PHII AND PHEII MARINE TOILETS
INSTALLATION AND MAINTENANCE INSTRUCTIONS

THE FOLLOWING ARE CAUTIONARY STATEMENTS THAT MUST BE READ AND FOLLOWED DURING BOTH INSTALLATION AND OPERATION

WARNING: Raritan Engineering Company, Inc. recommends that a qualified person or electrician in the case of PHEII, install this product. Equipment damage, injury to personnel or death could result from improper installation. Raritan Engineering Company, Inc. accepts no responsibility or liability for damage to equipment, or injury or death to personnel, that may result from improper installation or operation of this product.

WARNING: Hazard of Flooding - Any installation made below the waterline must have vented loops positioned properly and all hose connections should be double-clamped. Both intake and discharge seacocks should always be in the closed position when the toilet is not in use. Failure to do so may result in flooding, property damage and loss of life.

WARNING: Do not operate PHEII series toilets with handle in place, serious bodily injury may occur.

The PHII is a manually operated double action piston toilet. The PHII can be converted to its electrical counterpart by adding an electrical conversion kit part# PHECKII*.

*Specify Voltage

Model and Serial # for PHEII:

The PHEII is the electric version which incorporates an electric motor driven gear box.

All models are suitable for use in conjunction with Raritan’s Electroscan® and Purasan® both are U.S. Coast Guard Certified Type I flow-thru Marine Sanitation Device (MSD) and/or holding tanks.

1-856-825-4900
www.raritaneng.com
OPERATION

WARNING: DO NOT adjust valve handle (1209BW) while toilet is operating.

1. With valve handle in the "FLUSH" position pumping the handle (or pressing the button on electric units) will draw water in and discharge the bowl contents.
2. With valve handle in the "DRY" position pumping the handle (or pressing the button) will only discharge the bowl contents while drawing air in through the air valve assembly to prevent a build-up of pressure.

• We recommend single ply toilet paper.
• Water should appear in the bowl within ten seconds. If not, see troubleshooting section.
• Hard objects or stringy substances (paper towels, feminine hygiene products, filter cigarettes, etc.) must not be thrown into the toilet as they will cause damage.
• Always shut off seacock(s) before leaving the boat unattended.

RETURNING PHEII TO MANUAL OPERATION

WARNING: Secure circuit breaker in "OFF" position before proceeding.

1. Remove arm bolt and nut (#1115 and #1115A) from the top of the connecting rod (#1116BW).
2. Displace connecting rod (#1116BW) from track.
3. Insert the handle (#1208W) and cotter pin (#1210A).

To return to electrical operation, reverse procedure.

Cleaning Instructions

IMPORTANT: Do not use cleaners that contain ammonia, ethyl acetate, phosphoric acid or concentrated chlorine bleach. These may cause damage to the toilet.

Using C.P. a bio-enzymatic toilet bowl cleaner (available from Raritan Engineering) will keep the bowl clean and fresh smelling.

Recommend Visual Inspection

✓ For leaks at toilet and hose connections
✓ Hose clamps
✓ Condition of hoses
✓ Seacocks
✓ Condition of wires and connections
✓ In-Line Strainer (if you have one)
MAINTENANCE

Super Lube® (#SL1CC) applied to the piston rod will prolong the life of the Piston Shaft Seal. This should be done every spring and fall or more regularly if the head is used frequently. Applying Super Lube to all moving parts is also recommended. Installation of a Knocks Out Odor Kit (#KO2) will reduce the "rotten egg" smell associated with using salt or brackish water to flush the toilet. Before attempting repairs, refer to the Troubleshooting section of this manual.

WINTERIZING

Improper winter lay up is a major cause of marine toilet failures.

