

MULTIFUNCTION FLUSH PANEL

Installation and Operation Instructions

221600
White



221600B
Black



221600A
Bone Bezel with
White Buttons



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.



Switches meet UL 1500 and ISO for Ignition Protection.

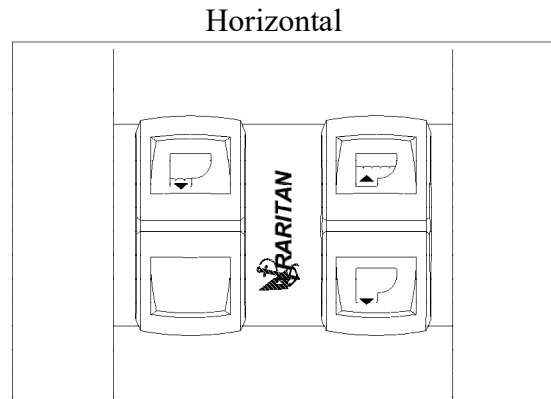
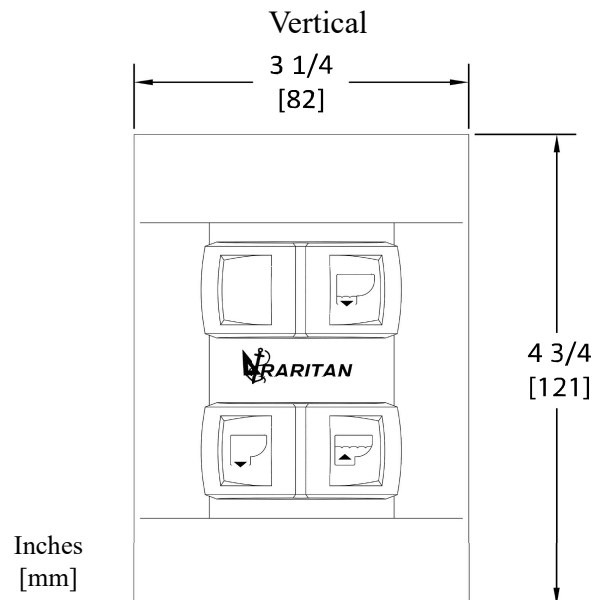
DO NOT run continuously for more than 30 seconds.

Multifunction Flush Panel is a toilet flush control providing momentary flush functions for normal flushing, adding water to or emptying bowl. This panel is designed to be used with Raritan's Atlantes Freedom Vortex Vac, Marine Elegance, SeaEra QC models.

This panel may also be used with other electric toilets provided that the discharge pump and rinse water can be operated independently and do not exceed the following voltage and amperage limits:

12 VDC - 20 amps

24 VDC - 15 amps



The flush panel can be mounted vertically or horizontally.



856-825-4900

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OPERATION



NORMAL FLUSH

To flush the toilet, press and hold. This will bring water in while emptying bowl.



WATER ONLY

To add water to the bowl, press and hold



EMPTY ONLY

To empty the bowl, press and hold

The Multifunction Flush Panel can also be configured with SEA/FRESH Switch.

INSTALLATION

MOUNTING ORIENTATION

The flush panel can be installed vertically or horizontally. Actuators are installed for vertical installation, from the factory.

For horizontal installations, change actuators.

