

# ClickTight™ Installation

## In Non-ClickTight Control Panels

### Before You Begin



**IMPORTANT**

- If you are installing a ClickTight Controls Package or a Prelos Processor™, use NIN-CLK-1, ClickTight & ClickTight Control Panel Installation Instructions, instead of this instruction set.
- Be certain the number of float switches being used matches the number of float switch plugs on the ClickTight. Stop and contact your distributor if they do not match. Orenco offers caps for unused plugs.
- If any heat shrink color designators are cut off by shortening the cable, be sure to replace them with the same-colored heat shrink designators provided. Affix the heat shrink color designators 1/2in (13mm) from the ends of the appropriate cable wires.

Read these instructions thoroughly before beginning the installation. Not performing the installation according to these instructions may void Orenco product warranties. Contact your distributor if there is a difference between these instructions and any applicable regulations. Inspect the order for all necessary parts and check that none of the equipment was damaged during shipment. Contact your distributor if parts are missing or damaged.

### Step 1. Review Panel Wiring Diagram

**Step 1a.** Locate the following items on the control panel's wiring diagram:

- Termination points for each float switch wire and pump conductor wire.
- Pump grounding lug.



**IMPORTANT** Call the panel manufacturer if you need assistance with locating any termination points.

**Step 1b.** Confirm the pump's FLA does not exceed 13amps.



**IMPORTANT** ClickTight is not compatible with pumps having an FLA of more than 13amps.

### Step 2. Install the ClickTight Retrofit Kit (Optional)

If you are replacing an external splice box in a riser using the ClickTight retrofit kit, do the following:

**Step 2a.** Remove the old splice box and grommet or couplings.

**Step 2b.** Wipe down the area with acetone.

**Step 2c.** Apply adhesive to the back of the adapter plate.

**Step 2d.** Place the adapter plate into position on the inside of the riser.

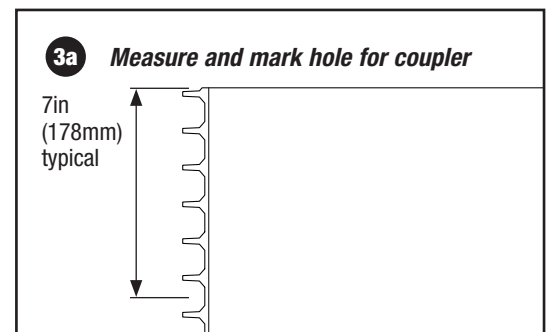
**Step 2e.** Make sure the old splice box hole is fully covered by the plate.

**Step 2f.** Screw the supplied self-drilling screws into the 4 corner holes on the plate.

### Step 3. Install ClickTight Coupler

**Step 3a.** Measure and mark the location on the riser for the coupler penetration.

- The typical location is at the point on the riser nearest the control panel, 7in (178mm) down from the riser's top.



All product and performance assertions are based on proper design, installation, operation, and maintenance according to Orenco's current published documentation.

**Step 3. Install ClickTight Coupler, cont.**

**Step 3b.** Use a 2in (50mm) hole saw, centered on the mark, to drill the penetration.

**Step 3c.** Clean and deburr the penetration.

- Don't enlarge the penetration.