Parts Required
- 3/4" I.D. intake hose approximately 3 feet long.
- 1 1/2" I.D. discharge hose approximately 3 feet long.
- Two buckets
- Nontoxic antifreeze approximately 1 quart

1. Close the intake and discharge seacock. Disconnect and drain the intake and discharge hoses.
2. Connect short hoses to toilet’s intake and discharge.
3. Place one bucket under short hose on discharge.
4. Pour nontoxic antifreeze in other bucket.
5. Place hose connected to intake into bucket with antifreeze.
6. Flush toilet until antifreeze begins to be discharged from toilet.
7. Antifreeze should remain in the toilet until recommissioning. This will protect both intake and discharge sides of the pump. Pouring antifreeze into the bowl will only protect the discharge.

NOTE: Holding tanks, seacocks and treatment systems need to be independently winterized, stored and recommissioned (see manufacturer’s instructions).

RECOMMISSIONING

1. Lubricate piston rod with Super Lube®.
2. Using the buckets, hoses and a gallon (3.8 liters) of clean water, flush the antifreeze out of the toilet. Dispose of antifreeze properly, in accordance with local and federal regulations.
3. Reconnect the hoses and open both seacocks.
4. Check all connections for leaks with several test flushes.

INSTALLATION OF REPLACEMENT PARTS

1. Refer to Fig. #2 when replacing part #1228CW.
2. If valve body (#1203BW) is removed it must be positioned as in Fig. #3 for proper operation. Overhaul kits and individual parts for your toilet may be ordered through your dealer or direct from the factory.

NOTE: Before Reinstalling 1209BW Valve Handle, Be Sure Points "A" and "B" On The Inlet Valve Body (#1203BW) Are Positioned As Shown By The Double Arrow.
**Tools Required**
- 5/16" nut driver
- Wrench or screw driver
- Bit for drilling mounting surface
- Hose cutters
- Tape measure

**Additional Parts Required**
- Four stainless steel mounting bolts or lag screws (minimum 1/4" [6mm]) and washers
- 1 1/2" I.D. discharge hose
- 3/4" I.D. reinforced intake hose
- Hose clamps (two for each connection below waterline)

**PHEII Units Require**
- Wire
- Wire cutters
- Wire terminal crimpers
- Terminals
- Fuse/circuit breaker

**Electrical**

<table>
<thead>
<tr>
<th>Nominal Voltage (Volts DC)</th>
<th>12V</th>
<th>24V</th>
<th>32V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amperage Draw @ Nominal Voltage</td>
<td>18</td>
<td>11</td>
<td>8</td>
</tr>
<tr>
<td>Circuit Breaker/Fuse Size (Amps)</td>
<td>25</td>
<td>20</td>
<td>12</td>
</tr>
</tbody>
</table>

### Wire Sizes

**NOTE:** Recommended conductor sizes based on 105C rated insulation.
Refer to ABYC Standards for other insulation ratings.

<table>
<thead>
<tr>
<th>Distance from source to unit and back to source [feet (m)]</th>
<th>UNIT'S VOLTAGE</th>
<th>Minimum recommended conductor wire AWG (mm²) for 3% voltage drop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>10 (6.0) 15' (4.6) 20' (6.1) 25' (7.2) 30' (9.2) 40' (12.2) 50' (15.2)</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>16 (1.5) 14 (2.5) 12 (4.0) 10 (6.0) 10 (6.0) 8 (10.0)</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>16 (1.5) 16 (1.5) 16 (1.5) 14 (2.5) 14 (2.5) 12 (4.0) 12 (4.0)</td>
</tr>
</tbody>
</table>

**Raritan PHII / PHEII Marine Toilet**

**Front View, Side View and Footprint**
MOUNTING TOILET

Mounting surface must be flat and solid.
1. Install seat on toilet.
2. Place toilet where it will be located.
   - Make sure there is room to route hoses.
   - Make sure seat will open properly.
3. Mark location of toilet base mounting holes on mounting surface.
4. Drill holes for toilet mounting bolts/screws.
5. Secure toilet to surface.

NOTE: Never mount PHEII where it may be subject to shower spray or other sources of external water.

PLUMBING

WARNING: Hazard of Flooding
Toilets mounted at or below the waterline must have a vented loop installed in the discharge line. The top of the vented loop must be a minimum of 4” (10 cm.) above the waterline at the boats greatest angle of heel (see vented loop manufacturer’s instructions).

