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, or injury or death to personnel that may result from improper installation or operation of this product.

WARNING: HAZARD OF SHOCK AND FIRE - Always use recommended fuse/circuit breaker and wire size.

WARNING: HAZARD OF FLOODING - Always shut off seacocks before leaving boat unattended. Double clamp all hose fittings below the waterline, check hose clamps frequently for integrity.

WARNING: The Lectra/San EC operates on an Electrochemical principle. Introduction of any substance other than salt water, human waste or toilet tissue may cause heat build up and extensive damage. If any other substance is introduced by accident, the Lectra/San EC must not be turned on until entire system is flushed out with water.

INTRODUCTION

The Lectra/San EC is a U.S. Coast Guard Certified Type I Marine Sanitation Device for uninspected vessels less than 65 feet in length. Lectra/San EC accommodates most marine toilets. It can be used with one or two toilets (see page 10). It is designed and approved to treat waste for overboard discharge in areas that are not declared a No-Discharge zone by the U.S. Environmental Protection Agency. The total system is made up of three basic parts:

The Control Indicator Panel - Begins the treatment cycle and can also be connected to flush an electric toilet at the same time (single toilet application).

Dimensions: 4 1/2"H x 2 3/4"W x 1"D

The Treatment Tank - Consists of two chambers and an electrode pack that temporarily converts salt water into a powerful bactericide for the duration of the treatment cycle. The top of the tank contains the control module and its protective cover.

Dimensions: 16"W x 8 3/4"D x 13 1/2"H

Salt Feed Tank - Necessary to supply a saturated salt solution when not operating in water of ocean salinity.

Dimensions: 9"W x 9"D x 7"H

Additional parts included: 1 1/2" hose adapters (2), 1 1/2" NPT Intake Plug, 90° 1 1/2" slip PVC fitting, ribbon cable, salt tank attachments, Owners manual, warranty information, template for Operation Instruction Wall Placard Indicator Panel and U.S.C.G. Type I Equipped label.

NOTE: To comply with U.S.C.G. Regulations, the instruction wall placard should be placed near the control indicator panel and the "U.S.C.G. Type I Equipped" label MUST be in a visible location.

OPERATION

Press yellow button (Push to Flush) to activate Lectra/San EC system.

NOTE: Toilet must not exceed 1.5 gallons of waste water during any total flush cycle.

1. If your toilet is electrically connected with the Lectra/San EC (see Figs. 9 and 9A), it will flush automatically. You may flush the toilet as necessary at 10 second intervals within the first 40 seconds (duration of the FLUSH cycle).
DO NOT FLUSH TOILET AFTER THE FLUSH CYCLE LIGHT GOES OFF.

Fig. #1

**Light Sequence:**
1. **Flush** light (green) on: **Flush** toilet only while green flush cycle light is on (first 40 sec.).
2. **Treatment** light (green) will remain on for entire cycle.
3. **Check Fuse** light (red) on: See Troubleshooting.
4. **High Salt** or **Low Salt** light (amber) on: Treatment will continue. See Troubleshooting.

**LECTRA/SAN HEAD & TREATMENT CONTROL**

**PUSH TO FLUSH**

- **FLUSH CYCLE**
- **TREATMENT**
- **CHECK FUSES**
- **SALT HIGH**
- **LOW**

2. If using a manual toilet or electric toilet installed on a separate circuit, **Lectra/San EC must be activated before flushing the toilet.**

**TREATMENT CYCLE**

(How it Works and What it Does)

The flushing action of the marine toilet discharges waste and water into the first chamber of the Treatment Unit. There, waste is macerated and treated. Proprietary electrode plates are electrically energized to temporarily convert salt water into a strong bactericide, hypochlorous acid. This solution treats the waste by eliminating bacteria and viruses, then it reverts back to the original state of salt and water.

Upon the next flush of the toilet, additional waste enters the first chamber, forcing some of its treated contents into the second chamber. While the new waste is being macerated and treated in the first chamber, the contents of the second chamber are stirred and given additional treatment. A mixer is located in the second chamber to prevent sludge from accumulating and to ensure uniform treatment of its contents.

Successive flushes move the original toilet discharge through the Lectra/San EC and eventually overboard. **When the discharge enters the water it is completely treated and no harmful elements are added to the environment.**

**MAINTENANCE**

**IMPORTANT:** Cleaning and Winterization instructions are based on having an electric toilet connected to the Lectra/San EC for single button operation.

Periodically inspect the unit for leaks and check for loose plumbing and electrical connections.

