

# Orengo® UV and AXUV Disinfection Units

## Installation Instructions

### Before You Begin

These are instructions for installing an Orengo UV or AXUV disinfection unit into a PVC basin using an Orengo RS3 flanged coupling. For other installation options, contact your Distributor or Orengo. For general instructions on installing PVC basins, see NIN-PB-1, *PVC Basin Installation*.

**IMPORTANT:** UV radiation burns retinas and skin! Avoid exposure to UV lamp light!

#### Step 1: Install RS3 Flanged Coupling (If Necessary)

- If the RS3 is installed in the basin, go to Step 2.
- If the RS3 is not installed in the basin, continue with Step 1.

**Step 1a:** Mark the location for the inlet penetration on the basin wall.

**Step 1b:** Drill a 4-inch (100 mm) through hole in the basin, centered on the mark.

**Step 1c:** Deburr the hole for the RS3 and use a clean rag to wipe around the hole.

**Step 1d:** Apply a generous bead of methacrylate adhesive around the outside curve of the RS3's flange (the part that matches the inside curve of the riser).

**Step 1e:** From inside of the riser, push the notched end of the RS3 through the riser.

**Step 1f:** Press the flange firmly against the inside of the riser.

**IMPORTANT:** Make sure that the curve of the flange fits the curve of the riser.

**Step 1g:** Secure the flange to the riser with the supplied stainless steel screws.

**Step 1h:** Use a tongue depressor to make an adhesive fillet around the flange.

#### Step 2: Install Q-D Female Coupling (If Necessary)

- If the Q-D female coupling is installed on the RS3, go to Step 3.
- If the Q-D female coupling is not installed on the RS3, continue with Step 2.

**Step 2a:** Cut a section of 3-inch (75 mm) PVC pipe to 9 inches (230 mm).

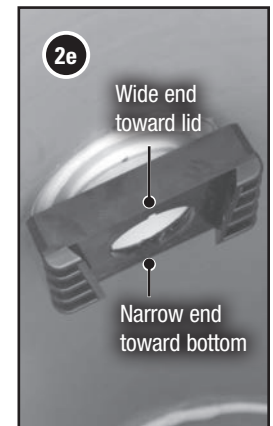
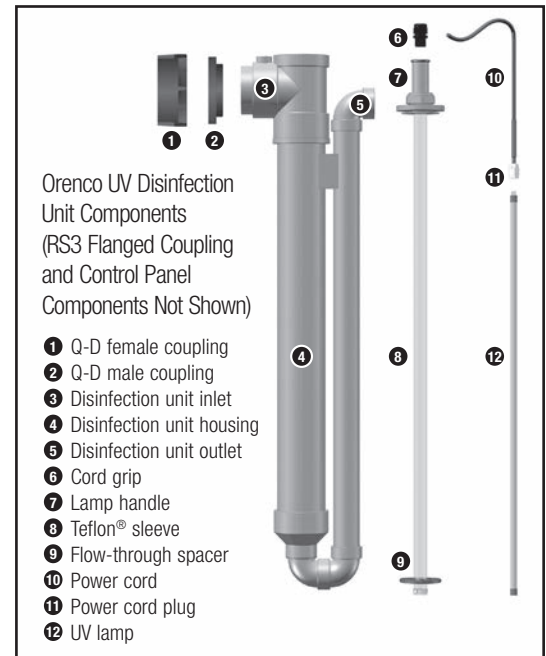
**Step 2b:** Apply a generous bead of ABS/PVC transition cement to the inside of the flanged coupling.

**Step 2c:** Press the pipe through the RS3, 3 inches (75 mm) into the riser.

**Step 2d:** Apply ABS/PVC transition cement to the 3-inch pipe inside the basin.

**Step 2e:** Press the Q-D female coupling onto the pipe stub.

- The wide end of the coupling slot points to the lid end of the basin.
- The narrow end of the coupling slot points to the bottom end of the basin.
- Be sure the female Q-D female coupling is fully seated on the pipe.



### Step 3: Set Basin (If Necessary)

- If the basin has been installed, go to Step 4.
- If the basin has not been installed, continue with Step 3.

**Step 3a:** Install the basin using NIN-PB-1, *PVC Basin Installation*.

**Step 3b:** If the transport line and the 3-inch (75-mm) pipe stub are different diameters, connect them using PVC glue and an appropriately sized adapter.

