



MARINE CATALOG 2008

RARITAN

50
1958/2008

A large, stylized number '50' is positioned in the center. The '5' is blue with a black outline, and the '0' is red with a black outline. Inside the '0' is the text '1958/2008' in a white, serif font. The background of the entire cover is a dynamic, swirling blue and white pattern resembling water or waves.

The Most Dependable Name on the Water.

TO OUR CUSTOMERS, TRADING PARTNERS and FRIENDS:

Fifty years ago, Raritan started in a rented garage on Mc Neal Street in Millville, New Jersey. In 2008 we celebrate that fifty (50) years of history, of meeting our customer's needs for outstanding service and product reliability, and of becoming "the most dependable name on the water." Our customers continue to be our focus, and the source of our new products and product enhancements.

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. Over the fifty (50) years of history, we have always emphasized the maintainability and repairability of our products. 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.

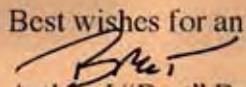
Our intent is to publish a comprehensive guide to help us sell our products, to help our customers simplify their product selection and to provide a reference for all of our products. A product selection guide aids in identifying the best products for various applications, and a similar selection guide 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.

To help ensure that we build and maintain the quality and reliability of our products, we have been ISO 9001 certified for eleven years, and have again met the requirements for the latest ISO standard, ISO 9001:2000, in January of 2008. We have a dedicated customer service staff in both Millville and Fort Lauderdale, and trained product experts who help meet peak demand for customer assistance.

Continuing our fifty (50) year old tradition of continually improving our products and product offerings, we are pleased to introduce a significant product enhancement and a new product line in this catalog:

- Our ElectroScan has been significantly redesigned; the control circuit allows the treatment unit to process waste as it is produced in "discharge areas", or to allow the waste to be stored for later treatment – once clear of a no-discharge area, the ElectroScan can then treat and discharge the stored waste, and
- We are excited to introduce a new line of "Smart" controls, headlined by a new tank monitor, the "TM4000", which can be used with water, waste or fuel, in fiberglass, polyethylene or metal tanks.

Best wishes for an enjoyable boating season,


Arthur J. "Bret" Bretnall, Jr.
President

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Whisper Series - Whisper operation and quiet operation carry many different meanings.

Raritan uses it's 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 it's durability. Still used today on many Coast Guard patrol boats because of it's 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

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 website.

Power Considerations - 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 Considerations - 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.

All Toilets

- Easy to clean and maintain • Certified Installers NOT REQUIRED
- Can be used with Electro Scan, Purasan or Lectra/San Type I MSD's or Managerm Type II

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

	Amp Draw for 12V in amp hr Pump/Solenoid	Average water usage	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	.08 / .05	2 qt.	4ft	YES	6 ft	YES	YES	NO
PHEII	.04 / NA	2 qt.	3ft	YES	3 ft	YES	YES	NO
SeaEra	.06 / .04	1.5 qt.	4ft	YES – remote and solenoid models only	9 ft	YES	YES	NO
Compact II	NA	1 qt.	NA	YES	15 ft	YES	NO	NO
PHC	NA	2 qt.	NA	YES	15 ft	YES	YES	NO
PHII	NA	2 qt.	NA	YES	15 ft	YES	YES	NO

Atlantes Freedom™

Atlantes Freedom Whisper series

Considered by our customers to be the quietest marine toilet.

- Solid 1 piece china porcelain bowl
- Elongated and traditional household designs available
- A8 Models are the only marine toilet that have momentary flush back up in the event of electronic control failure
- 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 fully programmable switch to adjust time of flush and control the intake and discharge water separately
- Capable of discharging 12 feet vertically



Item A812

Model

A812
A8F12
A8AR12
A912
AL824

Description

Regular bowl, White, Handle, Fully integral intake pump model 12V
Regular bowl, White, Handle, pressurized water model 12V
Regular bowl, Bone, Handle, remote intake pump model 12V
Regular bowl, White, wall switch, fully integral intake pump model 12V
Elongated bowl, White, handle, fully integral intake pump model 24V

Sample of part numbers see pages 36-39 for complete ordering instructions

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

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

Model

160MI012
160MR012
160MF912
160HI012
160HF012

Description

Marine bowl, integral intake pump model 12V
 Marine bowl, remote intake pump model 12V
 Marine bowl, solenoid valve model, 90° discharge 12V
 Household bowl, integral intake pump model 12V
 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


Model

160LI012
160LR912

Description

Lower base conversion, integral intake pump model 12V
 Lower base conversion, remote intake pump model, 90° discharge 12V

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 it's 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 marinesize bowl, 12V
PHEBII12	Electric Operation, White household size bowl, 12V
PHECKII12	Electric Conversion Kit (manual to electric) 12V, includes switch
PHIIPUMP	Pump assembly complete



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

Practical Series

PHC

Compact base PHII 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 56-57

Raritime

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

Part #	Description
RTC*	Raritime (*specify 12, 24 or 32V)
RTCM	Raritime module only



Continuous Duty Solenoid

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

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

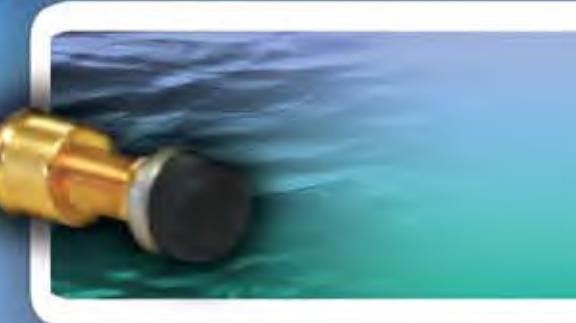
Part #	Description
PBS	Push Button Switch



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



Macerator Pump

- High-powered pump, unique dual blade and housing construction ensures problem free pumping delivering 13 GPM.

Part # Description
21P12 12 V Macerator Pump



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



Select "Y" Valve

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

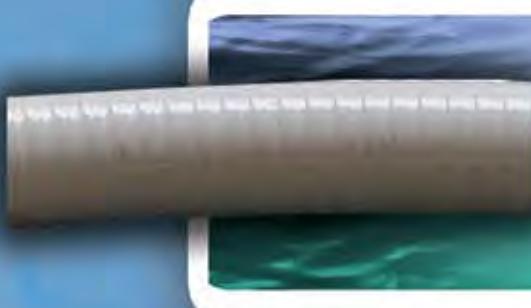
Part # Description
YV "Y" Valve



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

Part # Description
RCV Raritan Check Valve



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 dockside
- 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

TKW 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 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 can be dangerous for the environment this includes full holding tanks containing chemicals used to control odor. 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.

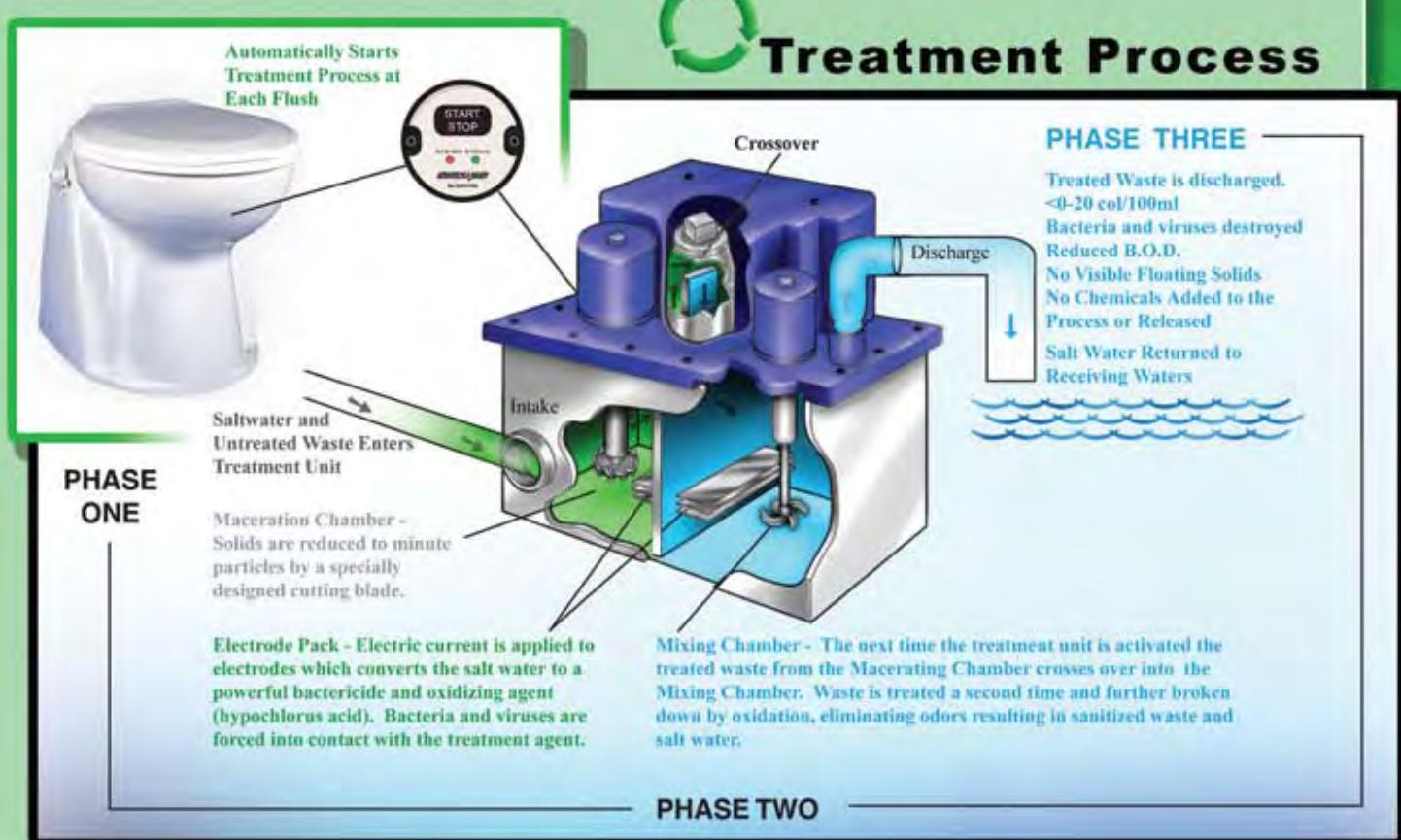
Both the Purasan and Electroscan discharge at levels lower than 10 per 100ml!



electro scan

A New Generation of Lectra/San

- 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



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 68-69

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

Model	Description
PST1202	Purasan, Type I MSD, 12V, for use with raw water toilets
PST1203	Purasan, Type I MSD, 12V, for use with pressurized fresh water toilets and installations with 2 toilets
41-135	Purasan Tablet Cartridge



Exploded Views, Parts, and other Options on Pages 65-67

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
- The 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

21SR1512 Hold n' treat system complete with ElectroScan
21SP1212 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.


Model

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

Exploded Views, Parts, and other Options on Page 64

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 also compliant with IMO Resolution MEPC2(VI)**
- **Tank made of lightweight corrosion resistant polyethylene**
- **Easy installation - Simple maintenance**
- **No moving parts in contact with sewage**
- **Quiet, durable 120V AC aeration pump included**
- **Uses very little electricity**
- **Operates with fresh, brackish and salt water**
- **For use on inspected and uninspected vessels**
- **Must be installed above waterline and works best with macerating toilets**

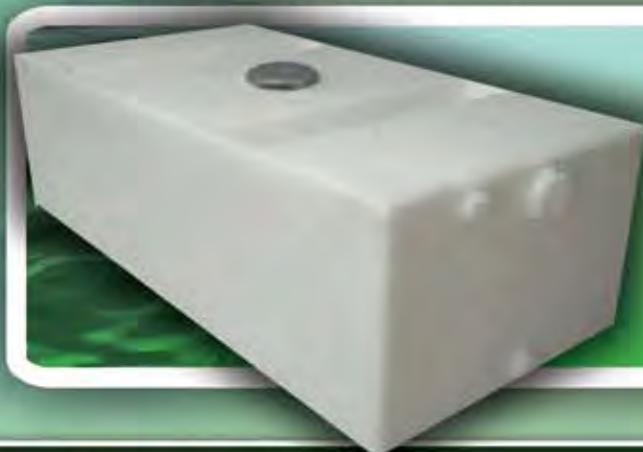
Model	Description
6400121	Managerm

Approximate Shipping weight: 100lbs (45 kg)



Semi-Custom Holding 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.**



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

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
- 15 mesh removable high capacity filter



AL-8000 Alarm Monitor

The Raritan alarm monitor is a network system consisting of the Master Display Unit and up to four input modules. Each input module has 8 separate inputs which are configurable for either normally +VDC and opening on fault, open and closing to +VDC on fault, open and closing to ground on fault or 2k2 supervised line, giving the system a total of up to 32 inputs. In addition a engine running (on) input may be connected and any alarm can be programmed to be included in this engine running group. Any input attached to this group will only be active once the engine is running e.g. Oil Pressure, Engine Cooling Water. All inputs are user programmable with input names e.g. Gas Detected, Engine Room Fire/Smoke etc etc



NV-8000 Navigational Light Alarm Monitor/Controller

The navigational light alarm monitor/controller is a network system consisting of the Master Display Unit up to two NV-100 output modules. Each output module has 8 separate battery inputs and lamp outputs and will detect an open circuit bulb or faulty wiring for up to 16 lamps. This system has six groups, any light may be attached to any group so at the push of a button the entire lighting group may be turned on or off.



NV-2000 Navigational Light Alarm Monitor

The navigational light alarm monitor is a network system consisting of the Master Display Unit up to four NV-100 output modules. Each output module has 8 separate battery inputs and lamp outputs and will detect an open circuit bulb or faulty wiring for up to 32 lamps. This system is a monitor only.





Reverse Polarity Alarm

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

Part # Description

RPA Reverse Polarity Alarm



E.T.A. Circuit Breakers

- Push-pull type breaker for 12 and 24V DC

Part # Description

CBK60 E.T.A. Circuit Breaker



Carlingswitch Circuit Breaker

- Toggle type, positive action breaker

Part # Description

LSBH Carlingswitch 60 amp

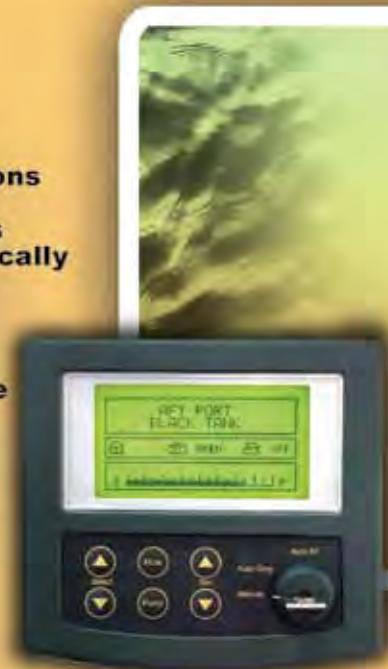
TC-8000 Eight Channel Tank Monitor/Controller

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 managers 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

Tank Monitor Controls

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

Each unit is offers:

- Completely encapsulated in silicon this product has been designed & built for life at sea.
- 10 mm supply voltage terminal for voltage both in & out.
- All inputs are EMI protected.
- Automatically senses 12, 24 or 32 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)

TM-4000 Four Channel Tank Monitor/Controller

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

HT-100 Tank Controller

Is a controller which managers the 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
- Tank high level output which can be connected to the toilet controller which disables the toilet when the holding tank is full

RM-400 Repeater Display

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 # Description

15100* Tank Monitor (*12,24 or 32 V)

15101 Tank Sensor Module Kit

Tank Monitor comes with face plate and material to monitor two tanks.