**WARNING:** If the toilet is wired on its own circuit, or manually operated, make sure power to Lectra/San EC is OFF prior to cleaning and/or winterizing.

**CLEANING**

**WARNING:** DO NOT activate the Lectra/San EC during this procedure. Discharge seacocks must be in OPEN position.

**NOTE:** The following procedures pertain to use with single button operation toilets.

Completely read all instructions before beginning the procedure.

**Treatment Tank:**

1. Remove the three fuses from the Control Module (located on the top of the Treatment Tank). **Mark each fuse for replacement purposes.** Fuse removal will permit operation of an electric toilet without activating the Lectra/San EC.

2. Shut off intake seacock to the toilet, if necessary. Once fuses have been disconnected, flush bowl as dry as possible.

3. Add one pint of muriatic acid, 31% by weight (available from hardware stores), to a two gallon plastic bucket of fresh water.

4. Pour the solution into the toilet and flush the toilet (press button) as dry as possible so the solution is forced into the treatment unit.

5. Pour an additional gallon of fresh water into the toilet bowl to dilute the remaining acid. Let stand for 45 minutes before flushing toilet.

6. Open intake seacock or water supply. Flush the toilet as often as possible during the flush cycle. (During the Treatment Cycle the toilet cannot be flushed.) Allow the Treatment Cycle to finish. Repeat four times.

6a. For toilets which are not controlled by the Lectra/San control open intake seacock and water supply. Flush the toilet at least 15 times for 15 seconds each time (minimum of 10 gallons rinse water) to effectively dilute and discharge the Lectra/San EC contents.
7. Reinstall all three fuses in proper sequence, per Fig. #10 and specifications table.

Salt Feed Tank:
1. Thoroughly rinse and wipe out tank.
2. Check to make sure the small vent hole in tank cap is not blocked.
3. Rinse out connection hose with fresh water.

STORAGE

Short Term Storage
NOTE: Failure to perform the following may result in an odor problem and contribute to mineral buildup in the system.

If the boat's toilets are not going to be used for up to one week, activate the treatment unit and flush the toilet(s) twice for the complete flush cycle before leaving the boat.

Long Term Storage
If the boat's toilets are not going to be used for over a week, follow short term storage instructions and also purge the toilet hoses and Lectra/San EC with fresh water.
See Recommissioning and Start up.

WINTERIZATION

WARNING: DO NOT USE ANTIFREEZE IN LECTRA/SAN EC.
1. Run Treatment Cycle five times, flushing the toilet for the entire duration of the 40 second flush cycle.
2. Close seacocks.
3. Disconnect and drain hoses.
4. Using a pump, remove water from the Treatment Unit (through crossover cap).
5. The electrode pack should be inspected and cleaned. Remove the Treatment Unit Cover and pull out the electrode pack. Rinse with fresh water and clean with a stiff non-wire brush. Empty any remaining water from the tank.

RECOMMISSIONING & START UP
1. Reconnect hoses and open seacocks.
2. Remove the three fuses from the Control Module (located on the top of the Treatment Tank). Mark each fuse for replacement purposes. This will allow operation of an electric toilet without activating the Lectra/San EC.
3. Flush the toilet four times, allowing approximately two gallons of salt water to enter the Treatment Tank.
4. Reinstall the three fuses in proper sequence, per Fig. #10.

INSTALLATION

Use Figures #2 through #4 which show some installation options. (Drawing are not to scale.)

WARNING: Below waterline installations must include a vented loop. The top of the loop must be
above the waterline at maximum heel to prevent siphoning.

**MOUNTING**

**Location:** The Treatment Tank should be within six feet of the toilet, with the tank located at the same level or lower than the toilet's discharge. If the tank is at the same level, or slightly above the toilet, a vented loop must be installed between the toilet and the Treatment Tank (see Fig. #2). If the treatment unit must be mounted more than a few inches higher than the toilet, contact Raritan Customer Service.

**WARNING:** DO NOT locate in an area where ambient temperature exceeds 120° F.

**Securing Treatment Tank:**

1. Make mounting frame (Fig. #5).
2. Secure mounting frame using suitable fasteners.
3. Use 3/4" mounting straps to secure tank to frame (see Fig. #5). A 3/8" rubber pad (available at a hardware store) placed under the tank will help to reduce vibration and noise.

**PLUMBING**

Use high quality, smooth interior 1 1/2" I.D. sanitation hose to avoid odor problems, available from Raritan by the foot (part #SH). Discharge from the toilet enters either side of the Treatment Tank and exits from the fitting on top of the lid.

