

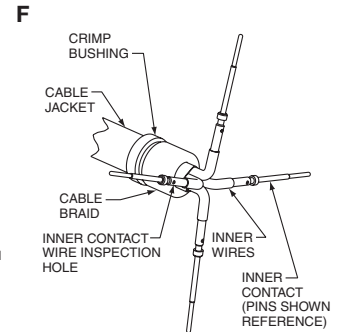
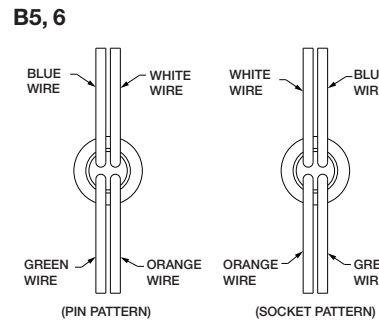
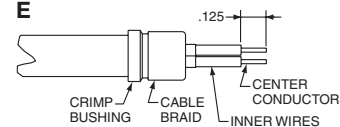
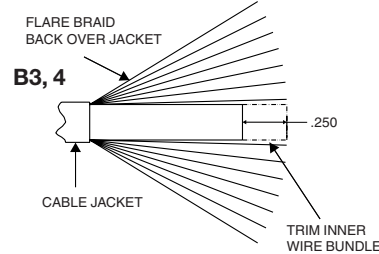
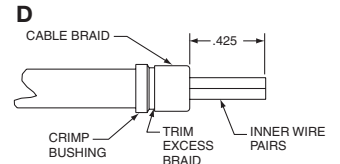
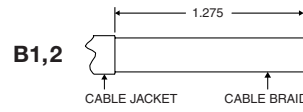
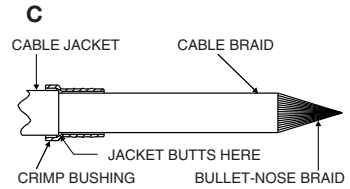
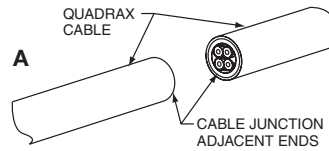
21-033470-211 (PIN)
21-033471-211 (SOCKET)

Contact, Pin and Socket, Quadrax, Split Pair,
 Type M38999 Series I & III Special, Size 8 Installation Instructions

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

- A** 1. Cut cable for assembly of quadrax contacts. Note: Contact assemblies of opposite gender should be assembled at cable junction adjacent ends, to have inner wire conductors in correct orientation during contact assembly. Crossing of inner wires from their natural lie position is not permissible.
- B** 1. Rubber end first, slide piggyback grommet seal back over cable jacket (not illustrated).
 2. 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.
 3. Flare exposed cable braid back over cable jacket. Unravel a portion of the cable jacket if necessary to allow the braid to be flared back. Remove indicated length of inner wire bundle. Do not trim the cable braid.
 4. Trim away inner wire pair foil as close to flared back cable braid as possible, to expose inner wire pairs.
- C** 1. Carefully fold cable inner wire pairs and cable braid forward to the center axis of the cable.
 2. Pull the cable braid tightly forward and twist together the front cable braid strands to form "bullet-nose" as shown.
 3. Slide and rotate crimp bushing, large diameter end first, over cable braid until cable jacket butts inside shoulder of crimp bushing.
- D** 1. Flare cable braid back over crimp bushing as illustrated to expose inner wires. Trim excess cable braid.
 2. Cut inner wires to dimension shown. All wires must be cut to equal length. It may be helpful to cut one wire pair to length. Then, cut remaining wire pair to equal length as the first wire pair.
- E** 1. Strip inner wires to expose center conductors as illustrated. All wires must be stripped to equal length.
- F** 1. Carefully splay inner wires perpendicular to the axis of the cable as illustrated. Note, the inner wire pair color pattern shown in B5/B6 must be maintained.

