

# FS3 Fleet™ Series Recirculating Flush Model Assembly Manual

U.S. PATENTS: 5,500,960 - 5,500,962 - 5,560,050 - 6,199,222 D 360 471



# **SPECIFICATIONS**

IMPERIAL	METRIC
91 in	231 cm
83 in	211 cm
47 in	119 cm
45.7 in	116 cm
48 in	122 cm
47 in	119 cm
43 in	109 cm
243 lb.	110 kg
75 in	191 cm
26 in	66 cm
6 in X 37 in	15 cm X 94 cm
22.5 in X 29 in	57 cm X 74 cm
19.5 in	49.5 cm
	91 in 83 in 47 in 45.7 in 48 in  47 in 43 in 243 lb. 75 in 26 in 6 in X 37 in 22.5 in X 29 in

# POLYJOHN USA

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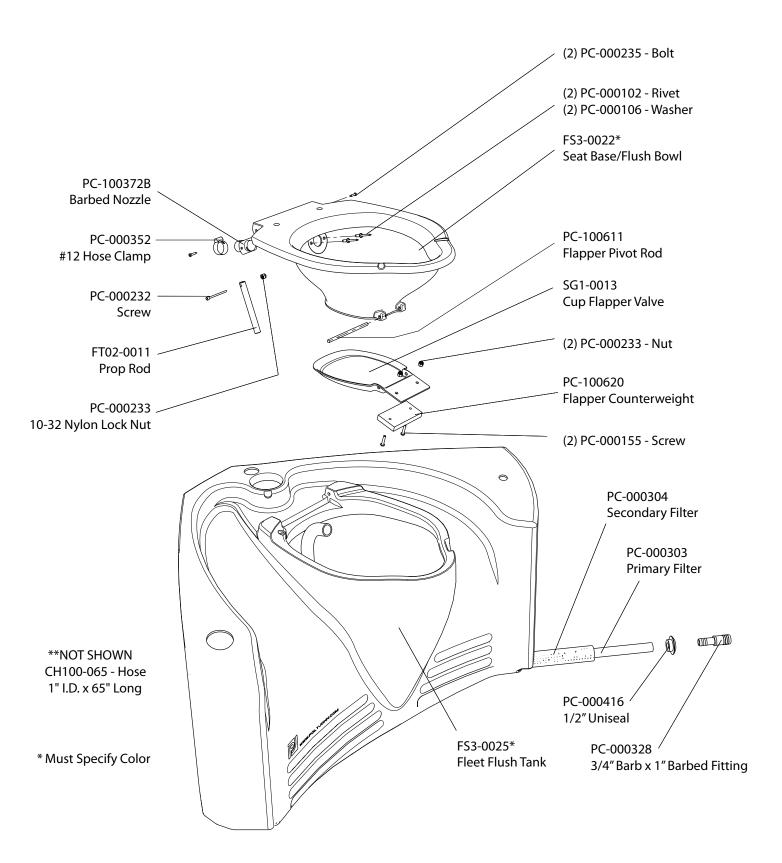
# POLYJOHN WORLDWIDE

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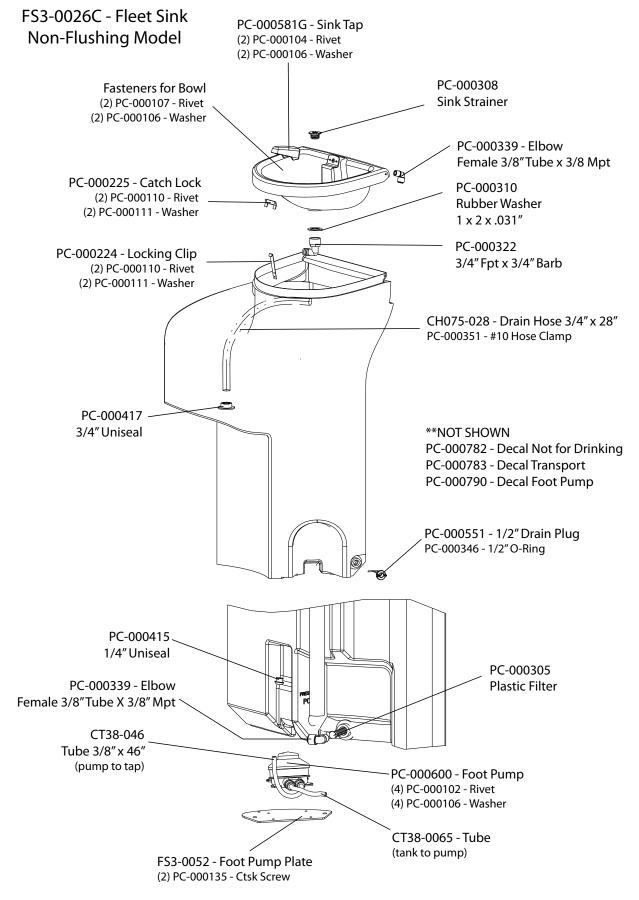
# POLYJOHN CANADA