1. Connect Lectra/San EC to marine toilet per Figures #2, #3 or #4. Do not route hose into dips or valleys and avoid 90° fittings where possible.
2. Use teflon tape or nonpermanent thread sealing compound on threaded PVC fittings and connections.
3. Determine the orientation of the discharge elbow provided before gluing with PVC Cement.
4. Double clamp all hose fittings below the waterline.

**Control Indicator Panel**

1. Locate an area in the head compartment where the indicator lights will be readily visible.
2. Using template provided, mark the cutout for the panel. Do not cut outside of template markings.
3. Route ribbon cable between panel and Lectra/San EC Treatment Unit. Secure ribbon cable with cable holders every 18 inches, taking care not to puncture the insulation or crimp the cable.
4. Plug in the ribbon connection (Fig. #6) to indicator panel and mount panel using four #6 screws.

**Salt Feed Tank:** (Salt Feed Tank is needed when the boat will be in fresh water/brackish water.)

1. Assemble the salt feed tank per Fig. #7A.
2. Locate Salt Feed Tank within 6 feet of toilet and at same level as bowl. Secure tank. Make sure the tank is accessible for refilling.
3. Attach the T-check valve and tubing to the Salt Feed Tank.
4. Attach T-check valve in the intake line (suction) of the toilet. Remove the ball and spring in Raritan PHII models (Fig. #7).
5. In a separate container, combine five pounds of rock salt with two gallons of warm water and allow to dissolve overnight. Pour off water into tank (this is a saturated salt solution). The salt remaining in the bottom may be used the next time.
ELECTRIC WIRING

WARNING: Danger of electric shock. Be sure to disconnect power.

1. Run supply wire to Positive and Negative terminals using specification table for wire size and circuit breaker.

2. Connect wires to Positive and Negative terminals on Treatment Tank (Fig. #8).

3. Connect ribbon cable, (#31-404) from Control Indicator Panel to the Control Module (Fig. #10). Secure strain relief.

4. If you wish to flush an electric toilet (other than the Atlantes) by pushing the Lectra/San EC Control Indicator Panel, a Raritan Continuous Duty Solenoid must be installed and wired per Fig. #9. (Atlantes see Fig. #9A.) Failure to follow this correctly will result in damage to the Lectra/San EC control board and will void warranty.

IMPORTANT: Check polarity before turning on power.

5. Follow start up procedure under Re commissioning and Start up.

WARNING: All control boards are pretested at the factory. Burnt control board components or foils are a result of improper wiring by the installer. Board replacement in these cases are not covered by Raritan's limited warranty.

LECTRA/SAN EC SPECIFICATION TABLE

<table>
<thead>
<tr>
<th>ELECTRICAL:</th>
<th>12VDC</th>
<th>24VDC</th>
<th>32VDC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage Nominal</td>
<td>12VDC</td>
<td>24VDC</td>
<td>32VDC</td>
</tr>
<tr>
<td>Voltage Minimal</td>
<td>11.5V</td>
<td>22.0V</td>
<td>31.0V</td>
</tr>
<tr>
<td>Power</td>
<td>1.7 amp hr</td>
<td>1.5 amp hr</td>
<td>1.5 amp hr</td>
</tr>
<tr>
<td>Current</td>
<td>50 A</td>
<td>42 A</td>
<td>35 A</td>
</tr>
<tr>
<td>Fuse/Breaker</td>
<td>60 A</td>
<td>50 A</td>
<td>50 A</td>
</tr>
<tr>
<td>Length of circuit: Wire Gauge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-15’</td>
<td>#6 AWG</td>
<td>#8AWG</td>
<td>#10AWG</td>
</tr>
<tr>
<td>15’-25’</td>
<td>#4 AWG</td>
<td>#6AWG</td>
<td>#6AWG</td>
</tr>
<tr>
<td>26’-50’</td>
<td>#1 AWG</td>
<td>#4AWG</td>
<td>#6AWG</td>
</tr>
</tbody>
</table>

| Electrode Pack | 25 | 22 | 22 |
| Solid Reduction Motor | 20 | 16 | 9 |
| “A” Fuse Type MDL | 5 | 4 | 4 |
| “B” Fuse Type MDL | 6 1/4 | 6 1/4 | 5 |
| “C” Fuse Type MDL | 30 | 25 | 20 |

Max Amperage: 12VDC 24VDC 32VDC

Gallons of Waste Treatable/Day: 576

Maximum Roll/Pitch Angle: 30°

Maximum Temperature Exposure: 120° F

Maximum Total Flush Volume: 1.5 Gallons/Flush

NOTES:
1. Wire distance is determined by measuring from the battery to the Lectra/San and back again.
2. Minimal Voltage is read across the electrode pack while the system is operating in the treatment (2nd) cycle.
3. Requires ocean grade salinity for proper conductivity.
* Use Only Raritan part #CDS12, 24 or 32; Other solenoid relays may damage the Circuit Board, voiding warranty.

