



RARITAN

2010



For Over 50 Years.

TO OUR CUSTOMERS, TRADING PARTNERS and FRIENDS,

For more than fifty years, Raritan has been meeting our customer's needs for outstanding service and product reliability, establishing ourselves as "The most dependable name on the water." Our customers continue to be our focus, and the source of many of our new products and product enhancements.

The median length of service for Raritan employees is more than 22 years, an unusual number in the fast changing world we live and work in. It is a measure of the dedication of the men and women, who design, manufacture, distribute and support Raritan's products.

Our catalog represents a significant resource for both current and future users of our marine product line. We have included detailed product descriptions and listings of their benefits to our end users. Exploded parts views help in identifying products, and their component parts. The inclusion of parts views enhances our ongoing efforts to make maintenance as easy as possible. There is also a section containing product dimensions. All sections are color coded and cross-referenced for ease of use. Over the more than fifty years of our history, we have always emphasized the maintainability and repairability of our products.

Our intent is to publish a comprehensive guide to help us sell our products, to help our customers simplify their product selection and to provide a reference for all of our products. A product selection guide aids in identifying the best products for various applications, and a similar selection guide for repair kits helps identify the correct kit for a given product. The most commonly sold product numbers are listed for each product, and there is a section explaining the structure of Raritan's part numbers.

In the tradition of constantly improving our products and product offerings, we are pleased to introduce product enhancements and a new product line in this catalog:

- The **Atlantes Freedom™** includes a patented bronze and stainless steel macerator designed to shred almost any object placed in the toilet without clogging. Making it ideal for commercial applications; it is available with an elongated bowl.
- We are excited to introduce a new series of **Marine Elegance™ Vortex-Vac™** toilets; the four bowl configurations ("standard" height and "tall" with straight or slanted backs are available in bone or white).
- The **Marine Elegance™** is available in a patented **Sea Fresh™** model which allows the user to select pressurized fresh water or sea (raw) water for flushing; the use of fresh water before leaving the boat helps clear odor causing marine organisms from the bowl.

Best wishes for an enjoyable boating season!



Arthur J. "Bret" Bretnall, Jr.
President



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All Toilets are easy to clean and maintain. Certified Installers NOT REQUIRED. They can be used with Electro Scan, Purasan or Lectra/San Type I MSD's or Managerm Type II.

Elegance Series - Quite operation, low water consumption and small foot print is combined with elegant looking bowl. Vortex-Vac flush technology eliminates remote mounted vacuum pump. Choice of three separate controls are available to meet customer's preferences. Unique mounting system makes installation of this toilet simple and elegant.

Whisper Series - Whisper operation and quiet operation carry many different meanings. Raritan uses its years of experience to produce a series of toilets that not only function better but also sound better than any toilet on the market. We understand how important it is to be on board and flush without letting everybody else know you have just flushed the toilet. Each model can be ordered for remote pump intake of outside water or for connection to the onboard pressurized fresh water system with solenoid. Models include Atlantes Freedom and Sea Era.

Classic Series - The Crown Head, first introduced in 1965, remains the first choice among many long time boaters for its durability. Still used today on many Coast Guard patrol boats because of its durability and ability to withstand the pounding the boats take. The macerator has been redesigned for improved performance. The introduction of the Crown Head II allows for quieter operation with remote intake pump model for outside water or freshwater model for connection to onboard fresh water system. Models include Crown Head and Crown Head II.

Practical Series - For those preferring to use a hand operated toilet, Raritan offers several options. Raritan was the first to introduce a dual action pump in the marine industry. The PHII remains a standard for others to follow. Initially designed in bronze the pump later became the largest piece to be injection molded of Delrin at the time. Models include our Compact II and our PHII.

Things to Consider

Marine Sanitation Devices (MSD's) and Waste Treatment Systems - Any boat with an installed toilet must have either a Type I MSD which treats the waste and makes it safe for overboard discharge, a Type II MSD used for the same purpose as a Type I but treats to higher standard and is typically designed for vessels over 65' or a holding tank Type III MSD. All waste water inside the three mile limit requires treatment or holding of the waste. A complete list of Federal No Discharge Zones can be found on the EPA web site.

Power Consumption - When choosing a marine toilet remember to look at overall power consumption. Many manufacturers make claims that the units draw very low amps. A low amp draw for a long period of time means overall consumption may be higher than a unit that draws more amps.

Water Use - Very low water use normally equates to poor performance when removing anything other than liquid from the bowl. The easier it is for people to use your marine toilet means the less trouble you will have with it.

	Amp Draw for 12 V in amo hr Pump/ Solenoid	Average water usage per flush	Maximum height of inlet pump (above waterline)	Dry bowl flushing option	Maximum discharge height	Marine size bowl available	Household size bowl available	Elongated bowl available
Atlantes Freedom	06/ 03	1 qt	4 ft	YES	12 ft	NO	YES	YES
Crown Head	10/ NA	3 qt	3 ft	NO	6 ft	YES	YES	NO
Crown Head II	06/ 05	2 qt	4 ft	YES	6 ft	YES	YES	NO
PHE II	04/ NA	2 qt	3 ft	YES	3 ft	YES	YES	NO
Sea Era	06/ 04	1.5 qt	4 ft	YES - remote and onboard intakes only	8 ft	YES	YES	NO
Compact II	NA	1 qt	NA	YES	15 ft	YES	NO	NO
PHIC	NA	2 qt	NA	YES	15 ft	YES	YES	NO
PH II	NA	2 qt	NA	YES	15 ft	YES	YES	NO
Elegance	06/ 04	3.5 pint	4 ft	YES	10 ft	NO	YES	NO

VISIT OUR WEB SITE FOR MORE INFORMATION.

(856)-825-4900

Whisper Series

Atlantes Freedom™

Atlantes Freedom has the only macerator on the market designed to shred almost any object placed in the toilet without clogging, ideal for commercial applications.

The Atlantes Freedom toilet features:

- Solid 1 piece china porcelain bowl
- Elongated and traditional household designs available
- A8 models have flush lever operation with timed flush operation Only marine toilet on the market that has momentary flush handle backup in the event electronic timer fails
- Patented solid bronze cutting blades allows users to flush household toilet paper and any commonly used products clog free
- Easily installs above or below waterline on any vessel
- Designed for commercial and recreational vessel applications
- Note: whisper flush feature available with onboard water solenoid models
- A9 Models have a four function switch including water saver, dry flush and normal flush
- Capable of discharging 12 feet vertically.
- A7 models have momentary flush handle operation without timer, handle offers flush and dry flush operation



Item A812

Model	Description
A812	Regular bowl, White, Handle, Fully integral intake pump model 12V
A8F12	Regular bowl, White, Handle, pressurized water model 12V
A8AR12	Regular bowl, Bone, Handle, remote intake pump model 12V
A912	Regular bowl, White, wall switch, fully integral intake pump model 12V
AL824	Elongated bowl, White, handle, fully integral intake pump model 24V

Sample of part numbers see pages 36-39 for complete ordering instructions
To view Atlantes Freedom remote intake pump see page 50

Exploded Views, Parts, and other Options on Pages 36-39

Elegance Series
Marine *Elegance™*

Marine Elegance bowls are available in four different models: Standard angled, standard straight, tall angled and tall straight. Each model is available in bone or white.

**The first toilet in its class to offer:**

- Quiet operation
- Unmatched rinsing capabilities
- Low water consumption
- Built in shredder reduces clogs
- Unmatched rinsing capabilities
- Built in shredder reduces clogs
- Built in loop design eliminates odors
- Can pump 10ft vertically, or 100ft horizontally

Our full size vitreous china bowl offers:

- One piece construction
- Full size toilet seat
- Compact installation
- Unique mounting system allows for ease of cleaning
- Reduced weight while adding additional support where needed

**The Raritan Smart Flush Control offers:**

- Fully programmable, easy to use control
- Attractive wall mount design
- Flush using no water, little water, or timed flush
- Optional lock out feature when tank is full

Models:**Pressurized fresh water**

12 volt 220HF012,
24 volt 220HF024

Remote intake pump raw water

12 volt 220HR012,
24 volt 220HR024

SeaFresh – raw water pump and pressurized fresh water

12 volt 220HS012,
24 volt 220HS024

Sample of part numbers see pages 34-35 for complete ordering instructions
To view Marine Elegance remote intake pump see page 50

Exploded Views, Parts, and other Options on Pages 34-35

Elegance Series

Marine *Elegance*TM Sea Fresh

Now available with new Sea Fresh flushing option!

Easily switch between fresh or raw water allowing conservation of onboard water while providing the benefit of freshwater flushing before leaving the boat to reduce odors. (patented)

Smart flush control

The Raritan Smart Flush Control is a fully programmable flush control. The control allows users to flush the toilet with no water, a small amount of water or a fully timed flush. The timed flush feature can be adjusted on the panel without having to remove any components.

- 1** "Empty Only" - allows the user to evacuate the bowl while using no water. While the button is pressed the discharge pump will run, when released the pump stops.
- 2** "Water Only" - allows the user to wet the bowl prior to use or fill the bowl to a certain level to minimize water usage.
- 3** "Normal Flush" - Press the button and walk away. This function brings water in then discharges bowl and re-fills to leave water in the bowl.
- 4** "Water Saver" - Press the button and walk away, uses 1/2 the water of normal flush.

The Raritan Smart Flush Control is the most technologically advanced control on the market today. It offers the user maximum flexibility and control in an attractive wall mount design. Several programmable features are now available including an optional lock-out when the holding tank is full.



Exploded Views, Parts, and other Options on Pages 34-35

Whisper Series

SeaEra™

- Powerful flushing action with advanced design features
- An excellent replacement for less durable, non-Raritan units
- Low water usage as little as 1 quart (1 litre)
- Bowl can be rotated 90 degrees for mounting in confined spaces
- Full size joker valve reduces clogs
- Stainless steel macerating blade
- Household or marine size bowls available
- Self-priming inlet pump can run dry
- Separation of intake and discharge means dirty water can not enter bowl if seal fails
- Two year warranty
- Both 90 degree and straight discharge included



Model	Description
160MI012	Marine bowl, integral intake pump model 12V
160MR012	Marine bowl, remote intake pump model 12V
160MF012	Marine bowl, solenoid valve model for pressurized intake 12V
160HI012	Household bowl, integral intake pump model 12V
160HF012	Household bowl, solenoid valve model 12V

Sample of part numbers see pages 48-51 for complete ordering instructions

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
- Intake pumps can be run dry without damage
- Two year warranty
- Both 90 degree and straight discharge included



Model	Description
160LR012	Lower base conversion, remote intake pump model, 12V
160LI012	Lower base conversion, integral intake pump model, 12V

Note: Conversion kits come with both straight and 90° fittings.
 Sample of part numbers see pages 48-51 for complete ordering instructions

Exploded Views, Parts, and other Options on Pages 48-51

Classic Series

Crown Head™

Since 1965, this has been one of our most popular toilets by long time boaters for its durability.

- Still used today on many Coast Guard patrol boats
- Our macerator has been redesigned for improved performance
- Heavy duty motor ensures longevity
- Can be mounted above or below waterline
- Includes a deodorant system to control the “rotten egg” smell often associated with raw water intake toilets
- Household and marine size bowls available
- Integral impeller intake pump



Model
C912
CW912

Description
Marine size bowl integral intake pump, 12V
White household size bowl integral intake pump, 12V

Sample of part numbers see pages 40-47 for complete ordering instructions

Crown Head™ II

We took all existing features that made our Crown Head so popular and added a new look.

- This unit also utilizes either a freshwater solenoid valve or remote intake pump to supply water to the toilet
- Can be mounted above or below the waterline
- Household and marine size bowls available
- Quieter operation with remote pump or solenoid valve



Model
C2912
C2W912

Description
Marine size bowl remote intake pump, 12V
White household size bowl remote intake pump, 12V

Sample of part numbers see pages 40-47 for complete ordering instructions

Exploded Views, Parts, and other Options on Pages 40-47

Practical Series

PHII and PHEII

The most recognized and reliable manual toilets in the world. This manual design PHII is also available as our PHEII electric model.

- Household or marine size white porcelain bowls available
- Powerful flushing action with lever type handle
- Air vent allows for easier pumping in the "dry" position
- Pump can be mounted on either left or right side
- Simple, flexible installation for mounting above or below waterline
- Double action piston pump simultaneously draws new flush water as it discharges the wastewater
- Electric Model can be switched to manual operation within minutes
- Available for 12 or 24V DC operation
- Engineered plastic (Delrin) lasts longer than other plastics

Model	Description
PHII	Manual Operation, White marine size bowl
PHHBII	Manual Operation, White household size bowl
PHEII12	Electric Operation, White marine size bowl, 12V
PHEHBII12	Electric Operation, White household size bowl, 12V
PHECKII12	Electric Conversion Kit (manual to electric) 12V, includes switch
PHIIPUMP	Replacement Pump Only



Exploded Views, Parts, and other Options on Pages 53-55

Practical Series

PHC

Compact base PH II Pump

A more affordable and compact version of the PHII. Designed for sailboats and mid-sized powerboats without sacrificing durability.

- Household or marine size white porcelain bowls available
- 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 mounted for pumping on either left or right side



Model
PHC
PHHBC

Description
PHII Pump, Compact II Base, marine size bowl
PHII Pump, Compact II Base, household size bowl

Compact II

Raritan's most affordable and compact manual toilet ever.

- Marine size white porcelain bowl
- 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



Model
CPII
CPIIRFK
CPIIPUMP

Description
Compact II Hand Toilet
Compact II Retrofit Kit (converts Compact to Compact II)
Compact II Pump Assembly Complete

Exploded Views, Parts, and other Options on Pages 52-59

Raritime

- Sealed solid state timer and solenoid converts momentary push button to timed operation
- Adjustable from 1 - 15 seconds for electric toilets, horns and other timed applications
- RTC rated for 80 amps@ 12Vdc 50 amps all other
- RTCM rated for 1 amps all voltages

Part #	Description
RTC*	Raritime (*specify 12, 24 or 32V)
RTCM	Raritime module only (*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
- Rated at 80 amps@12Vdc 50 amps all other

Part #	Description
CDS*	Continuous Duty Solenoid (*specify 12,24 or 32V)



Push Button Switch

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

Part #	Description
PBS	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

Part #	Description
164000	Heavy Duty Push Button Switch





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)



Raritan Check Valve

- Stops unwanted back flow 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



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"
VL11/2	Discharge Vented Loop 1 1/2"



Sea Fresh System

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 dock side
- Boaters don't have to stop using their toilets if their on-board pressurized fresh water supply is low
- Helps reduce or eliminates raw water odors
- Can be adapted to other manufacturers' electric toilets
- Available for 12, 24 or 32V DC
- SEA FRESH switch makes it easy to select between raw or on-board pressurized freshwater. Contact Raritan for correct model numbers.



Toilet Water Kit

Toilet Water Kit introduces a small amount of R.C. 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

Part #	Description
TWK	Toilet Water Kit

Optional Toilet Control for SeaEra and Crown Head II

- Designed to provide timed operation
- Provides the user the ability to control intake and discharge separately
- Can be used on remote pump and pressurized fresh water models
- Features a water saver feature to reduce the volume of incoming flush water
- Note: Timer control box not shown



Part #	Description
TC12W	Toilet control 12V, white bezel
TC12A	Toilet control 12V, bone bezel



Raritan was the first company to develop a flow through system to treat sewage even prior to any legal requirements!

A flow through system is a tank directly connected to the toilet that treats waste each time the toilet is flushed. The advantage of Raritan flow through systems is that you are never holding raw sewage and only a limited amount of treated sewage is discharged each time. Large discharges of raw sewage, which includes full holding tanks containing chemicals used to control odor, can be dangerous to the environment. Raritan's first flow through system was simply a bottle of household bleach that was injected into the treatment tank each time the toilet was flushed killing all fecal coliform.

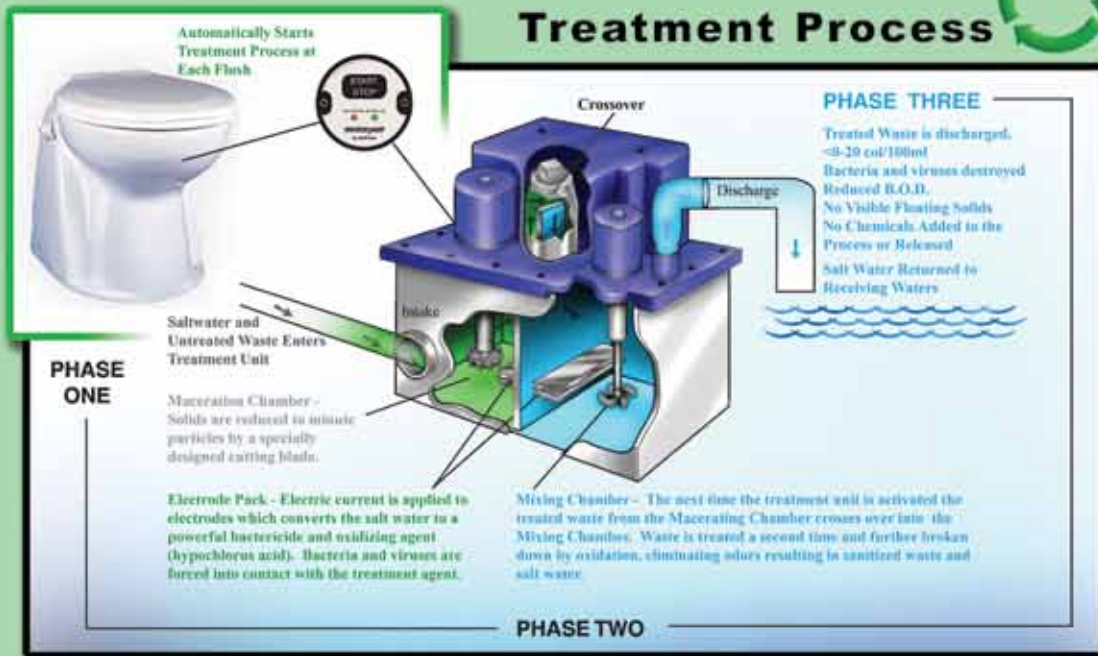
Raritan far exceeds the Federal standard for waste discharge to help preserve our waters. New advancements in flow through systems work differently but both Type I devices produced by Raritan far exceed the federal standard for discharge which is currently set at fecal coliform levels of less than 1000 per 100ml. Swimming beaches close when coliform levels exceed 200 per 100ml and shellfish beds close when coliform levels exceed 14 per 100 ml.

Both the Purasan and Electroscan discharge at levels lower than 10 per 100ml!



electro scan

- The most popular USCG certified Type I MSD
- Power requirements have been reduced by 36 % each cycle uses only 1.2 amp hours of power
- Generates its own natural disinfectant from salt water
- Coated electrodes use salt water to kill bacteria and viruses without using harmful chemicals
- Records each treatment cycle and stores key information in non-volatile memory that can be summarized on the LCD display or downloaded to a PC
- Single button operation is possible
- Can be used with both manual and electric toilets
- Requires sea water salinity or salt feed tank
- Available in 12, 24 or 32V DC
- Sensor for manual toilet available for auto start part# 31-605



Model	Description
EST12	Electro Scan, Type I MSD, 12V
ESTDC	Electro Scan Dual Control
31-3002	Four Gallon Salt Feed Unit Complete
32-3003	Four Gallon Salt Feed Tank w/pump, 12V
32-700RFK	Upgrade from Lectra/San to Electro Scan 12V

Exploded Views, Parts, and other Options on Pages 62-63

Purasan™

Designed primarily for freshwater applications. USCG certified Type I marine sanitation device protects our lakes and rivers by neutralizing harmful waste.

- **Treats each flush as waste is generated**
- **Lower power consumption than Electroscan**
- **Single button operation is available**
- **Easy to change tablet cartridge, neutralizes bacteria**
- **A single tablet cartridge lasts for many treatment cycles**
- **Can be used with both manual and electric toilets**
- **Can be used with 2 marine toilets in most applications**
- **Available in 12V, 24V and 32V DC**

Model
PST1202
PST1203

Description

Purasan, Type I MSD, 12V, for use with raw water toilets
 Purasan, Type I MSD, 12V, for use with pressurized fresh water toilets and installations with 2 toilets
 Purasan Tablet Cartridge

41-135



Exploded Views, Parts, and other Options on Pages 66-67

Hold n' Treat System

- A complete onboard waste management system
- Utilizing our best Type I & Type III MSD
- Satisfies legal requirements in all U.S. waters
- Complete "drop in place" system
- Ultimate flexibility with deck pump-out or treated sewage
- Operates with fresh, brackish and salt water
- Salt Feed System required if toilet does not use salt water for flushing
- For use on inspected and uninspected vessels
- Available in 12 and 24 VDC Model
- Hold N' Treat Controls are available separately to add to an existing holding tank and/or Type I MSD for ultimate flexibility
- Improved pressure sensor for determining tank level



Model	Description
21SR1512	Hold n' treat system complete with Electroscan
21SRP1512	Hold n' treat system complete with Purasan 12V



The Hold n' Treat Controls

Available separately to add to an existing holding tank and/or Type I MSD for ultimate flexibility.

