

## HELIAX® SureGuard Weatherproofing System

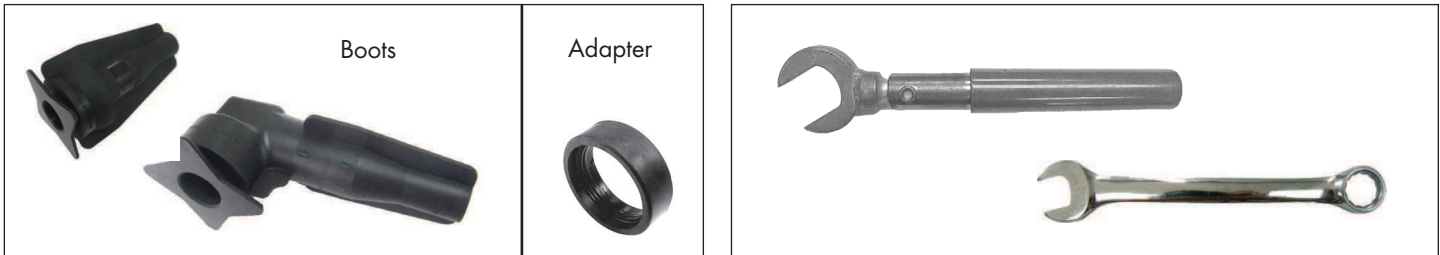
For 7/16 Male Connectors, 4.3-10.0 Male Connectors, 4.1-9.5 Male Connectors, and Type N Male Connectors to Female Antenna or Device Ports. U.S. Patent 6,429,373 and other patents pending



SureGuard Weatherproofing boots are designed for installation on smooth cylindrical surfaces. Do not install boot on female device port machined flats or other irregular surfaces. Installation on such surfaces may compromise sealing effectiveness. If 7-16 DIN female device port is threaded along entire surface, use HSG boot in conjunction with HSG-M29-ADPT threaded device port adapter.

### Materials

### Tools



Part Number	Device Port Diameter
HSG-LDF4	20.00 mm (0.787") to 26.20 mm (1.031")
HSG-FSJ4	20.00 mm (0.787") to 26.20 mm (1.031")
HSG-LDF4-DR	20.00 mm (0.787") to 26.20 mm (1.031")
HSG-FSJ4-DR	20.00 mm (0.787") to 26.20 mm (1.031")
HSG-LDF4-MD95	15.56 mm (0.613") to 19.90 mm (0.783")
HSG-FSJ4-MD	15.56 mm (0.613") to 19.90 mm (0.783")
HSG-LDF4-MDDR	15.56 mm (0.613") to 19.90 mm (0.783")
HSG-FSJ4-MDDR	15.56 mm (0.613") to 19.90 mm (0.783")
HSG-LDF4-NM	12.80 mm (0.504") to 16.50 mm (0.649")
HSG-M29-ADPT (For use with 7-16 DIN female device port with fully threaded body, kit of 10)	M29 Thread

**Installation temp range (-40 to +65 C)**  
**Will not seal properly if there are threads along the entire 7-16 DIN female device port length without the use of thread adapter HSG-M29-ADPT (sold seperatly).**

**1**

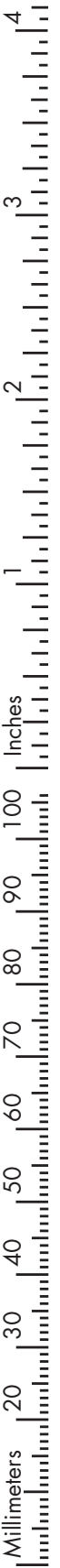
Route and form the jumper assembly with HeliAx® SureGuard weatherproofing system installed prior to attaching the coupling nuts. Make sure that the HSG boot is approximately 4 to 5 inches below the bottom of the molded portion of the jumper.