Fig. #9

Lectra/San EC
Treatment Tank

Ribbon Cable

Lectra/San EC
Circuit Board

Isolated Coil
Solenoid Relay

* Electric
Toilet

JQC203
JQC101

12-18 AWG

"BAT"

Fuses/Ckt
Breakers

POS NEG

Battery

Fig. #9A

Location of circuit boards

Lectra/San EC
(Electronic Control)

Atlantes Toilet

Refer to Atlantes
Installation Instructions

Atlantes
Circuit Board

Purple

Yellow

Fig. #10

Orange
(macerator motor)

Brown

Red(electrode plate)

Orange
(mixer motor)

Purple

Ribbon Cable Connection

Ribbon Cable

Ribbon Cable Clamp

10 pin (orange) connector
# TROUBLESHOOTING

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>CORRECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. Low salt light on. The low salt indicator is lit when the electronics in the Lectra/San EC control board determines that not enough current is flowing through the electrodes. This can be caused by any combination of C1 - C4 or all of them.</td>
<td>C1. Low salt. C2. Dirty electrode plates. C3. Low voltage at Treatment Unit. C4. Water too cold.</td>
<td>C1. Add salt to system. C2. Clean electrode plates (see maintenance). C3. Check voltage at Treatment Unit and at battery during Treatment Cycle. See Specification Table for minimum voltage and wire size. C4. Increase salt tank flow. Contact Raritan Customer Service.</td>
</tr>
<tr>
<td>D. High salt light on.</td>
<td>D1. Too much salt.</td>
<td>D1. Reduce salt concentration; add fresh water to toilet bowl.</td>
</tr>
<tr>
<td>E. Inconsistent operation (check fuse light or incomplete cycling).</td>
<td>E1. Drop in line voltage. E2. Other equipment operating on same electric circuit as Lectra/San EC.</td>
<td>E1. Check voltage at Treatment Unit and battery during Treatment Cycle. See Specification Table for minimum voltage and wire size. E2. Isolate circuit.</td>
</tr>
</tbody>
</table>

If above troubleshooting does not solve the problem, contact your dealer or Customer Service at Raritan.
<table>
<thead>
<tr>
<th>Item</th>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>32-102**</td>
<td>Mixer Motor 2 1/2&quot; Dia. 12 VDC</td>
</tr>
<tr>
<td>1</td>
<td>33-102**</td>
<td>Mixer Motor 2 1/2&quot; Dia. 24 VDC</td>
</tr>
<tr>
<td>1</td>
<td>34-102**</td>
<td>Mixer Motor 2 1/2&quot; Dia. 32 VDC</td>
</tr>
<tr>
<td>2</td>
<td>31-121</td>
<td>Hose Fitting</td>
</tr>
<tr>
<td>3</td>
<td>31-120</td>
<td>Discharge Elbow 90</td>
</tr>
<tr>
<td>4</td>
<td>M30</td>
<td>Electrode Lug Nut, 1/4&quot;, 20 Brass (4)</td>
</tr>
<tr>
<td>5</td>
<td>M31</td>
<td>Electrode Flat Washer, 1/4&quot;, Brass (4)</td>
</tr>
<tr>
<td>6</td>
<td>31-113-1</td>
<td>Cover Hold Down Bolt, 10-32x3/4&quot; (16)</td>
</tr>
<tr>
<td>7</td>
<td>31-103</td>
<td>Motor Shaft Bushing (2)</td>
</tr>
<tr>
<td>8</td>
<td>31-106</td>
<td>Motor Hold Down Bolt, 10-32x7/8&quot;, S/S (6)</td>
</tr>
</tbody>
</table>

(Hold down bolts must be completely covered with silicone caulk before final reassembly to prevent leaking.)