- Contact Raritan tech support for details

Model	Description
21B12	Hold n' treat control 12V
21B1201	Hold n' treat control w/ macerator pump 12V



Semi-Custom Holding Tanks and Water Tanks

- The finest quality holding tanks
- Over 300 tanks to choose from, simply add the fittings you want where you want them
- Our tanks are made of cross-linked polyethylene with 3/8" walls for increased protection from odor permeation
- Call Raritan Technical Service in NJ for assistance with your tank

See our complete catalog on tanks at RaritanEng.com



Exploded Views, Parts, and other Options on Page 64-65

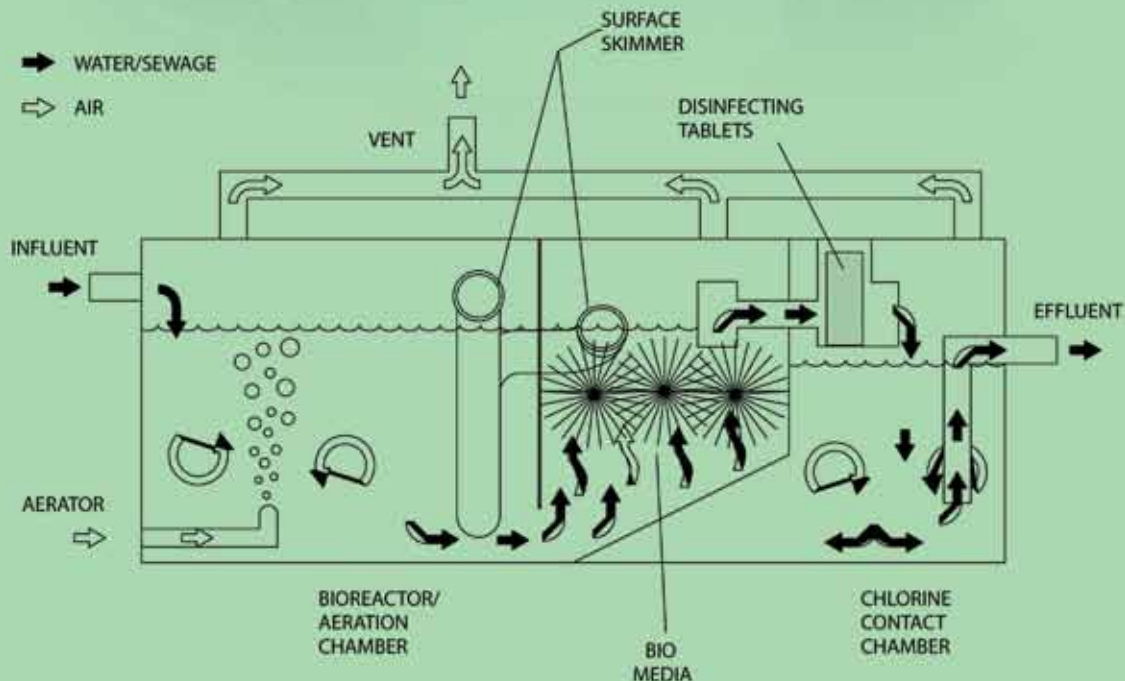
ManaGerm™

Complete onboard biological waste treatment system for up to 12 persons per day. Treats sewage biologically using air, water, and natural occurring bacteria.



- **USCG Certified Type II Marine Sanitation Device**
- **Tank made of lightweight corrosion resistant polyethylene**
- **Easy installation - Simple maintenance**
- **No moving parts in contact with sewage**
- **Quiet, durable 120V AC aeration pump included**
- **Uses very little electricity**
- **Operates with fresh, brackish and salt water**
- **For use on inspected and uninspected vessels**
- **Includes Bio-starter , 10 lb of tablets and five fittings**
- **Available with pump up kit for below water line installation**
- **Available for installation outside USA with Non Hazardous (for shipping) P70 tablets, also 220v units**

Model	Description
6400121	Managerm
Approximate Shipping weight: 100lbs (45 kg)	



Exploded Views, Parts, and other Options on Pages 60-61

In-line Strainer

An Inexpensive way to protect your equipment from debris, and toilet odors caused by marine life.

- Easy to install and maintain
- Convenient 1/2" female NPT connections
- 20 mesh plastic removable filter for easy cleaning
- Reduces toilet odors and maintenance

Part#	Description
163000	In-Line Strainer
163010	Strainer Filter
163020	Strainer Gasket



Raw Water Strainer

This is an inexpensive way to protect your engine, generators, AC units, and other components that require outside water. Each unit is individually pressure tested and designed with High Impact Clear housing and lid.

- Easy to install and maintain
- Clear housing lets you see debris without opening strainer
- 16 mesh removable high capacity filter

Part#	Description
RWS	Raw Water Strainer
RWS5B	Basket
RWS5	O-Ring



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 dock side power
- Enclosed in a corrosion resistant housing
- Meets ABYC E11 requirements

Part #	Description
RPA	Reverse Polarity Alarm



TC-8000 Eight Channel Tank Monitor/Controller

Our 8 channel tank controller provides an intelligent networked solution for the monitoring and control of up to eight tanks. The system consists of the TC-8000 display controller and up to eight HT-100 or HT-100/P tank controllers and any number of RD-800 repeater displays. The system communicates via a 2-wire network cable with a maximum cable length of 1000 meters.

TC- 8000 Display Controller

Features include:

- **Three display modes, bar-graph, percentage and Liters or Gallons**
- **Full control from one central location on your boat**
- **Visual indication of tank level, seacock position & pump status**
- **Turn holding tank macerator pump on/off manually or automatically**
- **Turn water maker on/off manually or automatically**
- **Visual & audible tank full and fault alarms**
- **Three modes of operation: manual, auto gray or auto all**
- **Mode change is key switch selectable**
- **All tanks are name programmable giving tank location and type e.g. (Aft Port, Grey Tank) (Mid Ship Starboard, Black Tank)**



HT-100 or HT-100/P

Is a controller which manages the tank pump, electric seacock, tank high output and provides an input for the fluid level sensor.

Features include:

- **Teach-in for level sensor with four point interpolation for irregular shaped tanks**
- **Controls the pump, the electric seacock (if fitted) and provides the input for the level sensor**
- **Reversed output for tanks programmed as either fresh water or fuel, enabling for water maker or fuel transfer pumps to turn on when empty and off when full**
- **Tank high level output which can be connected to the our toilet controller which disables the toilet when the holding tank is full**
- **Interface to electric seacock, or standard seacock interlock switch**
- **An internal pump on/off override switch for tank servicing and cleaning**
- **Supplied in two different models:**
 HT-100/P features level sensor, tank high output, pump & electric seacock control
 HT-100 features level sensor and tank high output

RD-800

The RD-800 Repeater Display is an optional extra. Any number of these may be connected anywhere on the vessel for convenient tank monitoring

Raritan employs state of the art microcomputer technology on all the following tank monitors insuring long term reliability.

Each unit offers:

- Encapsulated in silicon, product has been designed & built for a life at sea
- 10 mm supply voltage terminal for voltage both in & out
- All inputs are EMI protected
- Automatically senses 12 & 24 volt DC
- All internal programming switches are sealed to IP-67M specifications
- Easy operation and installation
- Low current draw
- 40 Year Data Retention (no power)



Our four channel tank monitor provides an intelligent networked solution for the monitoring of up to four tanks. The system consists of the TM-4000 display controller and up to four HT-100 tank controllers and any number of RM-400 repeater displays. The system communicates via a 2-wire network cable with a maximum cable length of 1000 meters. Note: Two different display options are available.

Features include:

- Full control from one central location on your boat
- Displays bar graph or Lts / Gals and percentage
- Visual indication of tank level, seacock position & pump status
- Turn holding tank macerator pump on manually & off manually or automatically
- Turn water maker on/off manually or automatically
- All tank names are user programmable e.g. (Grey Tank) (Black Tank) (Fresh Tank) (Fuel Tank) (Day Fuel Tank)
- Backlight



Features include:

- Manages the tank high output and provides an input for the fluid level sensor
- Teach-in for level sensor with four point interpolation for irregular shaped tanks
- Tank high level output which can be connected to the toilet controller which disables the toilet when the holding tank is full

The RM-400 Repeater Display is an optional extra. Any number of these may be connected anywhere on the vessel for convenient tank monitoring . Each unit is independent of the others allowing for different tanks to be monitored at any RM-400 station

Tank Monitor

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**

Not for use with metal tanks or fuel tanks

Width: 4 1/2" (11.4cm)

Height: 2 1/4" (5.7cm)

Model

Part

15100*

15101

Description

Tank Monitor (*12,24 or 32 V)

Tank Sensor Module Kit

NOTE: NOT FOR USE WITH METAL TANKS OR FUEL TANKS.

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)





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 pump outs**
- **A safe, non-chemical and nonpolluting product**

Part #	Description
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!

C.P. 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**

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

Raritan Non - Organics

This is a non-organic product.

R.C. Raritan Concentrate!

R.C. 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.**

Part #	Description
CON22	Raritan Concentrate 22 oz. (.65 liters)



Raritan Non - Organics

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

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

B.C. Bilge Cleaner!

B.C. is an outstanding bilge and engine cleaner. B.C. 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

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

C.H. Cleans Hoses!

C.H. is specifically designed to remove uric scale from black water system from the toilet to the tank without having to remove hoses!

- Eliminates clogs which can cause poor flushing performance
- Non toxic, biodegradable and safe to use with all materials commonly found in black water systems
- Safe and effective replacement to the muriatic acid treatments recommended in Lectra/San and Electroscan waste treatment systems

Part #	Description
1PCHGAL	Cleans hoses and MSD's



Rudder Master

Make life easier with our economical steering aid and rudder positioning device. Each unit comes with all necessary components needed, along with calibration box and sending unit.

- Constant monitoring of rudder angle from 0 to 45 degrees
- Repeater units are available for multiple station readouts
- Protects your boat at docking and close maneuvering

MK2 and MK3 Models

- Spray proof (IP64)



MK5 and MK6 Models

- Easy to read panoramic meter



Note when ordering:

We ship units with 30 ft. (9.1m) of wire. Any model can be ordered with longer wire just ask. MK2 and MK3 units are the only units designed as true spray proof (IP64) meters. You will need to place meters away from wash down areas and protect against the elements.

Rudder Master Parts List

Part #	Description
MK2*	Round 2" Meter
MK3B*	Round 3 3/8" Meter
MK5	Panoramic 4 1/2" Flush Mount Meter
MK6	Panoramic 3 1/2" Flush Mount Meter
MK2R*	Repeater Unit with MK2 Meter
MK5R	Repeater Unit with MK5 Meter
MK6R	Repeater Unit with MK6 Meter

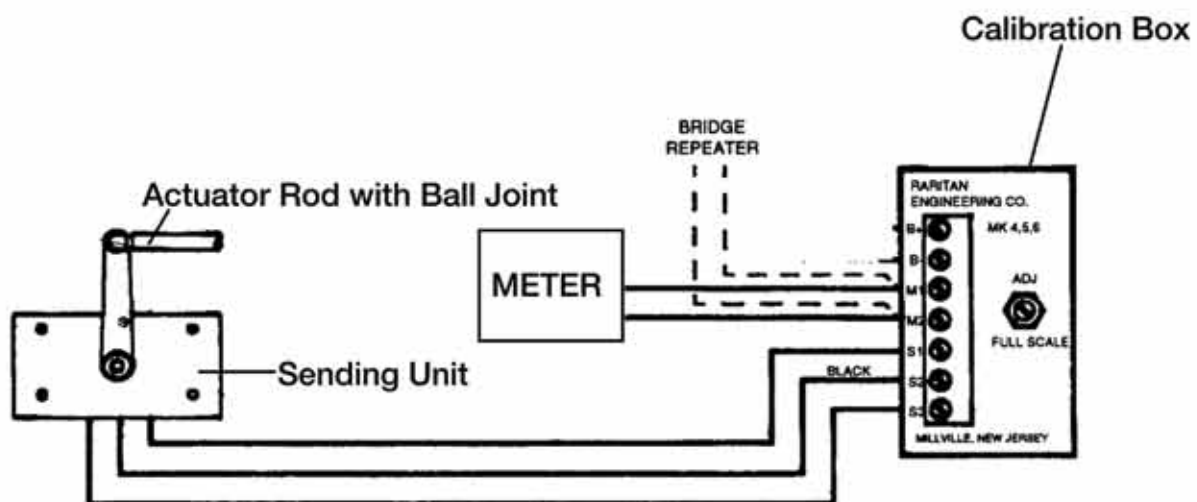
Any model can be special ordered with longer wire by adding length in feet to (suffix) part #. Example: MK445-60

* Specify Voltage

Approximate Shipping Weight: 3 lbs (1.4 kg)

Rudder Master 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
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

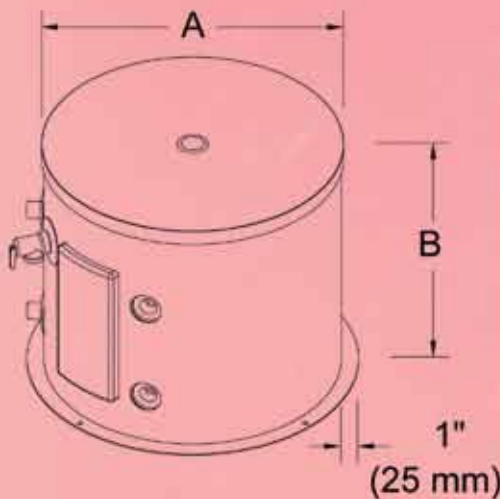


1700 Series Water Heater

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

- **Solid foam insulation means the water stays hot longer than with traditional fiberglass insulation**
- **Proven long-life design**
- **Withstands the rigors of the marine environment**
- **Glass-lined tank is more durable than stainless steel**
- **Attractive polymer jacket resists corrosion from dampness**
- **Ignition-protected, adjustable thermostat**
- **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, the entire heater is covered by a two-year Limited Warranty**
- **Each unit is assembled by hand, individually tested**
- **Available in 6, 12 and 20 gallon models - with or without engine heat exchangers**
- **Available for 120V AC or 240V AC**

Size	A	B	Shipping Wt.
6 gal.	14 1/2"(36.9cm)	16 1/4"(41.9cm)	36lbs/16kg
12 gal.	18 3/4"(47.6cm)	16 1/4"(41.9cm)	62lbs/28kg
20 gal.	18 3/4"(47.6cm)	24 1/4"(60.6cm)	81lbs/37kg





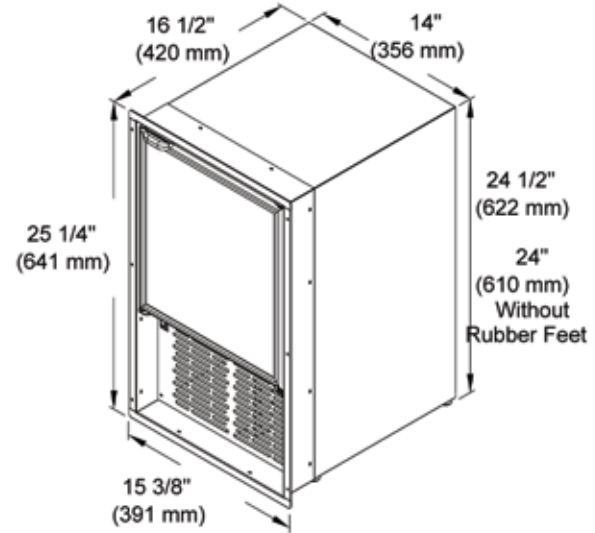
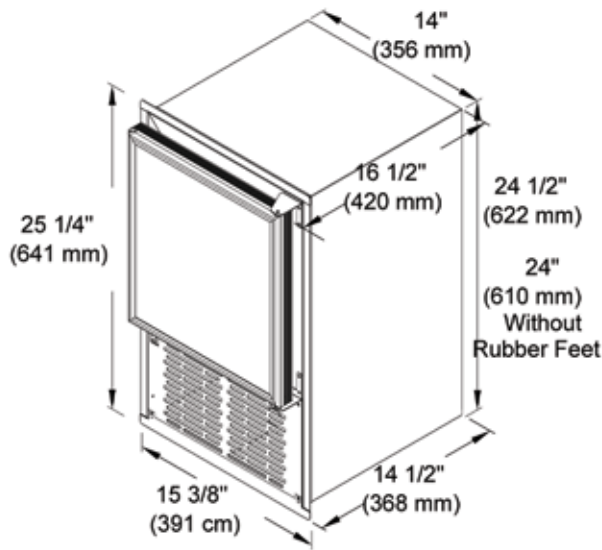
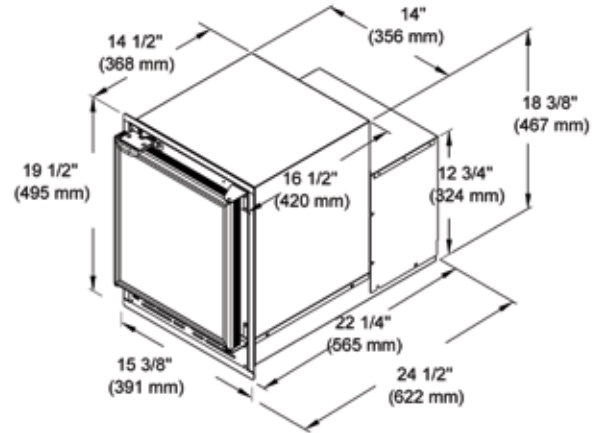
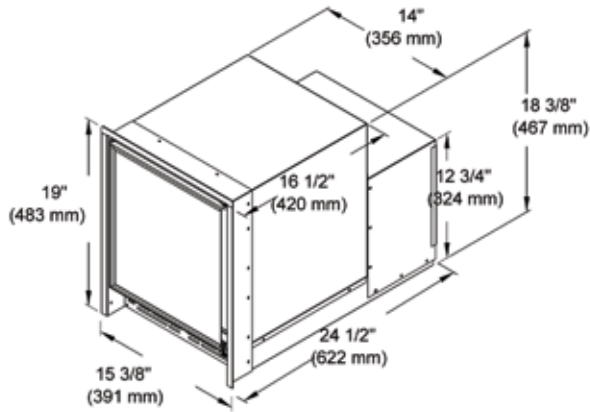
Icer-ette™

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

- **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**
- **No drain required**
- **Magnetically sealed door has sturdy stainless steel hinges and locking latch**
- **Unique door lock holds the door closed in rough seas or open when unit is shut down to allow proper ventilation**
- **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**

Exploded Views, Parts, and other Options on Pages 30-33

Icer-ette Exploded View



Icer-ette Ordering Instructions

To find the correct part number for your application please read the following instructions.