PolyJohn Canada P.O. Box 2300 199 Forest Plain Rd. Orillia, Ontario LV3 6S2 Phone: 800-465-9590 Fax: 705-325-8250 www.polyjohncanada.ca info@polyjohncanada.ca FS3-2000 SG1-0080G Vent Stack FS1-0007\* Roof Panel FS1-0062 Left Rear Extrusion FS1-0004\* Rear Panel Recirculating Tank (1) PC-000117 Rivet (4) PC-000192 Sems Screw (4) PC-000100 Rivet (9) PC-000104 Rivet (4) PC-000106 Washer FS1-0002\* Side Panel -**Exploded View** FS1-0061 Top Rear Extrusion (5) PC-000192 Lag Screw (4) PC-000121 Washer (5) PC-000104 Rivet (2) FS1-0035 Large Screen (2) PC-000102 Rivet (3) SG1-0037 Inner Screen (2) PC-000106 Washer (3) SG1-0038 Outer Screen (6) PC-000102 Rivet PC-000204 Toilet Seat (6) PC-000106 Washer PJN3-0009\* Urinal (2) PC-000101 Rivet FS1-0063 Right Rear Extrusion (2) PC-000106 Washer (9) PC-000104 Rivet TM01-0003 Mirror -PC-000490 T.P. Dispenser PC-000367 Push-In Fastener PC-000760 Rod FS3-0003\* Front Assembly PC-000205M Lock (17) PC-000104 Rivet (4) PC-000100 Rivet (4) PC-000159 1/4-20 x 3-1/2" Bolt (4) PC-000106 Washer (4) PC-000123 Washer (4) PC-000140 Nylock Nut -FS3-0060 Door Jamb -PC-100787 Serial I.D. Plate -(2) PC-000108 Rivet -FS1-0005\*C Complete Door --FS1-0005\* Fleet Door LS04-0001 Soap --PC-100170 Hinge Assembly— Dispenser --(6) PC-000116 Rivet (3) PC-000102 Rivet --(3) PC-000160 5/16" x 3/4" Bolt (3) PC-000106 Washer --(3) PC-000161 5/16" Flat Washer --(3) SG1-0037 Inner Screen --(3) SG1-0038 Outer Screen TD04-1000 Paper --(6) PC-000104 Rivet Towel Dispenser --(6) PC-000106 Washer (4) PC-000102 Rivet (4) PC-000106 Washer FS1-0002\* Side Panel FS1-0034\* Door Panel Cover (5) PC-000192 Sems Screw (4) PC-000158 Screw (2) PC-000147 Screw SG1-0032 Retain Plate FS3-0026\*C Static Sink (2) PC-000103 Rivet (2) PC-000106 Washer PC-000800 Spring Assembly (1) PC-000158 Screw SG1-0030 Slide Latch FS3-0025\*C Flush Waste Tank (4) PC-000103 Rivet SG1-0031C Slide Latch Cover Plate (4) PC-000106 Washer SG1-0031 Slide Cover Plate SA1-0017 Handle U Bolt PC-000181S Spring Clip PC-000604 Rubber Cover (2) PC-100796 Grommet PC-000606 Foot Pump (2) PC-000104 Rivet (6) PC-000106 Washer FS3-0018FC Base Complete (6) PC-000231 Screw PC-000223 Hover Handle (2) PC-000104 Rivet FS3-0018 Handle/Runner Base FS3-0019 Handle Signature Style Base (Optional) FS3-0085F Flush Style Floor (8) PC-000117 Rivet