Purchase a Tank Sensor Kit for each additional tank up to four tanks.

Approximate Shipping Weight: 1 lbs (.45 kg)



BC-8000 Eight Channel Network Bilge

Our 8 channel Network Intelligent Bilge Controller monitors the presence of water in up to 8 separate bilge's areas simultaneously and turns on the pump if the float switch detects water. If the water level does not recede within your programmed Alarm Time, the LCD display will indicate which bilge area has the problem & the audible alarm will turn on. The alarm can be reset with the Mute button and the Alarm time cycle will start again. This product is also equipped with special current sensing circuitry therefore if a Pump is activated either Manually or Automatically and the Pump fails to start due to short or open circuit the LCD display will indicate which bilge area has the problem.

The Display Head Unit and Water Sensor/Pump control unit are separate and can be connected up to 1000 meters apart making this product the ideal solution for Catamarans or larger installations. Slave Display Head Units may also be fitted. Our bilge controller is the ultimate in smart microprocessor control. The Water Sensor's are optional extra. Part # FS-2A Other Optional extras include Slave Heads & alarm interface. Note: Any float switch or electronic (supplying + vdc output) sensor may be used.

Programmable Times:

Water On Delay: Programmable from 1 to 20 seconds.

Water Off Delay: Programmable from 1 to 20 seconds.

Pump On Alarm: Programmable from 1 to 10 minutes.

Alarms:

Pump On Time Alarm: (Programmable)

Hi Water:

Low Sensor Fault:

Pump Failure:

Lost Communication:

Output: Each Output Channel is rated 60 amps @ 12 Volts DC.



FS2A Water Sensor

Completely sealed in silicon this product has been Designed & Built for Life In the Bilge. This is a rugged, compact, slosh protected bilge water sensor switch for use on vessels of all sizes. Built for harsh conditions it is compatible with seawater and a variety of fuels, gasoline, hydraulic and lube oils, and provides stable level detection in contaminated, turbulent liquids. By connecting the water sensor to the our bilge controller you can control any area when water is not wanted. This device will trigger in approx. 10mm of fluid.





Raritan Organics

All natural products to help preserve and protect the marine environment

K.O. Kills Odors!

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

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

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)



Non - Organic

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)



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)



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

- Water resistant and backlit



MK455 Model

- Flush mount meter with edgewise readout



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 water resistant meters.

You will need to place meters away from wash
down areas and protect against the elements.

Part #	Description
MK2*	Round 2" Meter
MK3B*	Round 3 3/8" Meter
MK445	Edgewise 3 3/4" Flush mount Meter
MK5	Panoramic 4 1/2" Flush mount Meter
MK6	Panoramic 3 1/2" Flush mount Meter
MK2R*	Repeater Unit with MK2 Meter
MK445R	Repeater Unit with MK445 Meter
MK5R	Repeater Unit with MK5 Meter
MK6R	Repeater Unit with MK6 Meter

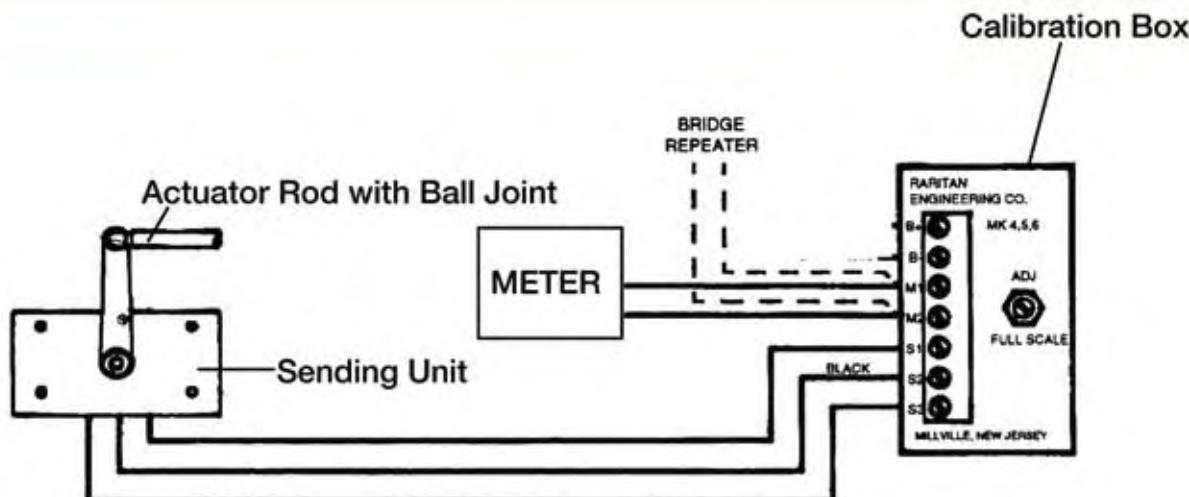
Any model can be special ordered with longer wire by adding length in feet to (suffix) part #. Example: MK445-60

* Specify Voltage

Approximate Shipping Weight: 3 lbs (1.4 kg)

RUDDERMASTER REPAIR PARTS:

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



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 steel 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



Hot Water Heater

Ordering Instructions

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

Column 1

enter (17) = water heater

Column 2

enter (06) = 6 gallon

enter (12) = 12 gallon

enter (20) = 20 gallon

Column 3

enter (0) = without heat exchanger

Without a heat exchanger you will rely solely on the electricity for heat.

enter (1) = with heat exchanger

This option allows you to use the hot water generated from the engines to heat the water.

Column 4

enter (1) = 120 volt AC

enter (2) = 220 volt AC

Column 5

enter (01) = GAZ heat exchanger fittings

enter (02) = METRIC heat exchanger fittings

enter (32) = 4500 watt heating element for use only with 240 VAC only

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.

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

Water Heater Repair Parts:

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



Size	Capacity	A	B	Shiping Wt.
6 gal. w/o HE	6 gallon	14 1/2"(36.9cm)	16 1/4"(41.9cm)	36lbs/16kg
6 gal. w/HE	5.7 gallon	14 1/2"(36.9cm)	16 1/4"(41.9cm)	39lbs/17kg
12 gal. w/o HE	11 gallon	18 3/4"(47.6cm)	16 1/4"(41.9cm)	62lbs/28kg
12 gal. w/HE	10 gallon	18 3/4"(47.6cm)	16 1/4"(41.9cm)	65lbs/29kg
20 gal. w/o HE	18 gallon	18 3/4"(47.6cm)	24 1/4"(60.6cm)	81lbs/37kg
20 gal. w/ HE	17.5 gallon	18 3/4"(47.6cm)	24 1/4"(60.6cm)	81lbs/37kg

HE = Heat Exchanger

Sample of part numbers, for other options contact Raritan



Icer-ette
AUTOMATIC ICE CUBE MAKER

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 link
- 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

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

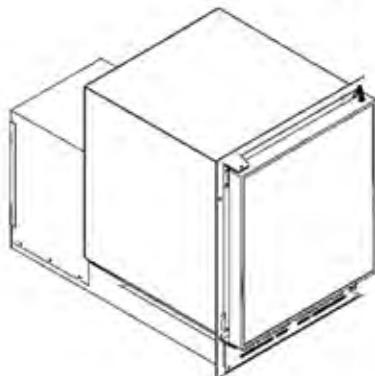
enter (1) = 120 volts AC

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.

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

Model 84

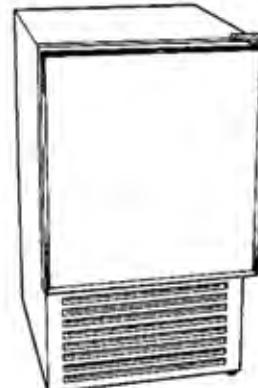


Cabinet Height:
Cabinet - 18 3/8" (46.7cm)
Flange - 19 1/2" (49.5cm)

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

Overall Depth:
22 1/4" (56.5cm)

Model 85



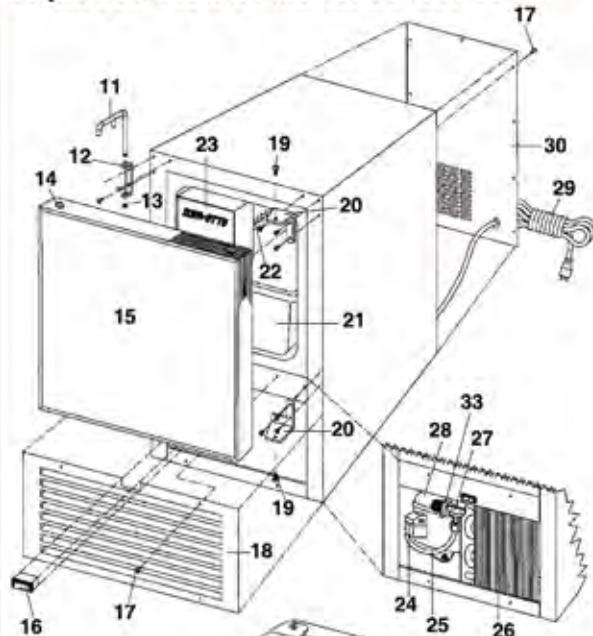
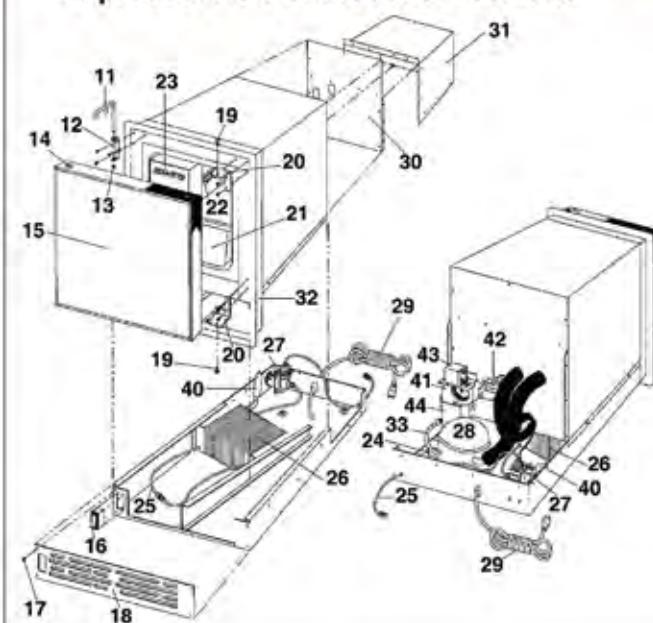
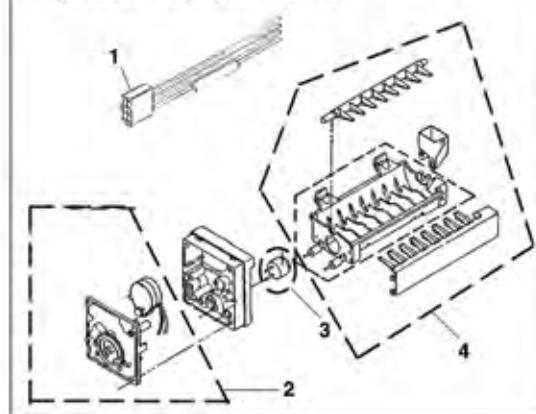
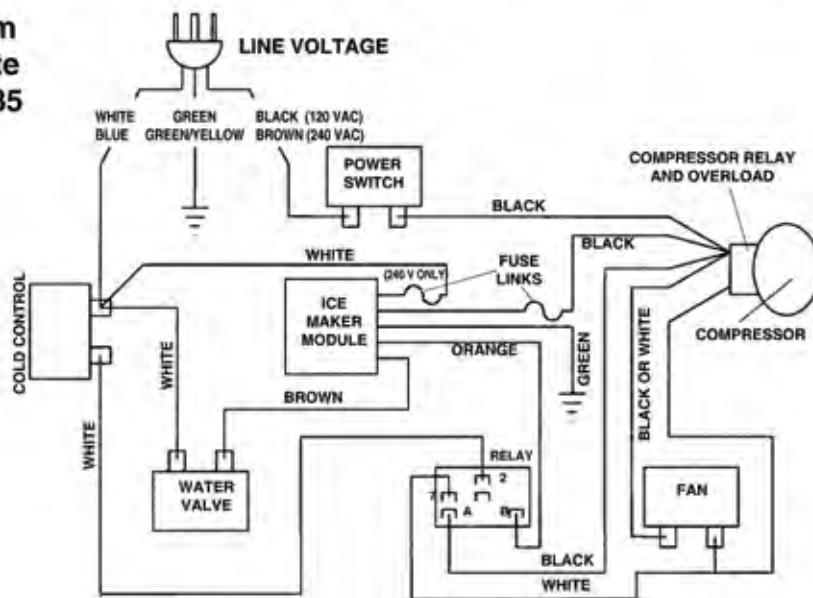
Height:
flange - 25 1/4" (64.1cm)
cabinet - 24" (61cm)

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

Depth:
14 1/2" (36.8cm)

**Icer-Ette Parts Breakdown**

Item	Description	Part #	Mod. 84	84 240V		Mod. 85	85 240V
1	Wiring Harness	I44W	I44W220			I44	I44220
2	Module Assembly (628366)	I34M-1	I34M220			I34M-1	I34M220
3	Thermostat	I34T	I34T			I34T	I34T
4	Ice Maker Mold w/ Heating Element	I34MH	I34MH220			I34MH	I34MH220
11	Door Lock Link	I19B	I19B			I19B	I19B
12	Door Retainer Bracket	I17	I17			I17	I17
13	Link Retaining Ring	I306	I306			I306	I306
14	Nylon Snap Bushing	I21	I21			I21	I21
15	S/S Door Assy. White Laminate Door Assy. Black Laminate Door Assy. Neutral White Laminate Door Assy. Antique White Laminate Door Assy.	I7W I61W I701W I610W I611W	I7W I61W I701W I610W I611W			I7W I61W I701W I610W I611W	I7W I61W I701W I610W I611W
16	On-Off Rocker Switch	I37S	I37S			I37	I37
17	8-32 x 1/2 Hex Head Type F 18-8 S/S Screws	F088	F088			F088	F088
18	Grille	I9S	I9S			I9	I9
19	1/4 -20 x 1/2 RH S/S Screw	I124	I124			I124	I124
20	Hinge Set (Top & Bottom)	I12	I12			I12	I12
21	Ice Bucket	I90	I90			I90	I90
22	Ice Maker	I34W	I34220W			I34W	I34220W
23	Ice Maker Front Cover	I34A	I34A			I34A	I34A
24	Relay w/ overload protector	I1806-1	I1806-2			I1806-1	I1806-2
25	Water line Tubing	I93SW	I93SW			I93W	I93W
26	Condenser Coil	I24S	I24S			I24	I24
27	Water Valve	I34B	I34B220			I34B	I34B220
28	Compressor (Includes #33 and #40)	I1800A-1W	I1800A-2W			I1800A-1W	I1800A-2W
29	Power Cord	I41	I41220			I41	I41220
30	Rear Panel	I11S	I11S			I11	I11
31	Back Enclosure Cover	I20A	I20A			N/A	N/A
32	Flange Flange with Holes	I99S	I99S			I99 I99H	I99 I99H
33	Service Valve w/ Tube	I101	I101			I101	I101
40	Drier	I30A01	I30A01			I30A01	I30A01
41	Motor and/or Blower Assembly	I28 (Motor/Blower Assembly)	I28220			I25 (Fan Motor Only-I27 Fan blades not included)	I25220
42	Cold Control	I33A	I33A			I33A	I33A
43	Relay	I52	I52220			I52	I52220
44.	Air Duct	I29	I29			N/A	N/A

Exploded View of Model 85 Icer-ette**Exploded View of Model 84 Icer-ette****Exploded view of Item #22****Wiring Diagram
Raritan Icer-ette
Series 84 and 85**



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.