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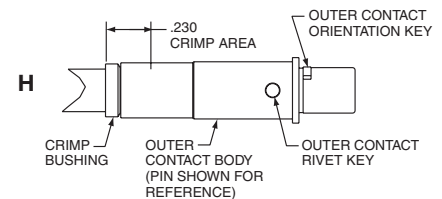
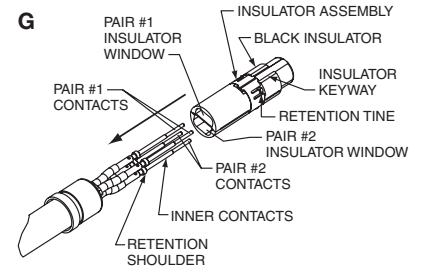


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 L-2119-HB
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2. Assemble inner contact over cable center conductor until fully seated against inner wire insulation. Observe center conductor through the contact's wire inspection hole, to make certain conductor is properly positioned.
 3. Crimp inner contact to center conductor using crimp tools listed in table on back. Repeat steps F2 and F3 until all inner contacts are crimped.
- G** 1. Observe the black insulator's keyway. When the inner pin assembly is held in the vertical position (with inner pin contacts on top), the inner pin contact terminated to the white wire should be inserted into the insulator cavity to the left of the insulator keyway and will be positioned at location #1 shown in the pin mating end view at completion of assembly (for inner socket contacts, the inner contact terminated to the white wire should be inserted into the insulator cavity to the right of the insulator keyway and will be positioned at location #1 shown in the socket mating end view).
 2. With inner contacts approximately aligned with the front insulator contact cavities (pair #1 inner contacts aligned with pair #1 insulator window, pair #2 inner contacts aligned with pair #2 insulator window), assemble front insulator over the inner contacts as shown, being careful to guide the inner contacts through the insulator cavities. The insulator must butt the crimp ferrule, and inner contact retention shoulders must click in front of the retention tines (Inner contacts will lock in place).
- H** 1. Align black insulator keyway with the outer contact's rivet key. Slide the inner contact assembly inside the outer contact body until fully seated. Observe the mating end of the assembly to make certain inner contacts #1 & #3 are in vertical alignment with the outer contact's orientation key.
 2. Crimp outer contact body in the area indicated using crimp tools listed in table below.

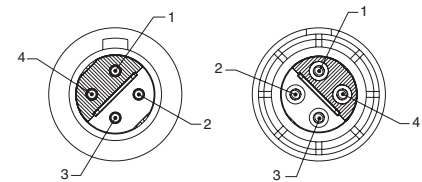


Amphenol Part Number	Description	Quadrax Cable Recommended	Inner Crimp Tools		Outer Crimp Tools	
			Tool (Setting)	Positioner	Tool	Die Set (Location)
21-033470-211	Quadrax Pin (100 Ohm)	PIC E10424 (100 Ohm)	M22520/2-01 (4)	Daniels K1777	M22520/5-01	Daniels Y1999 (A) or M22520/5-45 (A)
21-033471-211	Quadrax Socket (100 Ohm)					

Contact Insertion into Connector
 Contacts are inserted by hand. Insert the contact assembly into the proper rear grommet hole. Contact must be aligned with hole and not inserted at an angle. The contact's orientation key must be in vertical alignment with the connector's main key or keyway (holding contact key and connector key/keyway at "12 o'clock" orientation position is recommended). Push forward until contact is felt to snap into position within the insert. Contact may need to be slightly rotated to properly align contact orientation key with connector insert keyway. Gently tug on cable to assure retention. Slide piggyback grommet seal into position inside the connector grommet and over the crimped end of the contact.

Contact Removal from Connector
 Remove piggyback grommet seal from the connector grommet. Position removal tool part number MIL-I-81969/14-12, Daniels DRK-264-8, around cable and slide tool toward connector until tool tips enter rear grommet and comes to a positive stop on the contact. Grip cable and simultaneously remove tool, contact and cable.

SUGGESTED INNER CONTACT NUMBERING (MATING END SHOWN)



Amphenol Suggested Wiring		
Differential Pair	Inner ID	Wire Color
1	1	White
	4	Blue
2	2	Orange
	3	Green

Amphenol

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