**Step 3d.** Make sure the O-ring is installed on the riser side of the coupler.

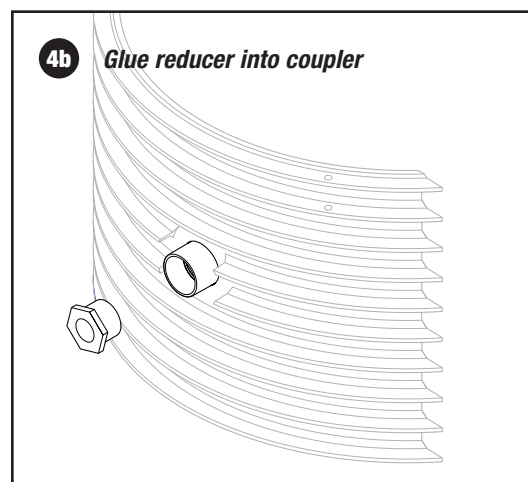
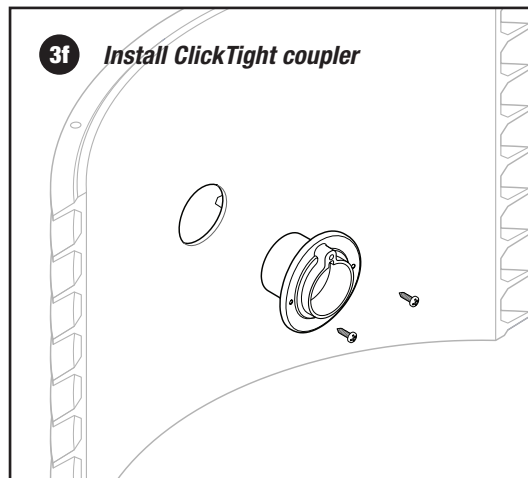
**Step 3e.** Apply a continuous bead of ADH200 adhesive to the riser side of the coupler.

**Step 3f.** Press the coupler firmly into the penetration from inside of the riser.


- Make sure the coupling's slot and tab are pointed toward the riser's top.

**Step 3g.** Secure the coupler to the riser wall with the supplied screws through the coupler's two screw holes.

- Don't overtighten the screws.



**Step 4. Route Conduit**

 **Note** If trenching for conduit and wire runs has been performed, skip to Step 4b.

**Step 4a.** Excavate a run from the control panel location to the ClickTight location.

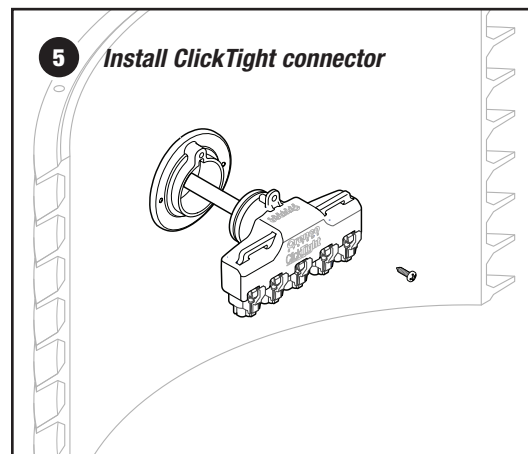
- Orenco recommends a minimum burial depth of 2ft (0.6m) below finished grade for conduit/wiring installation.

**Step 4b.** Glue the supplied ClickTight 1¼in to ¾in reducer into the ClickTight coupler.


- Do not use primer on ClickTight components. ClickTight components are ABS.
- A 1¼in to 1in reducer (not provided) can be installed in the coupler for installations requiring 1in conduit.

**Step 4c.** Route and connect electrical conduit from the reducer on the ClickTight coupler to the control panel location.

- All connections between the reducer and panel can be glued at this time.



**Step 5. Install ClickTight Connector**

 **IMPORTANT** Avoid getting the connector wet during threading and installation. Thoroughly dry the connector plugs if the connector becomes wet.