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

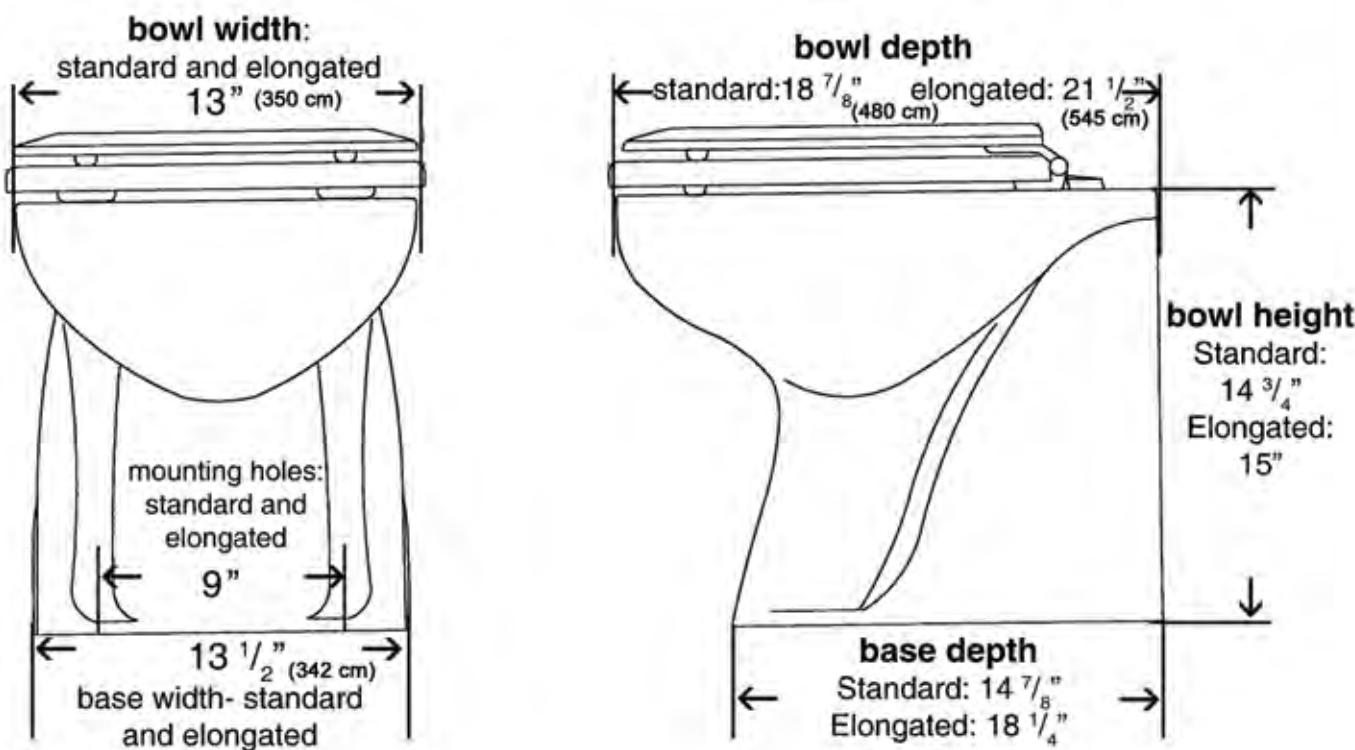
enter (24T) = 120/240 volt hook up options

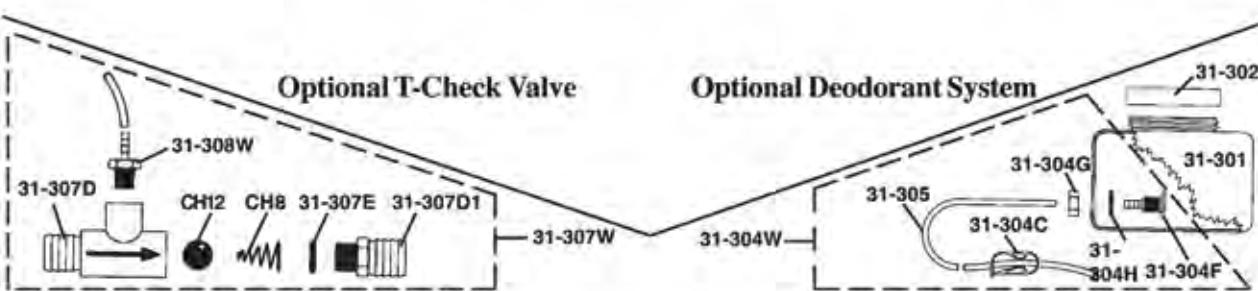
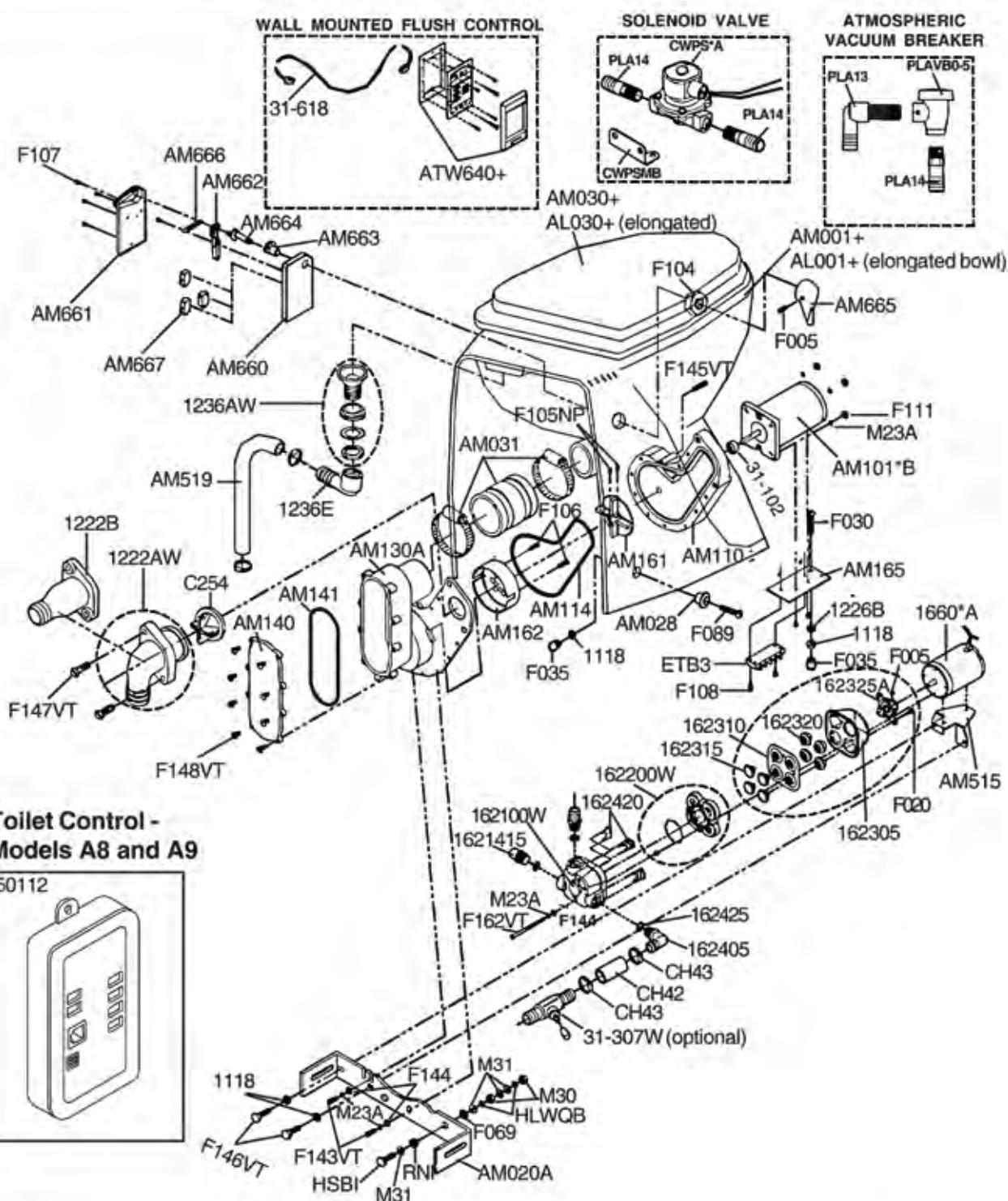
We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

A	Atlantes	Bowl size	<input checked="" type="checkbox"/> 7 Momentary Flush Lever <input type="checkbox"/> 8 Timed Flush Lever <input checked="" type="checkbox"/> 9 Wall switch	Bowl Color	<input checked="" type="checkbox"/> A Bone Household bowl <input type="checkbox"/> A Bisque Elongated bowl <input type="checkbox"/> B Black Household bowl	Pump style	<input checked="" type="checkbox"/> 12 Integral pump (standard) <input type="checkbox"/> 24 Remote Sea water Pump <input type="checkbox"/> 32 Freshwater Solenoid	Specify Voltage	additional options available - Contact Technical Support
		Household (standard)							
		Elongated							

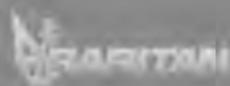
Toilet Requirements:

- Wiring:** 12 ga., will increase depending on distance from source
- Circuit:** 12V – 15amp
- Power:** Freshwater Model 11 amps 12V
Intake Pump Model 20 amps 12V
- Water Supply:** $\frac{3}{4}$ " 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:** Holding tank full sensor





PART #	DESCRIPTION	WALL MOUNTED FLUSH CONTROL
1118(4)	1/4" Locking Star Washer	1226A 1/4-20 X 1 1/4" Rnd. Hd. Screw S/S
1119(2)	1/4-20 x 3/4" Hex screw	31-618 Cable for Flush Control (14 ft.)
1222AW	90° Discharge w/Flange	AM028 Bushing
1222B	Straight Discharge	ATW* Flush Control PCB Assy.
1226B(2)	1/4-20 Nut S/S	ATW640 Flush Control with Bezel Back Plate (White)
1236AW	Spud Assembly	ATW640A Flush Control with Bezel Back Plate (Bone)
1236E	Bowl Elbow	ATW640B Flush Control with Bezel Back Plate (Black)
162100W	Upper Housing Assembly	F153 #4 1/2 Oval slotted
162135(4)	Cone Seal	F170 6/32 - 7/8" screw
162200W	Middle Housing Assembly	SOLENOID VALVE
162225	O-Ring	CWPS*A 1/2" GC Solenoid Valve
162300W	Lower Housing Assembly	CWPSSMB Mounting Bracket for CWPS*
162305	Lower Housing	PLA14 (2) 1/2" MPT to 3/4" Barbed Nipple
162310	Diaphragm	ATMOSPHERIC (ANTI-SIPHON) VACUUM BREAKER
162315	Piston (4)	PLA13 1/2" NPT to 3/4" Hose Elbow
162320	Piston Seat (4)	PLA14 1/2" MPT to 3/4" Barbed Nipple
162325A	Bearing Plate Assembly	PLAVB0-5 Atmospheric (anti-siphon) Vacuum Breaker
162405	3/4" Hose Barb 90° Fitting	OPTIONAL T-CHECK VALVE PARTS LIST
162410	3/4" Hose Barb Straight	31-307D Valve Body
162415	Plug Fitting	31-307D1 Outlet Adapter
162420 (3)	Fitting Clip	31-307E "O" Ring
162425	O-Ring	31-307W T-Check Valve Assembly Complete
1660*A	Pump Motor	31-308W Siphon Check Valve
31-102	Motor Shaft Seal	CH8 Check Valve Spring
41-260	Bowl Elbow (Freshwater Units not shown)	CH12 Check Ball
AM001+	Atlantes Bowl (white)	OPTIONAL DEODORANT/SALT FEED PARTS LIST (ADS)
AL001+	Atlantes Elongated Bowl (white)	31-301 Salt Feed Tank
AM020B	Pump Mounting Bracket	31-302 Salt Feed Tank Cap
AM028	Bushing	31-304C Plastic Tubing Clamp
AM030+	Atlantes Seat & Cover (white)	31-304F Bulkhead Fitting
AM031	Discharge Connection (3 pieces)	31-304G Bulkhead Fitting Nut
AM101*B	Motor	31-304H Bulkhead Fitting Seal
AM110	Discharge Pump Back	31-304W Assembly (includes part #'s 31-304C, 31-304F, 31-304G, 31-304H, 31-305)
AM114	Discharge Pump "O" Ring	31-305 PVC Clear Tubing 1/4"
AM130A	Discharge Pump Body	ADDITIONAL ACCESSORIES AVAILABLE FROM RARITAN
AM140	Discharge Cover	1PCP22 C.P. Cleans Potties, Bio-enzymatic, 22 oz.
AM141	Discharge Cover O-Ring	AHDA1W Internal Vented Loop
AM161	Grinder Impeller	CON22 Raritan Concentrate 22 oz, bottle
AM162	Grinder Teeth	SH Sanitation Hose (sold by the foot)
AM165	Terminal Block Bracket	VL 1 1/2 Vented Loop 1 1/2"
AM203	Remote Inlet Pump Base (not shown)	VL 3/4 Vented Loop 3/4"
AM515	Atlantes Pump Mounting Bracket	YV "Y" Valve
AM519	Intake Hose from diaphragm pump	
C254	Joker Valve	
CH42 (2)	3/4" Reinforced Hose	§Parts are NOT included with Wall Switch Flush Control Models
CH43(5)	Hose Clamp S/S	+CHOICE OF COLOR
ETB3	Terminal Block	*SPECIFY VOLTAGE
F005(2)	1/4-20 x 5/16 SS Hex SOC	
F030	1/4-20 x 2" Rnd. Hd. Screw S/S	
F035(3)	Isolation Nut	
F069	1/4" Fiber Washer	
F071	Nylon Shoulder Washer (not shown)	
F089(2)	1/4-20 x 1 3/4" Rnd. Hd. Screw S/S	
F104	Panel Nut Brass Hex 5/8-32 x 7/8 x 1/8	
F105NP(2)	1/4-28 set screw with nylon patch	
F106	Plastite screw #6 x 3/4"	
F108	Screw #4 x 1	
F111(4)	10-32 S/S Nut	
F112(2)	8-32 x 1/4" Screw	
F142VT(8)	10-32 x 5/8" Pan Hd. S/S Screw (not shown)	
F143VT(2)	10-32 x 1" Pan Hd. SLTD S/S Screw	
F144(2)	#10 S/S Flat Washer	
F145VT(1)	10-32 x 1 3/4" Pan Hd. SLTD S/S Screw	
F146VT(2)	1/4-20 x 1 1/4" Rnd. Hd. Screw S/S W/VT	
F147VT(2)	3/8-16 x 1 1/2" Rnd. Hd. Screw S/S	
F148VT(8)	8-32 x 7/16" S/S Truss Hd. Screw	
F162VT	Mounting Bolt	
HLWQB(4)	1/4" Split Lock Washer	
HSB1(2)	1/4-20 Brass Screw	
M23A(19)	#10 Lockwasher S/S	
M30(4)	1/4-20 Brass Nut	
M31(8)	1/4" Brass Flat Washer	
RNI	Nylon Shoulder Washer	
RTAH24D	Transformer/Rectifier for 120/240 VAC (not shown)	



