

Splicing With Waterproof Wire Nuts

Instructions

All splices within an Orenco internal or external splice box must be made waterproof using the waterproof wire nuts supplied. Condensate or water leaking into the splice box may cause malfunctions in circuits with splices that are not waterproof. Refer to the Splice Box Wiring Diagram(s) provided for instructions for connecting the float switches.

NOTE: Waterproof wire nuts are not reusable. To change a splice, twist off the wire nut and replace it with a new one.

Step 1: Select Wire Nuts

Use Table 1 to select the quantity and size of wire nuts to use, based on the number and size of wires to be joined.

NOTE: Use wire nuts in accordance with local or national codes. Use only with copper wire.

Step 2: Prep Wires for Splicing

Strip insulation back from the wire ends to be connected ...

- Large waterproof wire nuts: 5/8 in. (16 mm) from the end of each wire
- Small waterproof wire nuts:
 - 3/8 in. (10 mm) from the ends of 14-16 AWG wires
 - 1/2 in. (13 mm) from the ends of 18-22 AWG wires

Step 3: Splice Wires

Step 3a: Align the wires in a bundle.

- Same-gauge ends even
- Smaller wires slightly past larger wires
- Stranded wires slightly past solid wires

Step 3b: Holding the wires firmly, insert them together into the waterproof wire nut.

Step 3c: Twist the waterproof wire nut clockwise onto the wires.

Step 3d: Gently tug on each wire to make sure it is secure.

Step 3e: Smooth any exposed sealant around the wires.

Table 1.
Orenco Waterproof Wire Nut* Capacities

Large 600 V	Small 600 V
10 AWG: 1 12 AWG: 1	14 AWG: 2
10 AWG: 1 14 AWG: 1	14 AWG: 1 16 AWG: 1
12 AWG: 2-4	14 AWG: 1 18 AWG: 1-2
12 AWG: 1 14 AWG: 1-4	16 AWG: 2
12 AWG: 1 16 AWG: 2-4	16 AWG: 1 18 AWG: 1
12 AWG: 1 18 AWG: 3	16 AWG: 2 18 AWG: 1-2
14 AWG: 2-4	18 AWG: 2-4
16 AWG: 2-6	

* Rated for outdoor connections with the listed wire combinations

