

TECH NOTE

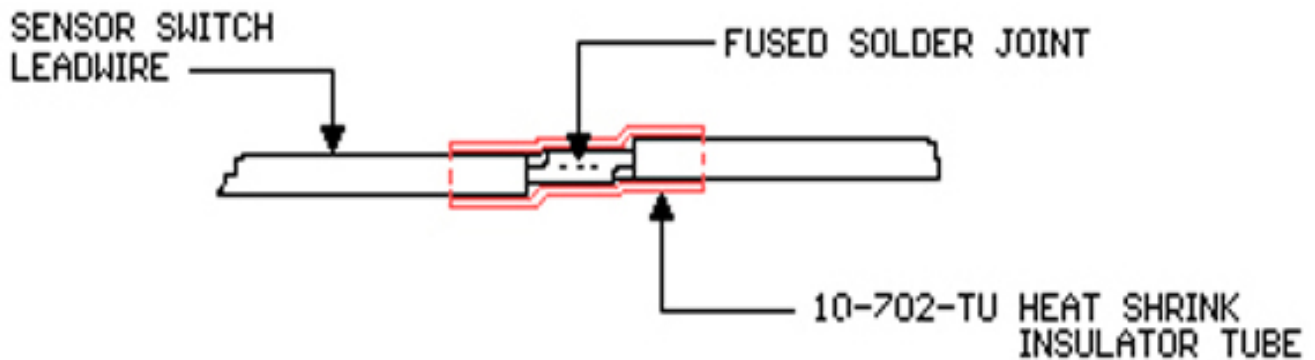
TN-102 – Lengthen Sensor Leadwires

It may be necessary to lengthen sensor switch leadwires. The method described here provides a strong joint, occupies minimum space, and is insulated for service at 120/240 VAC.

Using UL1007 wire (used on Series 10 switches) or UL1015 wire (used on Series 5 and 20 switches), strip ends so .310 (7.87 mm) of bare wire is exposed. Immerse stripped ends in liquid (rosin) flux. Then immerse exposed ends in a solder pot containing 60-40 solder. If a solder pot is not available, use a 35 watt soldering iron and .040 dia. rosin core solder. Apply minimum solder to achieve a smooth, shiny surface.

Assemble a 10-702-TU heat shrink insulator tube on one wire. Then position wire ends so the tinned ends are side by side, pointing in opposite directions and tangent at their diameters. Using a 35 watt (chisel tip) soldering iron, apply heat to the joint until the tinned wires fuse together. It may be useful to apply a small amount of solder to the iron's tip prior to fusing the joint. A smooth, shiny joint without peaks or whiskers is the objective.

Position the insulator tube over the joint and heat shrink it into place with hot air from a 475 watt heat gun. Use one insulator tube for 120 VAC. Use two insulator tubes for 240 VAC.



Fused solder joint with 10-702-TU heat shrink insulator tube