Column 1

enter (84) = Model 84 short version

enter (85) = Model 85 tall version

*check current dimensions to order the correct size and model number

Column 2

enter (B) = built in has flange

enter (BH) = flange with holes

enter (E) = flush mount flange

enter (EH) = flush mount flange with holes

enter (F) = free standing without flange

Column 3

enter (5) = Stainless steel

Column 4

enter (15) = stainless steel door

enter (16) = white vinyl door

enter (17) = black vinyl door

enter (18) = neutral vinyl door

enter (19) = antique white vinyl door

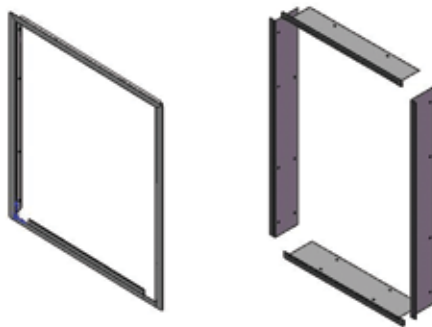
Column 5

enter (1) = 120 volts AC

enter (2) = 240 volts AC

We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

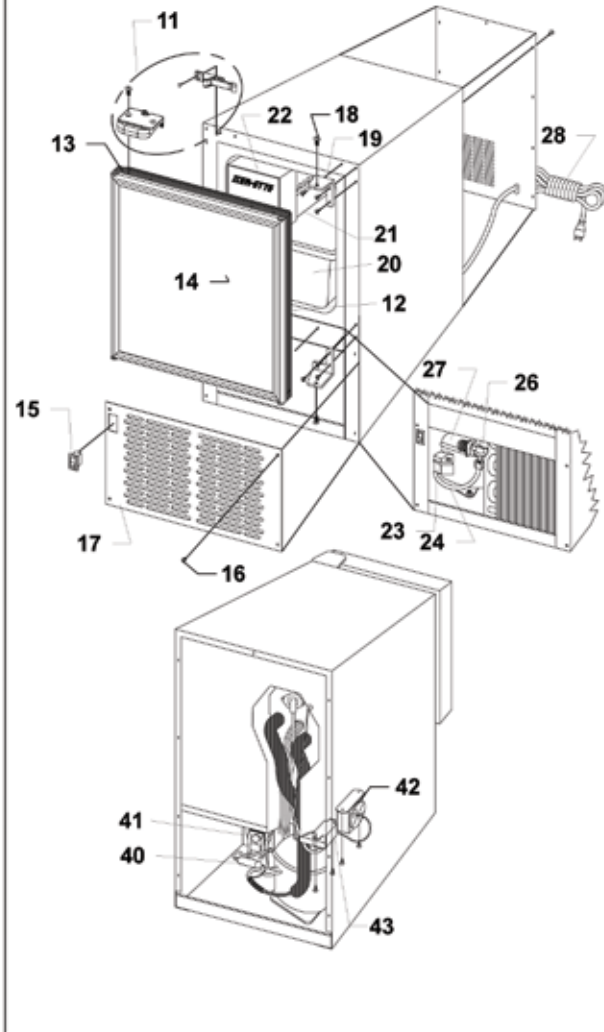
84 Icer-ette short	B Flange	Cabinet type 5 Stainless steel	Door Type		1 120V AC 2 240V AC
85 Icer-ette tall	BH Flange with holes E Flush Mount Flange EH Flush Mount Flange with holes F Free-standing -no flange		15 Stainless steel 16 White 17 Black 18 Neutral 19 Antique white		



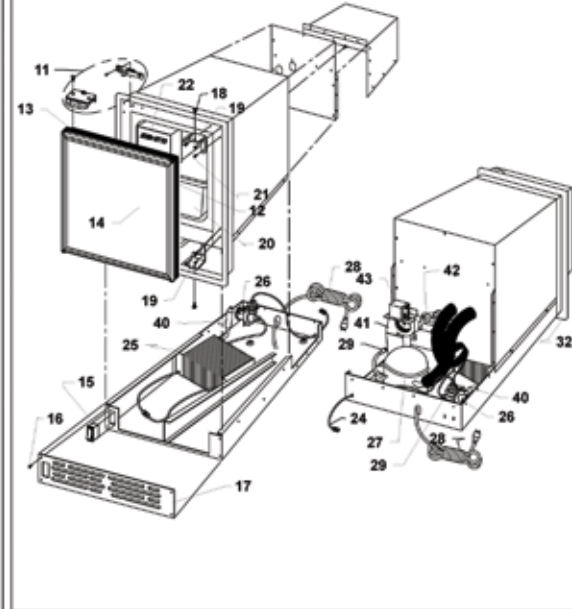
Icer-ette Parts List

Item #	Description	Part # Model 84	84 240v	Model 85	85 240v
1	Wiring Harness (not shown)	I44	I44220	I44	I44220
2	Module Assembly	I34M-1	I34M220	I34M-1	I34M220
3	Thermostat	I34T	I34T	I34T	I34T
4	Icemaker Mold with Heating Element	I34MH	I34MH220	I34MH	I34MH220
11	Black Handle Latch Assembly	IM135	IM135	IM135	IM135
12	Door Gasket	IM89	IM89	IM89	IM89
13	Black Nylon Snap Bushing	I2101	I2101	I2101	I2101
14	Stainless Steel Door Assembly	IM215W	IM215W	IM215W	IM215W
	White Laminate Door Assembly	IM216W	IM216W	IM216W	IM216W
	Black Laminate Door Assembly	IM217W	IM217W	IM217W	IM217W
	Neutral White Laminate Door Assembly	IM218W	IM218W	IM218W	IM218W
15	On-Off Rocker Switch	I37S	I37S	I37S	I37S
16	8-32 x 1/2 phil pan head stainless steel screw	I73	I73	I73	I73
17	Grille	IM9S01	IM9S01	IM901	IM901
18	Door hinge top screw, 1/4-28 x 1/2 hex head	F181	F181	F181	F181
	Door hinge bottom screw, 1/4-28 x 5/8 hex head	CH51	CH51	CH51	CH51
19	Hinge Set, Top & Bottom	IM13W	IM13W	IM13W	IM13W
20	Ice Bucket	I90	I90	I90	I90
21	Ice Maker	I34W	I34W220	I34W	I34W220
22	Ice Maker Front Cover	I34A	I34A	I34A	I34A
23	Compressor Relay w/overload protector	I1806-1	I1806-2	I1806-1	I1806-2
24	Water Line Tubing Assembly	I93SW	I93SW	I93W	I93W
26	Water Solenoid Valve	I34B	I34B220	I34B	I34B220
27	Compressor w/hardware and drier (includes #40)	I1800A-1W	I1800A-2W	I1800A-1W	I1800A-2W
28	Power Cord	I41	I41220	I41	I41220
29	Service Valve w/tube	I101	I101	I101	I101
32	Flange	IM99S	IM99S	IM99	IM99
	Flange w/Holes	IM99SH	IM99SH	IM99H	IM99H
40	Drier	I30A01	I30A01	I30A01	I30A01
41	Motor and/or Blower Assembly	I28	I28220	I25	I25220
42	Cold Control	I33A	I33A	I33A	I33A
43	Relay	I52	I52220	I52	I52220

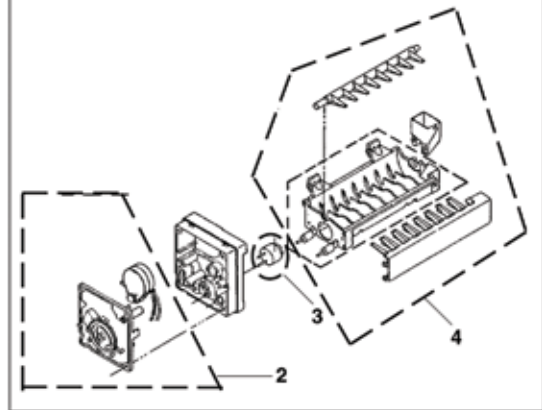
Exploded View of Model 85 Icer-ette



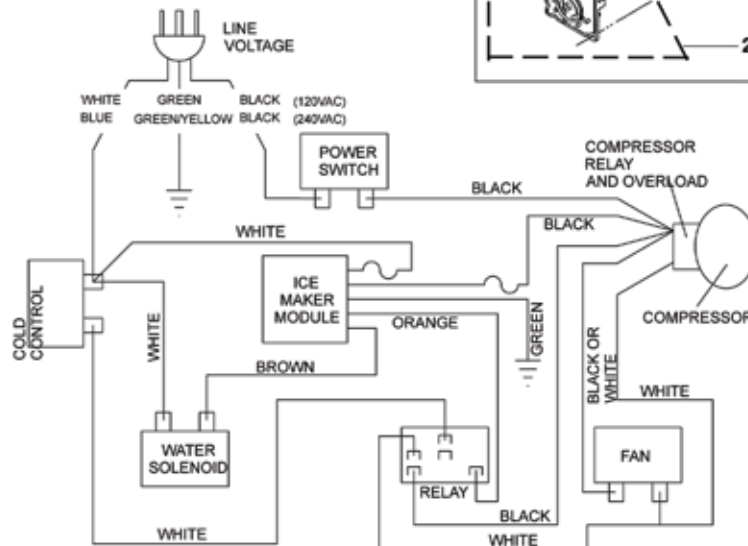
Exploded View of Model 84 Icer-ette



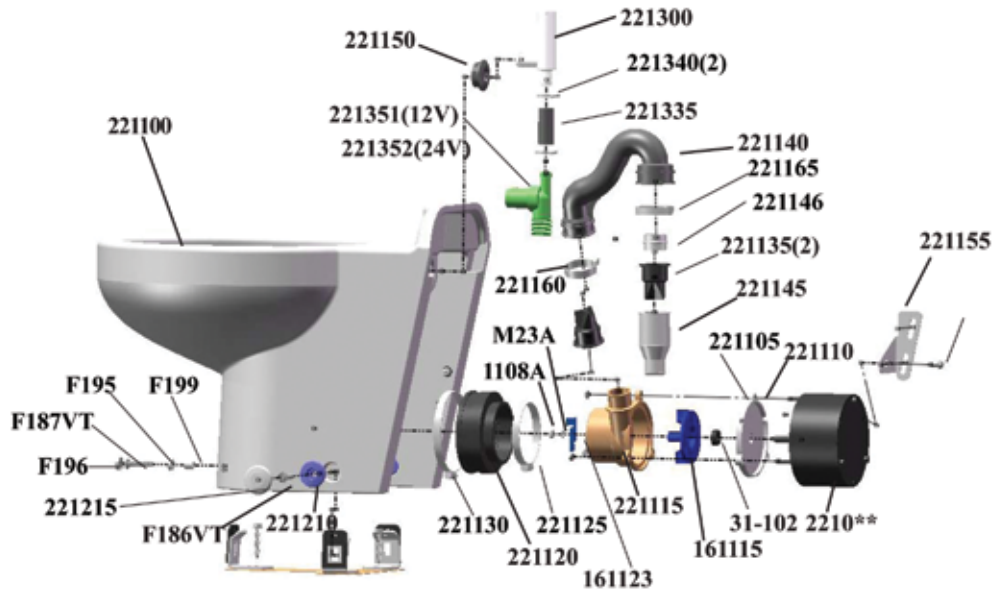
Exploded view of Item #21



Wiring Diagram Raritan Icer-ette Series 84 and 85



Marine Elegance Exploded Parts View



Refer to page 50 for remote intake pump parts.

Marine Elegance Ordering Instructions

To find out the correct part number for your application please read following instructions

Column 1

Insert (2) = Marine Elegance models

Column 2

Insert (2) = Standard height bowl
Insert (3) = Tall height bowl

Column 3

Insert (0) = Angled back
Insert (1) = Straight back

Column 4

Insert (H) = Household size

Column 5

Insert (F) = Fresh water solenoid
 This allow user to flush using pressurized fresh water on board
Insert (R) = Remote sea water pump
 This allows user to use raw water by installing pump remotely
Insert (S) = Sea/fresh option
 This allows user to switch between fresh pressurized water and sea/raw water.

Column 6

Insert(0)= Thru floor discharge

Column 7

Insert(12)= 12V DC
Insert (24)= 24VDC
Insert(12T)= 120v/240V AC

Column 8

Insert (blank) = Fully programmable smart switch control
Insert (01) = Momentary multifunction control
Insert(02) = Heavy duty push button

<input type="checkbox"/> 2 Marine Elegance	<input type="checkbox"/> 2 Standard <input type="checkbox"/> 3 Tall	<input type="checkbox"/> 0 Angled <input type="checkbox"/> 1 Straight	<input type="checkbox"/> H Household	<input type="checkbox"/> F Fresh water <input type="checkbox"/> R Remote sea water <input type="checkbox"/> S Sea / Fresh	<input type="checkbox"/> 0 Thru floor	<input type="checkbox"/> 12 12V <input type="checkbox"/> 24 24V <input type="checkbox"/> 12T 120V/240V	<input type="checkbox"/> Smart Switch <input type="checkbox"/> 01 Multifunction <input type="checkbox"/> 02 Heavy Duty
-----------------------------------------------	------------------------------------------------------------------------	--------------------------------------------------------------------------	--------------------------------------	---------------------------------------------------------------------------------------------------------------------------------	---------------------------------------	--------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------

Marine Elegance Parts List

Part#	Description
221100	Toilet Bowl, Standard, Angled, White(1)
221100A	Toilet bowl, Bone(1)
2210012	Discharge Pump Assembly (1)
221012	MOTOR: 12 VDC (1)
221024	MOTOR: 24V DC (1)
221105	O-RING (1)
221110	Discharge Pump Seal Plate (1)
221115	Discharge Pump Macerator Housing(1)
221120	Bowl Throat Adapter (1)
221125	Bowl Throat Adapter Clamp- Small (1)
221130	Bowl Throat Adapter Clamp - Large (1)
221135	JOKER VALVE (Custom) (2)
221140	Discharge Hose (Custom)(1)
221145	Discharge Adapter Fitting(1)
221150	Uni Seal 1/2" (1)
221155	Discharge Pump Mounting Bracket(1)
221156	Discharge Mtg Bracket Straight Back Model
221160	Discharge Hose Clamp - Small (1)
221165	Discharge Hose Clamp - Large (1)
221170	Discharge hose strap (not shown)
221175	L bolts (2) (not shown)
221210	Bowl Mounting Bushing (2)
221215	Bowl Mounting Bushing Cap (2)
221300	Vacuum Breaker Assembly 1
221325	Vacuum Breaker Seal Washer (1)
221330	Vacuum Breaker O-Ring (#16)(1)
221351	Water Solenoid Valve (12V)(1)
221352	Water solenoid valve (24V)(1)
221355	Water Line Adapter (1)
221335	1/2" Hose 2.25" L (1)
221340	1/2" Clamps (2)
31-102	Motor Shaft Seal
31-114	Lock Nut 10-32 W/Nylon (3)
CH20B	#10 Lock washer (not shown)
1108A	Nut
161115	Impeller
161123	Macerator Blade

Part#	Description
F321	Fender washer (not shown)
F186VT	Bowl Mounting Screw: (2)
F187VT	Bowl Mounting Screw (1)
F188	Well Nut (2)
F189	Deck Mounting (3)
F193VT	Pump Mounting (1)
F195	Front mounting washer (1)
F196	Front mounting snap cap (1)
M23A	Lockwasher
F199	Bushing

REMOTE INTAKE PUMP see pages 50 & 51

Optional:

190601	Fresh water strainer
163000	Raw water strainer

NOT SHOWN;

221101	Toilet Bowl, Standard, Straight White
231101	Toilet Bowl Tall Straight White
231100	Toilet Bowl Tall Angled White

Note: add suffix "A "for bone

1245	Seat and cover, white
1245A	Seat and cover , Bone
214**	Relay

Control parts (not shown):

SSFC02	Smart Control Box
SSFC03	Smart wall panel
SSFC04	Cable
31-618	Cable

For Momentary Multifunction control after 02/10

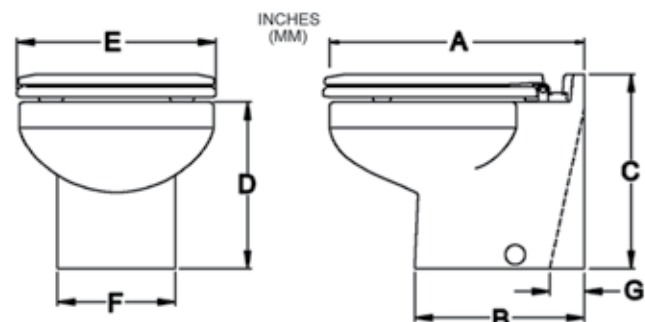
221549	Momentary Multifunction control box
221524	Momentary Multifunction Bezel White
221543	Momentary Multifunction wall panel
221545	Cable for Momentary Multifunction control

Repair kits:

DIAPUMPRK	Inlet pump repair kit
MERK	Discharge pump repair kit
162400	Fittings and O-rings for inlet pump

Marine Elegance Dimensional Drawing

BOWL TYPE	A	B	C	D	E	F	G
ME ANGLLED BACK	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	2 1/8 (54)
ME STRAIGHT BACK	18 3/8 (467)	12 1/4 (311)	14 (355)	12 (305)	14 (355)	8 1/2 (216)	NA
ME - TALL ANGLLED BACK	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	2 1/8 (54)
ME - TALL STRAIGHT BACK	18 3/8 (467)	12 1/4 (311)	17 (432)	15 (380)	14 (355)	8 1/2 (216)	NA



Atlantes Freedom Ordering Instructions

To find the correct part number for your application please read the following instructions.

Column 1

enter (A) = for Atlantes Freedom models

Column 2

enter [] = left blank defaults to our Standard Household bowl

enter (L) = Elongated bowl

Column 3

enter (7) = Momentary flush lever

This option allows users to flush toilet with incoming water and discharge or discharge only depending on your requirements.

enter (8) = Timed Flush Lever

This option includes a toilet control unit which allows for a timed flush operation while still controlling the intake and discharge separately, momentary flush lever will work if electronic timer fails.

enter (9) = Wall switch without bowl handle.

Allows all options of the Timer Flush option plus a water saver feature.

Note: only options (7) and (8) come with our sturdy beautifully polished stainless steel handle mounted to side of bowl.

Column 4

enter [] =left blank defaults to our white standard bowl

enter (A) = Bone household bowl

Note: This option is only available when 2nd column is left blank.

enter (B) = Black Household bowl

Note: This option is only available when 2nd column is left blank.

enter (A) = Bisque Elongated bowl

Note: This option is only available if (L) was selected in 2nd column.

Column 5

enter [] = left blank defaults to our standard integral pump

Our integral pump design conceals all components within the onepiece china bowl for a nice clean look.

enter (R) = Remote Sea water pump

This option allows users to install pump away from the head to reduce noise levels, allows for easier access to the pump and is ideal where longer runs are required.

enter (F) = fresh water solenoid

This allows users to use the pressurized fresh water onboard to keep orders down associated with raw water intake. Features our Whisper Flush, designed for quite operation.

Column 6

enter (12) = 12 volts

enter (24) = 24 volts

enter (32) = 32 volts

enter (24T) = 120/240 volt hook up options

We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

A Atlantes	Bowl size	7 Momentary Flush Lever	Bowl Color	Pump style	12 Specify	additional options available - Contact Technical Support
	Household (standard)	8 Timed Flush Lever	White (standard)	Integral pump (standard)	24 Voltage	
	L Elongated	9 Wall switch	A Bone Household bowl	R Remote Sea water Pump	32	
			A Bisque Elongated bowl	F Freshwater Solenoid	24T 120/240	
			B Black Household bowl			

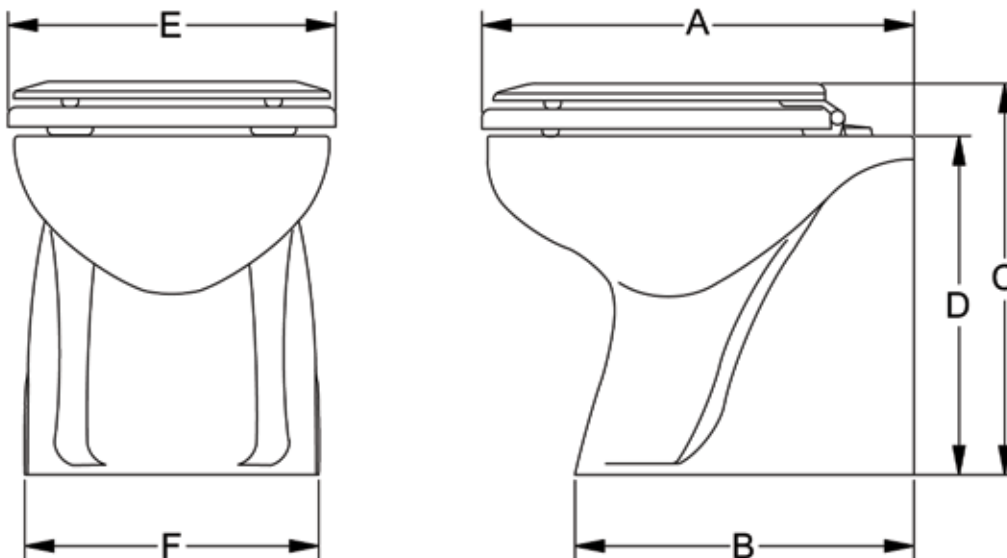
Atlantes Toilet Requirements:

Wiring:	Wiring: 12 AWG: Wire gauge will increase depending on distance from power source.
Circuit:	12V – 15amp
Power:	Freshwater Model 11 amps 12V Intake Pump Model 20 amps 12V
Pressurized Water Supply:	¾" line 3 gallons per minute, minimum pressure 5psi
Available in:	12, 24, 32 VDC and 120 or 240 VAC
Discharge:	1.5" ID hose required
Optional:	Internal vented loop Deoderant System (ADS)