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

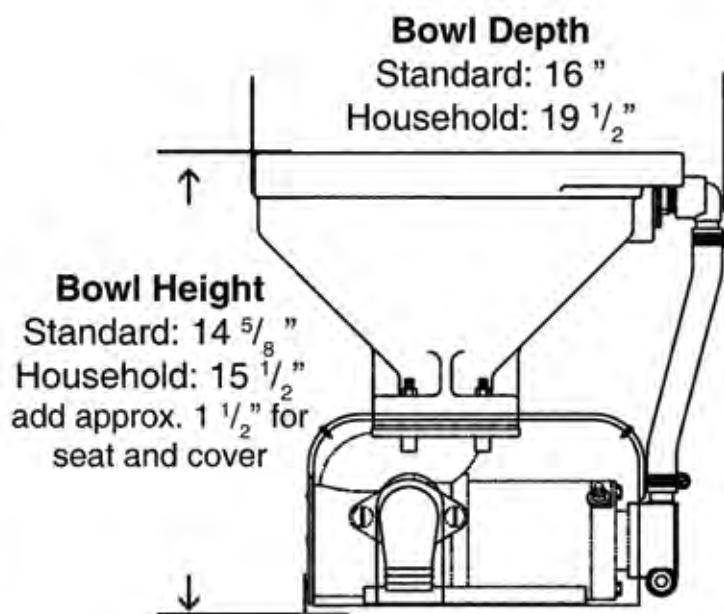
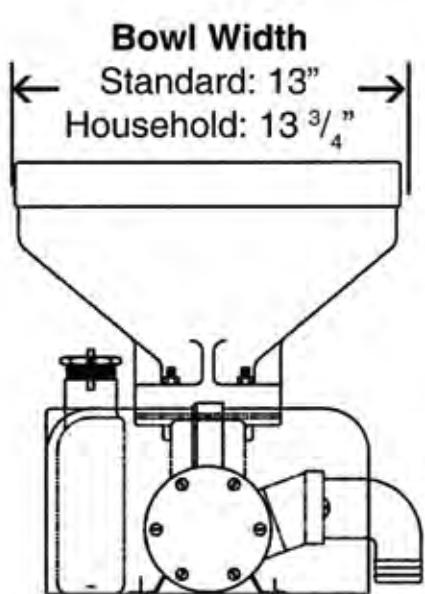
enter (24T) = 120/240 volt hook up options

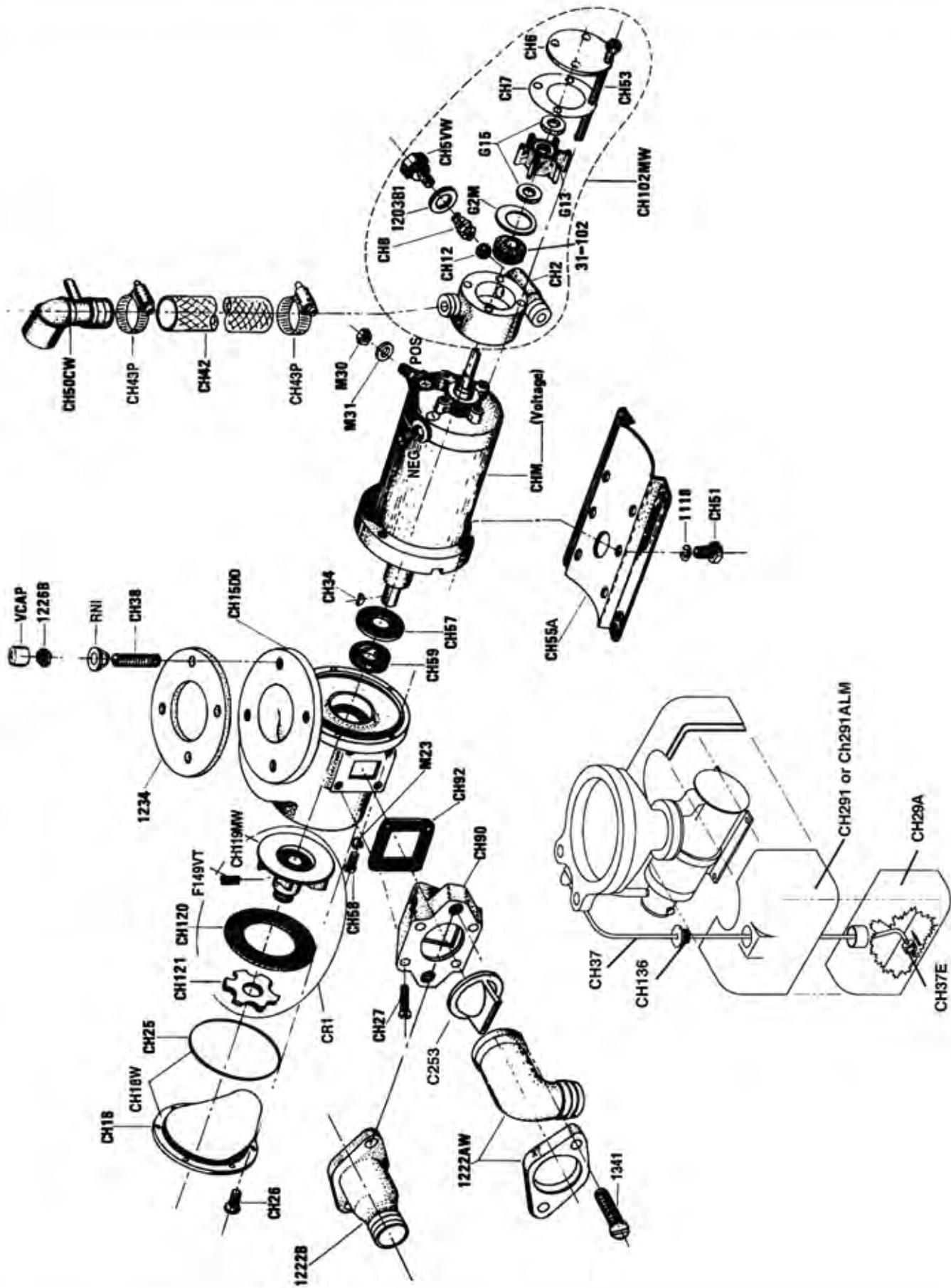
We want to make sure you get the most convenience for your money. Please feel free to contact us with questions, or to review additional features available for your custom application.

<input type="checkbox"/> C Crown head	White bowl, marine-size (standard)	Straight Discharge (standard)	<input type="checkbox"/> 12 Specify
<input type="checkbox"/> W White, bowl household-style		<input type="checkbox"/> 9 90° Discharge	<input type="checkbox"/> 24 Voltage
<input type="checkbox"/> A Bone, bowl household-style			<input type="checkbox"/> 32
			<input type="checkbox"/> 24-T 120/240

Toilet Requirements:

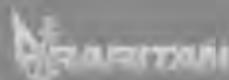
Wiring:	6 ga., will increase depending on distance from source
Circuit:	12V – 50 amp
Power:	36 amps 12V
Water Supply:	$\frac{3}{4}$ " line
Discharge:	1.5" ID hose required





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

*Specify Voltage



Crown Head 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 straight discharge

enter (9) = a 90 Degree discharge

Column 3

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

enter (A) = bone household bowl

enter (W) = white household bowl

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

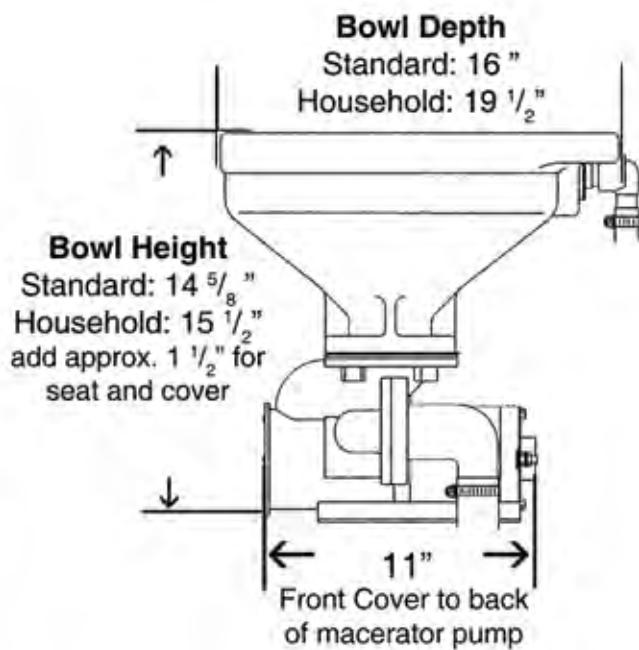
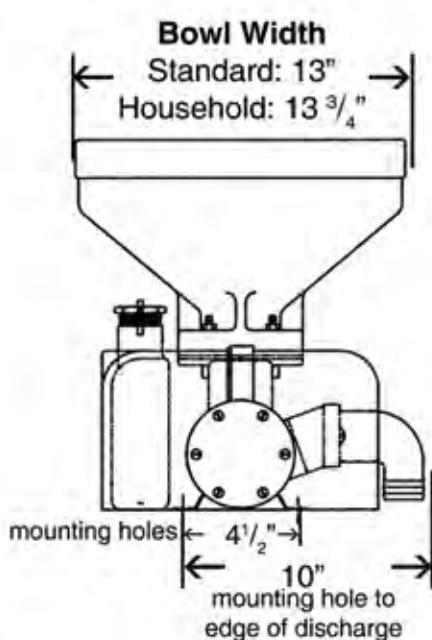
enter (24T) = 120/240 volt hook up options

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.

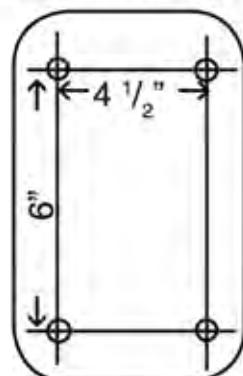
C2 Crown head II	Straight Discharge (standard)	Bowl Color	Remote Intake pump (standard)	12	Specify Voltage
		White bowl, marine-size (standard)		24	
9 90° Discharge	A Bone bowl, household-style	F	Freshwater Solenoid	32	120/240
		W		24T	

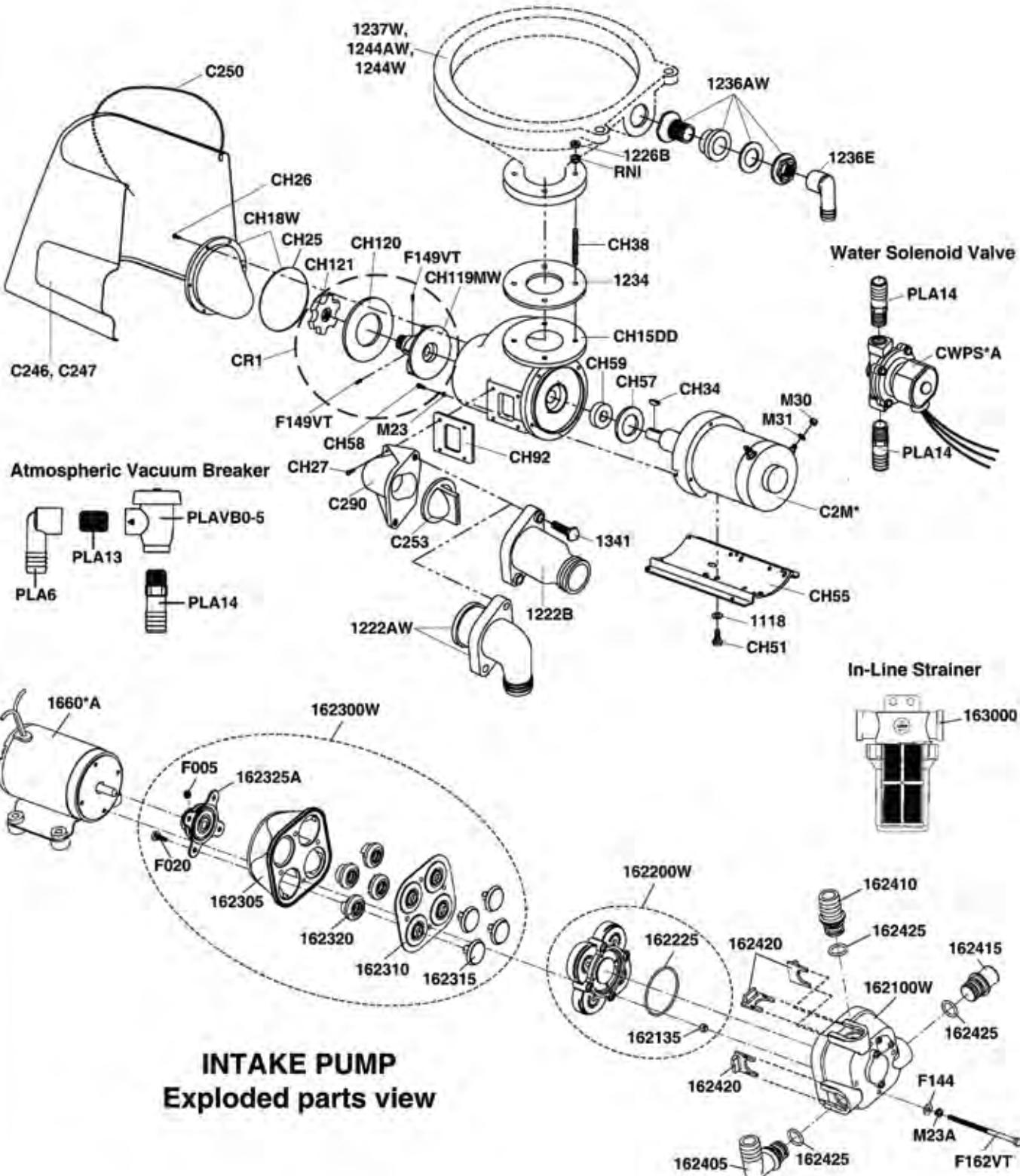
Toilet Requirements:

- 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:** $\frac{3}{4}$ " 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 and Crown Head II
base mounting holes





CROWN HEAD II - Parts List

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

* 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

enter (9) = a 90 Degree discharge

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.

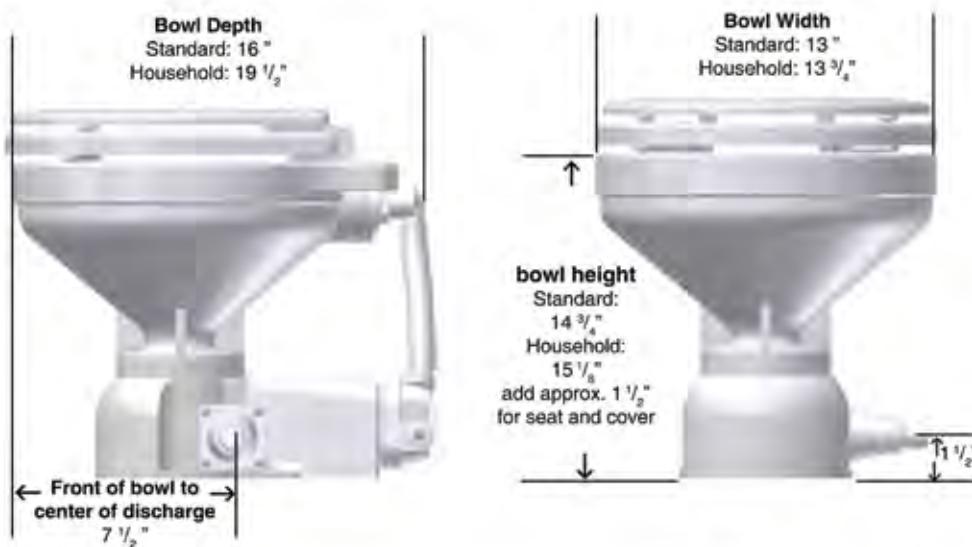
Allows users to fill, or empty bowl, and or momentary flush options depending on your requirements to minimize water usage.