Sea Water Models must also have a vented loop installed between the intake pump and the toilet bowl.

Double clamp all below-waterline connections.

IMPORTANT
• Fittings and 90° bends should be kept to a minimum.
• In-Line Strainer may be installed on Sea Water Models per Installation Instructions. This will prevent clogs.
• Discharging untreated sewage is forbidden in all U. S. waters within the three-mile limit.
• Thru-hull fittings and seacocks must be installed where they are easily accessible.
• Use only quality reinforced hoses such as Raritan Saniflex (SFH)
• Secure all hoses properly.

1. Route discharge hose above discharge outlet with a vented loop. This will enable the toilet to discharge more efficiently and will help to prevent backflow.
2. An In-Line Strainer (#163000) is recommended. This will help minimize odors and help prevent clogging.
3. Intake and discharge thru-hull fittings should be located far enough apart to prevent discharge water from being drawn through the intake.
4. The optional Raritan Knocks Out Odors Kit (#KO2) permits use of Cleans Potties (#1PCP22) with the PHII and PHEII toilets. Raritan Cleans Potties deodorizes the bowl and lubricates internal parts.
5. Flush and check for leaks.
ELECTRIC CONVERSION KIT INSTALLATION (PHECKII) - For PHII Models Only

NOTE: It is recommended that the toilet be removed before installing the PHECKII.
1. Close the seacoeks.
2. Remove cotter pin (#1210A) and handle (#1208W) from toilet. Disconnect hoses and unbolt toilet from deck.
3. Align connecting rod in track on side of pump housing and place motor-gearbox unit in position on base (#1248W) between pump and bowl.
4. Insert four hex head screws (#1119A) with lock washers (#1118). Tighten evenly.
5. Insert bolt (#1115) through connecting rod (#1116BW) and thread into yoke (#1211PL). Tighten jam nut (#1115A) securely; this connection is not a pivot point.

WIRING

WARNING: Hazard of Shock and Fire
- Always use proper wire, wire connectors and fuse/circuit breaker. See Specification Chart.
- Secure wire properly.
- Do not connect appliances to toilet circuit.
- Make sure power is off before proceeding.
- Use proper wire terminals for all wire connections.
1. Determine proper wire size by measuring distance from:
   - Power Source to push-button to toilet motor and back to power source.
2. Select proper wire and fuse/circuit breaker size from Specifications on Installation page.
3. Install fuse/circuit breaker in positive line at source.
4. Connect positive wire from fuse/circuit breaker to Push Button Switch.
5. Connect wire from Push Button Switch to orange wire on motor(s).
6. Connect wire from battery negative or power source ground buss to black wire (negative) on motor(s).
## Troubleshooting

### Water not being drawn in
- **Check Ball Stuck**
  - Shut off seacock and remove intake hose
  - Using an eraser end of pencil be sure check ball is moving freely
- **Debris lodged in intake valve body**
  - Check and clean valve body
- **Piston O-ring worn**
  - Replace Piston O-ring
- **Inlet valve in wrong position**
  - Inlet valve should only rotate 1/4 turn

### Water rises in bowl
- **Vented loop(s) not breaking siphon**
  - Close discharge seacock, then intake seacock to determine which is causing the problem. Clean or replace vented loop(s) parts.
- **Joker valve worn**
  - Inspect, clean or replace as needed

### Leak around piston shaft
- **Cartridge seal worn**
  - Replace cartridge seal
  - Inspect and replace piston shaft if scored

### Odor comes from head area when flushed
- **Marine vegetation lodged in bowl**
  - Remove bowl and attach pressure water at spud assy.
  - Install strainer in intake line
- **Intake water is foul (most common in salt and brackish)**
  - Install Knocks Out Odors Kit (KO2) to help deodorize intake water
- **Back pressure from holding tank**
  - Tank full or vent clogged, inspect and clean
- **Permeated discharge hose**
  - Rub with warm damp rag if smell transfers to rag
  - Replace hose

