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90° Bushing, Differential Twinax, Type High Speed, Wired Installation Instructions

See table on reverse side for straight wired adapters, twinax cable recommended, tool selector settings, crimping tool, positioner and insertion/removal tool information.

- A 1. The 90° busing is designed to convert straight wired adapters into 90° wired adapters. One of the straight wired adapters listed in the table and one 90° bushing are required for assembly.
 - 2. Cut cable for assembly.
- B 1. Strip cable jacket to expose cable outer braid as illustrated. Ends must be cut cleanly and at right angles to the axial plane of the cable. Cable must not be deformed while making cuts.
- C 1. Slide crimp ferrule (from straight adapter components), large diameter end first, over cable braid until cable jacket butts inside shoulder of crimp ferrule.
- D 1. Flair cable braid back over crimp ferrule as illustrated to expose inner wires. Trim excess cable braid.
- Cut off any inner braids, wraps or cable fillers as close to outer cable braid as possible.
- E 1. Insert the crimp ferrule with cable inner wires into the 90° bushing body until the crimp ferrule is fully seated as shown. The bushing body window can be used to insert a probe/tool, to guide the inner wires through the bushing body bores as shown.
- Crimp the bushing body and crimp ferrule in the area indicated using crimp tools listed in table.
- F 1. Trim and strip cable inner wires to expose center conductors as shown. Wires must be stripped to equal lengths.
- G 1. Carefully splay inner wires perpendicular to the axis of the cable as illustrated.
 - Assemble inner contact (from straight adapter components) over cable center conductor until fully seated against inner wire insulation. Observe center conductor through the contact's wire inspection hole, to make certain center conductor is properly positioned.
 - 3. Solder or crimp (using crimp tools listed in table) inner contact to center conductor. Repeat steps G2 and G3 for the remaining inner contact.

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- H 1. Position rear insulator (from straight adapter components) against bushing body ferrule as illustrated. Make certain insulator slots are aligned with splayed inner contact wires. One-by one, position wired inner contact inside the insulator slots as shown. The inner contact's retention undercut must be positioned to capture the insulator's front retention shoulder as illustrated.
- With inner contacts positioned inside rear insulator slots, assemble front insulator (from straight adapter components) over the inner contacts as shown. The front insulator must butt the rear insulator.
 - Observe the front insulator keyway. When the inner assembly is held in the vertical orientation as shown (with inner contacts pointed up), the inner contact to the left of the insulator keyway will be positioned at the S1 inner contact position shown in View J.
- J 1. Align front insulator keyway with the outer contact's rivet key. Slide the inner contact assembly inside the outer contact assembly until fully seated. Observe the mating end of the assembly to make certain inner contacts are aligned as shown (Ref. 90°).
 - At this point (with inner assembly fully seated, the 90° bushing body may be rotated (90° max., clockwise or counter-clockwise) to the desired angular position.
 - 3. With the inner contact assembly still fully seated, crimp the outer contact body and bushing ferrule in the area indicated using crimp tools listed in the table below.
 - Press-fit the bushing cap (included with 90° bushing components) into the bushing body window (window shown in View E).



Amphenol Part Number (90° Bushing)**	Description	Straight Wired Adapters***	Twinax Cable Recommended	Inner Crimp Tools		Outer Crimp Tools	
				Tool (Setting)	Positioner	Tool	Die Set (Location)
21-33425-201	Differential Twinax 90° Bushing	21-33832-121 & 21-22833-211 & 21-33833-231	Use the cable recommended in the assembly instructions of the straight wired adapter.	M22520/2-01 (†)	K1745S††	M22520/5-01	M22520/5-05 (B)

** Converts listed straight wired adapters (and others) to 90° wired adapters.
*** The listed straight wired adapters are not included with the 90° bushing and must be purchased separately.

† See the straight wired adapter assembly instructions for inner crimp tool setting. †† Daniels Manufacturing Corp. part number

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Amphenol Aerospace 40-60 Delaware Avenue Sidney, New York 13838-1395 Website: www.amphenol-aerospace.com