\* Must Specify Color



FS3-0025C Parts Listing



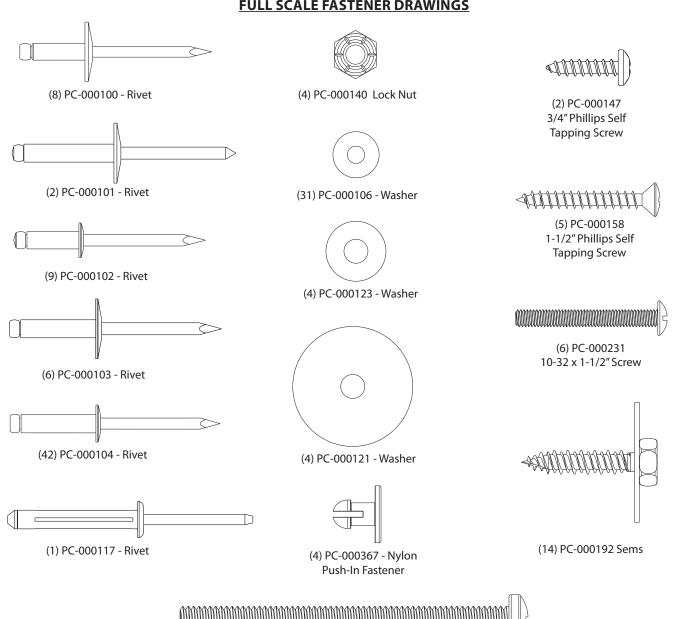
#### **GENERAL OVERVIEW**

- •These instructions are for restrooms shipped unassembled. Please retain these instructions for maintenance and repair purposes.
- •The FS3-2 Model restroom assembly will require two people.
- •All references to left, right, front and rear are as viewed from the front of the restroom.
- •Review the entire instruction manual prior to assembly.
- •Please follow the instructions in the order they are presented.
- •When using air operated screw drivers or impact wrenches, be sure that the torque setting does not exceed 28 inch pounds. Also, when using a battery-operated drill, set it to the lowest torque setting.
- •We strongly suggest that these restrooms, as with all portable structures, be transported and handled with care. Dropping the restroom when loading and unloading could cause damage to the door jamb and other components.

## ~~TOOLS REQUIRED FOR ASSEMBLY~~

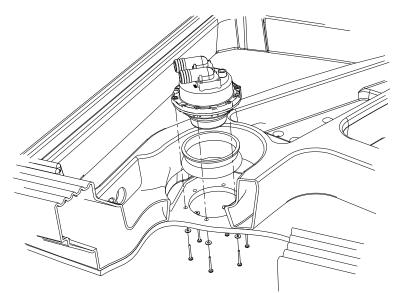
• Standard Slotted Screwdriver • Phillips Crosshead Screwdriver **Pliers** · Rivet Gun Vise-Grips • Drill with 13/64" Drill Bit • Socket Wrench with a 7/16" socket • (2) Tapered Awls

#### **FULL SCALE FASTENER DRAWINGS**



(4) PC-000159 - Screw

## **Step 1: Pump Installation**



Place the PC-000604 rubber dust cover over the top of the pump and from the underside of the base, place the pump up into the hole in the floor. Line up the holes in the floor with the threaded inserts in the pump making sure that the barbed fittings of the pump point toward the holes drilled in the base (as shown on the left). Finish installation of the pump by tightening in place using (6) PC-000231 screws with (6) PC-000106 washers behind the heads of the screws.





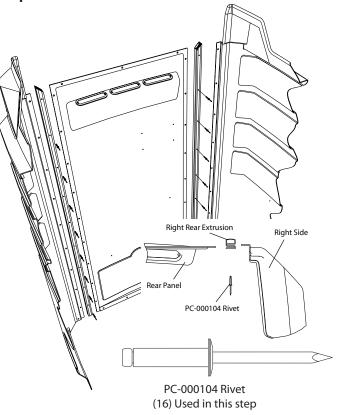
PC-000231 Screw (6) Used in this step

PC-000106 Washer (6) Used in this step

## **Step 2: Tank-Sink Installation**

Place the tank into the opening of the base. Locate the 1" reinforced hose coming out of the hole at the back of the waste tank. Pull about 3 feet of this hose out of the hole and route this hose down through the opening in-between the waste tank and the base. Place the sink on the base, lining up the 1/2" drain pipe, insert into the corresponding hole in the tank.

Step 3: Sidewall Panels to Rear Extrusions and Rear Wall Panel



Slide a plastic rear extrusion onto each side of the rear panel making sure that the mitered ends are towards the top of the rear panel (where the fly screens are, and the ribbed side of the extrusions are facing toward the outside of the restroom). Line up the holes in the rear extrusions with the holes in the rear wall panels. Insert awls into the center holes. Slide the right side wall panel into the corresponding slot of the rear extrusion and remove the awl from that rear extrusion. Line up all of the holes and rivet from the inside, the rear extrusions, rear wall panel and side wall panel together using small flange rivets, PC-000104. **DO NOT RIVET THE TOP HOLE IN EITHER OF THE EXTRUSIONS AT THIS TIME**. Remove the awl in the left extrusion and rivet together the left side wall panel, left rear extrusion, and rear panel, leaving the top hole for later.