9 | 31-109 | Mixer Impeller
10 | 31-110-1 | Impeller Bolt, 12-24x5/8", S/S (2)
11 | 31-110-2 | Impeller Lock Washer, #12, S/S (2)
12 | 31-114 | Cover Hold Down Nut, 10-32 (18)
13 | 31-115 | Treatment Tank
14 | 31-122 | Intake Plug
15 | 32-5000 | Electrode Pack 12 VDC
15 | 33-5000 | Electrode Pack 24 VDC
15 | 34-5000 | Electrode Pack 32 VDC
16 | 31-112 | Cover Gasket
17 | 31-108 | Macerator Set Screw, 8-32x3/16", S/S
18 | 31-107 | Macerator Impeller
19 | 31-101W | Treatment Cover (Inc. items 7, 20 and 21)
20 | 31-104 | Crossover Plug
21 | 31-102 | Motor Shaft Seal (2)
22 | 32-101** | Macerator Motor 3" Dia. 12 VDC
22 | 33-101** | Macerator Motor 3" Dia. 24 VDC
22 | 34-101** | Macerator Motor 3" Dia. 32 VDC
22 | 32-3001 | Salt tank assembly (not shown)

32-4000* | 12 V DC Complete Treatment Unit (Items 1-22)
33-4000* | 24 V DC Complete Treatment Unit (Items 1-22)
34-4000* | 32 V DC Complete Treatment Unit (Items 1-22)

* Less Control Box Assembly

**NOTE: When replacing existing or new motor(s), apply silicone caulk over motor - hold down bolt heads. Dispense enough sealant to cover an area three times greater than the bolt heads to avoid leaking through bolt holes.
### Item | Part No. | Description
--- | --- | ---
1 | 31-460 | Control Cover
2 | CH26 | 8-32 x 7/16" Truss head screw (2)
3 | 31-462 | Mounting Plate
4 | 32-401 | Control Board Assy. - 12V
5 | 33-401 | Control Board Assy. - 24V
6 | 34-401 | Control Board Assy. - 32V
7 | AM06012 | Solenoid Relay (2) - 12V
8 | AM06024 | Solenoid Relay (2) - 24V
9 | AM06032 | Solenoid Relay (2) - 32V
10 | RBS50 | Shunt Assy.
11 | 31-402A | Wiring Harness Assy.
12 | M30 | 1/4 - 20 Brass Nut (6)
13 | HLWQB | 1/4" Lockwasher (6)
14 | M31 | #14 Brass Flat Washer (7)
15 | HSB1 | 1/4 - 20 Brass Cap Screw (2)
16 | RNI | Nylon Shoulder Washer (3)
17 | 1119A | 1/4 - 20 x 1/2" S/S Hex Head Machine Screw (4)
18 | 1118 | 1/4" External Tooth Washer (5)
19 | 1226B | 1/4 - 20 S/S Hex Head Nut (4)
20 | 31-476 | Nylon Spacer Washer (2)
21 | ED1N4002 | Diode (2)
22 | F31-480 | Nylon Stand Offs: PCB Supports (4)

**Note:** All part #’s based on a 12V system, all other part #’s, contact Raritan.
USING THE LECTRA/SAN EC SYSTEM WITH TWO MARINE HEADS

NOTE: Single push button operation of LST/EC or toilet cannot be installed in this application.

The Lectra/San EC Type I MSD can be connected to two marine toilets. However, the two toilets must be in close proximity to:

1. Reduce the pressure requirement to move waste through the connecting hose.
2. To decrease the possibility of untreated sewage remaining in the lines.

The Lectra/San EC Treatment Tank should be located midway between the two toilets. The maximum distance from either toilet to the tank should not exceed six feet.

A kit is available for field conversion to dual toilet operation:

Lectra/San EC Dual Control Component part #LSTEDC (for 12 V units):
1. Control Indicator Panel with ribbon cable attached.
2. Salt Feed Tank complete.

INSTALLATION

1. Adding second toilet - Install Lectra/San and first toilet per manual, then add second toilet by connecting discharge line to the opposite side of the tank. Remove the plug to allow connections. (See Figures #11A and #11B)

2. Electric toilet - Installations with two electric toilets must be wired to work independent from the Control Indicator Panels. Contact Raritan Customer Service for instructions.

3. Mounting - Each toilet should be installed within six feet of Lectra/San EC.

4. Control Indicator Panel - The Dual Control Indicator Panel attaches directly to the Lectra/San EC circuit board, the original Control Indicator Panel connects inline using the special connector attached to the dual control ribbon (See Fig. #12A).

OPERATION

Indicator/LED lights will indicate operation on both panels when any toilet is in use. DO NOT activate "Push to Flush" button if another toilet is in use.