### Water accumulates in the bowl too fast
- **Flapper valve not seated properly**
  - Close intake valve and pump dry - clean or replace flapper valve as necessary
- **Joker valve not closing or opening properly**
  - Clog or restriction in discharge line
  - Close intake valve and pump dry - clean or replace joker valve as necessary

### Not enough water to rinse bowl
- **Intake valve positioned improperly**
  - Be sure inlet knob only turns 1/4 see fig. #3
- **Debris around intake or discharge check balls**
  - Remove check balls, clean and replace as necessary
- **Scored pump housing or worn piston "O" ring**
  - Inspect inside of housing replace "O" ring and housing as necessary
- **Intake line or strainer clogged**
  - Clean line and strainer

### Electric motor labors or manually hard to pump
- **Low voltage at motor while running**
  - Check condition of batteries, terminals and wire connections for corrosion. Check gauge of wire to be sure it is not undersized.
- **Holding tank vent clogged or tank full**
  - Clean holding tank vent or empty tank
- **Discharge line obstructed**
  - Test by putting a short piece of hose on discharge fitting and pump into bucket if OK then - Check thru-hull fitting and hose for clog
- **MSD Clogged**
  - Test as above if OK - then see the MSD instruction manual
- **Discharge seacock closed**
  - Open discharge seacock

Units requiring extensive repairs may be returned to the Millville, NJ or Fort Lauderdale, FL office for overhaul. Instructions, including name, address and phone number MUST accompany returned units to ensure proper handling.

