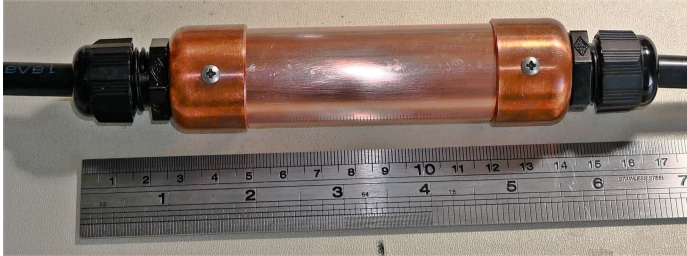# TN03 - Technical Note on the FOGRod Cable Splice Shield

April 2020
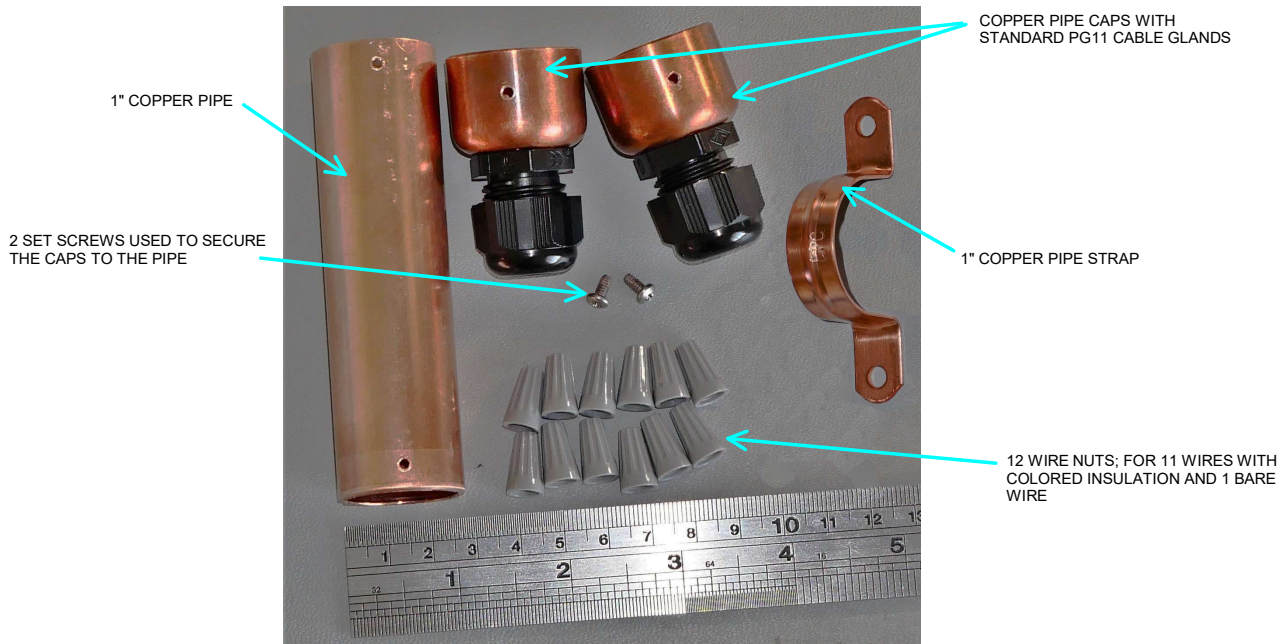

STOP ELECTRICAL NOISE IN SPLICED FOGRod CABLES

FOGRod CABLE SPLICE SHIELD

WHAT IS THE "FOGRod CABLE SPLICE SHIELD"?

The FOGRod Cable Splice Shield provides physical protection for cables that have been spliced together. More importantly, the shield prevents unwanted electrical noise from being picked up by the FOGRod wires that are spliced together.   Electrical RF noise is commonly transmitted by pumps, motors and high power AC equipment. Non-shielded wires that are in the general area of these noise sources will pick up the noise if not properly shielded and may cause erratic system behavior.