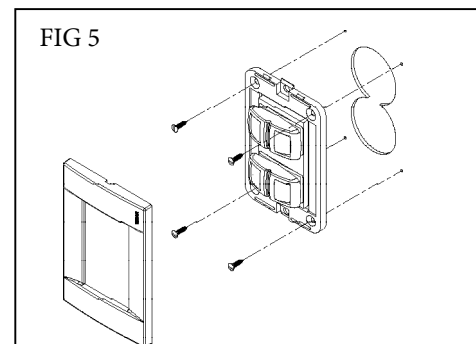
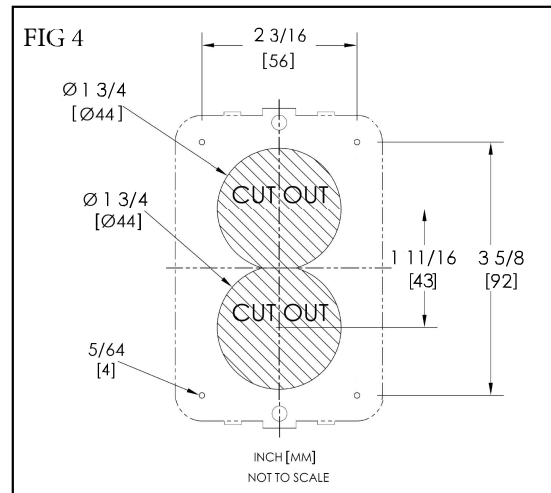
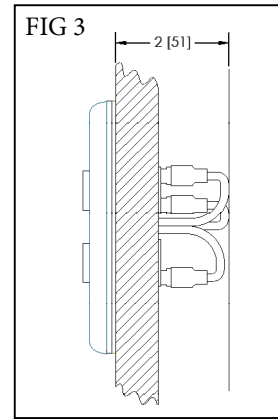
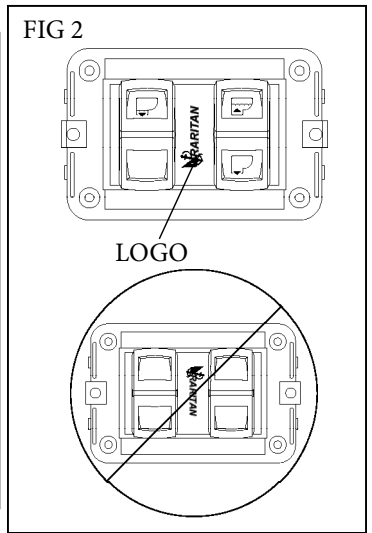
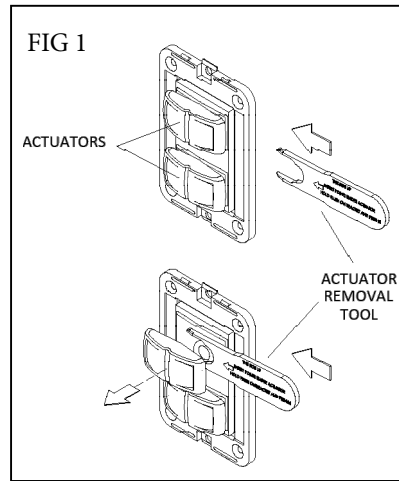
HORIZONTAL INSTALLATIONS

Before installing, remove Actuators using tool provided.

1. With removal tool in UP position and flat on bracket, push in under actuator until actuators pop off (FIG 1).
2. Rotate flush panel where Raritan Logo is positioned, as shown at top of FIG 2. Insert new actuators until they engage.

MOUNTING

1. Select a flat surface near toilet. There needs to be 2" [51 mm] depth from mounting surface (FIG 3).
2. Using a 1 3/4" [44 mm] diameter hole saw, cut two holes for switch clearance.
3. Place flush panel on the wall and mark the 4 mounting screw locations. Drill 5/64" [2 mm] pilot hole for screws (FIG 4).
4. Connect wires to switches (see wiring section, page 3).
5. Attach flush panel to surface using 4 screws included (FIG 5).
6. Install the bezel/cover on the flush panel.



Recommended Wire and Fuse/Circuit Breaker Sizes

ATLANTES FREEDOM VORTEX VAC AND MARINE ELEGANCE

Table 1 Raw Water Model (sizes based on both remote intake and discharge pumps amps added together)

Units Voltage	Circuit Breaker/fuse size (amps)	Toilet Discharge Pump Amp draw	Remote Intake Pump Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	30	18	10	10 AWG	8 AWG	6 AWG	4 AWG	4 AWG	2 AWG
24 VDC	20	10	5	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG

Table 2 Pressurized Fresh Water Model

Units Voltage	Circuit Breaker/fuse size (amps)	Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	25	18	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG
24 VDC	15	10	16 AWG	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG

SEAERA QC MODEL 162

Table 3 Raw Water Model (sizes based on both remote intake and discharge pumps amps added together)

Units Voltage	Circuit Breaker/fuse size (amps)	Toilet Discharge Pump Amp draw	Remote Intake Pump Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	25	13	10	10 AWG	8 AWG	6 AWG	6 AWG	4 AWG	4 AWG
24 VDC	15	7.5	5	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG

