 VDC
16	31-112	Cover Gasket
17	31-108	Macerator Set Screw, 8-32x3/16", S/S
18	31-107	Macerator Impeller
19	31-101W	Treatment Cover (Inc. 7, 20,21 and 22)
20	31-104C	Crossover Plug
21	31-105	O-Ring
22	31-102	Motor Shaft Seal (2)
23	32-101AW**	Macerator Motor 3" Dia. 12 VDC
23	33-101AW**	Macerator Motor 3" Dia. 24 VDC
23	34-101AW**	Macerator Motor 3" Dia. 32 VDC
	31-3001	Salt tank unit complete, two gallon (not shown)
	31-3002	Four gallon salt feed tank (not shown)
	32-3003	Four gallon salt feed tank w/12 volt pump (not shown)
	33-3003	Four gallon salt feed tankw/24 volt pump (not shown)
	32-4000*	12 V DC Complete Treatment Unit (Items 1-22)
	33-4000*	24 V DC Complete Treatment Unit (Items 1-22)
	34-4000*	32 V DC Complete Treatment Unit (Items 1-22)

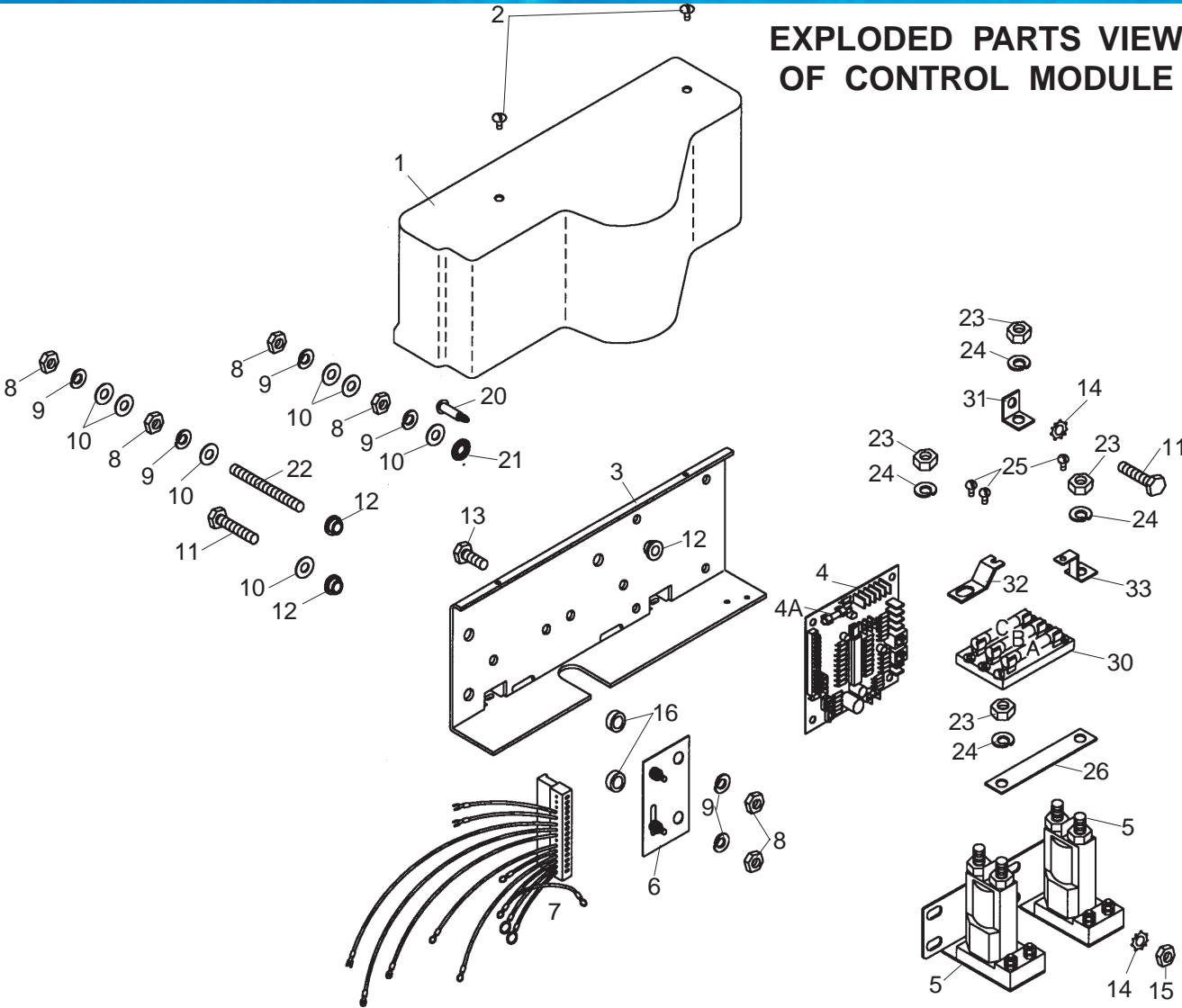
\* Less Control Module

\*\*NOTE: When replacing existing or new motor(s), clean area around motor mounting bolts with PVC cleaner before applying silicone caulk to motor hold down bolt heads (see Item #8). Dispense enough sealant to cover an area three times greater than the bolt heads to avoid leakage through bolt holes.