**Step 5a.** Starting from inside the riser, thread the ClickTight cable through the coupler to the control panel.

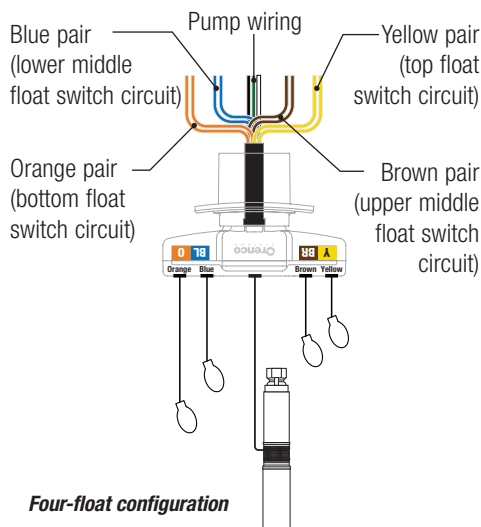
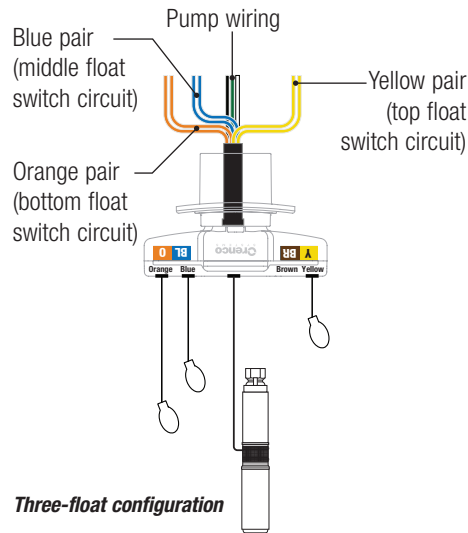
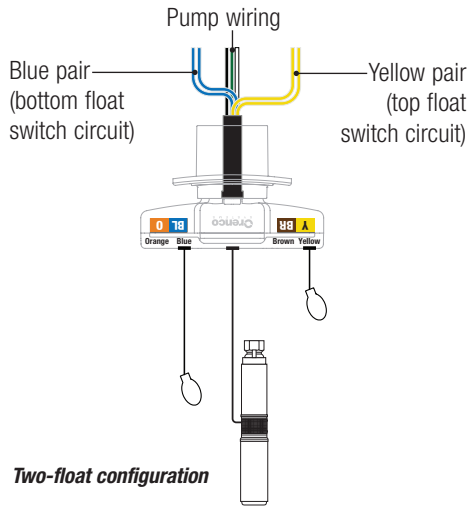
- Pull all of the cable through to the panel; leave no excess cable at the coupler.

**Step 5b.** Align the connector so the screw tab points to the top of the riser.

**Step 5c.** Firmly press the connector into the coupler until they fit together snugly.

**Step 5d.** Secure the connector to the coupler with the supplied screw.

**7 Assign float switch wiring pairs**



**Step 6. Prep and Install Pump Cord Adapter (If Necessary)**

For non-ClickTight pumps, prep and install the pump cord adapter.

- See [ClickTight Pump Adapter Installation Instructions](#), NIN-CLK-KIT-1, for complete instructions.
- These instructions are provided with the pump adapter kit.

**Step 7. Assign Float Switch Wiring Pairs**

Assign each float switch wiring pair to a float switch position.



**Key Point** Wires may have heat shrink color designators. If the cable or wires have been shortened, replace any color designators that may have been removed in the shortening.

- The top of the ClickTight connector is labeled with the color of the wiring pair for the float switch plug below it:
  - The yellow wiring pair connects to the far right plug.
  - The brown wiring pair connects to the center right plug.
  - The blue wiring pair connects to the center left plug.
  - The orange wiring pair connects to the far left plug.
- The pump wires inside the ClickTight cable are designated white, black, and green (ground).



**Key Point** For best results, assign float switch positions as shown in Image 7.

**Step 8. Connect Wiring, Float Switches, and Pump**

**Step 8a.** Turn off power at the service panel and at the control panel.

**Step 8b.** Wire the float switch pairs into the control panel per the panel wiring diagram.

- Example 1: One wire from each float switch pair goes to a single common terminal, and the other wire from each pair goes to a separate terminal, per the wiring diagram.
- Example 2: Each float switch wire goes to a separate terminal, per the wiring diagram.

**Step 8c.** Wire the pump wires into the control panel per the panel wiring diagram.

**Step 8d.** Connect the pump cord plug to the ClickTight's center plug.

- Make sure the plug clicks securely into the connector.

**Step 8e.** Connect the float switch cord plugs to the corresponding ClickTight connector plugs, from the top switch in the float switch assembly to the bottom switch.