Table 4 Pressurized Fresh Water Model

Units Voltage	Circuit Breaker/fuse size (amps)	Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	25	13	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG	6 AWG
24 VDC	15	7.5	16 AWG	16 AWG	14 AWG	12 AWG	10 AWG	10 AWG

Table 5 Remote Intake Pump Only (Raw Water and Sea/Fresh Models)

Units Voltage	Circuit Breaker/fuse size (amps)	Amp draw	10 feet	15 feet	20 feet	30 feet	40 feet	50 feet
12 VDC	15	10	14 AWG	12 AWG	10 AWG	10 AWG	8 AWG	6 AWG
24 VDC	10	5	16 AWG	16 AWG	16 AWG	16 AWG	14 AWG	12 AWG

WARNING: Hazard of Shock and Fire

- **Make sure power is off before proceeding.**
- **Always use proper wire, wire connectors and fuse/circuit breaker. See Specification Chart.**
- **A dedicated breaker should be used for each toilet.**
- **Secure wire properly.**
- **Use proper wire terminals for all wire connections.**

CONVERSIONS **Wire - AWG to mm**

AWG	16	14	12	10	8	6	4	2
mm	1.5	2.5	4.0	6.0	10.0	16.0	25.0	35.0

Feet to Meters

Feet	10	15	20	25	30	40	50
Meter	3.1	4.6	6.1	7.6	9.2	12.2	15.2

NOTES: for Wiring

1. Distances are from source to toilet and back to source.
2. Distance from power source to remote intake pump MUST be included when determining total distance.
3. Recommended conductor wire minimum AWG [mm²] for 3% voltage drop.
4. Recommended conductor sizes are based on 105°C rated insulation. Single conductor (not bundled), refer to ABYC Standards for sizes with other insulation ratings.
5. For 120/240 VAC units, use 12 VDC specifications from transformer to unit. See transformer instructions for further wiring details.

1. Determine proper wire size by measuring distance from:
 - Power Source to toilet and back to power source.
 - Remote pump units determine proper wire size for remote pump from wiring diagram.
2. Select proper wire and fuse/circuit breaker size from Specifications on tables provided on page 3.
3. Install fuse/circuit breaker in positive line at source.
4. Wire flush panel to the toilet and battery using one of the following wiring diagrams.

