Installation and Maintenance Instructions

FLUSH HANDLE CONTROL FOR ATLANTES

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

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

WARNING: HAZARD OF SHOCK OR FIRE
Always use recommended fuse, circuit breaker and wire size. DO NOT install in the area requiring “Ignition protected” devices.

FLUSH LEVER POSITIONS

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

“03” model:
The “03” model contains an smart toilet control which provides timed operation while still having momentary functionality if toilet control is removed.

Operation:
Pull Handle Forward:
Model 03 - Pull handle forward and release: starts a timed flush, intake pump starts followed by discharge pump.
Model 02 - Pull handle forward and hold to add water.

Push Handle Backward:
In both models runs just the discharge pump for a “dry bowl” flush.
NOTES: for Wiring

1. Distances are from source to unit and back to source.
2. Distance from power source to remote intake pump MUST be included when determining total distance. Same wire size MUST be used for lower base and remote intake pump.
3. Recommended conductor wire minimum AWG (mm²) for 3% voltage drop.
4. Recommended conductor sizes are based on 105°C rated insulation. Refer to ABYC Standards for other insulation ratings.
5. For 120/240 VAC units use 12VDC specifications from transformer to unit.

### Pressurized Freshwater Model - Recommended Wire and Fuse/Circuit Breaker Size

<table>
<thead>
<tr>
<th>Units Voltage</th>
<th>Circuit Breaker/fuse size (amps)</th>
<th>Amp. draw</th>
<th>10 feet</th>
<th>15 feet</th>
<th>20 feet</th>
<th>30 feet</th>
<th>40 feet</th>
<th>50 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 VDC</td>
<td>25</td>
<td>18</td>
<td>12 AWG</td>
<td>10 AWG</td>
<td>8 AWG</td>
<td>6 AWG</td>
<td>6 AWG</td>
<td>6 AWG</td>
</tr>
<tr>
<td>24 VDC</td>
<td>15</td>
<td>10</td>
<td>14 AWG</td>
<td>12 AWG</td>
<td>10 AWG</td>
<td>10 AWG</td>
<td>8 AWG</td>
<td>6 AWG</td>
</tr>
</tbody>
</table>

### Sea Water Model - Recommended Wire and Fuse/Circuit Breaker Size

<table>
<thead>
<tr>
<th>Units Voltage</th>
<th>Circuit Breaker/fuse size (amps)</th>
<th>Discharge Amp. draw</th>
<th>Remote Pump Only Amp. draw</th>
<th>15 feet</th>
<th>20 feet</th>
<th>30 feet</th>
<th>40 feet</th>
<th>50 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 VDC</td>
<td>30</td>
<td>18</td>
<td>10</td>
<td>10 AWG</td>
<td>8 AWG</td>
<td>6 AWG</td>
<td>6 AWG</td>
<td>4 AWG</td>
</tr>
<tr>
<td>24 VDC</td>
<td>20</td>
<td>10</td>
<td>5</td>
<td>14 AWG</td>
<td>14 AWG</td>
<td>12 AWG</td>
<td>10 AWG</td>
<td>10 AWG</td>
</tr>
</tbody>
</table>

### CONVERSIONS

<table>
<thead>
<tr>
<th>Wire - AWG to mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWG</td>
</tr>
<tr>
<td>mm²</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Feet to Meters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feet</td>
</tr>
<tr>
<td>Meter</td>
</tr>
</tbody>
</table>

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Fig. 1 WIRING FOR MOMENTARY FLUSH HANDLE CONTROL, FRESHWATER MODEL
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.

1. Determine proper wire size by measuring distance from:
   - Power Source to push button to toilet motor and back to power source.
   - Remote pump units - also include distance from power source for remote pump to remote pump and back. Same wire gauge must be used for both discharge and remote pump.
2. Select proper wire and fuse/circuit breaker size from Specifications on specification page.
3. Install fuse/circuit breaker in positive line at source.
4. Wire control to the toilet and battery using one of the following wiring diagrams.

Mounting control:

Mounting control box:

1. Locate a place for control box near toilet. Do not install box more than six feet away to avoid excessive voltatge drop
2. Route wires between toilet and control, Cut all extra length of wires to keep voltage drop to minimum

MARINE SANITATION DEVICE OPERATION

To start Electroscan from toilet control, run a wire from “to MSD” to terminal marked “EXT TRIG” inside Electroscan control module (black box).
To start toilet equipped with Smart toilet control from Electroscan, connect “Head 1” to “FROM MSD”.
For Lectra/San MC, EC call Raritan Customer Service or visit www.raritaneng.com

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Fig. 2 WIRING FOR MOMENTARY FLUSH HANDLE CONTROL, REMOTE MODEL
Fig. 4  WIRING FOR FLUSH HANDLE CONTROL WITH SMART TOILET CONTROL WITH REMOTE PUMP

For limited warranty terms and conditions please refer to toilet manual