

# I/O Cascade (3180/3190) Toilet/Tank

## DISASSEMBLY INSTRUCTIONS

All of the trim can be replaced without removing the tank, with the exceptions of the Flush Valve Assembly (#IFO4), the Flush Valve Gasket (#IFO6), and Water Divider (#IFO5). If the flush valve body assembly gasket or water divider must be replaced, then the following procedure should be used for disassembly of the tank. NOTE: When disassembly of the tank from the bowl is required, all three expansion plugs (#IFO8) must be replaced.

1. Shut off the water and read the assembly instructions.
  - a. Close the water supply valve and disconnect the water supply line from the ballcock shank. Hold UP the lift knob to flush the toilet and empty the tank.
2. Remove the tank lid.
  - a. Lift the knob, hold the lift sleeve and unscrew the knob from the lift sleeve. You may insert a thin rod or nail into the hole of the side of the lift sleeve to aid in loosening the knob.
  - b. Unscrew and remove the lid retaining nut from the tank lid hold-down bracket. Remove the lid and carefully set it somewhere safe.
3. Remove the bracket assembly and float.
  - a. Slide hold-down bracket away from the flanges on the tank.
  - b. Pull the refill tube off of the metal clip on the flush valve.
  - c. Remove the flush valve float and bracket assembly from the tank.
4. Remove the tank.
  - a. Sponge out any remaining water from inside the tank.
  - b. Use a screwdriver, 5/16" socket, or 8mm socket and completely remove the three tank bolts from the tank. A socket extension hooked to a drill works well.
  - c. Carefully remove the tank from the bowl. Remove and discard the rubber expansion plugs from the bowl - these must be replaced with new expansion plugs due to distortion and breakage.
5. Remove the tank reducing cup.
  - a. Unscrew flush valve nut from the shank on the underside of the tank.
  - b. Remove the remaining flush valve shank and tank reducing cup from the tank.
6. Remove the water divider from the bowl and trim the inlet port just below the last rib.
7. Replace parts as necessary. Follow the instructions on the next page for replacement and assembly.

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## ASSEMBLY INSTRUCTIONS

### 1. Bowl Preparation

- a. Insert the water divider into the bowl with the water inlet port pointing upward. Bend the convoluted outlet tubes slightly toward each other and guide them into the two holes in the top back section of the bowl. Push the water divider in until 'pops' into place.
- b. Insert three expansion plugs into the holes on top of the ledge of the bowl.
- c. Place the white foam tank to bowl spacing gasket onto the bowl, fitting it securely over the two front expansion plugs.

### 2. Tank Preparation

- a. Install the flush valve assembly. First, make sure the flush valve gasket is in place on the spud. Then insert the flush valve into the tank, with the spud through the large hole in the bottom of the tank. Make sure the flush valve spud is centered in the hole. Next, screw the flush valve nut onto the flush valve spud. Tighten the nut to 215-inch pounds of torque.
- b. Replace the refill tube. Attach one end of the new refill tube to ballcock nipple in connection and insert the opposite end into the hole in the float stop.
- c. Install the ballcock. Make sure that the ballcock gasket is installed on the shank. Insert the ballcock into the tank with the shank protruding through the hole in the bottom (back, left side) of the tank. The float shut-off arm should be positioned pointing toward the front of the tank. Screw the shank nut onto the ballcock shank and tighten to 130-inch pounds of torque.

### 3. Tank to Bowl Assembly

- a. Place the tank onto the bowl. Make sure the water divider inlet port slides up into the flush valve. The easiest way to do this is by setting the tank slightly forward, and then rocking the tank back onto the bowl and water divider inlet port. Remove the plastic float from the flush valve and visually check to ensure that the water divider is properly positioned within the flush valve shank.
- b. Align the three tank-bolt holes with the expansion plugs and insert the three tank holding bolts. Using a screwdriver, 5/16" socket wrench, or 8mm socket wrench, tighten the three bolts to 13-inch pounds of torque.

### 4. Lift Knob and Holding Bracket Assembly

- a. Insert the lift sleeve and bracket clip into the tank lid hold-down bracket.
- b. Insert the small screw into the bracket clip and tighten until the clip is secured firmly to the tank hold-down bracket.
- c. Insert refill tube from ballcock into the stop cap of the flush valve.
- d. Attach the chain ring of the flush valve assembly to the brass eyebolt.

- e. Attach the tank lid hold-down bracket onto the tank by sliding it onto the two flanges at the top of the tank. The 'long end' of the tank lid hold-down bracket points toward the back of the tank. Center as accurately as possible.
- f. Adjust the chain, if needed. Check that the chain has some slack. If the chain is too tight, simply unscrew the eyebolt a few turns to provide more slack. NOTE: If the chain is too loose, the unit may not flush properly and the eyebolt will have to be screwed in further to provide flush action.

#### 5. Water Service Line Attachment

- a. Attach the water service line to the ballcock shank, open the water supply valve. Allow the tank to fill, then flush and check for proper flushing.
- b. If Fluidmaster ballcock is used, hold down float and allow water to enter the top of the float. This will properly balance the float.
- c. Check the water level and adjust as necessary.

#### 6. Tank Lid Attachment

- a. Place the lid on the tank and align the hole in the top of the lid with hold-down bracket.
- b. Insert lid retaining nut and hand tighten.
- c. Lift UP the lift sleeve through the retaining nut and screw on the lift knob.