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.

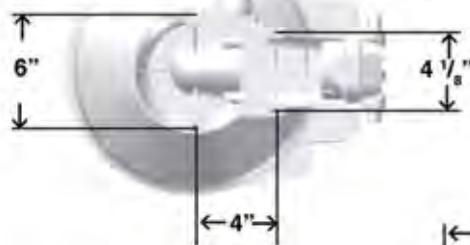
160 SeaEra	H Household-size, white bowl M Marine-size, white bowl L Conversion Kit	I Integral pump R Remote Seawater Pump F Freshwater Solenoid	0 Straight Discharge 9 90° Discharge	12 Specify Voltage 24 32 24T 120/240	03 SWF100 momentary fill/dry flush switch
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Toilet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

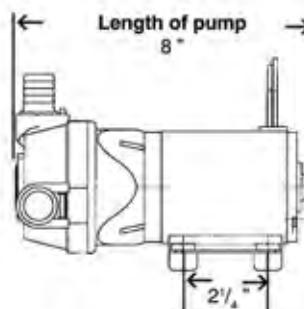
- Wiring:** 10 ga., will increase depending on distance from source
- Circuit:** 12V – Freshwater model 25 amp
Intake pump model 25 amp
- Power:** Freshwater Model 13 amps
Intake Pump Model 23 amps
- Water Supply:** $\frac{3}{4}$ " line 3 gallons per minute, minimum pressure 5psi
- Discharge:** 1.5" ID hose required for 90 degree discharge and straight accepts either 1" or 1 $\frac{1}{2}$ "
- Optional:** wall switch control, holding tank full indicator on switch

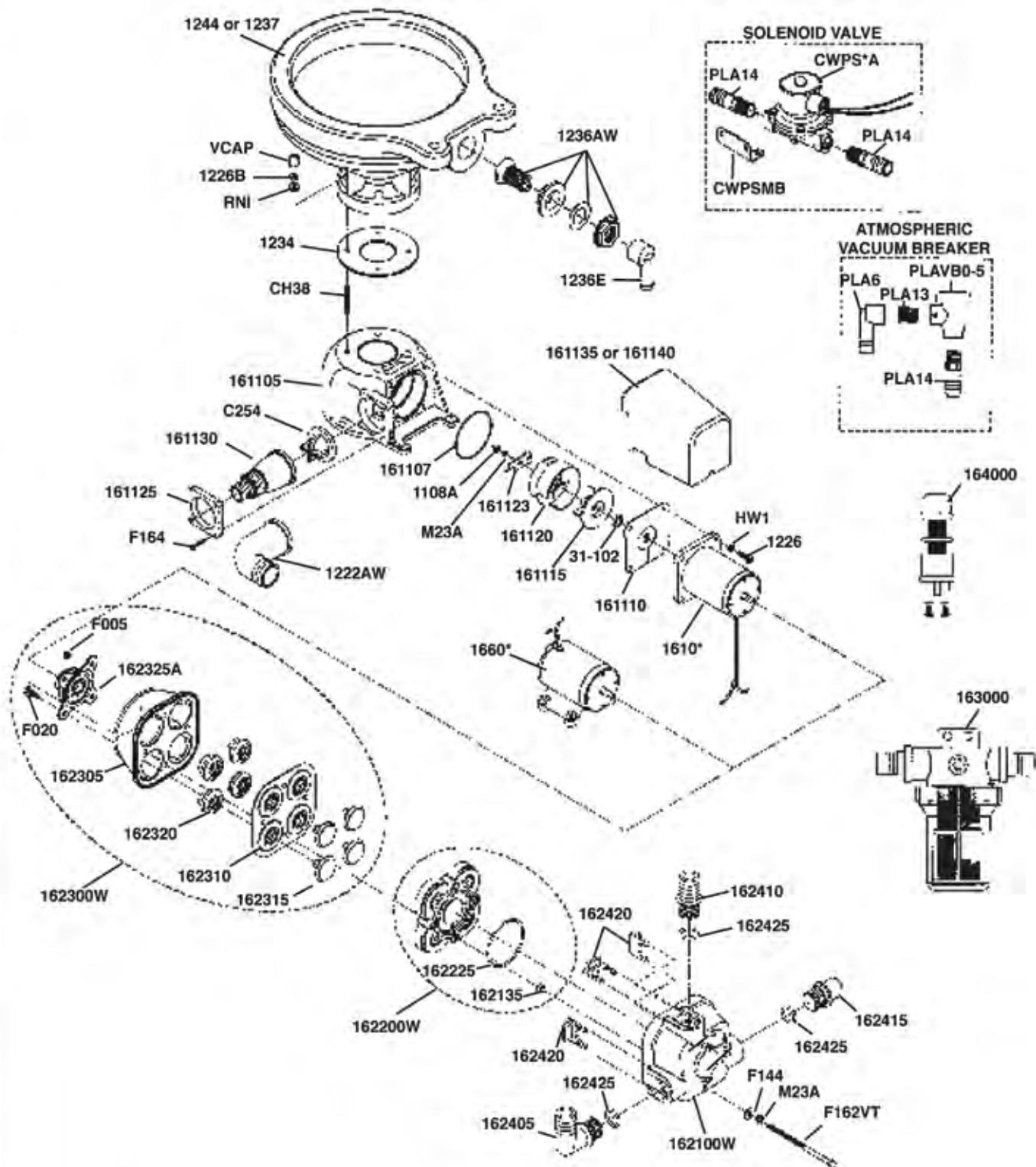


Mounting hole locations



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

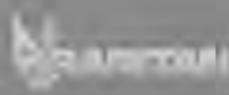






SeaEra PARTS LIST

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



Repair Parts

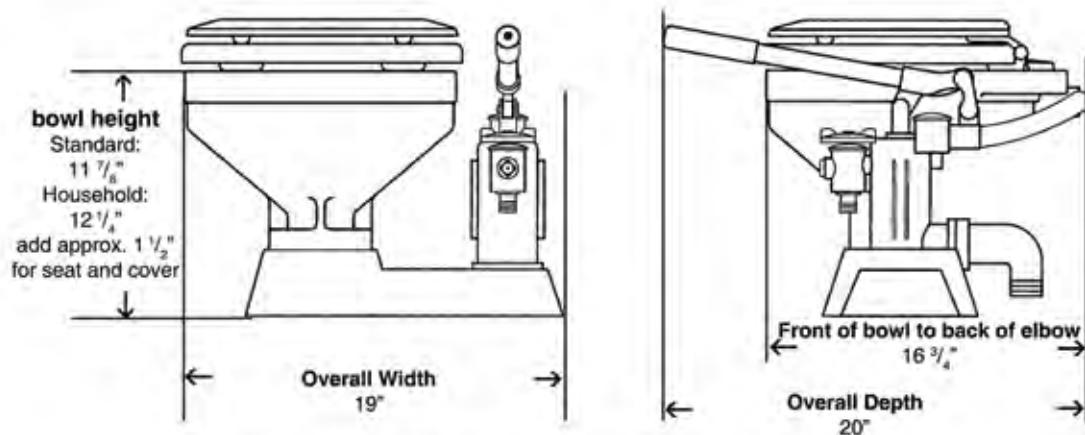
Most parts are available to be purchased individually, to simplify annual overhaul or repairs we also provide kits that contain the most commonly ordered parts.

DETERMINING PROPER REPAIR KITS FOR ELECTRIC TOILETS:

Product Name	RETROFITS	Repair Kit for Complete Unit	Intake Pump	Discharge Pump
ATLANTES FREEDOM		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	ATPUMPRK	ATDISRK
ATLANTES Remote or Integral Diaphragm Pump 06/02 - current		order intake and discharge pump kits	DIAPUMPRK	ATDISRK
CROWN HEAD DEEP DRAFT(DD) - 12V draws 50 amps 01/87 - 01/87	CRI - Converts DD to CD series accelerator	CDRK	CHPUMPRK	
CROWN HEAD STANDARD - 12V draws 30 amps 01/85 - 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 Freshwater Model e.g. C2P42 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		order intake and discharge pump kits	ATPUMPRK	CDDISRK
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				
SEAERA All models			DIAPUMPRK	SEADISRK

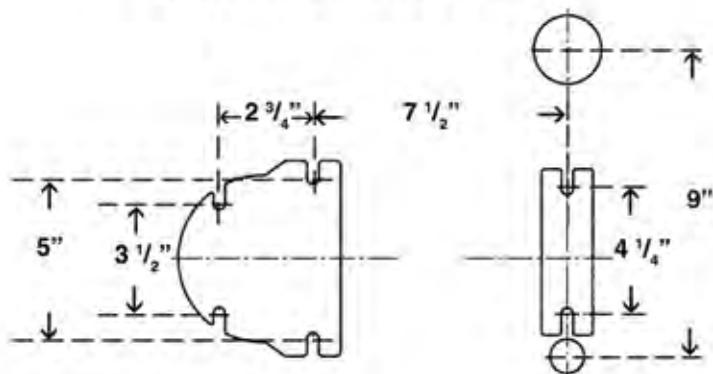
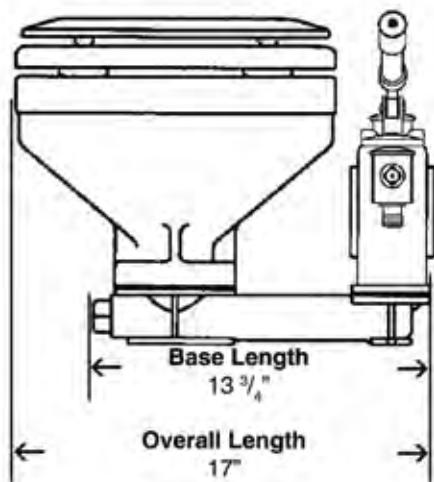
LIST OF PARTS CONTAINED IN ELECTRIC TOILET REPAIR KITS:

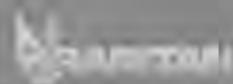
ATDISRK	ATLANTES DISCHARGE PUMP KIT	QTY	CHDISRK	CROWN HD.(PRE-10/87)	QTY
31-102	MOTOR SHAFT SEAL	1	1234	BOWL GASKET WHITE	1
AM031	2 X 2 PVC CONNECTION	1	C253	C253 JOKER VALVE RED	1
AM114	DISCHG.PUMP O-RING	1	CH117W	FLAPPER VALVE ASSY STD.	1
AM141	O-RING	1	CH25	CH: FRONT COVER O-RING	1
C254	C254 JOKER VALVE	1	CH57	RUBBER SLINGER	1
SL1CC	SUPER LUBE: 1CC PACKET	2	CH59	SEAL: 316 S/S SPRING	1
VT	VIBRA-TITE PACKETS	2	CH91	ROUND RUBBER GASKET	1
			CH92	SQUARE RUBBER GASKET	1
				O-RING	2
ATPUMPRK	ATLANTES & CHII (POST 4/95)	QTY	M13		
31-102	MOTOR SHAFT SEAL	1			
31-307E	O-RING:T-CHECK ASSY/RDV	1			
AM220	INLET PUMP IMPELLER	1			
AM231	ATLANTES INLET PUMP FRONT	1	CH11	CHPUMPRK CROWN HD.(PRE-10/87), GM,	QTY
AM514	O-RING	1	CH12	PUMP SHAFT SEAL	1
CH12	CHECK BALL: 5/8	1	CH7A	CHECK BALL: 5/8	1
G15	TEFLON IMPELLER WASHER	2	G13	PUMP GASKET	1
G2AS	BRASS WEAR PLATE	1	G15	G13W PUMP IMPELLER	1
SL1CC	SUPER LUBE: 1CC PACKET	4	G2AS	TEFLON IMPELLER WASHER	2
			G4	BRASS WEAR PLATE	1
				PLUG WASHER	1
				SUPER LUBE: 1CC PACKET	2
CDPUMPRK	CROWN HD.CD SERIES DISCH	QTY	SL1CC		
1234	BOWL GASKET WHITE	1			
C253	C253 JOKER VALVE RED	1			
CH120	DISCHG.PUMP WALL BLACK	1	DIAPUMPRK	DIAPHRAGM PUMP KIT	QTY
CH25	CH: FRONT COVER O-RING	1	162200W	MIDDLE HOUSING	1
CH57	RUBBER SLINGER	1	162310	DIAPHRAGM	1
CH59	SEAL: 316 S/S SPRING	1	162315	PISTON	4
CH92	SQUARE RUBBER GASKET	1	162425	O-RING	3
SL1CC	SUPER LUBE: 1CC PACKET	2	F172	SCREW: 10 X 1/2	4
CDPUMPRK	CROWN HD.CD SERIES	QTY			
120381	PH: INLET VALVE O-RING	1	SEADISRK	SEAERA DISCHARGE KIT	QTY
31-102	MOTOR SHAFT SEAL	1	1234	BOWL GASKET WHITE	1
CH12	CHECK BALL: 5/8	1	161107	O-RING	1
CH7	PUMP GASKET	1	31-102	MOTOR SHAFT SEAL	1
G13	G13W PUMP IMPELLER	1	C254	C254 JOKER VALVE	1
G15	TEFLON IMPELLER WASHER	2	RNI	NYLON SHOULDER WASHER	4
G2M	WEAR PLATE	1	SL1CC	SUPER LUBE: 1CC PACKET	1
SL1CC	SUPER LUBE: 1CC PACKET	2	VCP	VINYL CAP	4