See additional FAQ's at: www.raritaneng.com/tech-support/faq
## Parts List

### Parts for Raritan Phi and PHEII Marine Toilet

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1115</td>
<td>3/8&quot;-16 x 1 1/2&quot; Hex Head S/S Bolt(2)</td>
</tr>
<tr>
<td>1124</td>
<td>1/4&quot;- 20 x 1/2&quot; R.H. Machine Screw</td>
</tr>
<tr>
<td>1200CW</td>
<td>Pump Housing</td>
</tr>
<tr>
<td>1201</td>
<td>Intake and Discharge Valve Ball (2)</td>
</tr>
<tr>
<td>1202</td>
<td>Intake and Discharge Valve Gasket (2)</td>
</tr>
<tr>
<td>1203BW</td>
<td>Intake Valve Body w/&quot;O&quot; Rings, (Includes 1203B, 1203B1, 1203B2, 1203B3)</td>
</tr>
<tr>
<td>1203W</td>
<td>Air Valve Assembly</td>
</tr>
<tr>
<td>1204B</td>
<td>Intake Valve Cap</td>
</tr>
<tr>
<td>1208W</td>
<td>Retractable Handle</td>
</tr>
<tr>
<td>1209BW</td>
<td>Valve Handle</td>
</tr>
<tr>
<td>1210</td>
<td>Handle Socket</td>
</tr>
<tr>
<td>1210A</td>
<td>Cotter Pin</td>
</tr>
<tr>
<td>1210B</td>
<td>Cotter Pin (3)</td>
</tr>
<tr>
<td>1211PL</td>
<td>Piston Rod Yoke</td>
</tr>
<tr>
<td>1212W</td>
<td>Piston Rod Assembly w/&quot;O&quot; Ring (1232MS)</td>
</tr>
<tr>
<td>1213W</td>
<td>Piston Rod Seal Assembly, Pre-6/92, (Includes 1213A, B, C, D)</td>
</tr>
<tr>
<td>1213A</td>
<td>&quot;U&quot; Cup Seal (Pre-6/92)</td>
</tr>
<tr>
<td>1213B</td>
<td>Delrin Washer (Pre-6/92)</td>
</tr>
<tr>
<td>1213C</td>
<td>Snap Ring (Pre-6/92)</td>
</tr>
<tr>
<td>1213D</td>
<td>White Neoprene Washer (Pre-6/92)</td>
</tr>
<tr>
<td>1214W</td>
<td>Piston Shaft Seal Cartridge Assy (1214, 1214A, 1214B) Fits pumps mfg. after 6/92</td>
</tr>
<tr>
<td>1215</td>
<td>Clevis Pin (3)</td>
</tr>
<tr>
<td>1217</td>
<td>Discharge Valve Cap</td>
</tr>
<tr>
<td>1218</td>
<td>Fulcrum Link (2)</td>
</tr>
<tr>
<td>1222AW</td>
<td>90° Discharge w/Flange (Std.)</td>
</tr>
<tr>
<td>1222B</td>
<td>Straight Discharge (Opt.)</td>
</tr>
<tr>
<td>1223B</td>
<td>Flange Nut 3/8&quot;-16 S/S (2)</td>
</tr>
<tr>
<td>F098</td>
<td>Housing Screw 1/4&quot;-20 x 1&quot; S/S (4)</td>
</tr>
<tr>
<td>1226B</td>
<td>Nut, 1/4&quot;-20 S/S (8)</td>
</tr>
<tr>
<td>1228CW</td>
<td>Flapper Valve Assembly (1/2&quot; Holes)</td>
</tr>
<tr>
<td>1232MS</td>
<td>Piston &quot;O&quot; Ring</td>
</tr>
<tr>
<td>1234</td>
<td>Bowl Gasket</td>
</tr>
<tr>
<td>1236E</td>
<td>Bowl Elbow</td>
</tr>
<tr>
<td>1238SC</td>
<td>Marine Style Seat and Cover; Slow Close</td>
</tr>
<tr>
<td>1245SC</td>
<td>Household Style Seat and Cover - Slow Close</td>
</tr>
<tr>
<td>1246W</td>
<td>Base Cover (2 pcs.)</td>
</tr>
<tr>
<td>1248W</td>
<td>Base w/Plug</td>
</tr>
<tr>
<td>1249</td>
<td>Base Plug</td>
</tr>
<tr>
<td>1250W</td>
<td>Base and Cover Assy.(1246W and 1248W)</td>
</tr>
<tr>
<td>C253</td>
<td>Joker Valve</td>
</tr>
<tr>
<td>CH42</td>
<td>Hose (1/4&quot; I.D.)</td>
</tr>
<tr>
<td>CH42P</td>
<td>Hose Clamp (2)</td>
</tr>
<tr>
<td>F005</td>
<td>1/4&quot;- 20 x 5/16&quot; S/S Socket Set Screw</td>
</tr>
<tr>
<td>F081</td>
<td>Bowl Bolt 1/4&quot;-20 x 2 S/S Hex head</td>
</tr>
<tr>
<td>LWS</td>
<td>Intake and Discharge Valve Spring (2)</td>
</tr>
<tr>
<td>RNI</td>
<td>Nylon Shoulder Washer</td>
</tr>
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### Parts for Electric Drive

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
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</thead>
<tbody>
<tr>
<td>1100W</td>
<td>Gear Box Housing Assembly</td>
</tr>
<tr>
<td>1102</td>
<td>Worm</td>
</tr>
<tr>
<td>1104</td>
<td>Ball Bearing</td>
</tr>
<tr>
<td>1105</td>
<td>Snap Ring</td>
</tr>
<tr>
<td>1106AS</td>
<td>Rubber Connection w/Sleeve</td>
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</tbody>
</table>