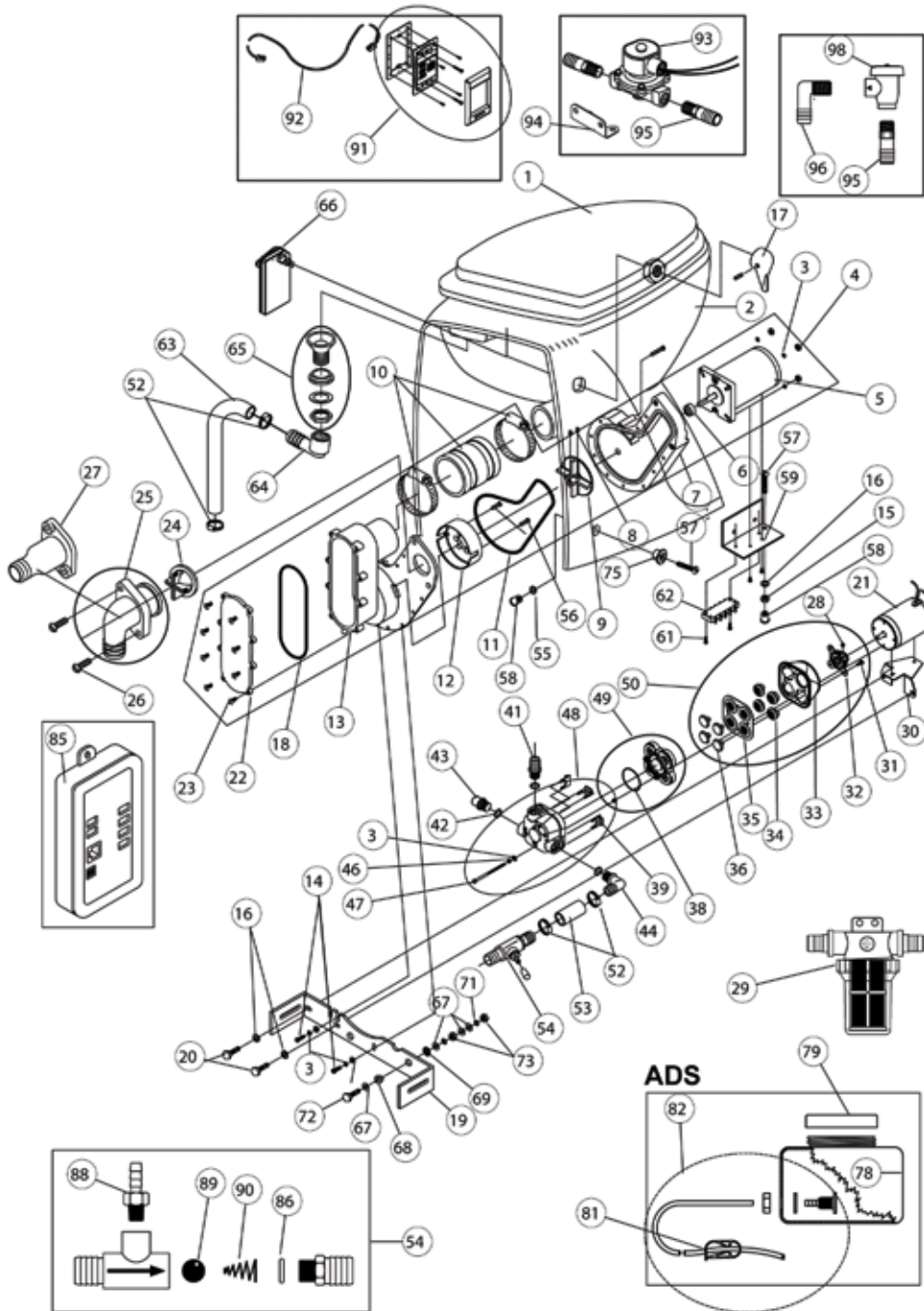
Atlantes Dimensional Drawing

BOWL TYPE	A	B	C	D	E	F
STANDARD	19 (482)	15 (380)	17 3/16 (440)	15 (380)	13 3/4 (350)	14 (355)
ELONGATED	21 (545)	18 1/4 (465)	17 3/16 (440)	15 (380)	14 1/2 (368)	14 (355)

INCHES
(MM)



Atlantes Exploded View



Atlantes Freedom Parts List

Item #.	Part #	Description
1	1245+	Seat & Cover
1	AL030+	Seat & Cover (elongated)
2	AM001AW	Atlantes bowl (Almond)
2	AM001W	Atlantes Bowl (white)
2	AL001W	Atlantes Bowl Elongated (white)
2	AL001AW	Atlantes bowl elongated (Almond)
3	M23A	#10 Lockwasher S/S (19)
4	F111	10-32 S/S Nut (4)
5	AM60112	Discharge Motor 12 V
5	AM60124	Discharge Motor 24V
5	AM60132	Discharge Motor 32V
6	31-102	Motor Shaft Seal
7	AM110	Discharge Pump Back
8	F105NP	1/4-28 Set screw (2)
9	AM161	Grinder Impeller
10	AM031	Discharge Connection (set of 3 pcs)
11	AM114	Discharge pump O ring
12	AM162	Grinder Teeth
13	AM130A	Discharge pump body
14	F143VT	10-32 x1" pan hd sltd screw (2)
15	1226B	1/4-20 nut s/n (2)
16	1118	1/4" locking star washer (4)
17	AM665W	Handle S/S w/set screw
18	AM141	Discharge cover O ring
19	AM020B	Pump mounting bar bracket
20	1119	1/4-16 x 1 1/4" rnd hd screw (2)
21	1660*	Pump motor *
22	AM140	Discharge Cover
23	F148VT	8-32x7/16 s/s truss hd screw (8)
24	C254	Joker Valve
25	1222AW	90 degree elbow
26	F147VT	3/8-16x 1 1/2 rnd hd screw (2)
27	1222B	Straight discharge
28	F005	1/4-20 x 5/16" SS Hex SOC (2)
29	163000	Seawater Inline Strainer
30	AM515	Atlantes inlet pump mounting brkt
31	F172	Plastite screw #10 x 1/2" (4)
32	162325	A Bearing Plate
33	162305	Lower Housing
34	162320	Piston seat (4)
35	162310	Diaphragm
36	162315	Piston (4)
38	162225	O-ring
39	162420	Fitting Clip (3)
41	162410	3/4" Hose Barb Straight
42	162425	O-ring (3)
43	162415	Plug Fitting
44	162405	3/4" Hose Barb 90o Fitting
46	F144	#10 Washer s/s flat (2)
47	F162VT	Inlet Pump Mounting Bolt (4)
48	162100W	Upper Housing Assembly
49	162200W	Middle Housing Assembly
50	162300W	Lower Housing Assembly
52	CH43	Hose clamp S/S 3/4" (5)
53	CH42	3/4" PVC hose
54	31-307W	T-Check Valve Assy.
55	F180	Rubber Washer
56	F106	Screw, Trilobular, #6 x 3/4 phil pan hd
57	F089	1/4-20x 2" rnd hd screw (2)
58	F035	Isolation Nut (3)
59	AM165	Terminal Block Bracket
60		
61	F108	Screw #4 x 1 (2)

Item #	Part #	Description
63	AM519	Intake Hose from Diaphragm Pump
64	1236E	Bowl Elbow
64	41-260	Bowl Elbow for fresh water units
65	1236AW	Spud Assembly
66	AM600W	Flush control & wire harness
67	M31	1/4" Brass flat washer (8)
68	RNI	Nylon Shoulder Washer
69	F069	1/4" Fiber washer
71	HLWQB	1/4" Split Lockwasher
72	HSB1	1/4-20 Brass screw (2)
73	M30	1/4-20 Brass nut (4)
75	AM028	Bushing
85	501*W	Toilet control for A7 & A8
85	502*W	Toilet control for A9

OPTIONAL DEODORANT/SALT FEED PARTS LIST (ADS)

78	31-301	Salt Feed Tank
79	31-302	Salt Feed Tank Cap
81	31-304C	Plastic Tubing Clamp
82	31-304W	Assembly

OPTIONAL T-CHECK VALVE PARTS LIST

54	31-307W	T-check Valve Assy.
86	31-307E	O-Ring
88	31-308W	Siphon T check Valve
89	CH12	Check Ball
90	CH8	Check Valve Spring

WALL MOUNTED FLUSH CONTROL

91	ATW641	Flush control w/ bezel
92	31-618	Cable for flush control

SOLENOID VALVE FRESH WATER UNITS

93	CWPS12B	1/2 GC Solenoid valve 12V
93	CWPS24B	1/2 GC Solenoid valve 24V
93	CWPS32B	1/2 GC Solenoid valve 32V
95	CWPSMB	Mounting Bracket for CWPS
95	PLA14	1/2" MPT to 3/4" barbed Nipple (2)

Toilet Control

85	50112W	Toilet Control 12 Volt for A7 & A8
85	50124W	Toilet Control 24 Volt for A7 & A8
85	50132W	Toilet Control 32 Volt for A7 & A8

ATMOSPHERIC(ANTI-SIPHON) VACCUM BREAKER

98	PLAVB0-5	Atmospheric Vacuum Breaker
96	PLA13	1/2" NPT to 3/4 hose elbow
95	PLA14	1/2" MPT to 3/4" barbed Nipple

PARTS NOT SHOWN

RTAH24DA	Power Converter For 120/240VAC UNIT
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ADDITIONAL ACCESSORIES AVAILABLE FROM RARITAN

1PCP22	C.P. Cleans Potties, 22 OZ
AHDA1W	Internal Vented Loop
SH	Sanitation Hose 1 1/2" (sold by foot)
VL 1 1/2	Vented Loop 1 1/2"
VL 3/4	Vented Loop 3/4"
YV	"Y" Valve
1PCHGAL	Cleans Hoses, Tanks and MSD (gal.)

+ specify color

* specify Voltage (12, 24 or 32 volt)

Crown Head Ordering Instructions

To find the correct part number for your application please read the following instructions.

Column 1

enter (**C**) = Crown Head

Column 2

enter [] = left blank defaults to our Standard white marine size bowl

enter (**W**) = white household size bowl

enter (**A**) = bone household size bowl

Column 3

enter [] = left blank defaults to our Standard straight discharge

enter (**9**) = a 90 Degree discharge

Column 4

enter (**12**) = 12 volts

enter (**24**) = 24 volts

enter (**32**) = 32 volts

enter (**24T**) = 120/240 volt hook up options

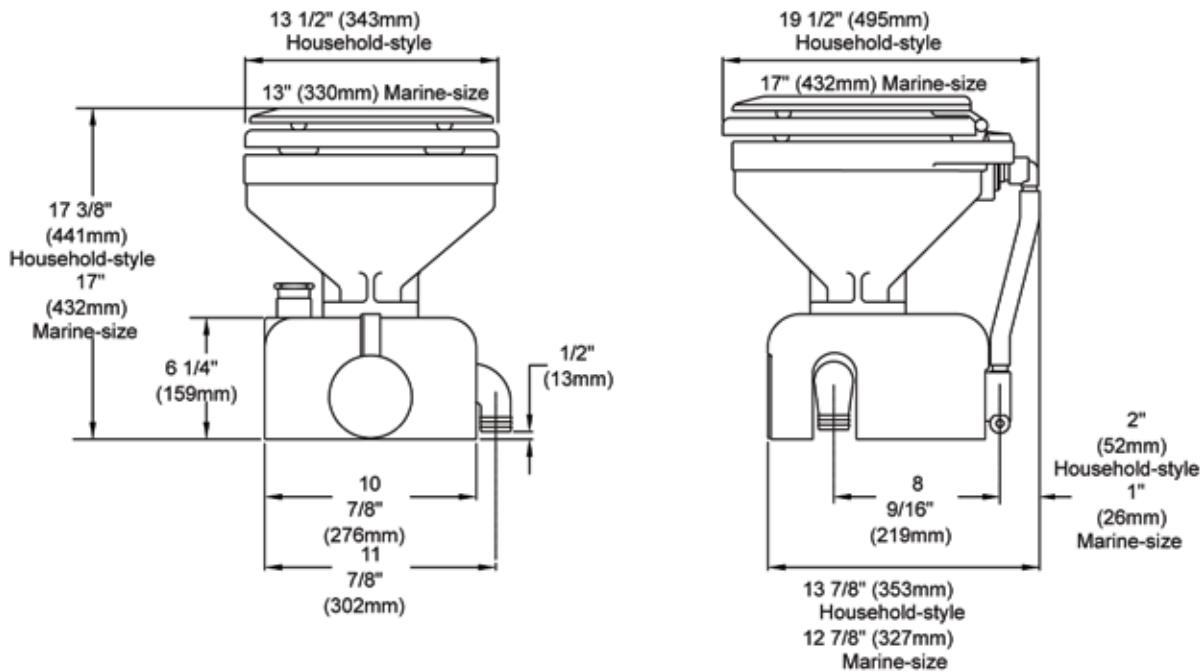
We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

C Crown head	White bowl, marine-size (<i>standard</i>) W White, bowl household-style A Bone, bowl household-style	Straight Discharge (<i>standard</i>) 9 90° Discharge	12 Specify 24 Voltage 32 24-T 120/240
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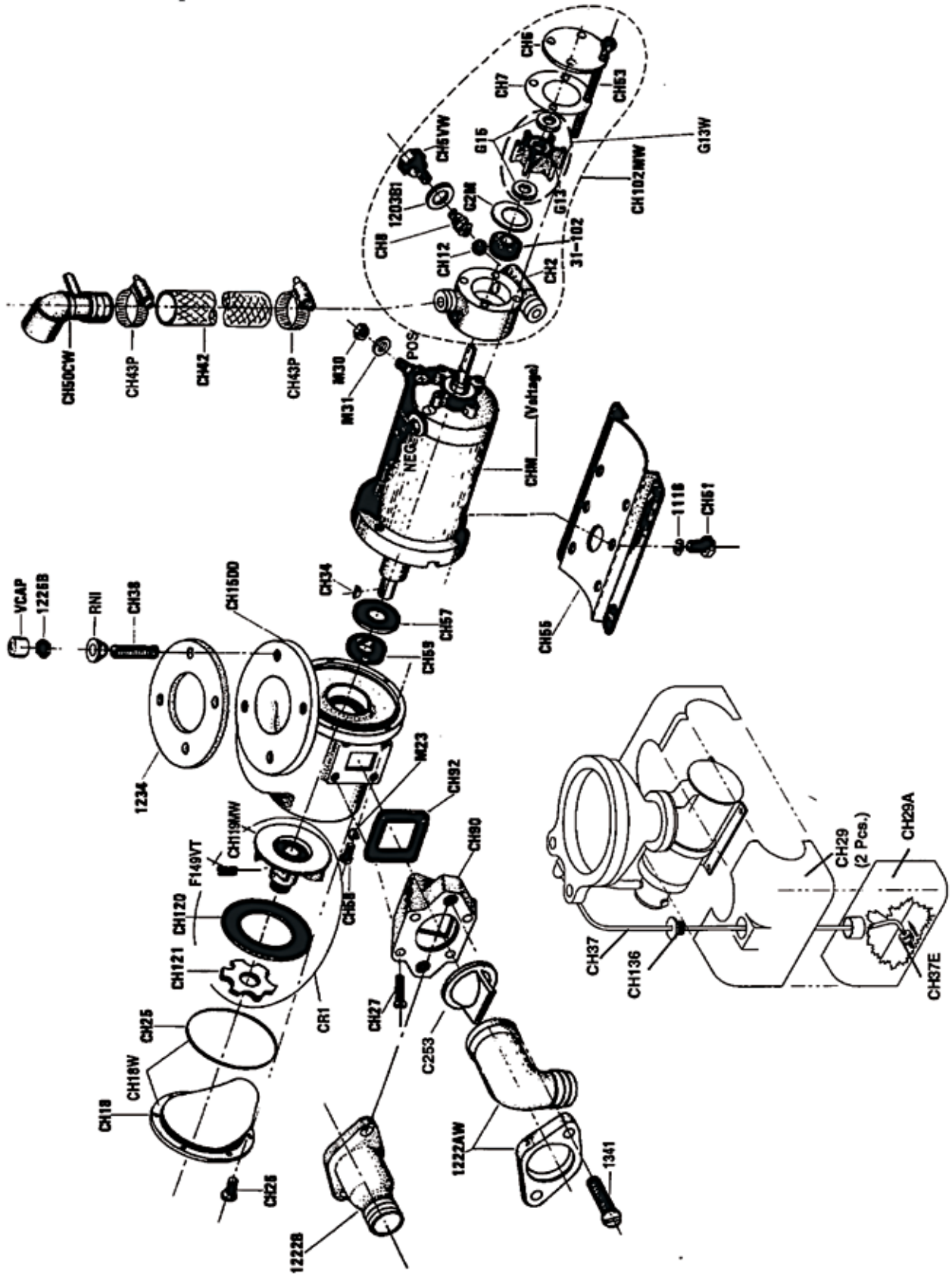
Crown Head Toilet Requirements:

Wiring:	6 ga., will increase depending on distance from source
Circuit:	12V – 50 amp
Power:	36 amps 12V
Water Supply:	¾" line
Discharge:	1.5" ID hose required

Crown Head Dimensional Drawing



Crown Head Exploded View



Crown Head Parts List

Item #	Part #	Description	MISCELLANEOUS RELATED PARTS Part #	Description
1	1118	Lockwasher (4)		
2	1203B1	"O" Ring	1234	Bowl Gasket (fits all Raritan toilets)
3	1222AW	Discharge Ell and Flange	1236AW	Bowl Spud Assembly
4	1222B	Straight Discharge	1237W	Marine-size Bowl, Round Top Rim (white only), Incl.1236AW
4	1222BW	Straight Discharge Assembly (Incl. 1222B, CH90, CH92, [2]1115, C253, [4]CH27)	1238A	Seat and Cover for Marine-size Bowl (white only)
5	1226B	Bowl Mounting Nut (4)	1244W	Household-style Bowl, Oval Top Rim available in white or bone, includes 1236AW 1245 Seat and Cover for Household-style Bowl
6	1341	Discharge Screw (2)		
7	31-102	Motor Shaft Seal	163000	In-Line Strainer
8	C253	Joker Valve	PCP22	C.P., Cleans Potties, Bio-enzymatic, 22 oz.
9	CH102MW	Intake Pump Assembly, complete	CDS*	Continuous Duty Solenoid Relay
10	CH119MW	Discharge Impeller Assy. (Incl. CH119M, [2]F149VT)	CHTT9	Hose Clamp for 1 1/2" I.D. Hose
11	CH12	Check Ball	CON22	Raritan Concentrate 22 oz.
12	CH120	Discharge Pump Wall	CSRK	Repair Kit (Centrifugal DischargeSeries) Includes: CH25, CH92, 1234, CH12, G13, CH8, CH37E, RNI, CH120, C253, CH59, 31-102, CH7, G15, 1203B1and CH57
13	CH121	Macerator	CDPUMPRK	Crown Head CD Series & CH11 Intake Pump Repair Kit (built before 4/95 Includes:1203B1, CH12, G13, G2M, 31-102, CH7 and G15
14	CH136	Siphon Cap for Shroud Bottle	CDDISRK	Crown Head CD Series Discharge Repair Kit; Includes: 1234, CH120, CH57, CH92, C253, CH25 and CH59
15	CH15DD	End Bell	CR1	Discharge Impeller and Macerator Assy. (incl. CH120, CH121, F149VT[2], and CH119MW)
16	CH18W	Front Cover (w/"O" ring)	PBS	Pushbutton Switch
17	CH2	Pump Body (w/shaft seal)	RHT4	Inline Check Valve for 1 1/2" I.D. Hose RTC* Raritan Off-delay Timer
18	CH25	Front Cover "O" Ring	RTCH24DA	Rectified Transformer (for 120 or 240 VAC input)
19	CH26	Front Cover Screw (6)	SH	Sanitation Hose, 1 1/2" I.D. (sold by the foot)
20	CH27	Mounting Screw (4)	SL	Super-Lube 1/2 oz. tube
21	CH291	Shroud (2 pcs.)	VL 3/4	Vented Loop 3/4"
22	CH291ALM	Shroud, Bone (2 pcs.)	VL 1 1/2	Vented Loop 1 1/2"
23	CH29A	Shroud Bottle (Concentrate Reservoir)	YV	"Y" Valve for 1 1/2" I.D. Hose
24	CH29B	Shroud Screw (2)		
25	CH29A1W	Shroud Assembly, Complete w/bottle, cap and siphon		
26	CH336W	Siphon Assembly, Complete (Incl. CH136, CH37, CH37E)		
27	CH34	Woodruff Key		
28	CH37	Siphon Tubing		
29	CH37E	Siphon Check Valve		
30	CH38	Bowl Stud (4)		
31	CH42	Hose		
32	CH43P	Hose Clamp (2)		
33	CH5VW	Pump Plug, Vented(Incl. 1203B1 O Ring)		
34	CH50CW	Bowl Elbow w/Siphon Intake		
35	CH51	Base Screw (4)		
36	CH52	Rubber Mounting Strip (2) not shown		
37	CH53	Pump Mounting Screw (4)		
38	CH55A	Base Plate		
39	CH57	Slinger		
40	CH58	End Bell Screw (4)		
41	CH59	Seal with Stainless Steel Spring		
42	CH6	Pump Cover Plate		
43	CH7	Pump Gasket		
44	CH8	Check Valve Spring		
45	CH90	Discharge Adapter		
46	CH92	Adapter Gasket		
47	CHM*	Motor		
48	F149VT	Set Screw (2)		
49	G13	Pump Impeller		
50	G15	Impeller Washer (2)		
51	G13W	Pump Impeller w/(2) G15		
52	G2M	Impeller Wear Plate		
53	M23	Lockwasher (4)		
54	M30	Hex Nut, Brass (2)		
55	M31	Flat Washer, Brass (2)		
56	RNI	Nylon Bowl Mounting Washer (4)		
57	VCAP	Vinyl Cap (bowl nut cover)		

Crown Head II Ordering Instructions

To find the correct part number for your application please read the following instructions.