PHII Dimensions

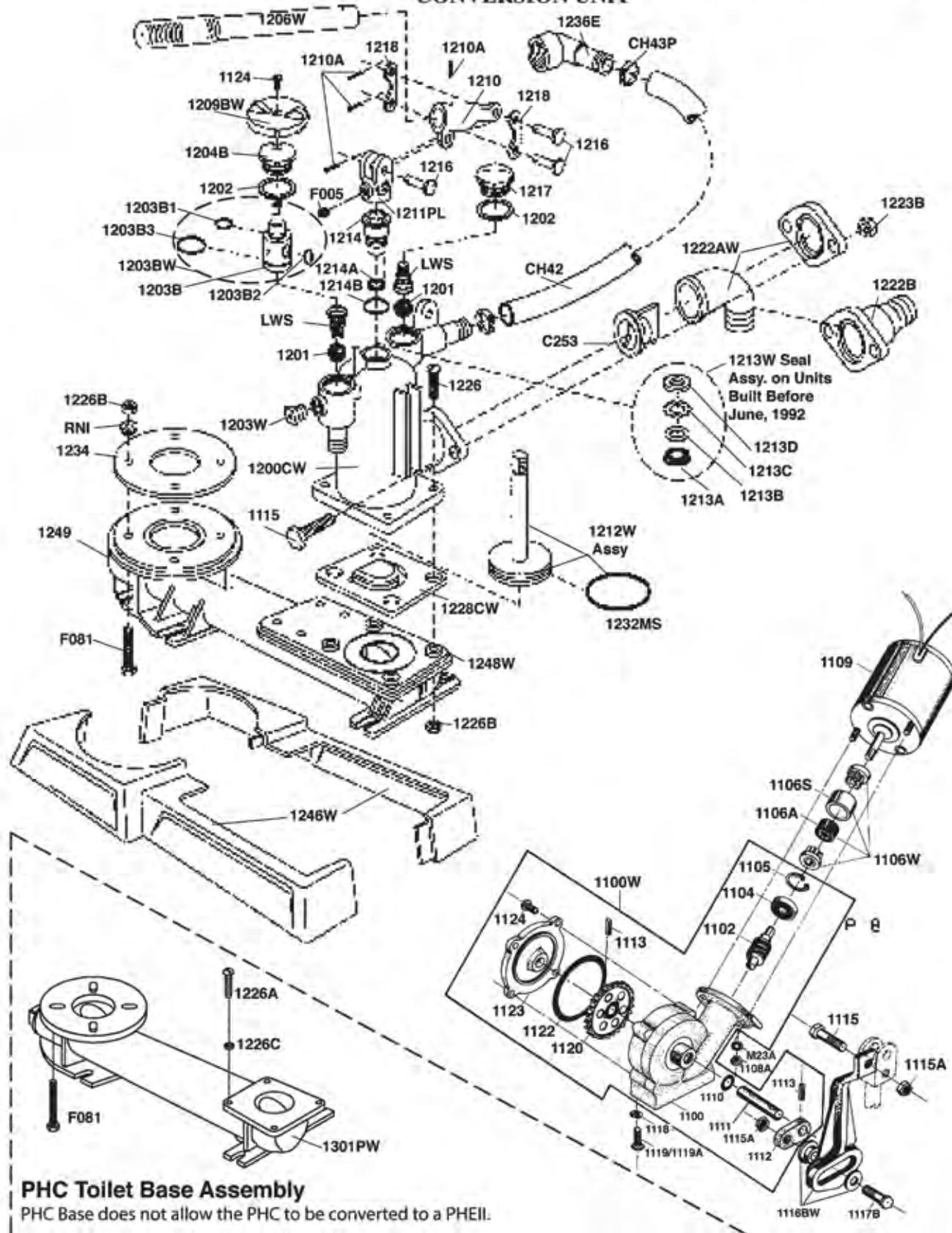
PHII and PHEII can be ordered with a handle that does not extend beyond the front of the bowl reducing the overall depth to 17"

PHII and PHEII base dimensions
as viewed from bottom of unit

**PHC Dimensions**



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



PARTS FOR RARITAN PHII AND PHEII MARINE TOILET

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

PARTS FOR ELECTRIC DRIVE

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

PHC PARTS

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

RARITAN INSTALLATION ACCESSORIES

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

BOWL & SEAT

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

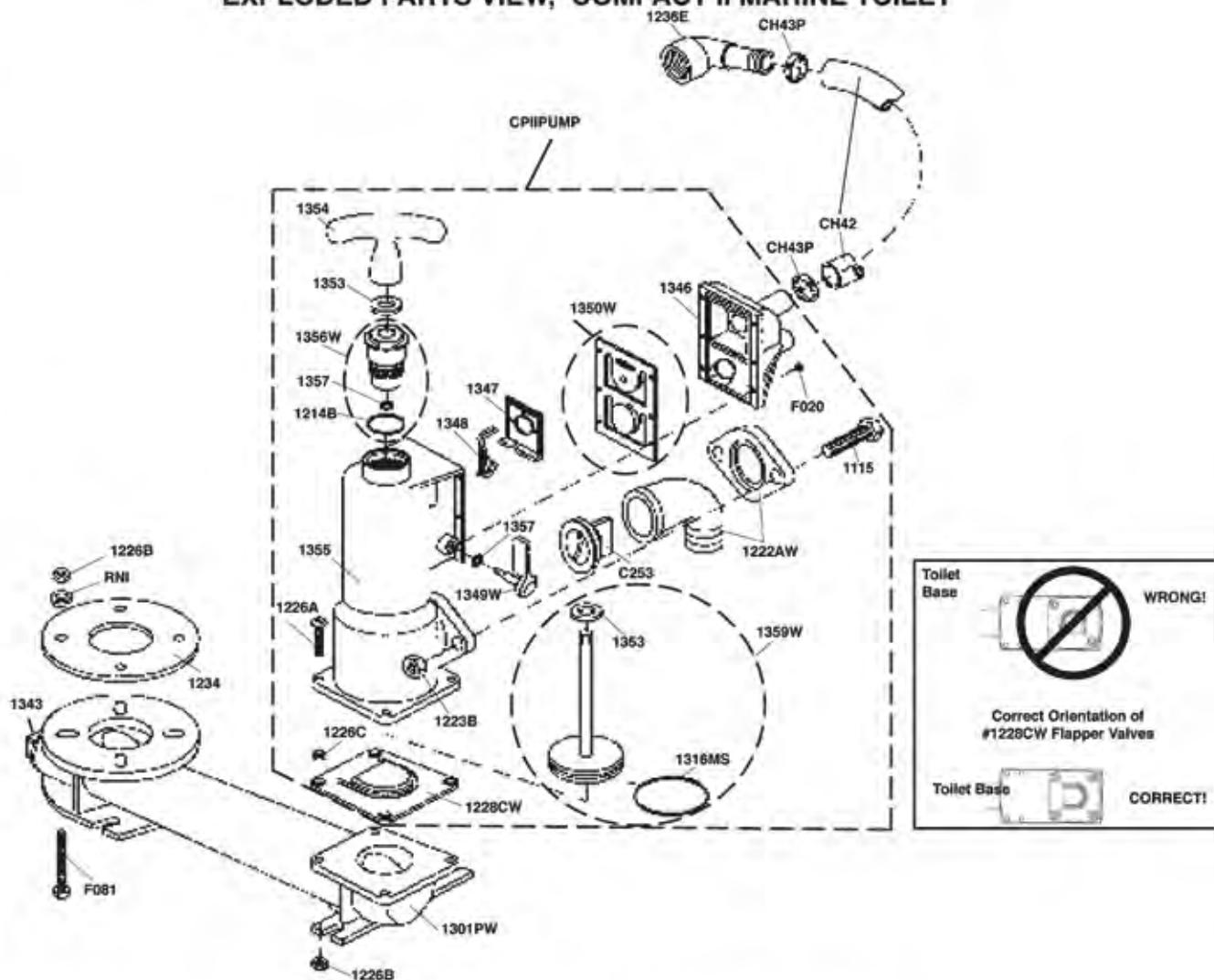
OVERHAUL KITS

Part No.	Description
PHRKII	PHII&PHEII-U-cup Seal (mfg. before 6/92)
PHRKIC	PHII&PHEII-Cartridge Seal (mfg. after 6/92)
PHIIPUMP	PHII Pump replacement assembly

*Specify Voltage

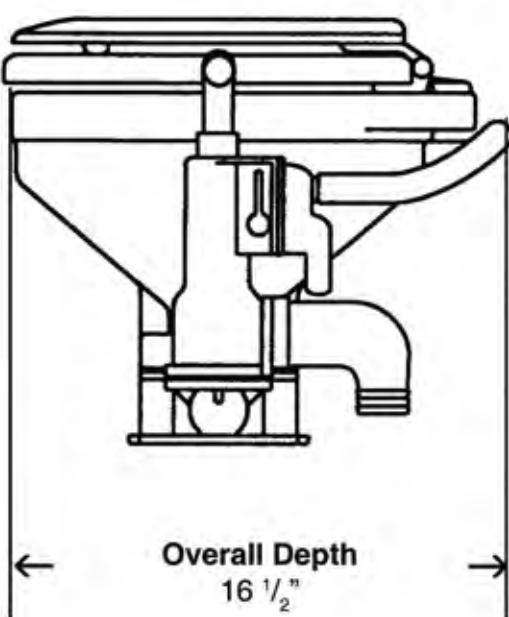
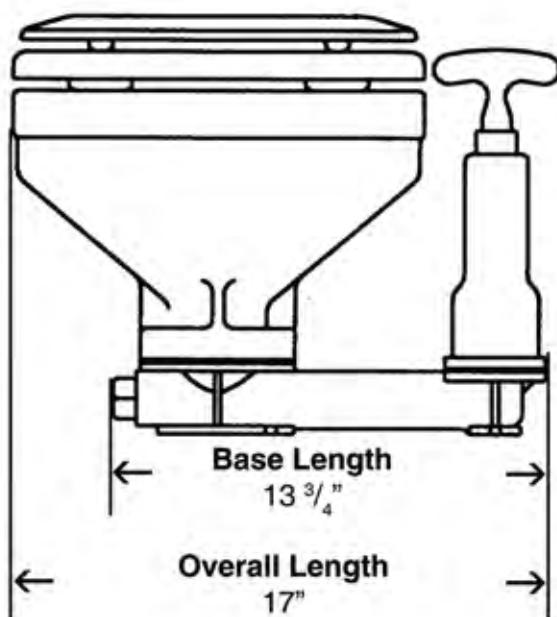


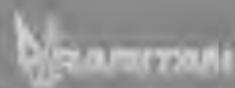
EXPLODED PARTS VIEW, COMPACT II MARINE TOILET



PARTS FOR COMPACT II MARINE TOILETS

Part No.	Part Name	Part No.	Part Name
1115	3/8 - 16 x 1 1/2 Hex HD S/S	1349W	Shutoff Handle w/seal
1214B	"O" Ring	1350W	Check Valve Assy. (1350,1351 & 1352)
1222AW90°	Discharge Ell w/flange	1353	Bumper Washer (2)
1222B	Discharge Fitting - Straight (Optional, not shown)	1354	Flushing Handle
1223B	3/8 - 16 S/S Nut (2)	1355	Pump Housing, Compact II
1226A	1/4 - 20 x 1 1/4", RH S/S Screw(4)	1356W	Seal Cartridge Assy. (1214B & 1357)
1226B	1/4 - 20 Nut, S/S (8)	1357	U-Cup Seal (2)
1226C	Plastic Spacer Washer (4)	1359W	Piston Rod Assy.(1316MS, 1353 & 1359A)
1228CW	Flapper Valve Assembly	C253	Joker Valve
1301PW	Toilet Base Assembly (w/drain plug)	CH42	Hose (3/4" I.D.)
1316MS	Piston "O" Ring	CH43P	Hose Clamp, Nylon (2)
1343	Plastic Drain Plug, 1 1/2" NPT	F020	#10 Self-Tapping Screw (6)
1346	Check Valve Housing	F081	Hex head Cap S/S Screw (1/4-20 x 2") (4)
1347	Separator Plate		
1348	Cam		

Compact II Dimensions



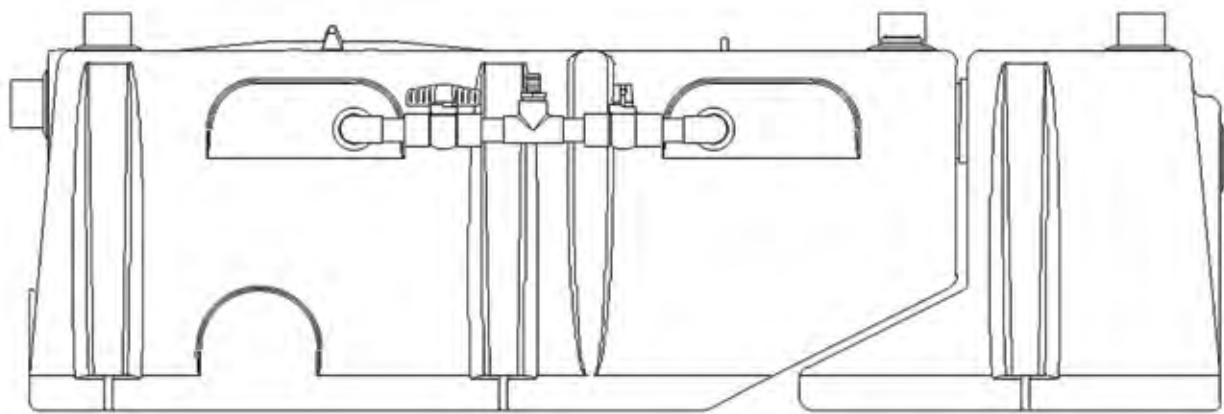
DETERMINING PROPER REPAIR KITS FOR MANUAL TOILETS:

PRODUCT NAME	RETROFITS	REPAIR KIT
COMPACT 0/72 - 1994	CPIIRFK - Converts CP to CPII	CPRKNI
COMPACT II 1994 - Present		CPRKII
PH & PHE PH = Manual only PHE = electric or manual 01/68 - 11/81	PHIPUMP - 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 manual PHII to Electric operation	PHRKII
PHII & PHEII Inlet knob - 1/4 turn Piston - hex head nut seal 06/92 - Current		PHRKIIC

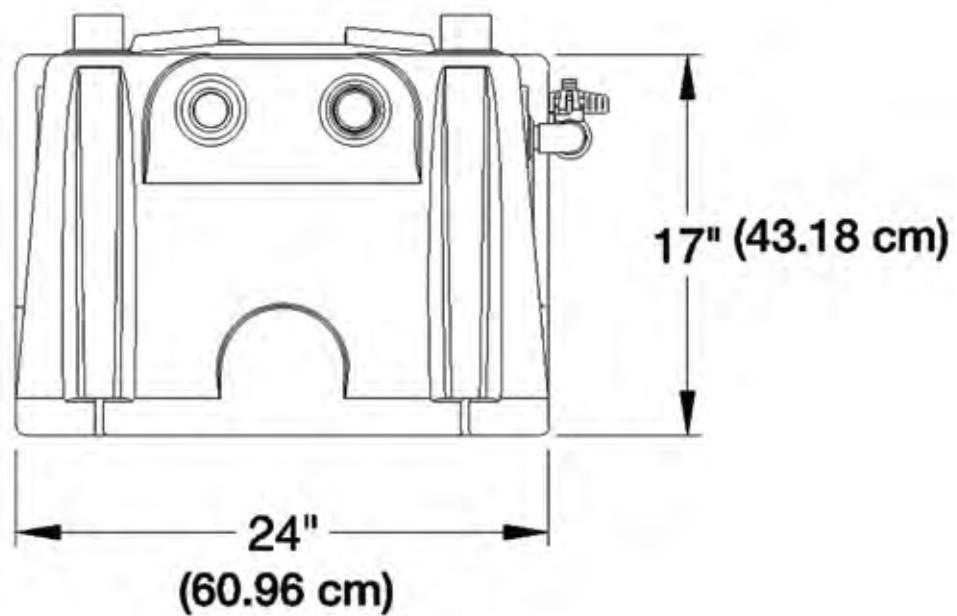
LIST OF REPAIR PARTS CONTAINED IN MANUAL**TOILET REPAIR KITS**

CPRKNI	COMPACT REPAIR KIT	QTY	PHRKJ01	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			
CPRKII	COMPACT II: REPAIR KIT	QTY	PHRKII	PHII AND PHEII REPAIR KIT	QTY
1214B	O-RING	1	1201	PH: 3/4 VALVE BALL	2
1226C	PLASTIC SPACER WASHER	4	1202	PH: VALVE CAP GASKET	2
1228CW	FLAPPER VALVE	1	1203B1	PH: INLET VALVE O-RING	1
1234	BOWL GASKET WHITE	1	1203B2	PH:INLET VALVE O-RING	1
1316MS	COMPACT II: MULTISEAL O-R	1	1203B3	PH: INLET VALVE O-RING	1
1350W	COMPACT II: INLET FLAPPER	1	1213A	PH: U-CUP	1
1353	COMPACT II: BUMPER WASHER	2	1213B	PH: DELRIN WASHER	1
1356	1356W CPII:CARTRIDGE	1	1213C	SNAP RING	1
1357	COMPACT II: U-CUP SEAL	2	1213D	WHITE NEOPRENE WASHER	1
C253	JOKER VALVE	1	1226C	PLASTIC SPACER WASHER	4
RNI	NYLON SHOULDER WASHER	4	1228CW	FLAPPER VALVE	1
SL1CC	SUPER LUBE: 1CC PACKET	2	1232MS	PISTON MULTISEAL O-RING	1
			1234	BOWL GASKET WHITE	1
			C253	JOKER VALVE	1
			RNI	NYLON SHOULDER WASHER	4
			SL1CC	SUPER LUBE: 1CC PACKET	3
PHRKIIC	PHII & PHEII REPAIR KIT	QTY			
1201	PH: 3/4 VALVE BALL	2			
1202	PH: VALVE CAP GASKET	2			
1203B1	PH: INLET VALVE O-RING	1			
1203B2	PH:INLET VALVE O-RING	1			
1203B3	PH: INLET VALVE O-RING	1			
1214A	SHAFT SEAL	1			
1214B	O-RING	1			
1214	1214W PHII: PISTON	1			
1226C	PLASTIC SPACER WASHER	4			
1228CW	FLAPPER VALVE	1			
1232MS	PISTON MULTISEAL O-RING	1			
1234	BOWL GASKET WHITE	1			
C253	JOKER VALVE	1			
RNI	NYLON SHOULDER WASHER	4			
SL1CC	SUPER LUBE: 1CC PACKET	3			