### Parts for Raritan Electric Drive

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1106W</td>
<td>Coupling w/Sleeve, complete</td>
</tr>
<tr>
<td>1108A</td>
<td>Motor Mounting Nut (2)</td>
</tr>
<tr>
<td>1109*</td>
<td>Motor (12, 24, 32, 120V DC)</td>
</tr>
<tr>
<td>1110</td>
<td>&quot;O&quot; Ring</td>
</tr>
<tr>
<td>1112</td>
<td>Link</td>
</tr>
<tr>
<td>1113</td>
<td>Link Pin, Worm Gear Pin</td>
</tr>
<tr>
<td>1115</td>
<td>3/8&quot; - 16 x 1 1/2&quot; Hex Head S/S Bolt</td>
</tr>
<tr>
<td>1115A</td>
<td>3/8&quot; - 16 Hex Jam Nut S/S</td>
</tr>
<tr>
<td>1116BW</td>
<td>Connecting Rod Assy. (1116B, 1114B, 1114D)</td>
</tr>
<tr>
<td>1117B</td>
<td>Crank Bolt</td>
</tr>
<tr>
<td>1118</td>
<td>Lock Washer (4)</td>
</tr>
<tr>
<td>1119/1119A</td>
<td>Hex Head Screw (4)</td>
</tr>
<tr>
<td>1120W</td>
<td>Worm Gear Assy.(1111, 1113, 1120)</td>
</tr>
<tr>
<td>1122</td>
<td>&quot;O&quot; Ring</td>
</tr>
<tr>
<td>1123</td>
<td>Gear Box Cover</td>
</tr>
<tr>
<td>1124</td>
<td>1/4&quot;- 20 x 1/2&quot; R.H. Machine Screw(4)</td>
</tr>
<tr>
<td>M23A</td>
<td>#10 Lockwasher S/S (2)</td>
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### PHC Parts

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<th>Description</th>
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<tr>
<td>1226A</td>
<td>Housing Screw 1/4&quot;-20 x 1 1/4&quot; S/S (4)</td>
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<tr>
<td>1226C</td>
<td>Plastic Spacer Washer (4)</td>
</tr>
<tr>
<td>1301PW</td>
<td>Toilet Base Assembly (1301P, 1343)</td>
</tr>
<tr>
<td>F081</td>
<td>Bowl Bolt 1/4&quot;- 20 S/S Hex head</td>
</tr>
</tbody>
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### Raritan Installation Accessories

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>163000</td>
<td>In-Line Strainer</td>
</tr>
<tr>
<td>164000BR</td>
<td>Push button switch</td>
</tr>
<tr>
<td>1PCP22</td>
<td>C.P., Cleans Potties, Bio-enzymatic, 22 oz.</td>
</tr>
<tr>
<td>CHTII</td>
<td>Compact holding tank - 5 gallon</td>
</tr>
<tr>
<td>SFH</td>
<td>Sani-Flex Hose</td>
</tr>
<tr>
<td>SL1CC</td>
<td>Super Lube 1cc tube</td>
</tr>
<tr>
<td>KO2</td>
<td>Knocks Out Odor Kit</td>
</tr>
</tbody>
</table>
| TD90319  | Vented Loop 3/4"
| TD90323  | Vented Loop 1 1/2" |
| TD90314W | "Y" Valve |

### Bowl & Seat

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>1236AW</td>
<td>Spud assy.</td>
</tr>
<tr>
<td>1237W</td>
<td>Marine-size Bowl assy.</td>
</tr>
<tr>
<td>1244W</td>
<td>White Household-style Bowl assy.</td>
</tr>
<tr>
<td>1238SC</td>
<td>Marine-size seat &amp; cover, Slow Close</td>
</tr>
<tr>
<td>1245SC</td>
<td>Household-style seat &amp; cover, Slow Close</td>
</tr>
<tr>
<td>VCAP</td>
<td>Vinyl Cap</td>
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### Overhaul Kits

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>PHRKII</td>
<td>PHI&amp;PHEII-U-cup Seal (mfg.before 6/92)</td>
</tr>
<tr>
<td>PHRKIIIC</td>
<td>PHI&amp;PHEII-Cartridge Seal (mfg.after 6/92)</td>
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<tr>
<td>PHIIIPUMP</td>
<td>PHIII Pump replacement assembly</td>
</tr>
</tbody>
</table>

*Specify Voltage*
**PHC Toilet Base Assembly**

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

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

**Seat and Cover**
- 1238SC  Marine Style
- 1245SC  Household Style

**VCAP**
- 1226B

**RNI**
- 1226B

**L04 1215jlc**
PHII Housing Identification & Replacement

Note: 1200CW style pump housings use repair kit part# PHRKIIC. Units manufactured prior to June 1992 (1200W housing) use repair kit part# PHRKII.