Column 1

enter (C2) = Crown Head II models

Column 2

enter [] = left blank defaults to our standard white marine size bowl

enter (A) = bone household bowl

enter (W) = white household bowl

Column 3

enter [] = left blank defaults to our Standard straight discharge

enter (9) = a 90 Degree discharge

Column 4

enter [] = left blank defaults to our standard remote intake pump

Allows users to run pump dry without damage. Allows for easier access to the pump and is ideal where longer runs are required.

enter (F) = fresh water solenoid

This allows users to use the pressurized fresh water onboard to keep orders down associated with raw water intake.

Column 5

enter (12) = 12 volts

enter (24) = 24 volts

enter (32) = 32 volts

enter (24T) = 120/240 volt hook up options

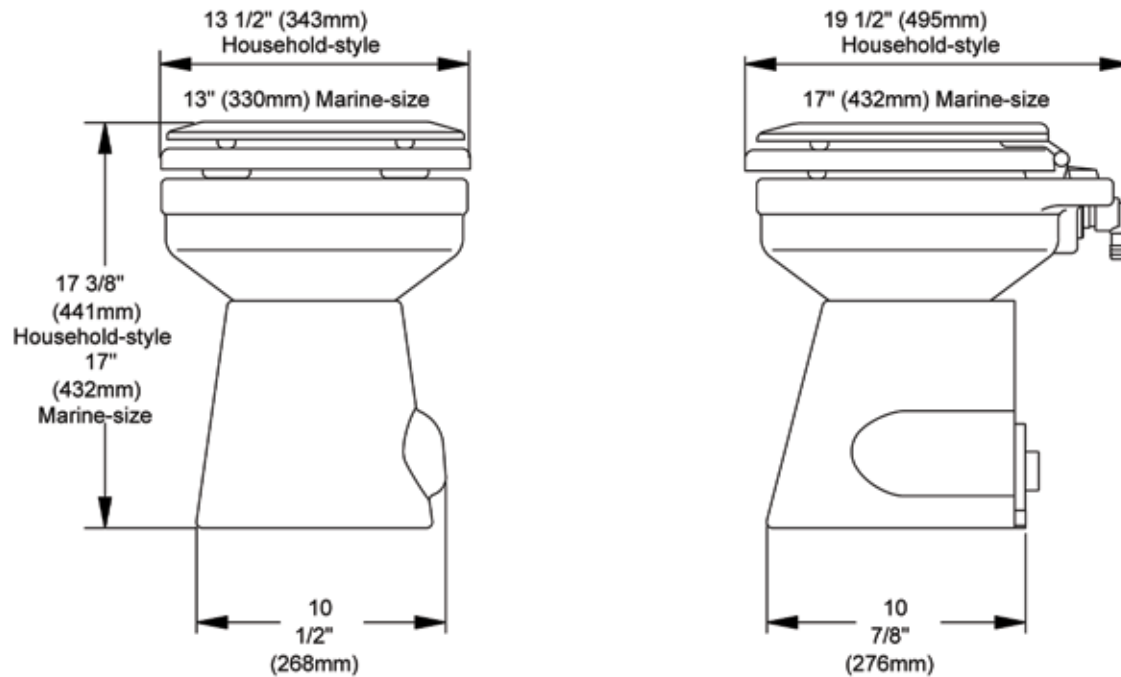
We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

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

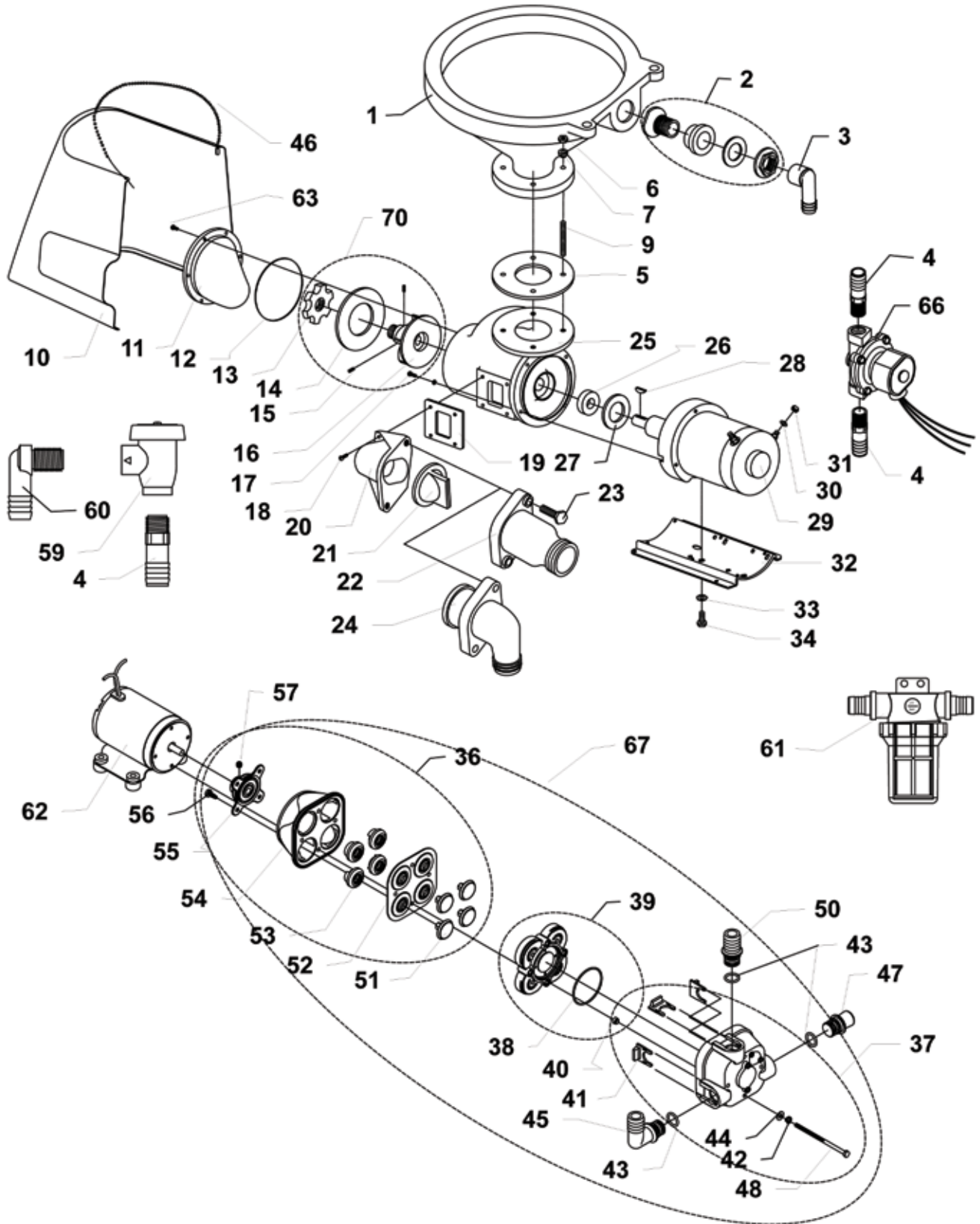
Crown Head II Toilet Requirements:

- Wiring:** 10 ga., will increase depending on distance from source
- Circuit:** 12V – Freshwater model 25 amp
Intake pump model 40 amp
- Power:** Freshwater Model 19 amps
Intake Pump Model 28 amps
- Water Supply:** ¾" line 3 gallons per minute, minimum pressure 5psi
- Discharge:** 1.5" ID hose required
- Optional:** wall switch control, holding tank full indicator on switch

Crown Head II Dimensional Drawings



Crown Head II Exploded View



Crown Head II Parts List

Item #	Part #	Description	Item #	Part #	Description
1	1244AW	Household-style Bowl Assembly, (Bone) includes 1236AW	51	162315	Piston (4)
1	1244W	Household-style Bowl Assembly, (White)includes 1236AW	52	162310	Diaphragm includes 162315
1	1245	Household-style Seat and Cover (White) (Not shown)	53	162320	Piston Seat (4) includes 162315
1	1245A	Household-style Seat and Cover (Bone) (Not shown)	54	162305	Lower Housing includes 162315
1	1237W	Marine-size Bowl Assembly (White) includes 236AW (Not shown)	55	162325A	Bearing Plate Assembly includes F005, 162315
1	1238A	Marine-size Seat and Cover (White) (Not shown)	56	F020	Piston Fastener (4)
2	1236AW	Bowl Spud Assembly	57	F005	Set Screw
3	1236E	Bowl Elbow	59	PLAVB0-5	Atmospheric Vacuum Breaker
4	PLA14	Male Adapter 1/2 MNPTx3/4 Barb	60	PLA13	Elbow, 1/2" NPT x 3/4"
5	1234	Bowl Gasket	61	163000	In-line Strainer
6	1226B	1/4" - 20 S/S Hex Nut (4)	62	1660*	A Remote Motor
7	RNI	Nylon Shoulder Washer (4)	63	CH26	Front Cover Screw
9	CH38	Bowl Stud (4)	67	162000W	Intake Pump Assembly includes 162100W, 162200W, 162300W
10	C246	Lower Cover, Bone, Household-style	164000		Heavy Duty Push Button Switch (Not shown)
10	C247	Lower Cover, White, Household-style	166000		Diaphragm Intake Pump Assembly 12V includes 162100W, 162200W, 162300W and 1660*A
11	CH18W	Front Cover w/"O" Ring	166100		Diaphragm Intake Pump Assembly 24V includes 162100W, 162200W, 162300W and 1660*A
12	CH25	Front Cover O-Ring	166200		Diaphragm Intake Pump Assembly 32V includes 162100W, 162200W, 162300W and 1660*A
13	CH121	Macerator	CH52		Rubber Mounting Strip (2), (Not shown)
14	CH120	Discharge Pump Wall	CR1		Discharge Impeller and Macerator Assembly includes CH120, CH121, F149VT(2), CH119MW
15	F149VT	Set Screw (2)	F173		Screw: Plastite, #6 x 1/2 phil pan head
16	CH119MW	Discharge Impeller Assy. includes CH119M,	70		
17	CH58	Fillister Head Screw (4) 10-32x3/4" S/S			
18	CH27	Mounting Screw (4)10-32x5/8" S/S			
19	CH92	Square Rubber Gasket			
20	C290	Discharge Adapter			
21	C253	Joker Valve			
22	1222B	Straight discharge	WATER SOLENOID VALVE		
23	1341	Discharge Screw (2)	66	CWPS*B	1/2" Water Solenoid Valve
24	1222AW	90 Degree discharge (opt.)	CWPSMB		Mounting Bracket for CWPS (Not shown)
25	CH15DD	End Bell			
26	CH59	Seal	ADDITIONAL ACCESSORIES AVAILABLE		
27	CH57	Rubber Slinger	TC*+		Toilet Control (Not shown)
28	CH34	Woodruff Key	RTC*		Raritime Solid State Timer with solenoid (Not shown)
29	C2M*	Crown Head II Motor, 12, 24, 32 VDC	SH		Sanitation Hose 1 1/2 inch, white(Not shown)
30	M31	#14 Brass Washer (4)	SWF100+		Flush Control (Not shown)
31	M30	1/4" - 20 Brass Nut (4)	TWK		Toilet Water Kit (Not shown)
32	CH55	Base Plate	VL1_W		Vented Loop 1_" (Not shown)
33	1118	Lockwasher (4)	RTCH24DA		Rectified Transformer (for 120/240 VAC input)
34	CH51	Base Mounting Screw (4)	YV		"Y" Valve, 1 1/2 inch
36	162300W	Lower Housing Assembly			
37	162100W	Upper Housing Assembly			
38	162225	O-Ring			
39	162200W	Middle Housing Assembly			
40	162135	Cone Seal			
41	162420	Fitting Clip (3)			
42	M23A	#10 Lockwasher (4)			
43	162425	Fitting O-Ring (3)			
44	F144	Mounting Bolt Washer (4)			
45	162405	3/4" Hose Barb - 90° Fitting			
46	C250	Beaded Wire Tie			
47	162415	Plug Fitting			
48	F162VT	Mounting Bolt			
50	162410	3/4" Hose Barb - Strai			

* Specify Voltage
+ Specify Color

Sea Era Ordering Instructions

To find the correct part number for your application please read the following instructions.

Column 1

enter (160) = Sea Era models

Column 2

enter (H) = white household size bowl

enter (M) = white marine size bowl

enter (L) = Conversion kit

This allows users to replace base of electric or manual toilet for added convenience.

Column 3

enter (I) = our integral pump

enter (R) = Remote Sea Water pump

This options allows users to install pump away from the Head to reduce noise levels, allows for easier access to the pump and is ideal where longer runs are required.

enter (F) = fresh water solenoid

This allows users to use the pressurized fresh water onboard to keep orders down associated with raw water intake. Features our Whisper Flush, designed for quiet operation.

Column 4

enter (0) = straight discharge and 90 degree

Column 5

enter (12) = 12 volts

enter (24) = 24 volts

enter (32) = 32 volts

enter (24T) = 120/240 volt hook up options

Column 6

enter (03) = Momentary fill / dry flush switch

Note: Only available with remote pump (R) and freshwater solenoid (F) models.

Allows users to fill, or empty bowl, and or momentary flush options depending on your requirements to minimize water usage.

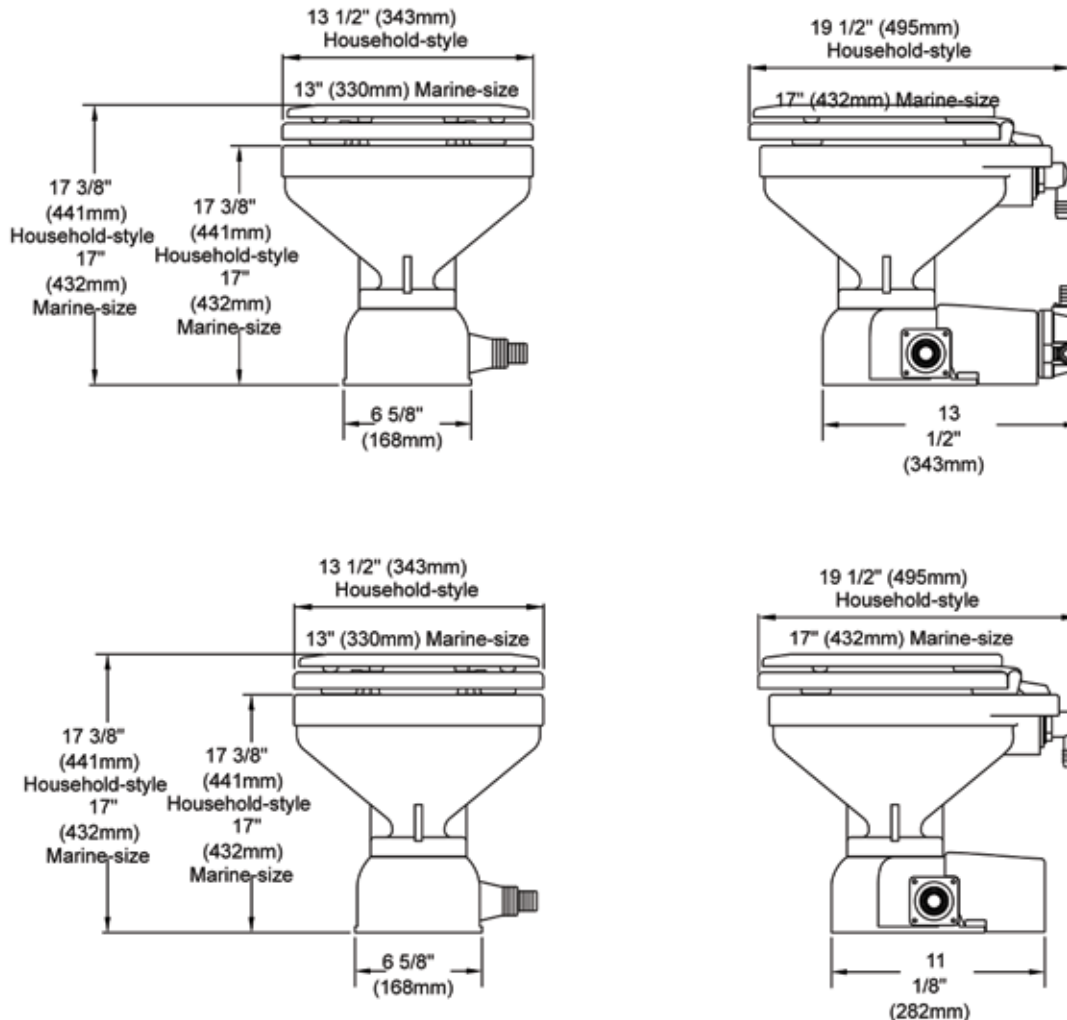
We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

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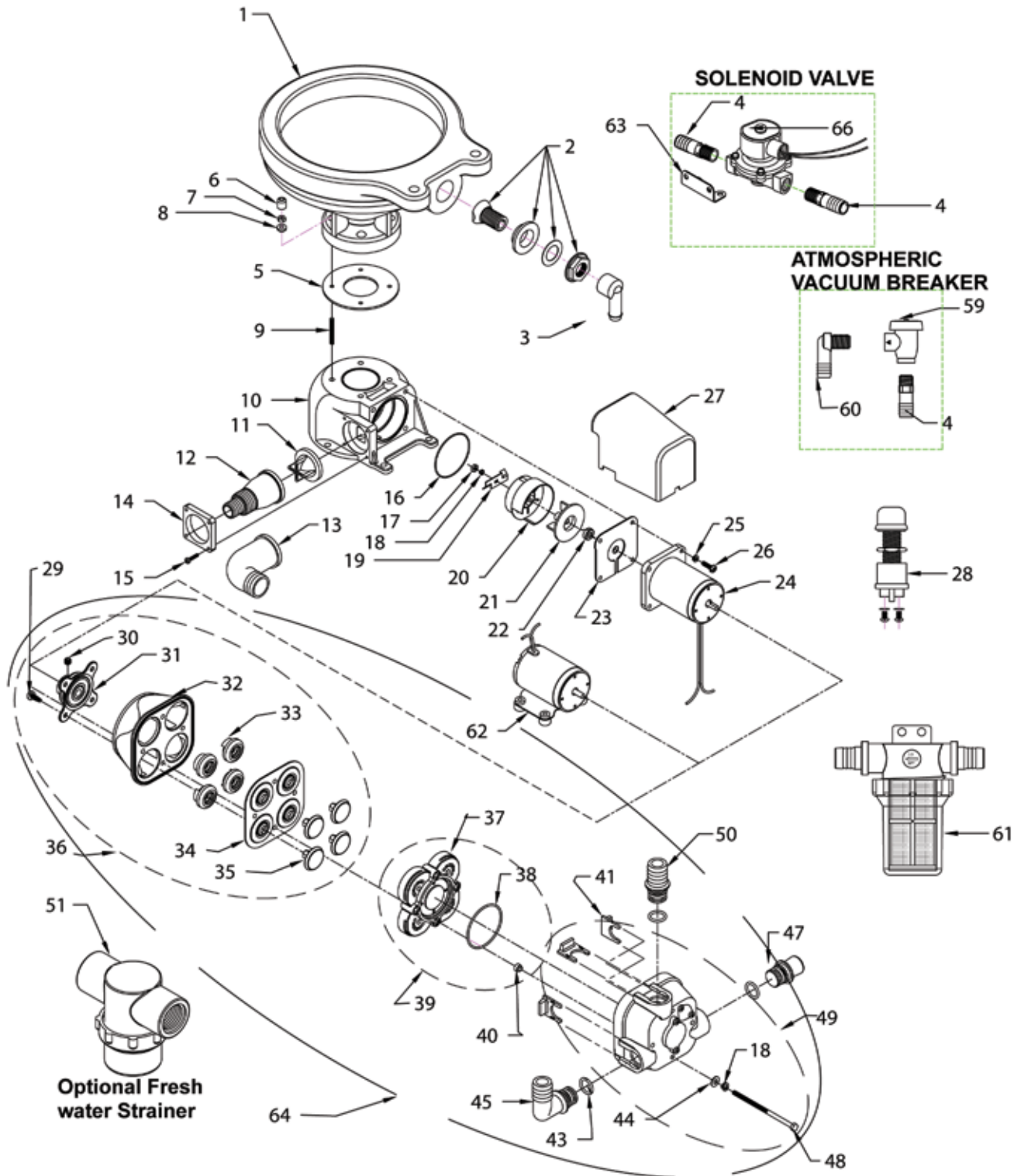
Sea Era Toilet Requirements:

- Wiring:** 10 ga., will increase depending on distance from source
- Circuit:** 12V – Freshwater model 25 amp
Intake pump model 25 amp
- Power:** Freshwater Model 13 amps
Intake Pump Model 23 amps
- Water Supply:** ¾" line 3 gallons per minute, minimum pressure 5psi
- Discharge:** 1.5" ID hose required for 90 degree discharge and straight accepts either 1" or 1 ½"
- Optional:** wall switch control, holding tank full indicator on switch

Sea Era Dimensional Drawings



Sea Era Exploded View



Remote intake pump is also used in Marine Elegance models.