MaNaGerm Dimensions

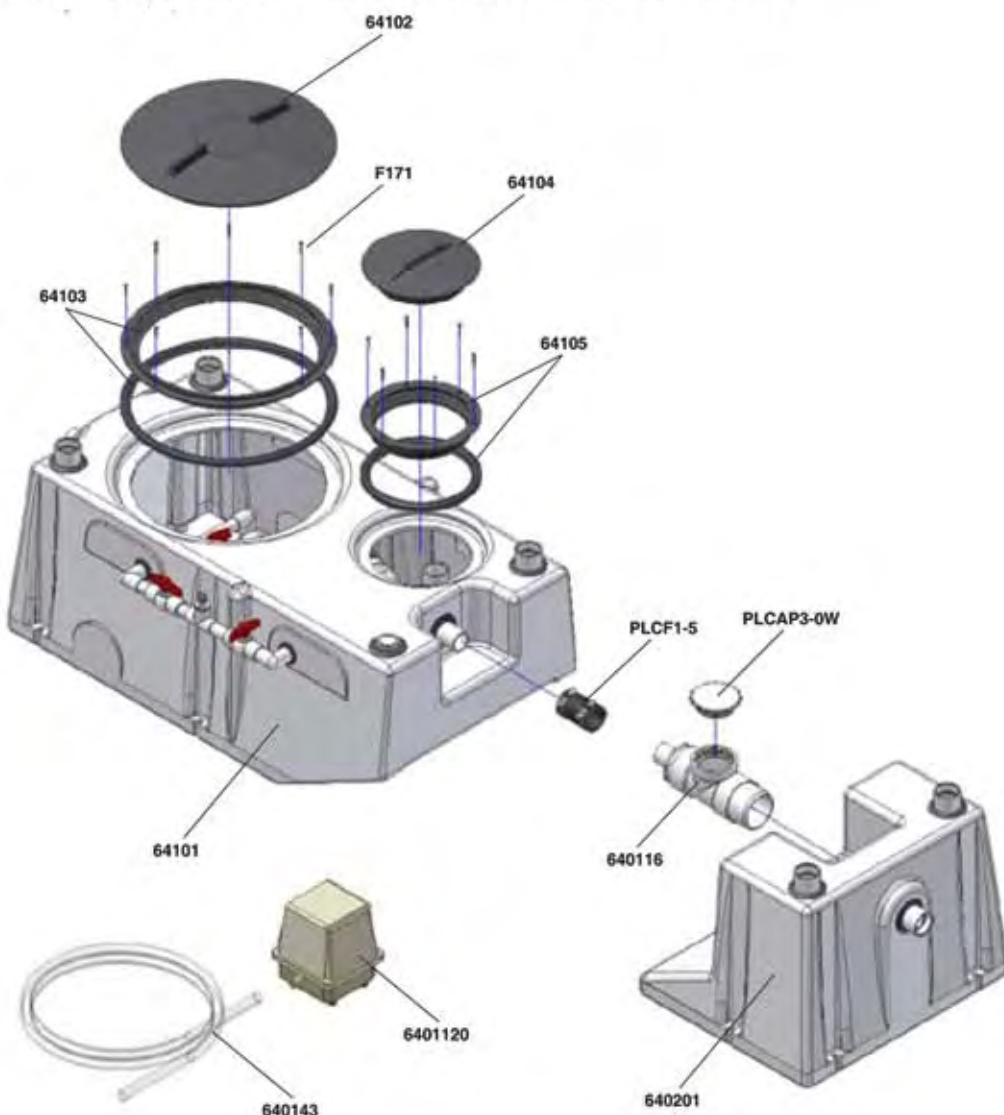


56 1/2"
(143.51 cm)



24"
(60.96 cm)

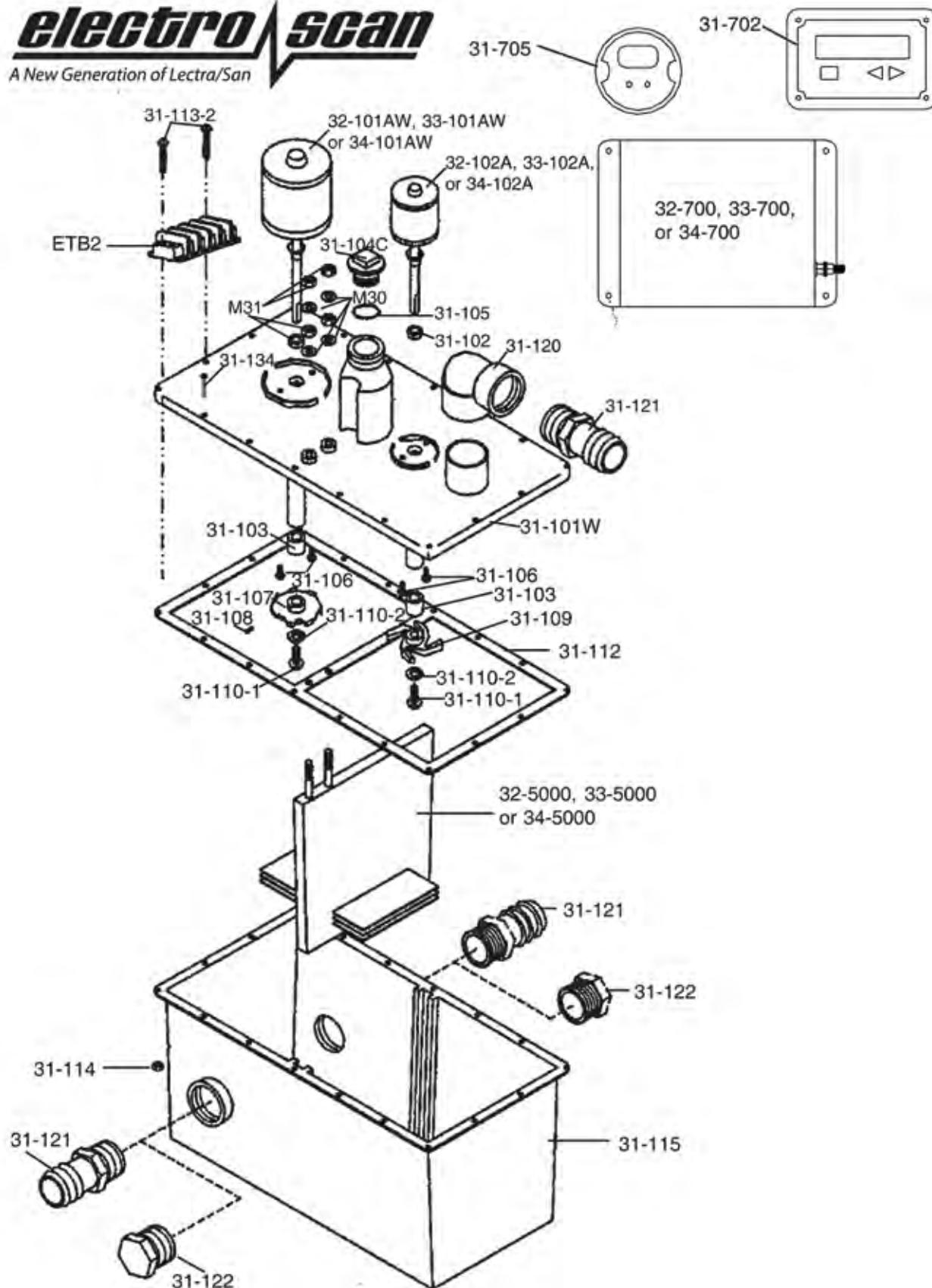
17" (43.18 cm)

ManaGerm Exploded View And Parts List

Part #	Description
640101	Primary Treatment Tank Assembly
64102	Manway Lid, 16"
640104	Manway Lid, 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
1PK022	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

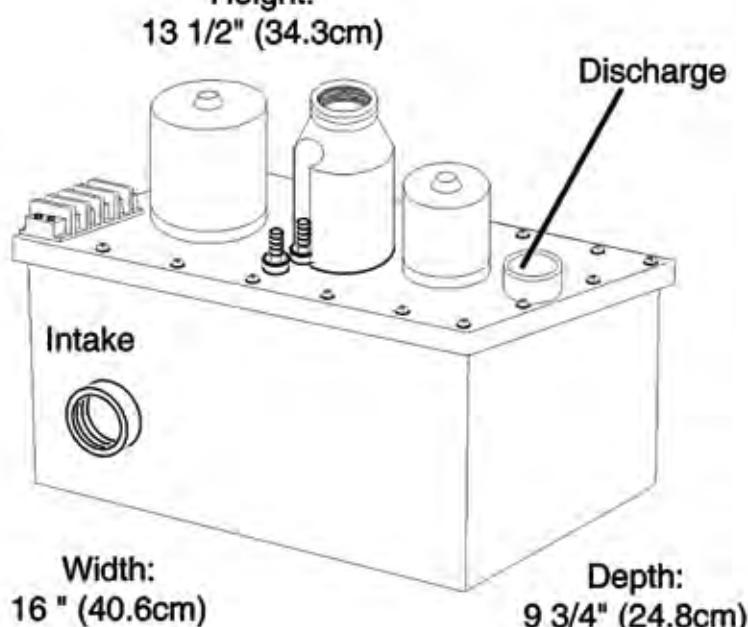
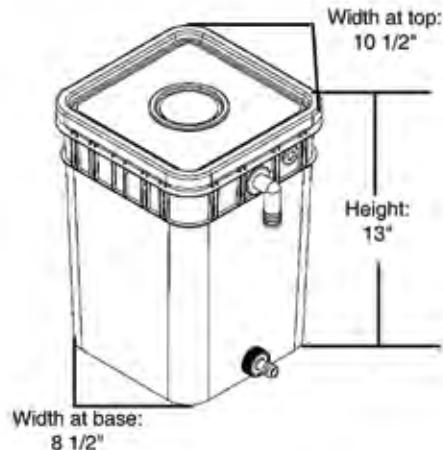
ElectroScan Exploded View

electro/scan
A New Generation of Lectra/San

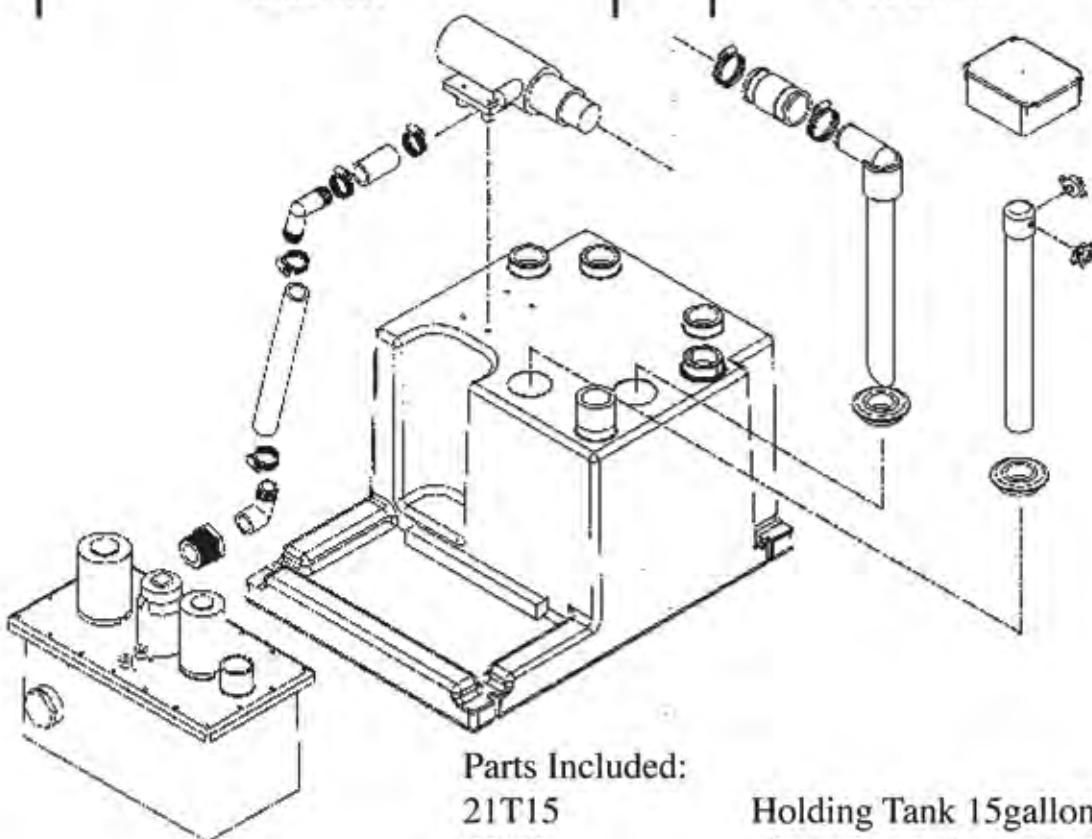
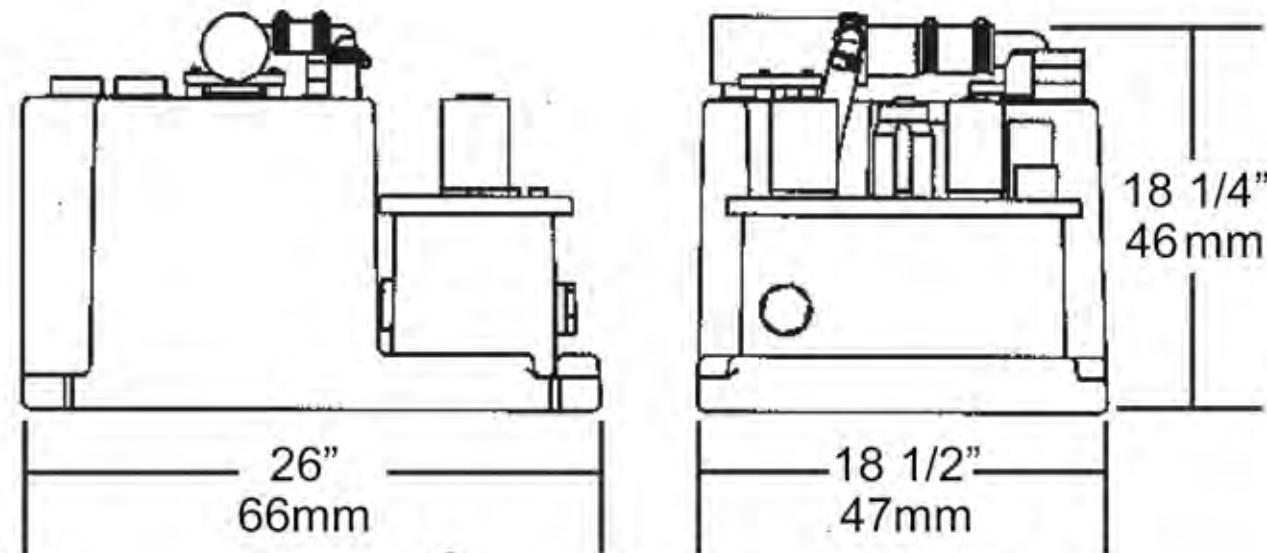