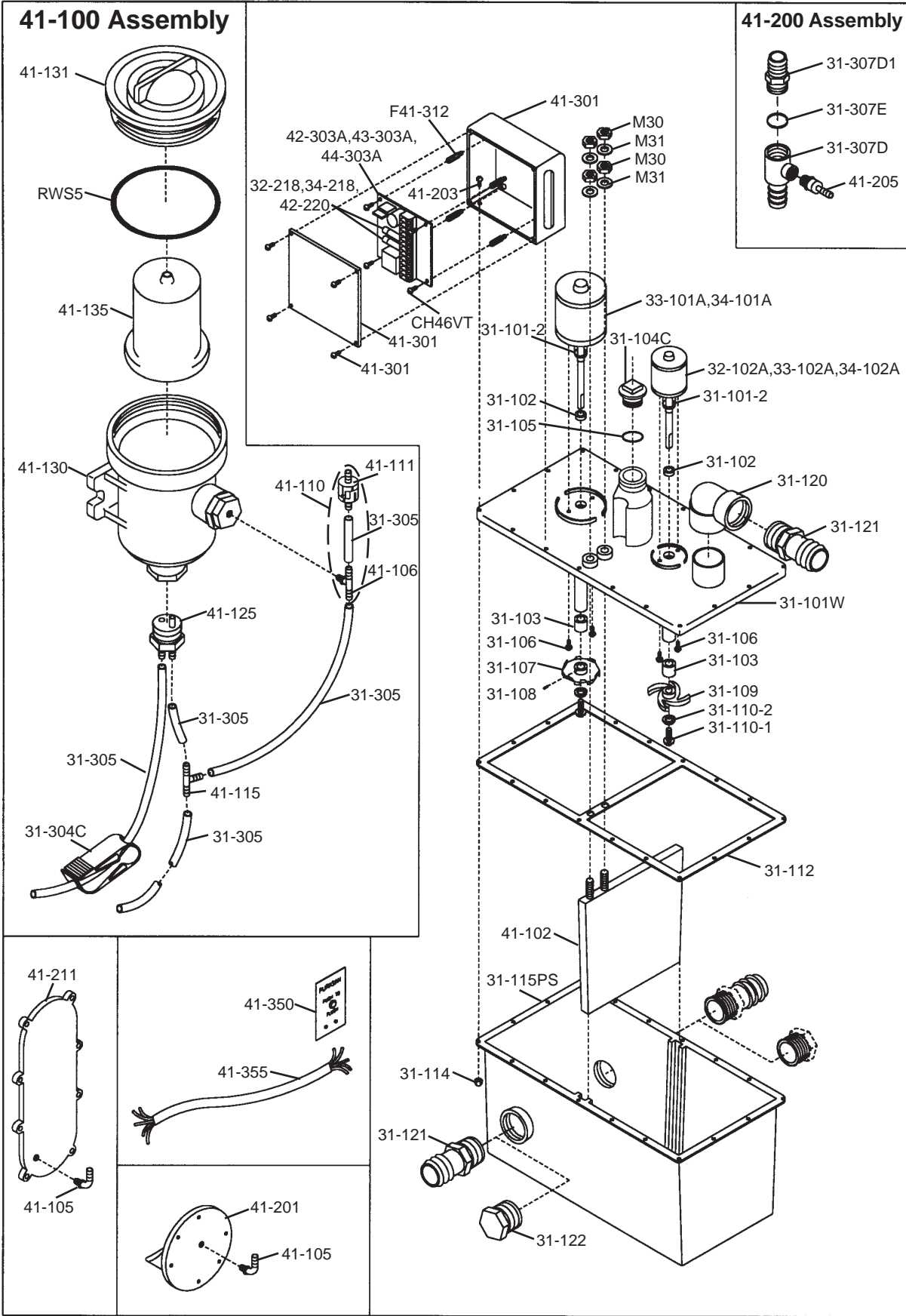
# EXPLODED PARTS VIEW OF CONTROL MODULE



Item	Part No.	Description	Item	Part No.	Description
1	31-460	Control Cover	23		5/16 - 24 Nut (4)
2	CH26	8-32 x 7/16" Truss head screw (2)	24		5/16 Lockwasher (4)
3	31-462	Mounting Plate	25		#6-32 Screw
4	32-601	Circuit Board, 12V	26	31-464	Bracket
	33-601	Circuit Board, 24V	30	31-232	Fuse Block
	34-601	Circuit Board, 32V	30A	32-218	MDL 6 1/4 Fuse (12V)
4A	EF5FA	F1 - 5 Amp Fuse, fast acting	30B	32-219	MDL 35 Fuse (12V)
5	AM06012	Solenoid Relay (2) - 12V	30C	32-220	MDL 30 Fuse (12V)
	AM06024	Solenoid Relay (2) - 24V	31	31-466	Bracket
	AM06032	Solenoid Relay (2) - 32V	32	31-469	Copper Bracket
6	RBS501	Shunt 50 mv 50 amp LST/MC		31-468	Bracket (not shown)
7	31-402A	Wiring Harness Assy.	33	31-470	Cond. Bracket
8	M30	1/4 - 20 Brass Nut (8)		32-602	12V Assy. (incl. all above parts except 1 and 2)
9	HLWQB	1/4" Lockwasher (6)		33-602	24V Assy. (incl. all above parts except 1 and 2)
10	M31	#14 Brass Flat Washer (7)		34-602	32V Assy. (incl. all above parts except 1 and 2)
11	HSB1	1/4 - 20 Brass Cap Screw (2)		31-603	Control Indicator Panel (not shown)
12	RNI	Nylon Shoulder Washer (3)		31-604	Control Indicator Panel Cable (not shown)
13	1119A	1/4 - 20 x 1/2" S/S Hex Head Machine Screw (4)		31-605	Activator Assembly for Manual Toilets (not shown)
14	1118	1/4" External Tooth Washer (5)		31-606	Pressure Switch for the Activator (not shown)
15	1226B	1/4 - 20 S/S Hex Head Nut (4)			
16	31-476	Nylon Spacer Washer (2)			
20	F31-480	Nylon Stand Offs: PCB Supports (4)			
21	F069	Gray Fiber Flat Washer			
22	F31-478	Threaded Rod 1/4 - 20 x 2" Brass			