Sea Era Parts List

Item #	Part #	Description
1	1237	Marine-size Bowl
1	1244	Household-style Bowl
2	1236AW	Bowl Spud Assembly
3	1236E	Bowl Elbow
3	41-260	Bowl Elbow (Freshwater Models Only)
5	1234	Bowl Gasket
6	VCAP	White Vinyl Cap
7	1226B	1/4-20 Hex Nut (4)
8	RNI	Shoulder Washer
9	CH38	Water Solenoid Valve Mounting Bracket
10	161105	Base
11	C254	Joker Valve
12	161130	Discharge Fitting
13	1222AW	90° Discharge Fitting
14	161125	Discharge Mounting Flange
15	F164	Discharge Mounting Flange Fastener(4)
16	161107	Seal Plate O-Ring
17	1108A	Macerator Nut
18	M23A	Macerator Lockwasher (5)
19	161123	Macerator Blade
20	161120	Impeller/Macerator Housing
21	161115	Impeller
22	31-102	Shaft Seal
23	161110	Seal Plate
24	1610*	Discharge Motor
25	HW1	Mounting Screw Lockwasher (4)
26	1226	Mounting Screw (4)
28	164000	Push Button Switch
29	F172	Plastite screw #10 x1/2"
30	F005	Set Screw
31	162325A	Bearing Plate Assembly includes #162315
32	162305	Lower Housing includes #162315
33	162320	Piston Seat (4) includes #162315
34	162310	Diaphragm includes #162315
35	162315	Piston (4)
36	162300W	Lower Housing Assembly
37	162205	MIDDLE HOUSING
38	162225	O-Ring
39	162200W	Middle Housing Assembly
40	162135	Cone Seal
41	162420	Fitting Clip (3)
43	162425	Fitting O-Ring (4)
44	F144	Mounting Bolt Washer (4)
45	162405	3/4" Hose Barb - 90° Fitting
47	162415	Plug Fitting
48	F162VT	Mounting Bolt
49	162100W	Upper Housing Assembly
50	162410	3/4" Hose Barb - Straight Fitting (2)
51	190601	Inline Fresh Water Strainer (optional)
61	163000	Inline Strainer

Item #	Part #	Description
Additional Parts Included with INTEGRAL MODELS		
27	161140	Motor Cover Integral
Additional Parts Included with REMOTE MODELS		
27	161135	Motor Cover
62	1660*	A Intake Motor
	166000	Remote Intake Pump, 12V DC
	166100	Remote Intake Pump, 24V DC
	166200	Remote Intake Pump, 32V DC
64	16200W	Remote Intake Pump W/O Motor
Additional Parts Included with FRESHWATER MODELS		
4	PLA14	1/2MNPT X 3/4 Hose Barb
27	161135	Motor Cover
59	PLAVB0-5	Atmospheric Vacuum Breaker
60	PLA13	1/2 MNPT to 3/4 Hose Barb Elbow
63	CWPSMB	Water Solenoid Valve Mounting Bracket
66	CWPS*B	1/2" GC Solenoid Valve
Repair Kits		
	DIAPUMPRK	Diaphragm Pump Repair Kit
	SEADISRK	SeaEra Discharge Repair Kit

* Specify DC Voltage (12, 24, 32)

Repair Parts

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.

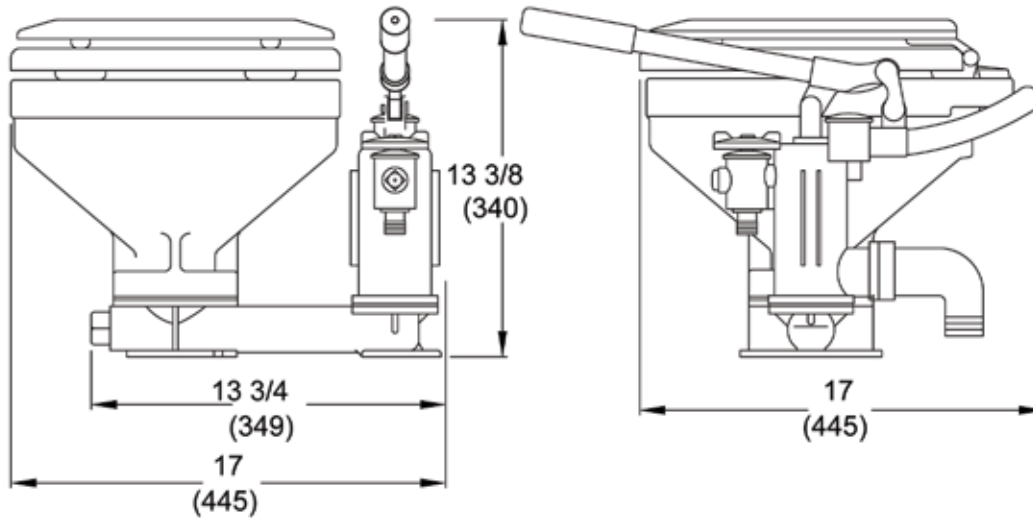
DETERMINING PROPER REPAIR KITS FOR ELECTRIC TOILETS:

Product Name	Retrofits	Repair Kit for Complete Unit	Intake Pump	Discharge Pump
Atlantes Freedom Before 4/95 inlet pump repairs contact Raritan tech support.		order intake and discharge pump kits	DIAPUMPRK	
Atlantes Pressurized Freshwater Model e.g. AF12 01/90- current		N/A	N/A	ATDISRK
Atlantes Remote or Integral Impeller Pump 01/90- 06/02		order intake and discharge pump kits	N/A	ATDISRK
Atlantes Remote or Integral Diaphragm Pump 06/02- current		order intake and discharge pump kits	DIAPUMPRK	ATDISRK
Crown Head Deep Draft(DO)- 12V Draws 50 Amps 01/87-01/87	CRI- Converts DD to CD Series Macerator	CDRK	CHPUMPRK	
Crown Head Standard - 12V Draws 30 Apms 01-65 -01/87		CHRK	CHPUMPRK	CHDISRK
Crown Head CD Series (Centrifugal Discharge) 12V Draws 36 Amps 02/87- current		CSRK	CDPUMPRK	CDDISRK
Crown Head II Pressurized Fresh Water Model e.g. C2F12 12/90- current		N/A	N/A	CDDISRK
Crown Head II Models with SPP Intake Impeller Pump 12/90- 4/95		order intake and discharge pump kits	CDPUMPRK	CDDISRK
Crown Head II Models with AM200 Intake Impeller Pump 04/95- 06/02 Before 4/95 inlet pump repairs contact Raritan tech support.		order intake and discharge pump kits	N/A	CDDISK
Crown Head II Models with Intake Diaphragm Pump 06/02- current		order intake and discharge pump kits	DIAPUMPRK	CDDISRK
PHE and PHEII refer to chart for manual toilets				
Sea Era All Models			DIAPUMPRK	SEADISRK
Marine Elegance All Models			DIAPUMPRK	MERK

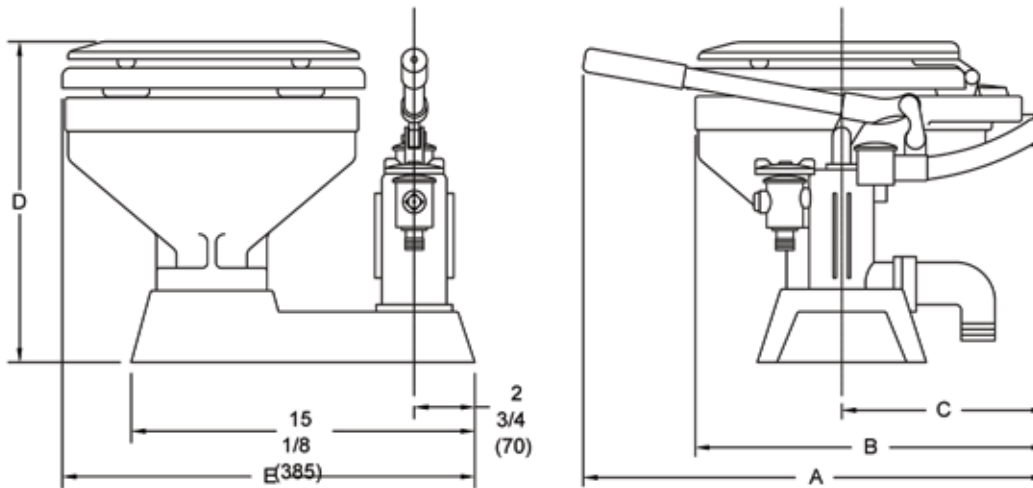
LIST OF PARTS CONTAINED IN ELECTRIC TOILET REPAIR KITS:

ATDISRK	ATLANTES DISCHARGE PUMP KIT	QTY	CHDISRK	CROWN HD. (PRE 10/87)	QTY
31-102	MOTOR SHAFT SEAL	1	1234	BOWL GASKET WHITE	1
AM031	2X2 PVC CONNECTION	1	C253	C253 JOKER VALVE RED	1
AM114	DISCHG. PUMP O-RING	1	CH1117W	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: 1 CC 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
ATPUMPRK	ATLANTES & CHII (POST 4/95)	QTY	CHPUMPRK	CROWN HD. (PRE 10/87), GM	QTY
31-102	MOTOR SHAFT SEAL	1	CH11	PUMP SHAFT SEAL	1
31-307E	O-RING: T-CHECK ASSY/RVCV	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: 1 CC PACKET	2
SL1CC	SUPER LUBE: 1 CC PACKET	4			
CDDISRK	CROWN HD. CD SERIES DISCH	QTY	DIAPUMPRK	DIAPRAGHM PUMP KIT	QTY
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	SEADISK	SEAERA DISCHARGE KIT	QTY
SL1CC	SUPER LUBE: 1 CC PACKET	2	1234	BOWL GASKET WHITE	1
			161107	O-RING	1
CDPUMPRK	CROWN HD. CD SERIES	QTY	31-102	MOTOR SHAFT SEAL	1
1203B1	PH: INLET VALVE O-RING	1	C254	C254 JOKER VALVE	1
31-102	MOTOR SHAFT SEAL	1	RNI	NYLON SHOULDER WASHER	4
CH12	CHECK BALL: 5/8	1	SL1CC	SUPER LUBE: 1 CC PACKET	1
CH7	PUMP GASKET	1	VCAP	VINYL CAP	4
G13	G13W PUMP IMPELLER	1			
G15	TEFLON IMPELLER WASHER	2	MERK	MARINE ELEGANCE	QTY
G2M	WEAR PLATE	1	221105	DISCHARGE KIT	
SL1CC	SUPER LUBE: 1 CC PACKET	2	221135	O-RING	1
			31-102	JOKER VALVE	2
				MOTOR SHAFT SEAL	1

PHII & PHEII Dimensional Drawings



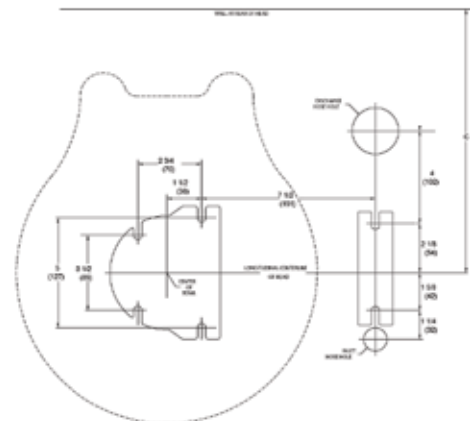
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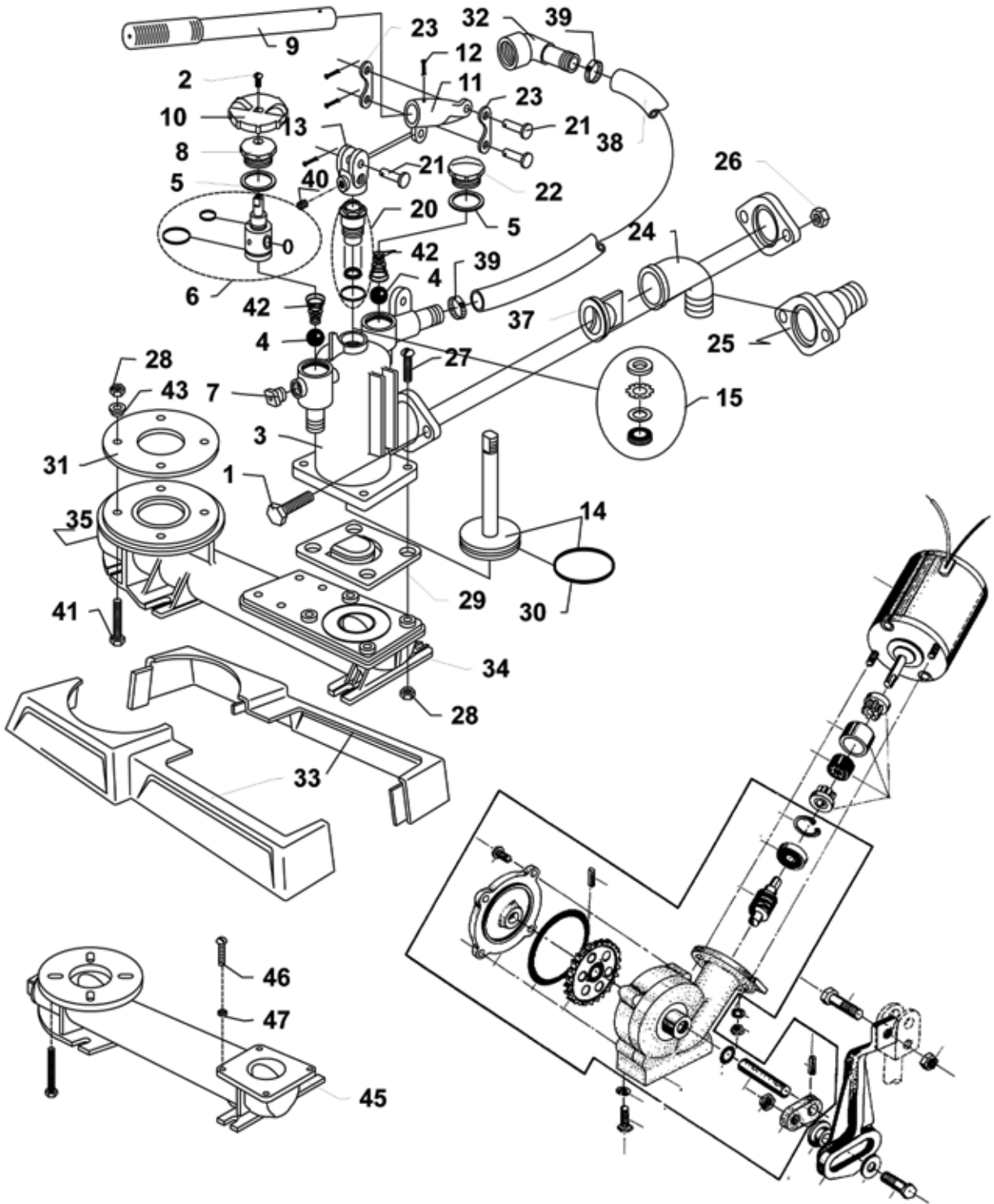
P-47

BOWL TYPE	A	B	C	D	E
MARINE	20 (588)	17 3/8 (442)	10 1/2 (267)	14 1/4 (362)	18 (458)
HOUSE-HOLD	22 3/4 (578)	20 3/8 (518)	11 3/4 (300)	14 1/2 (368)	18 1/4 (464)

INCHES
(MM)



PHII Exploded View



PHII and PHEII Parts List

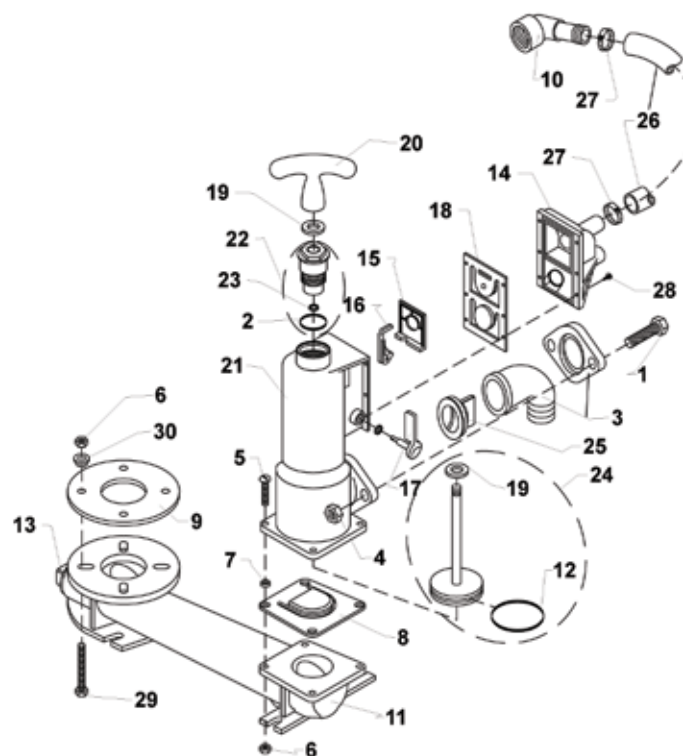
Item #	Part #	Description	Item #	Part #	Description
1	1115	3/8"-16 x 1 1/2" Hex Head S/S Bolt(2)	PARTS FOR ELECTRIC DRIVE		
2	1124	1/4"- 20 x 1/2" R.H. Machine Screw	1100W		Gear Box Housing Assembly
3	1200CW	Pump Housing	1102		Worm
4	1201	Intake and Discharge Valve Ball (2)	1104		Ball Bearing
5	1202	Intake and Discharge Valve Gasket (2)	1105		Snap Ring
6	1203BW	Intake Valve Body w/"O" Rings (1203B, 1203B1, 1203B2, 1203B3)	1106AS		Rubber Connection w/Sleeve
7	1203W	Air Valve Assembly	1106W		Coupling w/Sleeve, complete
8	1204B	Intake Valve Cap	1108A		Motor Mounting Nut (2)
9	1206W	Handle	1109*		Motor (12, 24V DC)
10	1209BW	Valve Handle	1110		O Ring
11	1210	Handle Socket	1112		Link
12	1210A	Cotter Pin (4)	1113		Link Pin, Worm Gear Pin
13	1211PL	Piston Rod Yoke	1115		3/8" - 16 x 1 1/2" Hex Head S/S Bolt
14	1212W	Piston Rod Assembly w/"O" Ring (1232MS)	1115A		3/8" - 16 Hex Jam Nut S/S
15	1213W	Piston Rod Seal Assembly, Pre-6/92, (Incl. 1213A, B, C, D)	1116BW		Connecting Rod Assy. (1116B, 1114B, 1114D)
	1213A	U Cup Seal (Pre-6/92)	1117B		Crank Bolt
	1213B	Delrin Washer (Pre-6/92)	1118		Lock Washer (4)
	1213C	Snap Ring (Pre-6/92)	1119/1119A		Hex Head Screw (4)
	1213D	White Neoprene Washer (Pre-6/92)	1120W		Worm Gear Assy.(1111, 1113, 1120)
20	1214W	Piston Shaft Seal Cartridge Assy (1214, 1214A, 1214B) Fits pumps mfg. after 6/92	1122		O Ring
	1216	Clevis Pin (3)	1123		Gear Box Cover
21	1217	Discharge Valve Cap	1124		1/4"- 20 x 1/2" R.H. Machine Screw(4)
22	1218	Fulcrum Link (2)	M23A		#10 Lockwasher S/S (2)
23	1222AW	90° Discharge w/Flange (Std.)	PHC PARTS		
24	1222B	Straight Discharge (Opt.)	46	1226A	Housing Screw 1/4"-20 x 1 1/4" S/S (4)
25	1223B	Flange Nut 3/8"-16 S/S (2)	47	1226C	Plastic Spacer Washer (4)
26	1226	Housing Screw 1/4"-20 x 1" S/S (4)	45	1301PW	Toilet Base Assembly (1301P, 1343)
27	1226B Nut,	1/4"-20 S/S (8)	41	F081	Bowl Bolt 1/4"- 20 x 2" S/S Hex head
28	1228CW	Flapper Valve Assembly (1/2" Holes)	BOWL & SEAT		
29	1232MS	Piston "O" Ring	1236AW		Spud assy.
30	1234	Bowl Gasket	1237W		Marine-size Bowl assy.
31	1236E	Bowl Elbow	1244W		White Household-style Bowl assy.
32	1246W	Base Cover (2 pcs.)	1238A		Marine-size seat & cover
33	1248W	Base w/Plug	1245		Household-style seat & cover
34	1249	Base Plug	VCAP		Vinyl Cap(4)
35	1250W	Base and Cover Assy.(1246W and1248W)	OVERHAUL KITS		
37	C253	Joker Valve	PHRKII		PHII&PHEII-U-cup Seal (mfg.before6/92)
38	CH42	Hose (" I.D.)	PHRKIIC		PHII&PHEII-Cartridge Seal (mfg.after 6/92)
39	CH43P	Hose Clamp (2)	PHIIPUMP		PHII Pump replacement assembly
40	F005	1/4"- 20 x 5/16" S/S Socket Set Screw	CONVERSION KITS		
41	F081	Bowl Bolt 1/4"-20 x 2 S/S Hex head	PHECKII*		Conversion Kit from Manual to Electric
42	LWS	Intake and Discharge Valve Spring (2)	RARITAN INSTALLATION ACCESSORIES		
43	RNI	Nylon Shoulder Washer (4)	163000		In-Line Strainer
			164000		Push button switch
			1PCP22		C.P., Cleans Potties, Bio-enzymatic, 22 oz.
			CHTII		Compact holding tank - 5 gallon
			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