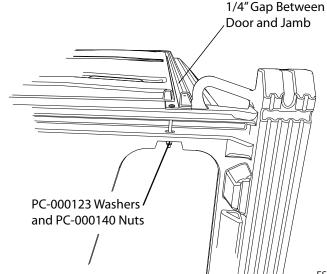
## **Step 4: Sidewall Panels to Door Jamb**

Insert the edge of the left side panel into the slot on the left side of the door jamb. Line up the holes in the jamb with the corresponding holes in the side panel. Rivet the second and third holes from the bottom as well as the top two holes using (4) PC-000104 rivets (as shown to the left). Using holes in the jamb as a guide, drill three 13/64" holes into the side

panel. Rivet the PC-000181S cable clip at the center two holes of the jamb using (2) PC-000104 rivets. Rivet the bottom hole using the same rivet. Wrap the cabana around the base of the unit resting the bottom edge of the sides on the ledge around the base. Slide the edge of the right side wall panel into the slot in the jamb. Line up the holes in the side panel with the corresponding holes in the jamb and rivet in place using (4) PC-000104 rivets. **DO NOT RIVET THE SECOND HOLE** FROM THE TOP AT THIS TIME. Using a drill with a 13/64" drill bit, drill out the third hole from the top as well as the bottom hole. Rivet the bottom hole using a PC-000104 rivet. The PC-000223 grab handle gets attached to the jamb using (2) PC-000104 rivets at the second and third hole locations. PC-000104 Rivet (14) Used in this step

## **Step 5: Cabana to Base**

Insert (4) PC-000159 bolts through the holes at the bottom of the jamb and into the slots in the base. On the back-side of the unit, center the rear panel on the base and fasten to the base using (4) PC-000192 sems. Gently lay the unit on it's back. Place (4) PC-000123 washers and (4) PC-000140 nuts on the PC-000159 bolts at the front of the base. **DO NOT TIGHTEN AT THIS TIME.** Close the door and tighten the bottom bolts (making sure that there is a 1/4" gap between the latch side of the door and the jamb). Open the door and tighten the top bolts.

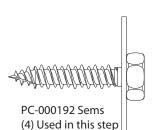




PC-000140 Lock Nut (4) Used in this step



PC-000123 - Washer (4) Used in this step





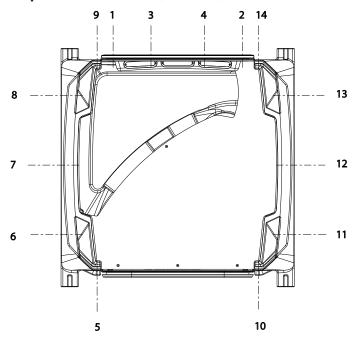
PC-000159 - Screw (4) Used in this step

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## **Step 6: Hose Connections**

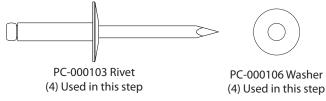
Route the hose coming from the rear of the waste tank through the 1-3/8" dia. hole in the base, (located closest to the right-hand side of the base). Place a PC-000352 hose clamp on the end of the hose and push the end of this hose onto the discharge side of the pump. Tighten the clamp. Locate the 1" dia. x 14" long wire reinforced hose that came in the small parts bag. Place a PC-000352 hose clamp on one end of this hose, and push this end of the hose on the fitting at the bottom of the waste tank. Push the opposite end of the hose through the other 1-3/8" dia. hole in the base. Place a PC-000352 hose clamp on the end of the hose, push the hose on the intake side of the pump, and tighten the clamp over the end of the hose.

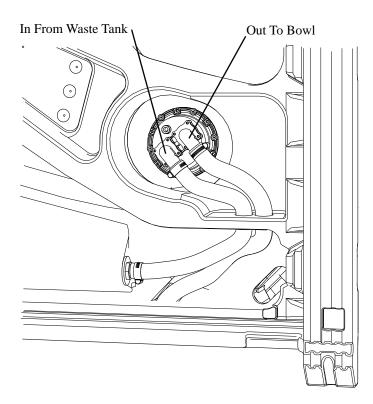
Step 7: Cabana to Base (Continued)



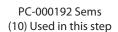
## **Step 8: Tank Installation**

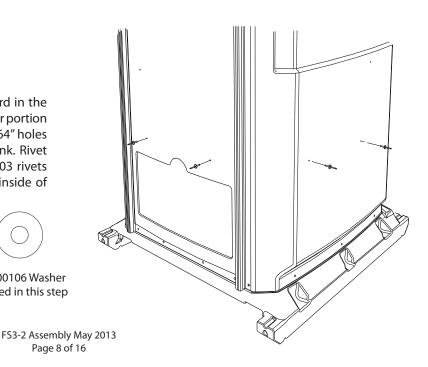
On the inside of the unit, pull the tank forward in the opening of the floor. Locate dimples in the lower portion of the rear and left wall panels. Drill four 13/64" holes through the dimples and into the back of the tank. Rivet from outside the restroom using (4) PC-000103 rivets with (4) PC-000106 back-up washers on the inside of the tank.