### Step 4: Install Splice Box (If Necessary)

- If the splice box has been installed, go to Step 5.
- If the splice box has not been installed, continue with Step 4.

If you are installing a splice box, see the instructions included with the splice box.

- For Orenco internal splice boxes, see NIN-SB-SB-1, *Internal Splice Box (SB)*.
- For Orenco external splice boxes, see NIN-SB-SBEX-1, *External Splice Box (SBEX)*.

### Step 5: Install Disinfection Unit

When the basin has been installed and backfilled, install the disinfection unit.

**Step 5a:** Slide the disinfection unit's Q-D male coupling into the Q-D female coupling.

**Step 5b:** Firmly seat the Q-D male coupling into the Q-D female coupling.

**Step 5c:** If the wire routing and connection work is not being done immediately, neatly coil the excess power cord and secure it to the splice box.

### Step 6: Mount and Wire Control Panel

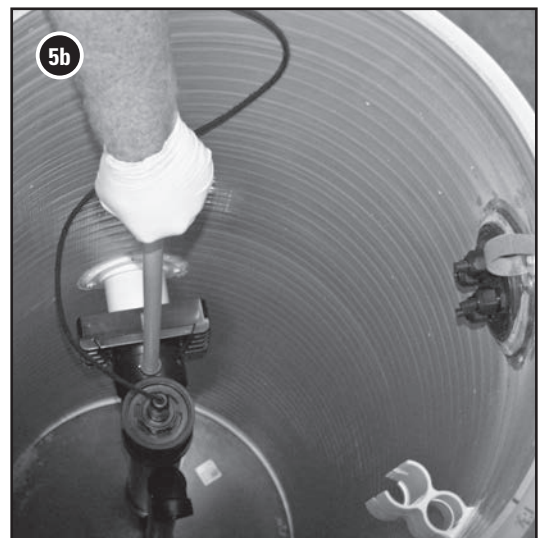
#### Notes:

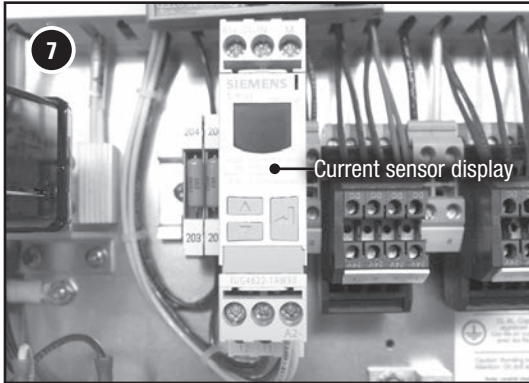
- *This step should be performed by a licensed and qualified electrician.*
- *Installation instructions, schematics, and wiring diagrams specific to the panel and float switch configuration are included with each panel. If any of these is missing, contact your Distributor for a replacement.*

**Step 6a:** Mount the panel using the instructions that came with it.

- Follow all applicable regulations for placement of the control panel.
- Mount the panel in a service-friendly location within sight of the tank.

**IMPORTANT:** *DO NOT mount the control panel on an exterior wall other than a garage or shop wall! The motor contactor makes a sound while engaging and disengaging that can be disruptive to residents.*



**Step 6: Mount and Wire Control Panel, cont.****IMPORTANT:**

- This step should be performed by a licensed or qualified electrician.
- The UV power cord is not rated for direct burial.
- Do not run the lamp's power cord with pump wiring or float wiring! This will interfere with the lamp signal!
- Do not splice the lamp's power cord! This will interfere with the lamp signal!

**Step 6b:** Route wires and connect the panel, pump, float switches, and other equipment shown in the instructions and schematics into the control panel.

- Use watertight wire connectors to avoid electrical shorts and other issues.
- Be sure to seal the conduit at the control panel and at the splice box with UL-listed sealing foam, putty, or silicone sealant.
- Leave at least five feet (1.5 m) of coiled power cord in the basin so that the disinfection unit can be easily removed for servicing.

**Step 7: Perform Operational Test**

**Step 7a:** When power is available to the control panel, turn on the main circuit breaker to the panel and the circuit breaker controlling the disinfection unit.

**Step 7b:** Check the numeric display on the current sensor for the UV lamp, located in the panel.

- A normal reading is about 0.38 amps.
- If the sensor reading is 0.20 amps or less, that means the lamp is not correctly connected or has failed and may need to be replaced.