( ) Indicates Total pieces required

# PURASAN® EXPLODED PARTS VIEW



## PARTS LIST PURASAN

<u>Part No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Description</u>
31-101W	Treatment Cover	41-111	Check Valve
31-101-2	Slinger (2)	41-115	"Y" Fitting 1/4" Barbed
31-102	Motor Shaft Seal (2)	41-125	Bottom Plug Assy.
31-103	Motor Shaft Bushing (2)	41-130	Dispenser Body (PVC)
31-104C	Crossover Plug	41-131	Dispenser Lid
31-105	O-Ring	41-135	Cartridge (refill) PURASAN Tablets
31-106	Motor Hold down Bolt, 10-32 x 7/8", S/S (4)		Note: Cartridge must be shipped in a separate container, to order, call 856-825-4900.
31-107	Macerator Impeller		
31-108	Macerator Set Screw	<b>41-200</b>	<b>T-Fitting (Incl. 31-107D1, 31-307E, 31-307D and 41-205)</b>
31-109	Mixer Impeller		
31-110-1	Impeller Bolt, 12-24x5/8", S/S (2)	41-201	Front Cover (Modified - CH18)
31-110-2	Impeller Lock Washer, #12, S/S (2)	41-205	Check Valve Assy.
31-111	Cable Clamp (not shown)	41-211	Atlantes Discharge Pump Cover (Modified - AM140)
31-112	Cover Gasket		
31-113-1	Cover Hold down Bolt, 10-32 x 3/4", S/S (14)	41-260	Bowl elbow with Restrictor (not shown)
31-113-3	Cable Clamp Bolt 10-32 x 1 (not shown)	41-301	Control Box w/Cover and Screws
31-114	Cover Hold down Nut, 10-32(18)	41-350	Switch Panel
31-115PS	Treatment Tank	41-355	Cable
31-120	Discharge Elbow 90°	41-356	Cable Clamp (not shown)
31-121	Hose Fitting (2)	42-220	Fuse (2) MDL 12 (12 V DC)
31-122	Inlet Plug	<b>42-300</b>	<b>Control Box Complete*,12VDC</b>
31-304C	Flow Metering Clamp	42-303A	Circuit Board Assembly,12VDC
31-305	1/4" I.D. Tubing	<b>43-300</b>	<b>Control Box Complete*,24VDC</b>
31-307D	T-Check Valve Body	43-303A	Circuit Board Assembly,24VDC
31-307D1	Outlet Adapter	<b>44-300</b>	<b>Control Box Complete*,32VDC</b>
31-307E	O Ring		*Incl. 41-301, F41-312, F072VT, and 42-303 (or 43-303, 44-303).
32-102A	Mixer Motor 2 1/2" Dia. 12 V DC	44-303A	Circuit Board Assembly,32VDC
32-218	Fuse (1) MDL 6 1/4 (12 V DC)	CH25	O-ring (not shown)
32-218	Fuse (2) MDL 6 1/4 (24 V DC)	CH46VT	Circuit Board Mounting Screw (4)
33-101A	Macerator Motor 12 V DC	F41-312	Standoff (4)
33-102A	Mixer Motor 2 1/2" Dia. 24 V DC	M30	1/4"-20 Brass Nut (4)
34-101A	Macerator Motor 24, 32 V DC	M31	#14 Brass Flat Washer (4)
34-102A	Mixer Motor 2 1/2" Dia. 32 V DC	RWS5	"O" Ring
34-218	Fuse (2) MDL 5 (32 V DC)		
<b>41-100</b>	<b>Tablet Dispenser Complete</b> (less cartridge)	<b>42-1000</b>	<b>Treatment Unit Complete, 12VDC</b>
41-102	Tank Divider	<b>43-1000</b>	<b>Treatment Unit Complete, 24VDC</b>
41-105	90° elbow, 1/4" insert x 1/4" NPT	<b>44-1000</b>	<b>Treatment Unit Complete, 32VDC</b>
41-106	"T" Fitting		
41-110	Vent Kit for Tablet Dispenser (Incl. #53, 54, & 55)		

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