The Pump assembly 1200CW is a direct replacement for the 1200BW older PHII Pump housing. The 1200CW utilizes a replaceable seal cartridge assembly which if worn is easily replaceable.

The Former 1200W housing when worn at the seal bushing area required a whole housing replacement. Units manufactured prior to June 1992 utilize the 1200BW housing.

The PHRKII (Pre-1992) Repair Kit Includes:
1201: ¾ Valve Ball (2)
1202: Valve Cap Gasket
1203BW: Intake Valve Body w/"O" Rings (1203B, 1203B1, 1203B2, 1203B3)
1213A: U-Cup
1213B: Acetal Washer
1213C: Snap Ring
1213D: White Neoprene Washer
1226C: Plastic Spacer Washer (4)
1228CW: Flapper Valve Sub-Assy.
1232MS: Piston Multiseal O-Ring
1234: Bowl Gasket White
C253: Joker Valve
RNI: Nylon Shoulder Washer (4)
SL1CC: Super Lube: 1cc Packet (3)

The PHRKIIC (post 1992) Repair Kit Includes:
1201: ¾ Valve Ball (2)
1202: Valve Cap Gasket (2)
1203BW: Intake Valve Body w/"O" Rings (1203B, 1203B1, 1203B2, 1203B3)
1214W: Piston Shaft Seal Cartridge Assembly
1226C: Plastic Spacer Washer (4)
1228CW: Flapper Valve Assembly
1232MS: Piston Multi-Seal O-Ring
1234: Bowl Gasket (White)
C253: Joker Valve
RNI: Nylon Shoulder Washer (4)
SL1CC: Super Lube: 1cc Packet (3)
Inlet Valve/ Handle Orientation and Repair

**Tools you will need:**
Channel type pliers.
Flatblade (med) screwdriver

Gaining access to the inlet valve

To clean out debris or dismantle the valve it is necessary to access the inlet valve spring (part# LWS) and ball (#1201).

It is only necessary to unscrew the inlet valve cap (part #1204B) approximately 5 revolutions with channel type pliers. *Note: It is not necessary to remove or loosen any other part.*

Then by grasping the 1209BW handle and gently lifting upwards, the entire assembly (down to part #1203BW) can be removed.

Clean out any debris in this area.

Replace gasket (part#1202) if necessary and apply a small amount of Super Lube (#SL1CC) to the O-ring area of the 1203BW.

Reassemble in the reverse order making sure that the alignment post of the 1200CW housing protrudes **between** the two limiting stops in the underside of the 1209BW. This allows for the proper position of the inlet valve. If installed properly this creates a maximum of a 1/4 turn from "Dry" to "Flush" **not** 3/4 turn.

*Note: Do not overtighten #1204B as gasket #1202 will displace*
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1. TO OBTAIN WARRANTY SERVICE, Consumer must deliver the product prepaid, together with a detailed description of the problem, to Raritan at 530 Orange St., Millville, N.J. 08332, or 3101 SW 2nd Ave. Ft. Lauderdale, FL 33315. When requesting warranty service, purchaser must present a sales slip or other document which establishes proof of purchase. THE RETURN OF THE OWNER REGISTRATION CARD IS NOT A CONDITION PRECEDENT OF WARRANTY COVERAGE. However, please complete and return the owner Registration Card so that Raritan can contact you should a question of safety arise which could affect you.

2. THIS WARRANTY DOES NOT COVER defects caused by modifications, alterations, repairs or service of this product by anyone other than Raritan; defects in materials or workmanship supplied by others in the process of installation of this product; defects caused by installation of this product other than in accordance with the manufacturer’s recommended installation instructions or standard industry procedures; physical abuse to, or misuse of, this product. This warranty also does not cover damages to equipment caused by fire, flood, external water, excessive corrosion or Act of God.

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