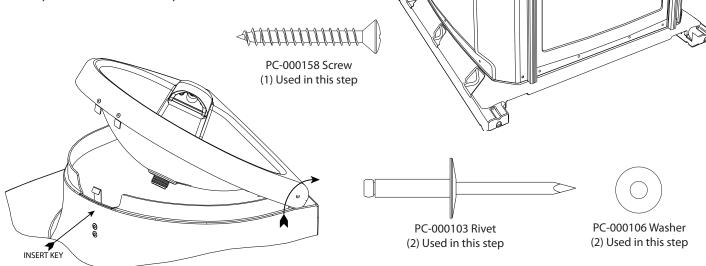
Carefully stand the unit upright. Starting with the left of the unit, drive a PC-000192 sems screw through the pre-drilled hole in the front of the side panel. **BE SURE NOT TO OVERTIGHTEN AND STRIP OUT THE PLASTIC.** Continue around the left side of the unit until you reach the rear extrusion. Repeat this process with the right side of the unit, starting with the front.





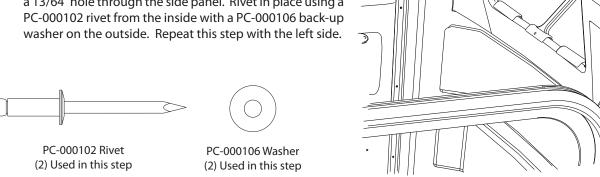
## **Step 9: Sink Installation**

Locate the dimples located on the middle portion of the rear and the right wall panels. Using a drill with a 13/64" drill bit, drill two holes through the side/rear and into the sink. Open up the sink. To unlock the sink, insert a long thin object (the key for the lock on the T.P. Dispenser works well) into the 1/4" hole directly below the bottom of the sink lid, and while pushing down on the front of the lid of the sink, push the (key) in to release the catch, and lift up the lid. Rivet in place using (2) PC-000103 rivets with (2) PC-000106 washers on the inside of the sink. Fasten the bottom of the sink in by driving a PC-000158 screw through the hole in the aluminum foot pump plate and into the floor plate of the base.



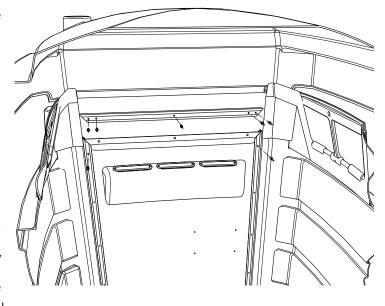
## **Step 10: Screen Installation**

Take a SG1-0035 large fly screen and place the bottom curved flanges onto the top of the right side panel (as shown on the right). Tilt the top of the fly screen up into place. Using the hole in the bottom, middle flange as a guide, drill a 13/64" hole through the side panel. Rivet in place using a PC-000102 rivet from the inside with a PC-000106 back-up washer on the outside. Repeat this step with the left side.

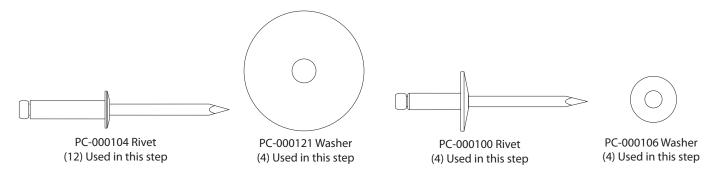


## **Step 11: Roof Installation**

Place the FS1-0061 top extrusion on the top edge of the rear panel so that the miters line up with the left and right extrusions, and that the grooved surface is facing the outside. Place the roof on the top of the unit with the arch in the roof going into the groove in the top of the jamb. Put the rear edge of the roof in the groove in the top rear extrusion. With someone pushing down on the back of the roof, use the holes in the rear extrusion as a drill guide, drill five 13/64" holes into the roof. MAKE SURE TO ONLY DRILL THROUGH THE ROOF AND NOT THROUGH THE BACK OF THE **TOP REAR EXTRUSION.** Rivet the top holes in both the left and right rear extrusions as well as the five holes of the top rear extrusion using (7) PC-000104 rivets. Push down on the front of the roof, while using the holes in the jamb as a drill guide, drill five 13/64" holes through the roof. Rivet in place using (5) PC-000104 rivets. Locate the holes in the top of each of the side panels. Push out on the top of the side panel,