FIG 6 WIRING MULTIFUNCTION FLUSH PANEL TO FRESH WATER MODEL

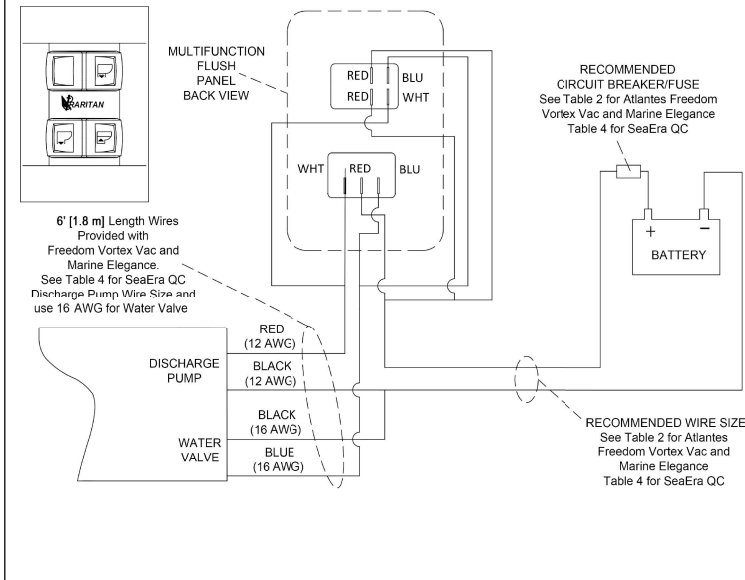


FIG 7 WIRING MULTIFUNCTION FLUSH PANEL TO REMOTE PUMP MODEL

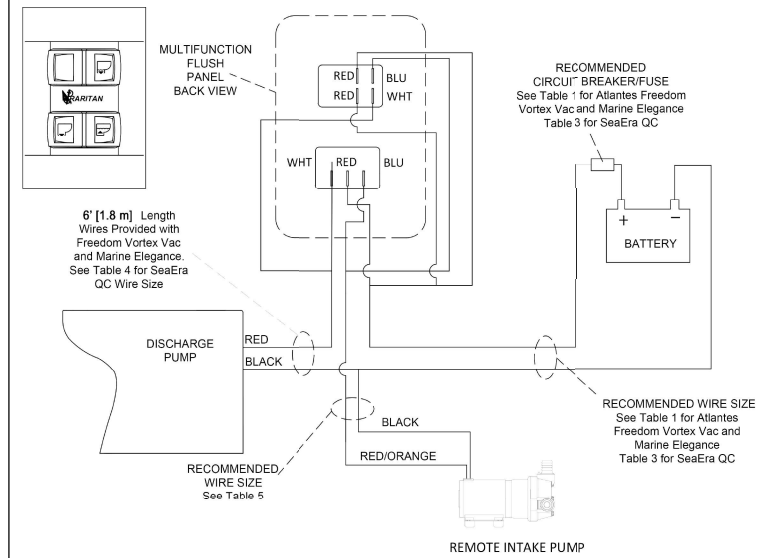
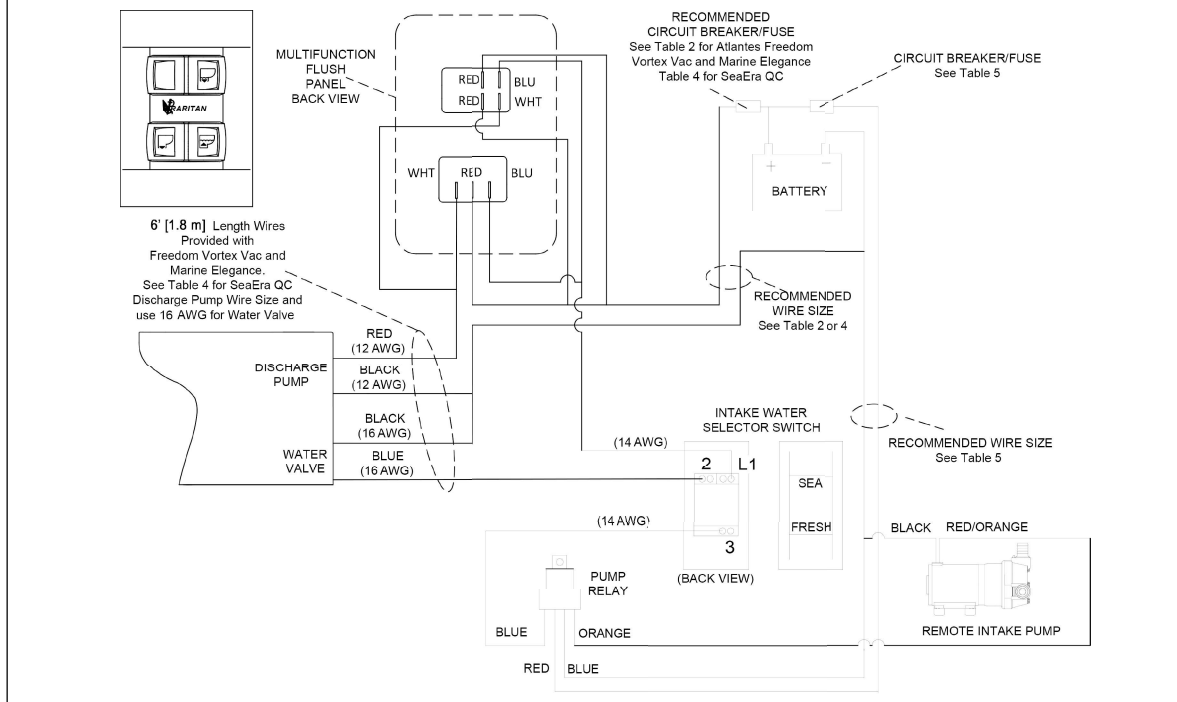


FIG 8 WIRING MULTIFUNCTION FLUSH PANEL TO SEA/FRESH MODEL



FOR LIMITED WARRANTY TERMS AND CONDITION PLEASE REFER TO TOILET MANUAL