Electroscan Parts and Dimensions

Part No.	Description	Part No.	Description
32-102A**	Mixer Motor 2 1/2" Dia. 12 VDC	31-3001	SALT FEED SYSTEMS - Not pictured
33-102A**	Mixer Motor 2 1/2" Dia. 24 VDC	31-3002	Salt tank unit complete, two gallon
34-102A**	Mixer Motor 2 1/2" Dia. 32 VDC	32-3003	Four gallon salt feed tank
31-121	Hose Fitting (2)	33-3003	Four gallon salt feed tank w/12 volt pump
31-120	Discharge Elbow 90°	32-7000	Four gallon salt feed tankw/24 volt pump
M30	Electrode Nut 1/4-20 Brass (4)	33-7000	12 V DC Treatment Unit - No Control Unit,
M31	Electrode #14 Brass flat washer (4)		System Status Panel or LCD Display
31-103	Motor Shaft Bushing (2)	34-7000	24 V DC Treatment Unit - No Control Unit,
31-106	10-32x7/8" RHMS,S/S (4)		System Status Panel or LCD Display
31-109	Mixer Impeller	31-618	32 V DC Treatment Unit - No Control Unit,
31-110-1	Impeller Bolt, 12-24x5/8", S/S (2)		System Status Panel or LCD Display
31-110-2	Impeller Lock Washer, #12, S/S (2)	31-702	Cable for LCD and System Status Panel
31-113-2	Terminal Block Bolt	31-705	LCD Display
31-134	Cover Hold Down Screw 10-32 x 1 Hex(16)	32-700	System Status Panel
31-114	Cover Hold Down Nut, 10-32 (18)	33-700	Control Unit 12V
31-115	Treatment Tank	34-700	Control Unit 24V
31-122	Intake Plug	WAES01T	Control Unit 32V
32-5000	Electrode Pack 12 VDC		Wire Harness (not shown)
33-5000	Electrode Pack 24 VDC		
34-5000	Electrode Pack 32 VDC		
31-112	Cover Gasket		
31-108	Macerator Set Screw, 8-32x3/16", S/S		
31-107	Macerator Impeller		
31-101W	Treatment Cover		
31-104C	Crossover Plug		
31-105	O-Ring		
31-102	Motor Shaft Seal (2)		
32-101AW**	Macerator Motor 3" Dia. 12 VDC		
33-101AW**	Macerator Motor 3" Dia. 24 VDC		
34-101AW**	Macerator Motor 3" Dia. 32 VDC		
ETB2	Terminal Block		



Hold N' Treat Dimensions



Parts Included:

21T15

Holding Tank 15gallons

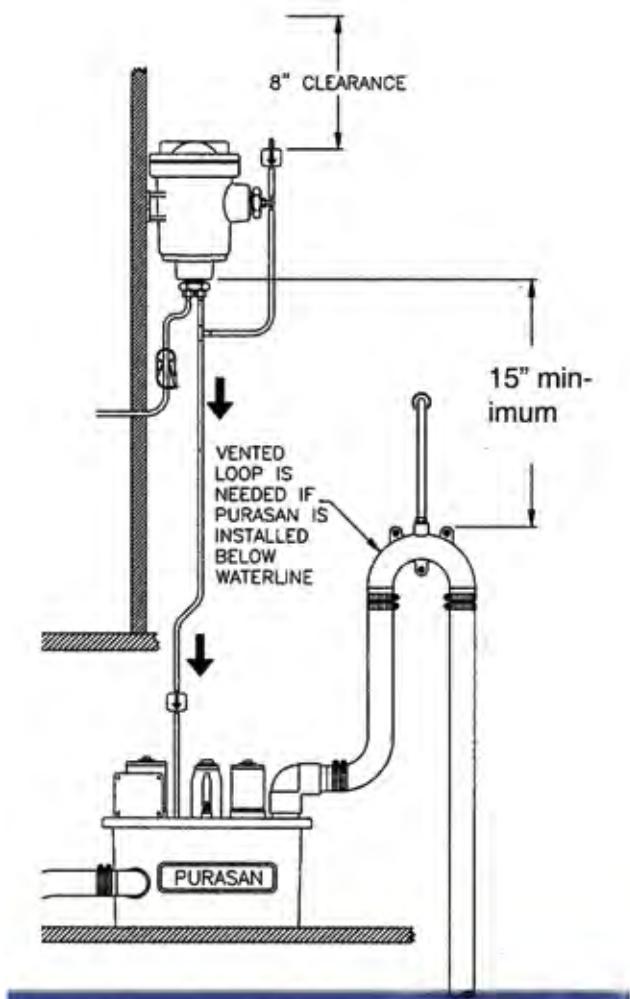
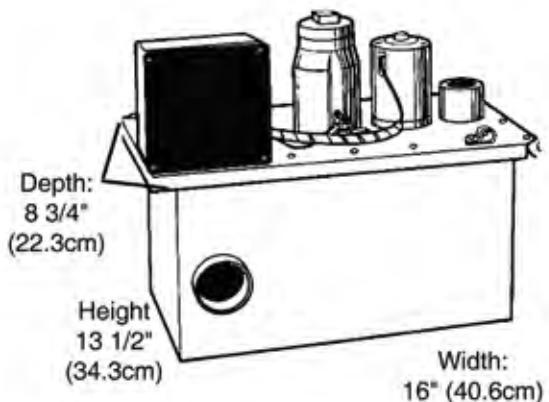
EST*

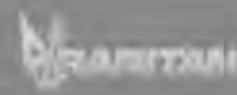
Electroscan, * = voltage

21P*P

Macerator Pump, * = voltage

Unit is completely assembled

Purasan Dimensions

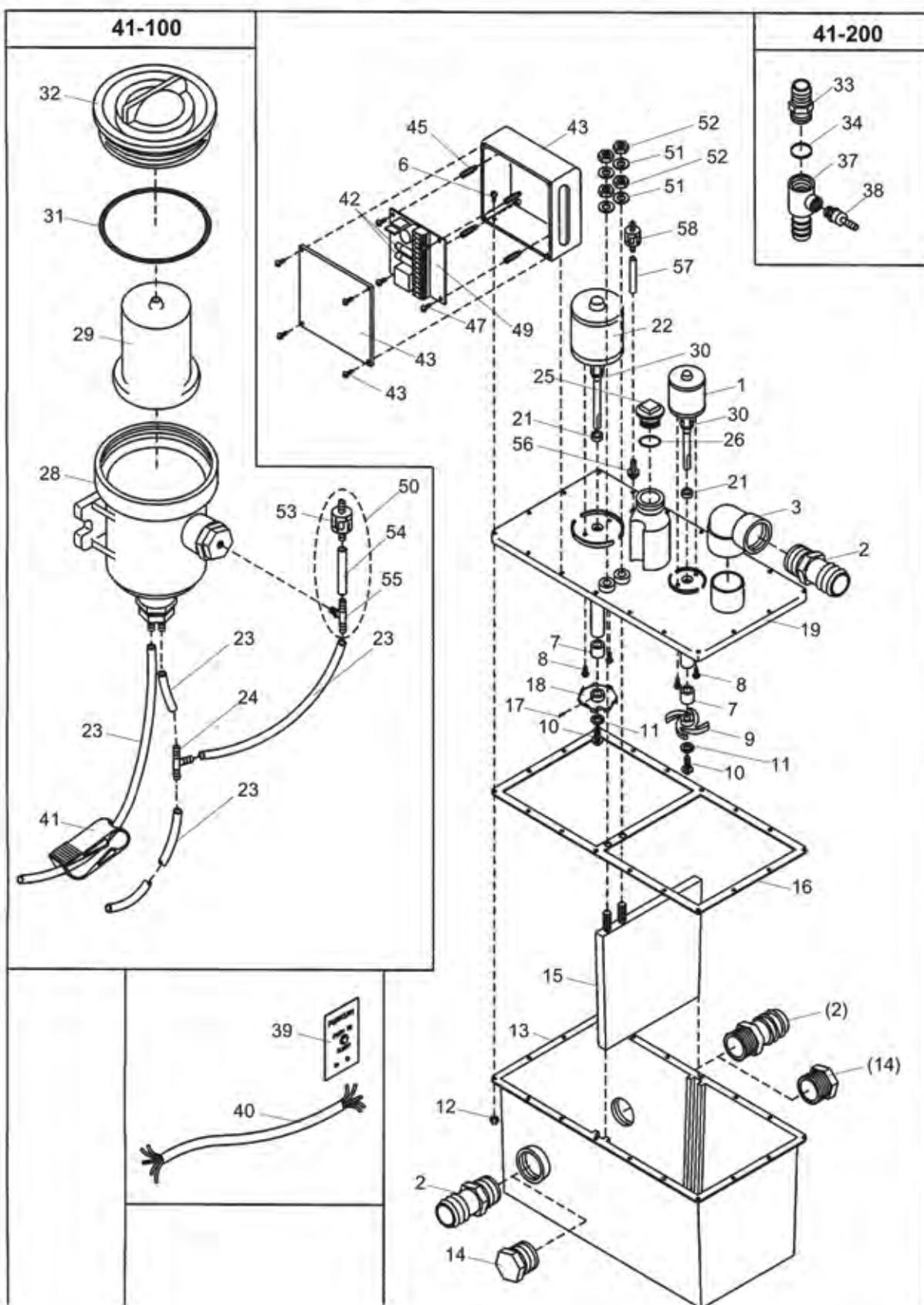


Purasan Parts List

Item Part #	Description	Item Part #	Description
1 32-102AW	Mixer Motor 2 1/2" Dia. 12 V DC	50 41-110	Vent Kit for Tablet Dispenser (Incl. #53, 54, & 55)
1 33-102AW	Mixer Motor 2 1/2" Dia. 24 V DC	51 M31	#14 Brass Flat Washer (4)
1 34-102AW	Mixer Motor 2 1/2" Dia. 32 V DC	52 M30	1/4"-20 Brass Nut (4)
2 31-121	Hose Fitting (2)	41-100	Tablet Dispenser
3 31-120	Discharge Elbow 90°	41-200	Complete(less cartridge)
6 31-106	Cover Hold down Bolt, 10-32 x 7/8", S/S (18)	42-1000	T-Fitting (Incl. #33, 34, 37 &38)
7 31-103	Motor Shaft Bushing (2)	43-1000	Treatment Unit Complete 12 V DC
8 31-113-3	Motor Hold down Bolt, 10-32x1", S/S (4)	44-1000	Treatment Unit Complete 24 V DC
9 31-109	Mixer Impeller	CDS*	Treatment Unit Complete 32 V DC
10 31-110-1	Impeller Bolt, 12-24 x 5/8", S/S (2)	PSTDC03	Continuous Duty Solenoid
11 31-110-2	Impeller Lock Washer, #12, S/S (2)	53 41-111	Purasan Dual Control
12 31-114	Cover Hold down Nut, 10-32 (18)	54 31-305	Check Valve
13 31-115	Treatment Tank	55 41-106	2" (5cm) long 1/4" I.D. Tubing
14 31-122	Intake Plug	56 31-325	"T" Fitting
15 41-102	Tank Divider	57 31-319	Adapter
16 31-112	Cover Gasket	58 41-111	3/8" x 1 3/4" Tubing
17 31-108	Macerator Set Screw	F087	Check Valve
18 31-107	Macerator Impeller	CH25	Screw: 4 x 1/2 phil oval T-A 18-8 S/S (not shown)
19 31-101W	Treatment Cover	CH42	Front Cover O-ring (not shown)
21 31-102	Motor Shaft Seal (2)	CH43P	Hose, 3/4 reinforced PVC high gloss white (not shown)
22 33-101AW	Macerator Motor 12 V DC	AM141	Nylon hose clamp 1 1/32 (not shown)
22 34-101AW	Macerator Motor 24, 32 V DC	41-260	Atlantes Cover O-Ring (not shown)
23 31-305	1/4" I.D. Tubing	41-200	Bowl Elbow with restrictor (not shown)
24 41-115	Union Tee 1/4" Barbed		
25 31-104C	Crossover Plug		
26 31-105	O-Ring		
27 41-125	Bottom Plug Assy.		
28 41-130	Dispenser Body (PVC)		
29 41-135	Cartridge (refill) PURASAN Tablets		
	Note: Cartridge must be shipped in a separate container, call 856-825-4900.		
30 31-101-2	Slinger (2)		
31 RWS5	"O" Ring		
32 41-131	Dispenser Cap		
33 31-307D1	Outlet Adapter		
34 31-307E	O Ring		
37 31-307D	T-Check Valve Body		
38 41-205	Check Valve Assy.		
41-200	T-Check Valve, Complete (33,34,37,38)		
39 41-350	Switch Panel Complete	190601	In-line Strainer
40 41-355	Control Cable	31-305	1/4" tubing
41 31-304C	Flow Metering Clamp	41-111	Cartridge check valve
42 32-218	Fuse: F1, MDL 6 1/4 (12 V DC, 1 Req'd.)	41-261	fitting with restrictor
42-220	Fuse: F2, MDL 12 (12 V DC, 1 Req'd.)	41-280	hose clamps
32-218	Fuse: F1/F2, MDL 6 1/4 (24 V DC, 2 Req'd.)	PLA14	adapter: 1/2" MNPT X 3/4"
34-218	Fuse: F1/F2, MDL 5 (32 V DC, 2 Req'd.)	PLA15	adapter: 3/8" x 1/4"
43 41-301	Control Box w/Cover and Screws	PLA16	adapter: female 1/2" x 1/4"
45 F41-312	Standoff (4)		
47 CH46VT	Circuit Board Mounting Screw (4)		
49 42-303	Circuit Board, 12 V DC	31-305	Tubing
43-303	Circuit Board, 24 V DC	41-200	T-fitting
44-303	Circuit Board, 32 V DC	41-260	Bowl elbow with restrictor
42-300	Electronic Control Complete*, 12 V DC	PLA15	Adapter: 3/8" x 1/4"
43-300	Electronic Control*, 24 V DC		
44-300	Electronic Control*, 32 V DC		

*Incl. #43, 45, 47, 49

* Specify Voltage (12, 24 and 32 VDC)

Purasan Exploded View



Setting Standards for Safer Boating



National Marine Manufacturers Association