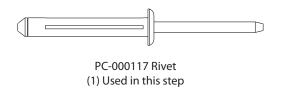


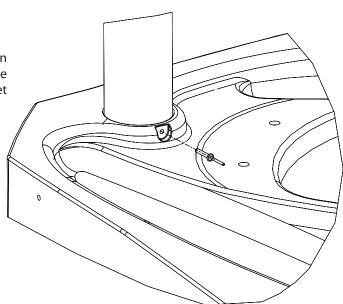
and using a 13/64" drill bit, drill a hole through the hole in the top of the side, and through the roof. Rivet in place using a PC-000100 rivet on the inside with a PC-000121 washer and a PC-000106 back-up washer on the topside of the roof. Repeat for remaining three holes.



# **Step 12: Vent Stack Installation**

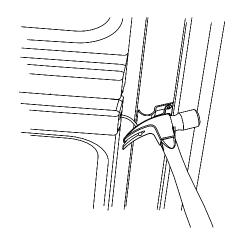
Force the vent stack up through the hole in roof then down into the corresponding hole in the tank. Drill a 13/64" hole through the boss in the tank and into the vent stack. Rivet (as shown) using a PC-000117 rivet.

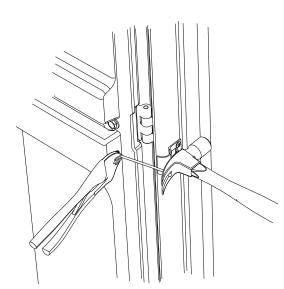




## **Step 13: Spring Installation**

From the front of the door, insert the cable end of the spring assembly into the 1/2" hole in the door. Make sure that the 1/2" boss in the end cap of the spring assembly is pushed through the hole. On the inside of the unit, place the top of a hammer against the PC-000181S spring cable clip (as shown on the right). Place the end of the spring cable in the claw of the hammer.

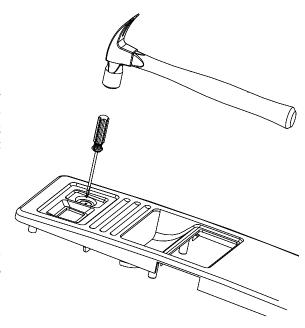




Open the door while holding the hammer in position. Hold the door open with your foot, and clamp a vice-grips pliers on the cable where it comes out of the door. **BE SURE TO CLAMP DOWN TIGHT.** Remove the cable from the claw of the hammer, close the door, and place the end of the cable into the slot of the cable clip. Open the door, and remove the vice-grips.

#### **Step 14: Optional Lock Installation**

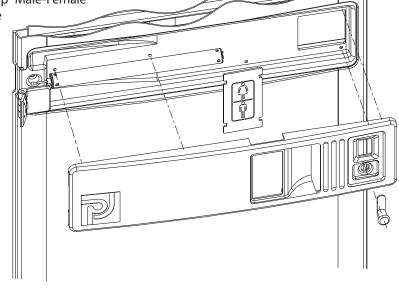
Place the tip of a screwdriver in the lock area of the Door Trim Panel (as shown on the right). Strike the handle end of the screwdriver with a hammer to "knockout" the plastic filling the hole for the lock. Remove the nut from the end of the lock, and insert the lock through the hole of the Door Trim Panel from the outside. Re-insert the nut back on the lock and tighten down. Insert the key and turn the lock to the right and remove the key (this is the locked position which is needed at this point to check the lock for proper installation with the Slide Latch mechanism which is installed in the next step). NOTE: Turning the key upright is the neutral or normal use position which allows the Slide Latch to move into the "Open/In-Use" position when persons are inside the restroom. Turning the key to the left is the open position and the key can not be removed until either in the "Open/In-Use" or "Locked" position.