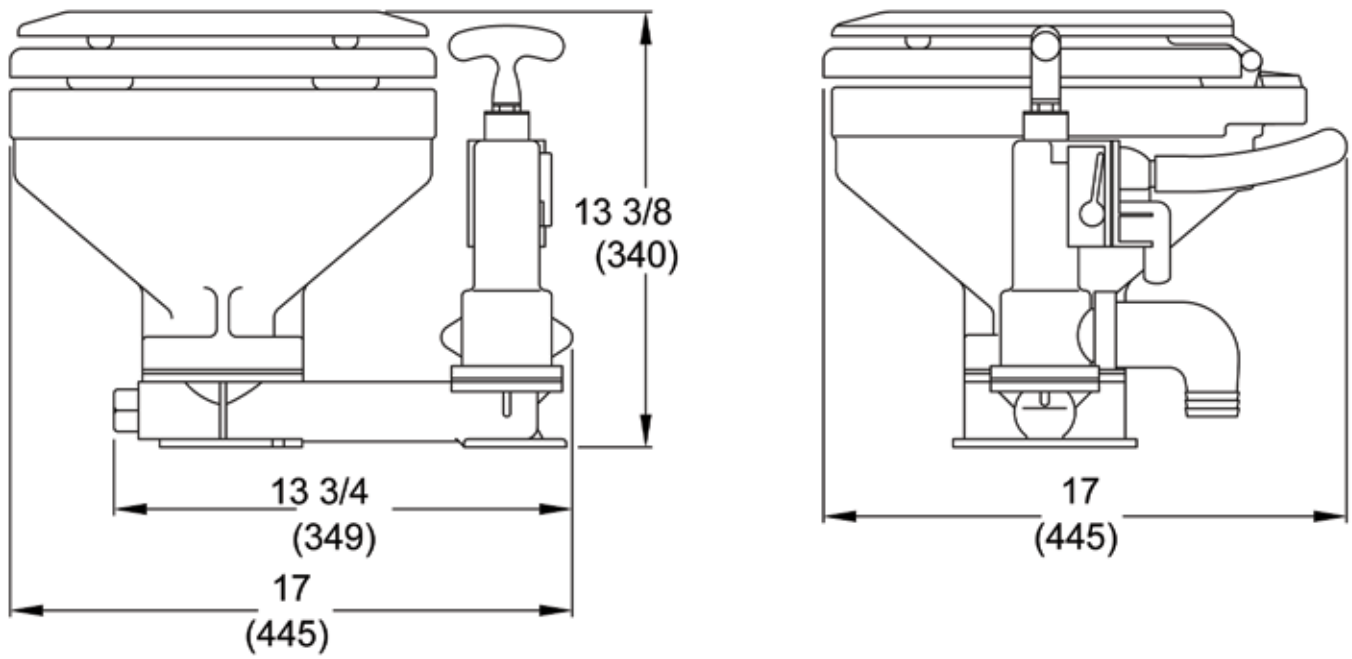
*Specify Voltage

Compact II Parts List

Item #	Part #	Description	Part #	Description
1	1115	3/8 - 16 x 1 1/2 Hex HD S/S		Major Subassemblies
2	1214B	O Ring	CPIILBA	Compact II Pump and Base Assy, Complete
3	1222AW	90o Discharge Ell w/flange		
3	1222B	Discharge Fitting - Straight (Optional,not shown)	CPIIPump	Compact II Pump Assy. Complete
4	1223B	3/8 - 16 S/S Nut (2)		
5	1226A	1/4 - 20 x 1 1/4", RH S/S Screw(4)		BOWL AND SEAT
6	1226B	1/4 - 20 Nut, S/S (8)	1236AW	Spud Assembly (supplied w/bowls) (not shown)
7	1226C	Plastic Spacer Washer (4)		
8	1228CW	Flapper Valve Assembly	1236E	Bowl Elbow
9	1234	Bowl Gasket	1237W	Marine-size Bowl Assembly (w/1236AW spud assy.)
11	1301PW	Toilet Base Assembly (w/drain plug)		
12	1316MS	Piston "O" Ring	1238A	Marine-size Seat and Cover
13	1343	Plastic Drain Plug, 1_" NPT		
14	1346	Check Valve Housing		Other Accessories
15	1347	Separator Plate	163000	In-Line Strainer
16	1348	Cam	1PCP22	C.P., Cleans Potties, Bio-enzymatic, 22 oz.
17	1349W	Shutoff Handle w/seal		
18	1350W	Check Valve Assy. (1350,1351 & 1352)	RNI	Shoulder Washer (4)
19	1353	Bumper Washer (2)	TWK	Raritan Toilet Water Kit. Allows Raritan "Concentrate" to be metered into the flush water.
20	1354	Flushing Handle		
21	1355	Pump Housing, Compact II		
22	1356W	Seal Cartridge Assy. (1214B & 1357)	CON22	Raritan "Concentrate" head deodorant and lubricant.
23	1357	U-Cup Seal (2)		
24	1359W	Piston Rod Assy.(1316MS, 1353 & 1359A)	CPRKII	Compact II Repair Kit
25	C253	Joker Valve	SH	1 1/2" I.D. Sanitation Hose (sold by the foot)
26	CH42	Hose (3/4" I.D.)		
27	CH43P	Hose Clamp, Nylon (2)		
28	F020	#10 Self-Tapping Screw (6)	SL	Super-Lube 1/2 oz. tube
29	F081	Hex head Cap S/S Screw (1/4-20 x 2") (4)		

Compact II Exploded View



Compact II Dimensional Drawing


inches(mm)

DETERMINING PROPER REPAIR KITS FOR MANUAL TOILETS:

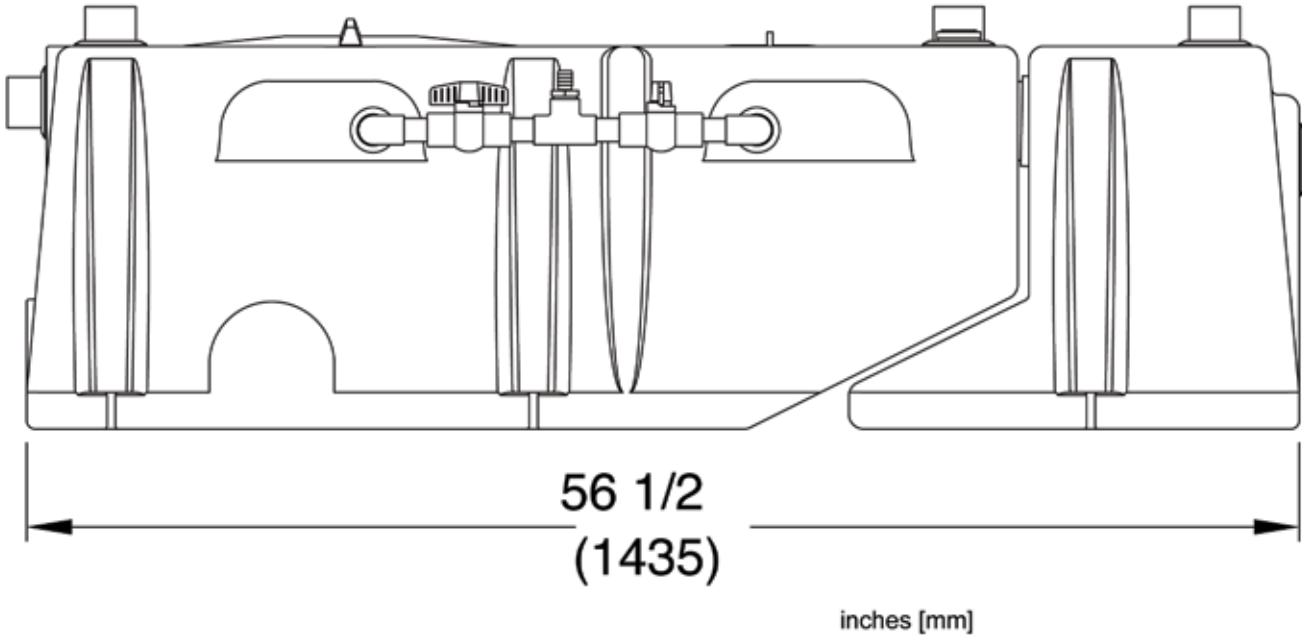
Product Name	Retrofits	Repair Kit
Compact 01/72- 1994	CPIIRFK Converts CP to CPII	CPRKNI
Compact II		CPRKII
PH& PHE PH= Mannual Only PHE= Electric or Mannual 01/68- 11/81	PHIIPUMP - Converts PH to PHII can not convert PHE must buy PHEII	PHRK
PHII & PHEII Inlet knob - 1/4 turn Piston - U cup seal with snap ring 11/81- 06/92	PHECKII - Converts mannual PHII to Electric operation	PHRKII
PHII & PHEII Piston - Hex Head Nut Seal 06/92- current		PHRKIIC

LIST OF REPAIR PARTS CONTAINED IN MANUAL TOILET REPAIR KIT

Toilet Repair Kits

CPRKNI	Compact Repair Kit	QTY	PHRHII	PH & PHE Repair Kit	QTY
1226C	Plastic Spacer Washer	4	1110	O-Ring	1
1228CW	Flapper Valve	1	1202	PH: Valve Cap Gasket	2
1234	Bowl Gasket White	1	1213A	PH: U-Cup	1
1306	Valve Shaft Retain. Ring	1	1213B	PH: Delrin Washer	1
1310W	Check Valve Assy	2	1213C	Snap Ring	1
1314	Delrin Gasket: Check Valv	1	1213D	White Neoprene Washer	1
1316	Piston O-Ring	1	1226C	Plastic Spacer Washer	4
1318	Plastic Washer	1	1228CW	Flapper Valve	1
1320	Piston Rod Seal	1	1232MS	Piston Multiseal O-Ring	1
1321	Seal Snap Ring	1	1234	Bowl Gasket White	1
1345/01	White Rubber Washer	2	C253	Joker Valve	1
C253	Joker Valve	1	RNI	Nylon Shoulder Washer	4
CH44	Fiber Washer	1	SL1CC	Super Lube: 1CC Packet	3
RNI	Nylon Shoulder Washer	4			
SL1CC	Super Lube: 1CC Packet	2	PHRKIIC	PHII & PHEII Repair Kit	QTY
CPRKII	Compact II: Repair Kit	QTY	1201	PH: 3/4 Valve Ball	2
1214B	O-Ring	1	1202	PH: Valve Cap Gasket	2
1226C	Plastic Spacer Washer	4	1203B1	PH: Inlet Valve O-Ring	1
1228CW	Flapper Valve	1	1203B2	PH: Inlet Valve O-Ring	1
1234	Bowl Gasket White	1	1203B3	PH: Inlet Valve O-Ring	1
1316MS	Compact II: Multiseal O-R	1	1214A	Shaft Seal	1
1350W	Compact II: Inlet Flapper	1	1214B	O-Ring	1
1353	Compact II: Bumper Washer	2	1214	1214WPHII: Piston	1
1356	1356W CPII: Cartridge	1	1226C	Plastic Spacer Washer	4
1357	Compact II: U-cup Seal	2	1228CW	Flapper Valve	1
C253	Joker Valve	1	1232MS	Piston Multiseal O-Ring	1
RNI	Nylon Shoulder Washer	4	1234	Bowl Gasket White	1
SL1CC	Super Lube: 1CC Packet	2	C253	Joker Valve	1
			RNI	Nylon Shoulder Washer	4
			SL1CC	Super Lube: 1CC Packet	3

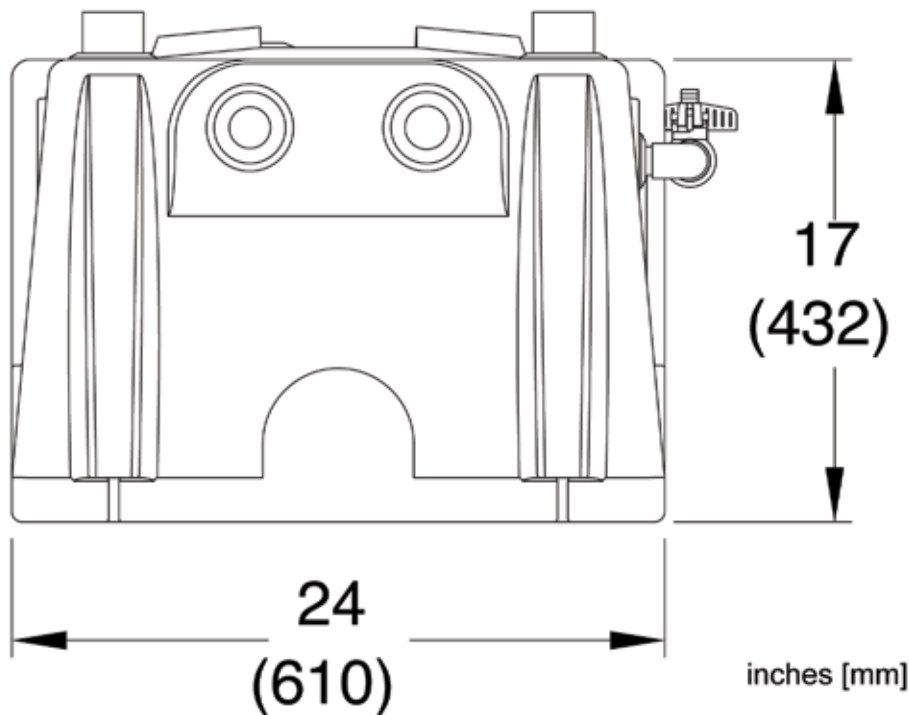
Managem Dimensional Drawing



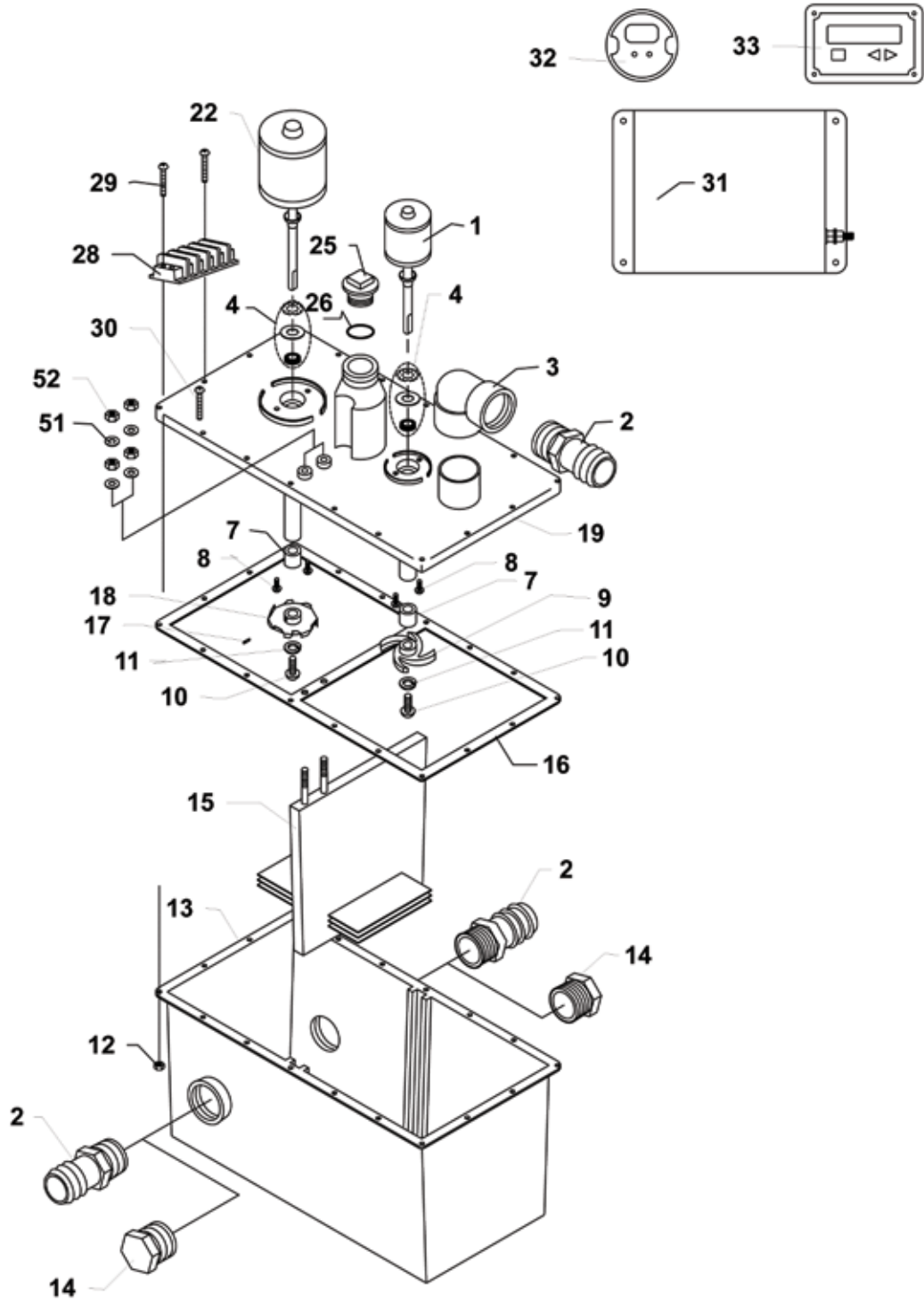
Managemr Parts List

Part #	Description
640101	Primary Treatment Tank Assembly
64102	Manway Lid, 16"640103Ring/C Gasket, 16"
640104	Manway Lid, 8"640105Ring/C Gasket, 8"
640111	Filter Brush (3) - [Not shown]
F171	Screw, #8-32 x 3/4" Plastite, 18-8 black
640116	Dispenser
PLCF1-5	1½" Flex Coupling
PLCAP3-0W	Dispenser Cap, w/"O" Ring
640201	Secondary Tank Assembly
1PKO22	K.O. - Kills Odor, 22 oz.
640121	Startup Enzymes, 12-B Count Sewage Enzyme, 3 oz.
6401120	Air Pump, 120 VAC
640143	Air Hose, Clear PVC, 5/8" I.D. x 3/4"O.D.
640205	Bio-Sanitizer Tablets (not shown)
640130	Air Pump Filter
640135	Air Pump Repair Kit