**2**

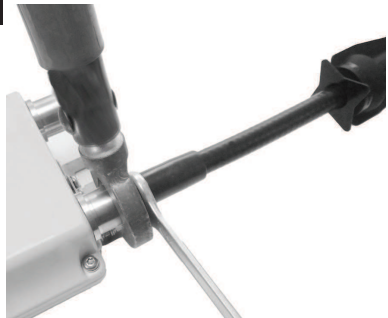
If component has a fully threaded 7-16 DIN female you must first thread HSG-M29-ADPT onto the device port in a clockwise direction (be sure not to cross thread). Adapter does not need to be threaded to the base of component, it needs to allow the DIN Male coupling nut to be torqued to specification without obstruction.

**2a**

Connect the 1/2" connector to the device port and hand tighten. Device port must be free of tar, butyl, and vinly tape residue before beginning this step.



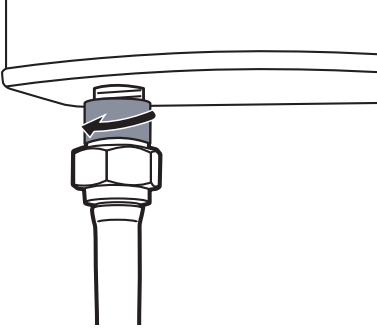
**3**



Torque the connection using the appropriate tools.

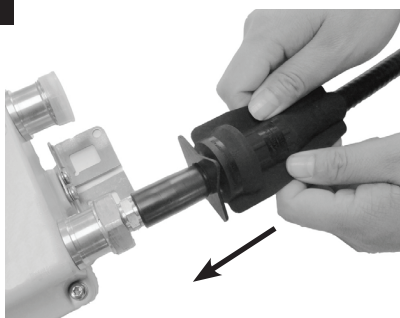
7/16 DIN Connector: 18-22 ft-lb (25-30 N•m)  
 4.3-10 Connector: 4-6 ft-lb (5-8 N•m)  
 4.1-9.5 Connector: 7-11 ft-lb (10-15 N•m)  
 Type N Connector: 15-20 in-lb (1.7-2.3 N•m)

**3a**




Thread HSG-M29-ADPT to the 7/16 DIN male coupling nut in counter-clockwise direction. Adapter needs only to make slight contact with 7/16 DIN Male coupling nut.

**4**




Pull the ribs outward and slide the boot over the connector.

**5**



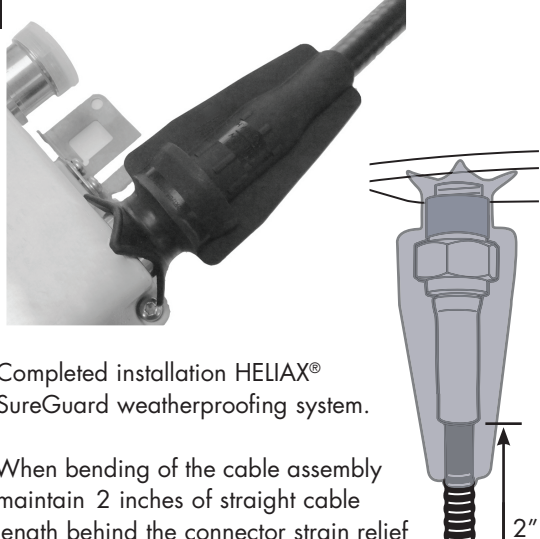
Re-position hands on wider portion of ribs, pulling outward on the ribs slide the boot into a position where it's contacting the face of the coupling nut.

**6**



Grip the tabs on the top of boot and use to pull the boot over the coupling nut (and adapter if installed).

**7**



Completed installation HELIAX® SureGuard weatherproofing system.

When bending of the cable assembly maintain 2 inches of straight cable length behind the connector strain relief overmold. Do not hold the connector and bend the cable directly behind it, rather hold the cable adjacent to the connector to keep stress from the cable/connector junction.

**Warning:** Do not allow sharp objects to come in contact with the boot. They could cause damage that would impact the boots performance.



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**CommScope**  
 1100 CommScope Place SE P.O. Box 339, Hickory, NC 28603-0339  
 (828) 324-2200 (800) 982-1708  
 www.commscope.com/andrew

**Customer Service 24 hours**  
 North America: +1-800-255-1479 (toll free)  
 Any country: +1-779-435-6500  
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