#### **Step 15: Door Panel /Slide Latch Installation**

Snap the Unisex Indicator Plate into the back of the Door Trim Panel. Place the Door Trim Panel into the recess in the front of the door. While holding the Door Trim Panel in position, place the Slide Latch and Slide Latch Cover Plate on the inside of the door and line up the holes of the Slide Latch Cover Plate, the Door, and the Door Trim Panel. Insert (4) PC-000158 screws and tighten. **NOTE:** These screws should be tightened to the point where they will interfere with the sliding action of the Slide Latch and then backed off slightly, leaving enough friction to prevent the Slide Latch from sliding into the "In-Use/Open" position when the door shuts. The U Shaped handle prevents persons from inadvertently moving the slide latch to the "In-Use" position when exiting the restroom. Insert the flip "Male-Female"

Indicator Plate into the slot on the top edge of the Door Trim Panel (above where the Unisex Indicator Plate is located). Insert (2) PC-000147 screws into the holes toward the hinged side of the door, line up with the holes in the Door Trim Panel, and tighten. If the optional lock is installed, unlock the lock by inserting the key into the lock and turning to the left and back to the upright position which is the neutral or normal use position and remove the key (this allows the Slide Latch to move into the "Open/In-Use" position when persons are inside the restroom). Turn the key to the right and remove the key for the locked position. Turning the key to the left indicates the open position and the key can not be removed until either in the "Open/In-Use" or "Locked" positon. IMPORTANT: The punched 1/4" hole in the center of the Slide Latch where the "In-Use/Open" stamp is imprinted complies with code enabling the door to be unlocked from outside the restroom in the event of distress and a person inside were unable to unlock the door. A POINTED OBJECT INSERTED INTO THE HOLE AND MOVING THE SLIDE LATCH TO THE LEFT WILL ALLOW THE DOOR TO BE OPENED PROVIDING THE DOOR HAS NOT BEEN LOCKED WITH THE KEY.





PC-000158 Screw (4) Used in this step



PC-000147 Screw (2) Used in this step

# **Step 16: Mirror Installation**

Peel the protective cover from the front of the mirror. Place the mirror in the recess in the door, and fasten in place using the plastic push-in fasteners provided.

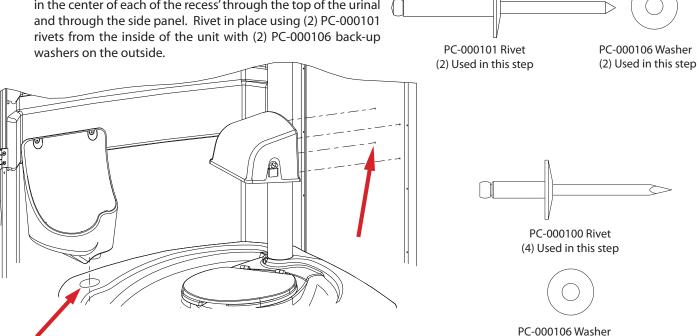


## **Step 17: Toilet Seat Installation**

Place the toilet seat on the top of the tank. Line up the holes in the hinge of the seat with the holes in the top of the tank. Insert the seat bolts through the hinges of the seat and through the seat base. Lift open the seat base, thread the plastic seat nuts on the ends of the bolts and tighten.

#### **Step 18: Optional Urinal Installation**

Insert the drain spigot into the hole in the tank (as shown). Make sure that the top of the urinal is level and drill two 13/64" holes in the center of each of the recess' through the top of the urinal



**Step 19: Toilet Paper Dispenser** 

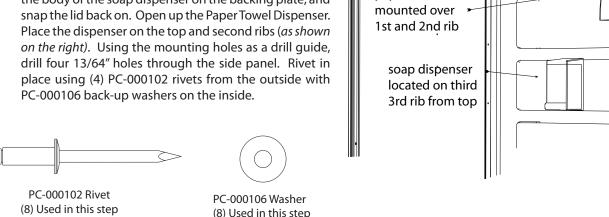
There are four dimples in the rear panel for the Toilet Paper Dispenser location. From the outside, drill four 13/64" holes through the rear panel. Line up the holes in the rear panel with the holes in the back of the dispenser, and rivet in place from the outside using (4) PC-000100 rivets with (4) PC-000106 back-up washers on the inside.

paper towel

(4) Used in this step

## **Step 20: Soap and Paper Towel Dispenser**

Remove the lid of the Soap Dispenser by pressing up on the tabs of the lid. Remove the backing plate from the dispenser by pushing back on the tab at the top, and sliding the backing plate down. Place the backing plate up against the side wall on the third rib down from the top. Line up the bottom of the backing plate with the bottom of the rib, and using the top of the three mounting holes as a guide, drill three 13/64" holes through the side panel. Rivet in place from the outside using (3) PC-000102 rivets with (3) PC-000106 back-up washers on the inside. Place the body of the soap dispenser on the backing plate, and place using (4) PC-000102 rivets from the outside with PC-000106 back-up washers on the inside.