Managemr Dimensional Drawing



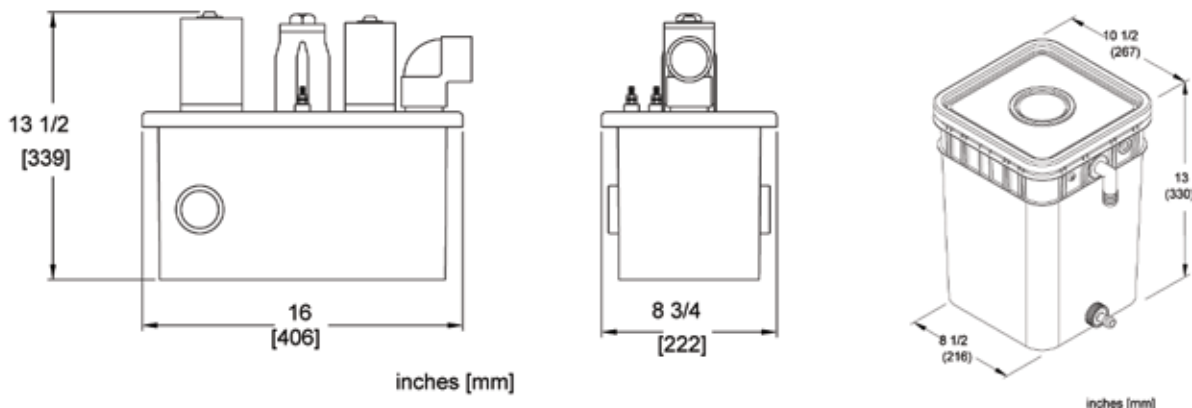
Electroscan Exploded View



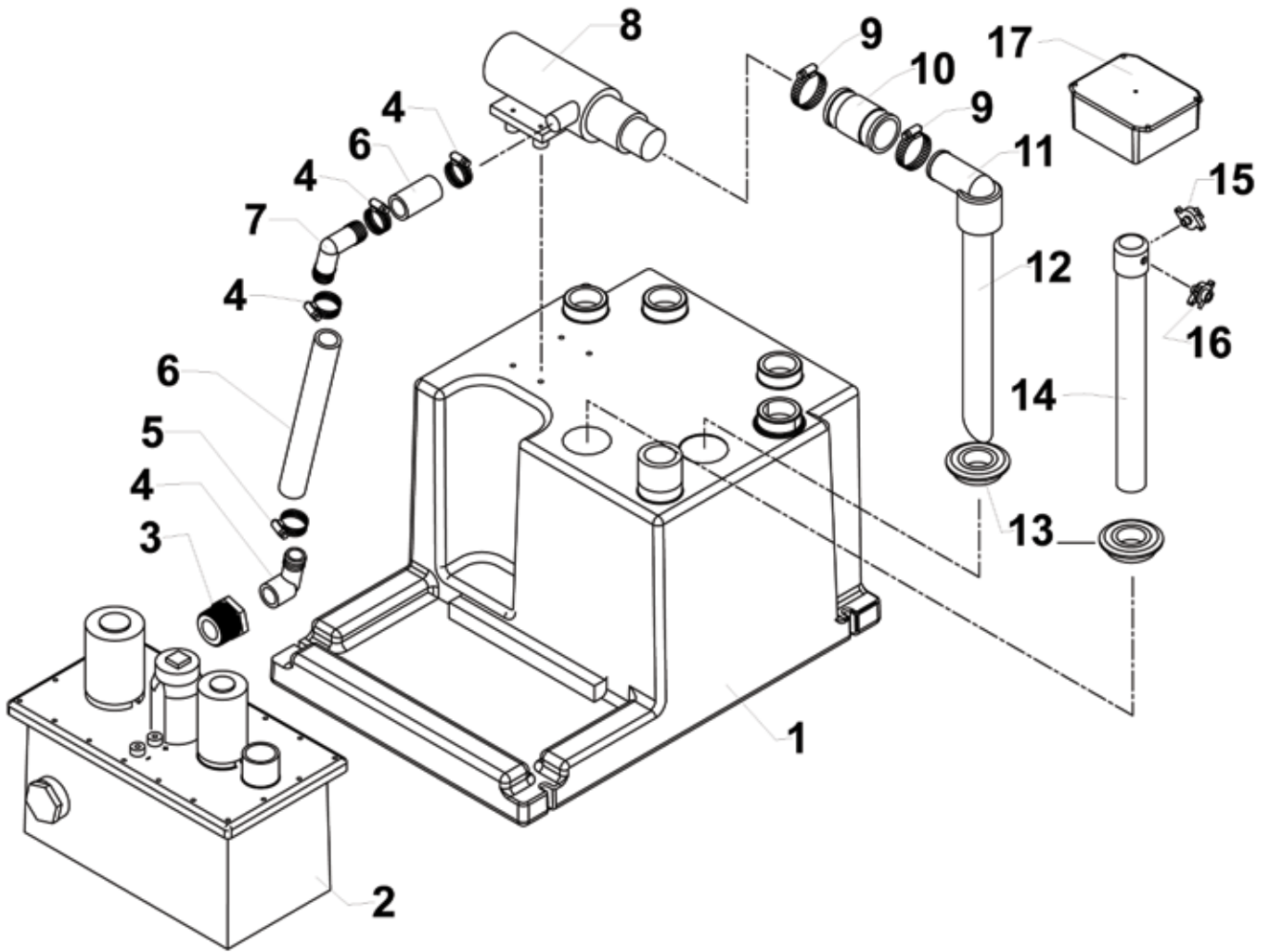
Electroscan Parts List

Item #	Part #	Description	Item #	Part #	Description
1	32-102AW	Mixer Motor 2 1/2" Dia. 12 VDC	33-3003		Four gallon salt feed tankw/24 volt pump (not shown)
1	33-102AW	Mixer Motor 2 1/2" Dia. 24 VDC	32-7000		12 V DC Treatment Unit - No Control Unit, System Status Panel or LCD Display
1	34-102AW	Mixer Motor 2 1/2" Dia. 32 VDC	33-7000		24 V DC Treatment Unit - No Control Unit, System Status Panel or LCD Display
2	31-121	Hose Fitting (2)	34-7000		32 V DC Treatment Unit - No Control Unit, System Status Panel or LCD Display
3	31-120	Discharge Elbow 90°			
7	31-103	Motor Shaft Bushing (2)			
8	31-106	10-32x7/8"RHMS,S/S (4)			
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			
22	32-101AW	Macerator Motor 3" Dia. 12 VDC			
22	33-101AW	Macerator Motor 3" Dia. 24 VDC			
22	34-101AW	Macerator Motor 3" Dia. 32 VDC			
25	31-104CW	Crossover Plug with o-ring(26)			
26	31-105	O-Ring			
28	ETB2	Terminal Block			
29	31-113-2	Terminal Block Bolt (2)			
30	31-134	Cover Hold Down Screw 10-32 x 1 Hex(16)			
51	M31	Electrode #14 Brass flat washer (4)			
52	M30	Electrode Nut 1/4-20 Brass (4)			
		Status Panel or LCD Display			
		SALT FEED SYSTEM (not shown)			
	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)			
		Control Parts			
	31-618	Cable for LCD and System Status Panel (not shown)			
	33 31-702	LCD Display			
	32 31-705	System Status Panel			
	31 32-700	Control Unit 12V			
	31 33-700	Control Unit 24V			
	31 34-700	Control Unit 32V			
	WAES01T	Wire Harness (not shown)			
	31-111	Cable Clamp 1/2 x 1/2			
	31-717	Insulating Bushing (4)			
	ETP1	Terminal Protector Red			
	F110	Screw 6 x 1/2 Phil Pad HD (4) to mount Display and Start/Stop button			
		4 ESTRK Repair KIT includes following parts			
	Part #	Description			
	31-102	Motor Shaft Seal (2)			
	31-102-1	Macerator Seal Washer			
	31-102-2	Macerator Retaining Ring			
	31-102-3	Mixer Seal Washer			
	31-102-4	Mixer Retaining Ring			
	7 31-103	Motor Shaft Bushing (2)			
	26 31-105	O-Ring			
	8 31-106	10-32x7/8"RHMS,S/S (4)			
	16 31-112	Cover Gasket			
	29 31-113-2	Terminal Block Bolt (4)			
	12 31-114	Cover Hold Down Nut, 10-32 (4)			

Electroscan Dimensional Drawings



Hold N' Treat Exploded View

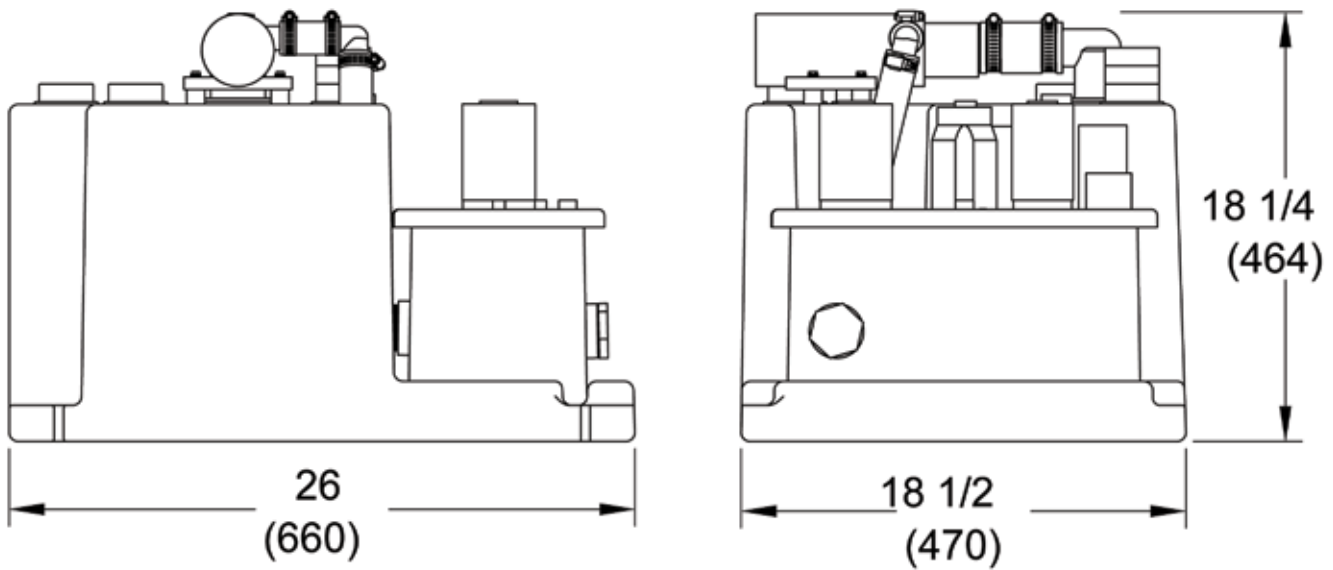


Hold N' Treat Parts List

Item #	Part #	Description
1	21T15	Holding tank 15 Gallons
2	EST *	Electro scan, xx voltage
3	PLB1-54P	1 1/2" X 1"bushing, MIPT X FIPT
4	1242	# 14 Hose clamps for 1" hose
4	PLEA91-0P	1" Elbow, Combo, INSERT X MIPT
6	1326	1" hose
8	21P*P	Macerator pump
10	PLCF1-2EP	Coupling Flex 1 1/4" EPDM
12	21PDIP1	Dip tube assembly
13	640107	1 1/2 IN. seal
14	21P15S	Sensor tube assembly
15	21P15SH	Sensor high level
16	21P15SL	Sensor low level
17	ETB4	Terminal block (not shown)
17	21PBASE	cover for sensor
	214*	Macerator Pump Relay (not shown)
	EFH01	In Line fuse holder
	EF5	5 amp Fuse
	EF30	30 AMP, ATC, fuse

*specify voltage

Hold N' Treat Dimensional Drawing



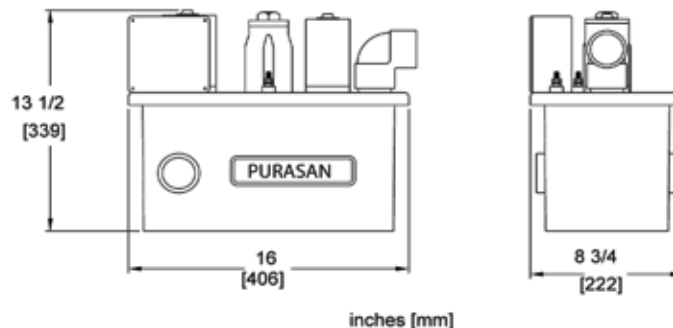
inches [mm]

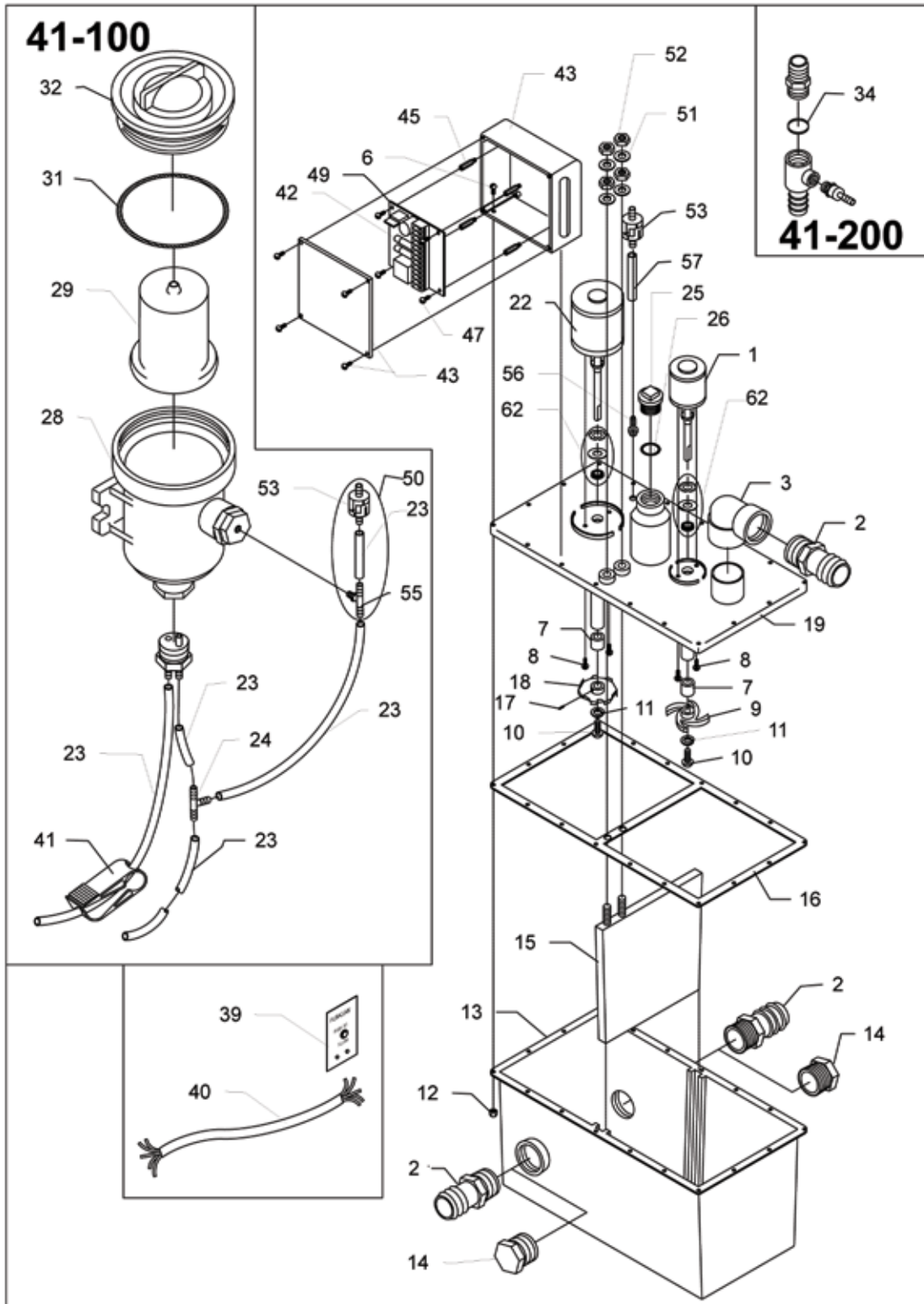
Purasan Parts List

Item #	Part #	Description	Item #	Part #	Description
1	32-102AW	Mixer Motor 2 1/2" Dia. 12 V DC	43	41-301	Control Box w/Cover and Screws
1	33-102AW	Mixer Motor 2 1/2" Dia. 24 V DC	45	F41-312	Standoff (4)
1	34-102AW	Mixer Motor 2 1/2" Dia. 32 V DC	47	CH46VT	Circuit Board Mounting Screw (4)
2	31-121	Hose Fitting (2)	49	42-303	Circuit Board, 12 V DC
3	31-120	Discharge Elbow 90o		43-303	Circuit Board, 24 V DC
6	31-106	Cover Hold down Bolt, 10-32 x 7/8", S/S (18)		44-303	Circuit Board, 32 V DC
7	31-103	Motor Shaft Bushing (2)		42-300	Electronic Control Complete*, 12 V DC
8	31-113-3	Motor Hold down Bolt, 10-32x1", S/S (4)		43-300	Electronic Control*, 24 V DC
9	31-109	Mixer Impeller		44-300	Electronic Control*, 32 V DC
10	31-110-1	Impeller Bolt, 12-24 x 5/8", S/S (2)	50	41-110	Vent Kit for Tablet Dispenser (Incl. #53, 23, 55)
11	31-110-2	Impeller Lock Washer, #12, S/S (2)	&		
12	31-114	Cover Hold down Nut, 10-32 (18)	51	M31	#14 Brass Flat Washer (4)
13	31-115	Treatment Tank	52	M30	1/4"-20 Brass Nut (4)
14	31-122	Intake Plug		41-100	Tablet Dispenser Complete(less cartridge)
15	41-102	Tank Divider		41-200	T-Fitting (Incl.34)
16	31-112	Cover Gasket		42-1000	Treatment Unit Complete 12 V DC
17	31-108	Macerator Set Screw		43-1000	Treatment Unit Complete 24 V DC
18	31-107	Macerator Impeller		44-1000	Treatment Unit Complete 32 V DC
19	31-101W	Treatment Cover		CDS*	Continuous Duty Solenoid
22	33-101AW	Macerator Motor 12 V DC		PSTDC03	Purasan Dual Control
22	34-101AW	Macerator Motor 24, 32 V DC	53	41-111	Check Valve
23	31-305	1/4" I.D. Tubing	55	41-106	T Fitting
24	41-115	Union Tee 1/4" Barbed	56	31-325	Adapter
25	31-104CW	Crossover Plug with o-ring (26)	57	31-319	3/8" x 1 3/4" Tubing
26	31-105	O-Ring	62	PSTRK	Purasan Repair Kit includes following
28	41-130	Dispenser Body (PVC)		31-102	Motor Shaft Seal (2)
29	41-135	Cartridge (refill) PURASAN Tablets Note: Cartridge must be shipped in a separate container, call 856-825-4900.		31-102-1	Macerator Seal Washer
31	RWS5	O Ring		31-102-2	Macerator Retaining Ring
32	41-131	Dispenser Cap		31-102-3	Mixer Seal Washer
34	31-307E	O Ring		31-102-4	Mixer Retaining Ring
39	41-350	Switch Panel Complete		31-103	Motor Shaft Bushing (2)
40	41-355	Control Cable		31-105	O-Ring
41	31-304C	Flow Metering Clamp		31-106	10-32x7/8"RHMS,S/S (4)
42	32-218	Fuse: F1, MDL 6 1/4 (12 V DC, 1 Req'd.)		31-112	Cover Gasket
	42-220	Fuse: F2, MDL 12 (12 V DC, 1 Req'd.)			
	32-218	Fuse: F1/F2, MDL 6 1/4 (24 V DC, 2 Req'd.)			
	34-218	Fuse: F1/F2, MDL 5 (32 V DC, 2 Req'd.)			

Other Parts Not shown
 Pressurized Kit Part # 4*-254W
 Pump Kit Part # 41-253W

Purasan Dimensional Drawing



Purasan Exploded View


The Most Dependable Name on the Water.

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