1" COPPER PIPE

COPPER PIPE CAPS WITH STANDARD PG11 CABLE GLANDS

2 SET SCREWS USED TO SECURE THE CAPS TO THE PIPE

1" COPPER PIPE STRAP

12 WIRE NUTS; FOR 11 WIRES WITH COLORED INSULATION AND 1 BARE WIRE

FOGRod CABLE SPLICE SHIELD KIT

How to Order the FOGRod Cable Splice Shield Kit
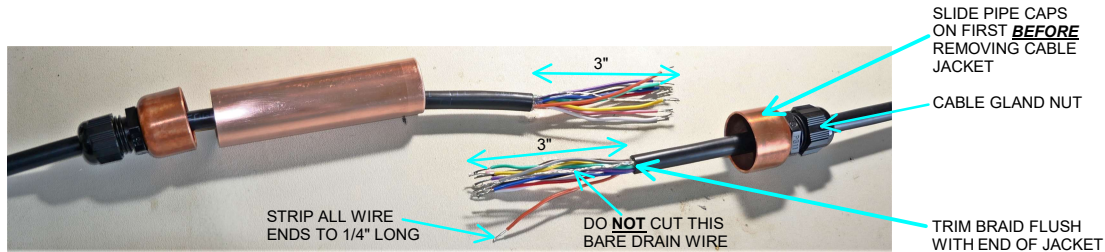
FOG-CSS -FOGRod Cable Splice Shield Kit

Contact us: sales@wastewater-level.com or 406 545 3023. Visit our website: wastewater-level.com>
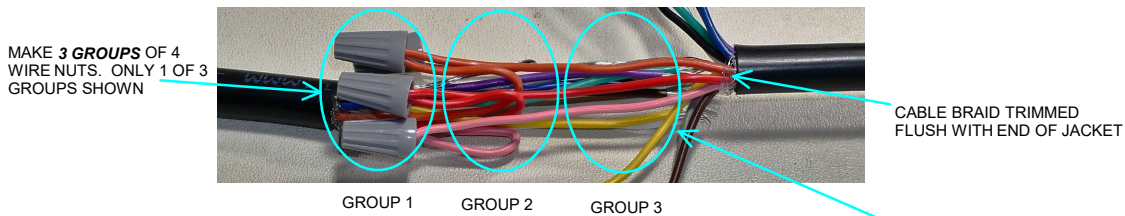
REQUIRED TOOLS AND FASTENERS:

- Wire Strippers for 18awg wire
- Wire cutters, or use cutters on stripper
- Small head Phillips screw driver
- Screws for mounting the pipe strap

1. Loosen the cable gland nuts all the way and slide the pipe caps onto each cable to be spliced as shown below.
2. Slide the pipe onto either side of cable to be spliced.
3. Remove the cable jacket exposing the individual wires. Cut wires 3 inches long.
4. Trim the cable braid flush with the jacket, but be careful not to cut the bare drain wire
5. Strip each wire to expose 1/4" of bare wire as shown in the image

SLIDE PIPE CAPS ON FIRST *BEFORE* REMOVING CABLE JACKET

CABLE GLAND NUT

3"

3"

STRIP ALL WIRE ENDS TO 1/4" LONG

DO **NOT** CUT THIS BARE DRAIN WIRE
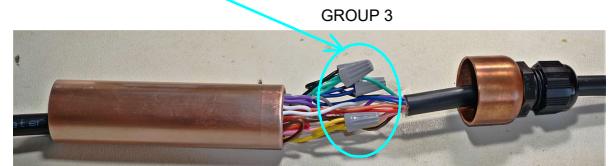
TRIM BRAID FLUSH WITH END OF JACKET

6. Using the 12 wire nuts provided, connect each of the 11 colored wires and single bare drain wire. Refer to the image below. Take care not to connect the wrong colored wires together.

   NOTE: The wire nuts must be staggered in groups *or they may not fit inside the pipe*.

MAKE **3 GROUPS** OF 4 WIRE NUTS. ONLY 1 OF 3 GROUPS SHOWN

CABLE BRAID TRIMMED FLUSH WITH END OF JACKET

GROUP 1   GROUP 2   GROUP 3

7. Slide the bundle of wire nuts into the pipe as shown.
8. Slide the end caps down the cable until they are all the way onto the pipe. Be sure to line up the set screw holes.
9. Install the 2 set screws.
10. Tighten the two cable gland nuts*
11. Mount complete Splice Shield using the included pipe strap, pictured here.

GROUP 3

COMPLETE SHIELD

CABLE GLAND NUT DO NOT OVERTIGHTEN

SET SCREW

*****NOTE**: Be sure to keep the bundles of wire nuts centered inside the pipe. The cable glands should be in about the same position on each cable jacket.

INSTALLATION IS NOW COMPLETE