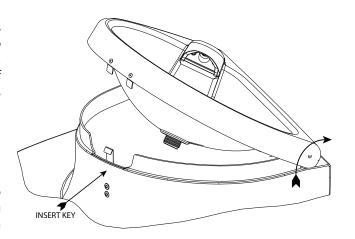
## **General Use and Maintenance**

# **Opening The Sink**

The sink holds the fresh water for hand wash. The lid of the sink is hinged and locked with a keyless lock for ease of accessibility. To unlock the sink, insert a long thin object (the key for the lock on the T.P. Dispenser works well) into the 1/4" hole directly below the bottom of the sink lid, and while pushing down on the front of the lid of the sink, push the (key) in to release the catch, and lift up the lid.

# Locking/Unlocking the Unit (Optional)

If this unit is equipped with an optional exterior lock, it can be locked to prevent unwanted usage in the evening or weekend hours when no one is on site. This is done by turning the lock to the right and removing the key. When it comes time to unlock the unit, insert the key and turn all the way to the left, and then back to the upright position.



#### GENERAL STATISTICS AND USEFUL TECHNICAL INFORMATION

GENERAL STATISTICS AND OSELOE LECTIVICAL INFORMATION		
ITEM	STANDARD	METRIC
FRESH WATER	1 gal	3.785 ltr
One gal	128 fl. oz	3,780 ml
One qt	32 fl. oz	946.35 ml
One gal	8.33 lb	3.77 kg
SEWAGE		
One gal	10.20 lb	4.62 kg
Feces per person per day*	.5 lb (26.12 fl. oz)	.23 kg (772.4 ml)
Urine per person per day*	1 qt (32 fl. oz)	.95 ltr
Non-Flush Tank Use & Capacity - (120 uses)		
60 gal < 5 gal charge = 55 gal	7,040 fl. oz	208,200 ml
5. 1.7. 1.1. 0.5. 1. (75. )		
Flush Tank Use & Capacity - (75 uses)		
40 gal < 5 gal charge = 35 gal	4,480 fl. oz	132,500 ml
Average person urination at special events =	9 fl. oz / average	266 ml / average
8 - 10 fl. oz (237 - 296 ml)		
Sink Tank Use & Capacity - (400 uses)		
20 gal	2,560 fl. oz	75.7 ltr
Sink foot pump dispenses 2 oz per stroke	6 fl. oz / average	177.44 ml / average
×		

\* per Portable Sanitation Association International (PSAI)

NOTES:

Weather conditions and consumption of foods, liquids and alcoholic beverages can increase usage by 30 to 40%.

"Conservative" usage calculations based upon each user producing 59 fl. oz of waste and dispensing 6 fl. oz for hand washing.

#### **CLEANING AND MAINTENANCE**

- Use a mild soap to clean all surfaces and component parts.
- The mirror is acrylic, do not use solvent based cleaners, use only a mild liquid soap. To maintain a gloss, use a flannel cloth with a good plastic cleaner or polish (such as "Johnson's Pledge").
- Minor scratches and abrasions can be lightly sanded or scrubbed with a mild abrasive cleaner (such as "Soft Scrub") that contains calcium carbonate, hypochlorate bleach and detergents. Be sure to follow the cleaning product directions since these ingredients may cause hazardous gases when mixed with other chemicals. Rinse the cleaned area and buff with a conventional wax.
- Some light scratches may also be hidden by using an industrial hot air gun.
- To keep the interior smelling fresh, spray the interior with a deodorant spray.

For a source of cleaning, deodorizing and paper products contact:

RID IT
2500 GASPAR AVE.
WHITING, IN 46394-2175
800-292-1305 Extension 514
www.rid-it.com

We highly recommend membership in the Portable Sanitation Association International (PSAI); the worldwide authority on portable sanitation services. The PSAI, "Portable Sanitation Industry Certification Program" manual contains a wealth of information on standards and service procedures. For more information contact the PSAI:

PORTABLE SANITATION ASSOCIATION INTERNATIONAL (PSAI)
7800 METRO PARKWAY, SUITE 104
BLOOMINGTON, MINNESOTA 55425 USA
800-822-3020 / 612-854-8300 FAX 612-854-7560
www.psai.org

#### **OUR MISSION STATEMENT**

"PolyJohn is a family owned, state of the art, plastics manufacturing company dedicated to providing its employees with a work environment committed to excellence, and its customers with innovative products, services and technology that meet or exceed their requirements."

## THANK YOU FOR PURCHASING POLYJOHN PRODUCTS!

Look for us on the web @PolyJohn.com