**2-Switch Assemblies**

- Top float switch plug to the ClickTight connector plug labeled "yellow."
- Bottom float switch plug to the ClickTight connector plug labeled "blue."

**3-Switch Assemblies**

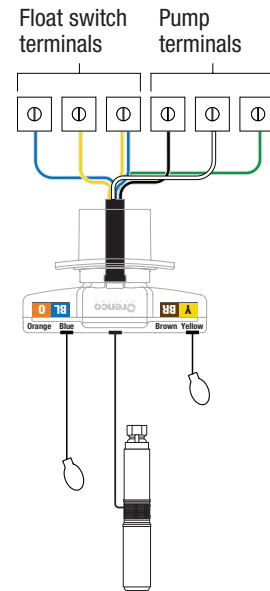
- Top float switch plug to the ClickTight connector plug labeled "yellow."
- Middle float switch plug to the ClickTight connector plug labeled "blue."
- Bottom float switch plug to the ClickTight connector plug labeled "orange."

**4-Switch Assemblies**

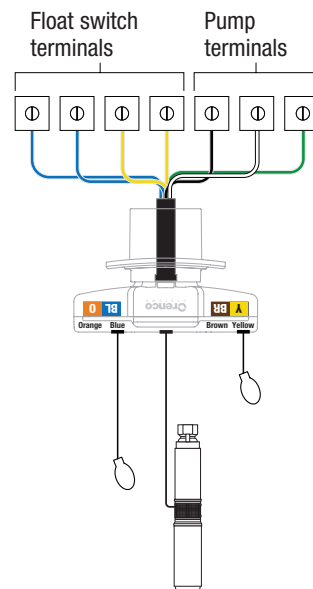
- Top float switch plug to the ClickTight connector plug labeled "yellow."
- Upper middle float switch plug to the ClickTight connector plug labeled "brown."
- Lower middle float switch plug to the ClickTight connector plug labeled "blue."
- Bottom float switch to the ClickTight connector plug labeled "orange."

**8b** Wire the float switch pairs

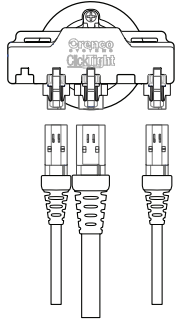
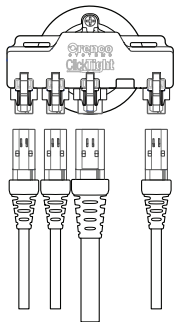
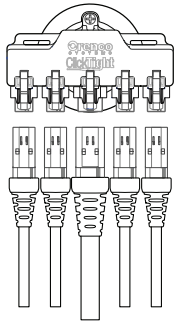
**8c** Wire the pump wires



**Example 1, single common terminal (two-float configuration shown)**



**Example 2, separate terminals (two-float configuration shown)**

**8e Connect plugs**

**Two-float switch configuration**

**Three-float switch configuration**

**Four-float switch configuration**
**Step 9. Test Control Functions**

**Step 9a.** Check for the following before beginning testing:

- The float switch assembly is correctly installed.
- The float switch elevation settings match the settings provided on the plan set or engineering drawing.
- The pump cord and float switch connectors are fully plugged into the ClickTight, and the ClickTight cable is wired into the control panel.
- The wiring between the control panel and service panel is connected, and the voltage to the control panel is correct.
- Power is supplied to the service panel and the control panel.
- The pump tank's liquid level is above the pump's minimum liquid level (MLL). If it isn't, fill the tank to above the pump's MLL.
- All connections are made between the building sewer, tank inlet, tank discharge, and transport line.

**Step 9b.** Remove the float switch assembly from the tank.

**Step 9c.** To test the function of the float switches and pump, raise and lower each float switch, in turn.

- Contact the control panel manufacturer if additional assistance is required to confirm proper system operation.

**Step 9d.** Reinstall the float switch assembly.

**Step 10. Close and Secure Access Risers**

Close and secure the access riser(s) when the installation is complete.