A Salt Feed Tank should be installed in each toilet's intake hose if operating in fresh or brackish water. The flow control for each Salt Feed Tank must be set independently.

FIG. #11A Lectra/San EC Mounted Below the Waterline

FIG. #11B Lectra/San EC Mounted Above the Waterline

FIG. #12A Dual Control Cable (#31-406)
CONVERSION OF LECTRA/SAN TO LECTRA/SAN EC INSTALLATION INSTRUCTIONS

Parts included in package:
**Control Module (32-402, 33-402 or 34-402)** - Mounts directly to treatment unit
**Control Cover (31-460)** - Installs over Control Module
**Control Indicator Panel (31-403)** - Replaces old Control unit
**Ribbon Cable (31-404)** - Connects Control Module To Control Indicator Panel - 12' long.

**Tools needed** - 3/8", 5/16", and 7/16" nut drivers, blade and Phillips head screw drivers, wire cutters, #14 AWG strippers and crimpers and small adjustable wrench.

**INSTALLATION**

Before beginning conversion disconnect battery leads and be sure power to unit is OFF.

If old control unit was flush mounted you will need to cover the opening. If the new control indicator panel will be located in the same opening see the panel template for cutout purposes.

A. Existing Control Unit - Remove and discard existing Control Unit (32-2000, 33-2000 or 34-2000) and Control Cable (31-210), reroute positive (+) wire from terminal E on the relay to the Treatment Tank. Connection will be made during Step 9.

B. Treatment Tank

1. Remove terminal block (31-131), save screws, nuts and washers for mounting Control Module in Step 5. Discard terminal block (see Fig. #11C). Disconnect negative battery wire to electrode pack.
2. Remove mounting straps. They will need to be routed through the slots on new Control Module (Fig. #12B).
3. Remove two screws from lid as shown in Fig. #12B and reinstall them in place of the screws removed in Step 1. The two holes left by removing the screws will be used for attaching the Control Module in Step 5.
4. Connect RED (+) and BLACK (-) wires from new Control Module to POSITIVE (+) and NEGATIVE (-) lugs on cover (Electrode Pack). Polarity must be the same (see Fig. #13B).
5. Mount Control Module (32-402, 33-402 or 34-402) using the screws from Step 1.
6. Cut the BLACK NEGATIVE (-) wire terminals off both the mixer and macerator motors. Strip 3/8" of wire and attach to crimp connectors on the black leads from Control Module (see Fig. #13B).
7. Cut the POSITIVE (+) wire terminal off the macerator (larger) motor and strip 3/8" of wire. Attach to ORANGE POSITIVE (+) lead with crimp connector from fuse block (see Fig. #13B).
8. Connect mixer (smaller) motor POSITIVE (+) lead to Fuse A on fuse block using the existing terminal (see Fig. #13B).
9. Connect POSITIVE (+) and NEGATIVE (-) wires to the front side of Control Module (see Fig. #12B).
10. Reinstall mounting straps through slots on Control Module and resecure them (Fig. #12B).

Control Indicator Panel - See mounting and electric wiring section.

Install Cover on Control Module
LIMITED WARRANTY

Raritan Engineering Company warrants to the original purchaser that this product is free of defects in materials or workmanship for a period of one year from the product’s date of purchase. Should this product prove defective by reason of improper workmanship and/or materials within the warranty period, Raritan shall, at its sole option, repair or replace the product.

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.

3. ANY EXPRESS WARRANTY NOT PROVIDED HEREIN, AND ANY REMEDY FOR BREACH OF CONTRACT WHICH BUT FOR THIS PROVISION MIGHT ARISE BY IMPLICATION OR OPERATION OF LAW, IS HEREBY EXCLUDED AND DISCLAIMED. ALL IMPLIED WARRANTIES SUCH AS THOSE OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, IF APPLICABLE, AS WELL AS ANY IMPLIED WARRANTIES WHICH MIGHT ARISE BY IMPLICATION OF LAW, ARE EXPRESSLY LIMITED TO A TERM OF ONE YEAR. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG A LIMITED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

4. UNDER NO CIRCUMSTANCES SHALL RARITAN BE LIABLE TO PURCHASER OR ANY OTHER PERSONS FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES, WHETHER ARISING OUT OF BREACH OF WARRANTY, BREACH OF CONTRACT, OR OTHERWISE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

5. No other person or entity is authorized to make any express warranty, promise or affirmation of fact or to assume any other liability on behalf of Raritan in connection with its products except as specifically set forth in this warranty.

6. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.