# INSTALLATION INSTRUCTIONS

# 21-33019, 21-33020 AND 21-33061 SERIES PYGMY COAXIAL CONTACTS

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1. Cut cable to length prior to attaching contact assemblies. It is important that cable ends be cut clean and at right angles to axial plane of cable. Cable must not be deformed in making the cut.

2. Using a razor blade, trim cable outer sheath back from end according to dimension "X" in A of figure 1. Care must be exercised to prevent nicking outer braid.

3. Slide ferrule of contact (see figure 2) over cable outer braid and back along braid until it butts against outer sheath as shown in B of figure 1.

4. Cut braid off flush with edge of ferrule. A razor blade, small diagonal cutting pliers, scissors, or a fingernail clipper may be used for trimming the braid.

## CAUTION

Care must be exercised to prevent nicking or cutting the cable core during trimming operation.



Form L-633-4

Figure 1. Contact Assembly Steps.

				Ferrule Crimp Tools			x	
				MIL-T-22910/7-1	MIL-C-22520/5-01	MIL-C-22520/10-01	Stripping	
ł				Τοοί	Tool	Tool	Dimension	Retainer
Contact Part Number			Contact	Use With Die	Use With Die	Use With Die	Inch	Nut
Socket	Pin	Cable	Size	P/N and Closure	P/N and Closure	P/N and Closure	(A, Fig. 1)	Wrench
21-33019-1	21-33020-1	RG-59B/U	8L	M22910/7-18	M22520/5-45		7/8	11-8676-3
21-33019-3	21-33020-3	RG-62A/U	8S	В	В		13/16	
		RG-62B/U						
	ļ	RG-210/U						
21-33019-2	21-33020-2	RG-58C/U	8S	M22910/7-15	M22520/5-05	M22520/10-07	. 13/16	11-8676-2
		RG-141A/U		В	В	В	1	
	1	RG-303/U			M22520/5-09			
		1		1	A			
					M22520/5-41			
					В		·	
21-33019-4	21-33020-4	RG-178B/U	8	M22910/7-11	M22520/5-03	M22520/10-05	13/16	11-8676-3
21-33019-31	21-33020-31	RG-196A/U	125	в	В	В	3/4	11-8676-1
				1	M22520/5-33			
					В			1
21-33061-31*		1			l		L	L

TABLE I

TABLE 3	[ (Coi	at'o	1.)
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				Ferrule Crimp Tools			×	
Contact Part Number		Cable	Contact Size	MIL-T-22910/7-1 Tool Use With Die P/N and Closure	MIL-C-22520/5-01 Tool Use With Die P/N and Closure	MIL-C-22520/10-01 Tool Use With Die P/N and Closure	Stripping Dimension Inch (A, Fig. 1)	Retainer Nut Wrench
Socket	Pin 21-33020-32	RG-161/U	125	M22910/7-12	M22520/5-03	M22520/10-05	3/4	11-8676-1
21-33019-32	21-33020-32	RG-174A/U		В	A	A		1
	1	RG-179B/U			M22520/5-06			
		RG-187A/U	}		А			
	1	RG-188A/U	ļ		M22520/5-08			ł
		RG-316/U	ł		A			
					M22520/5-35			
		1			В			l

\*Socket contact 21-33061-31 is a split leaf open entry design which may be used with pin contact 21-33020-31 only.

5. Slide ferrule over outer sheath as shown in C of figure 1.

6. Position threaded nut (figure 2) on inner retainer. Then slide the retainer and nut assembly over cable core and under the braid as shown in C of figure 1. Rear portion of retainer should slide under braid far enough so there is approximately 1/64 inch gap between braid end and nut. Slide ferrule forward over the cable and crimp braid between ferrule and retainer using the applicable tool from Table I. Make certain nut turns freely after crimping.



Figure 2. Contact Part Identification.

7. Using a razor blade, trim cable core flush with front end of retainer as shown in D of figure 1. Extreme care must be exercised to prevent nicking the center conductor during cutting operation.

Note

The cable core should be trimmed 1/32" longer than the front end of the retainer on the 21-33020-31 and 21-33061-31 contacts.

8. In stall back insulator (figure 2) over back end of inner contact. See E of figure 1.

9. Trim center conductor to allow back insulator to butt against retainer when inner contact is installed.

10. Pretin inner contact wire well and the center conductor using rosin-alcohol flux and 60/40 tin-lead solder. Apply heat with a 47-1/2 watt soldering iron.

### Note

A pin vise should be used to hold inner contact during tinning and soldering operation.

Dip pre-tinned center conductor in 11. rosin-alcohol flux and start it in wire well of contact while simultaneously applying heat to outside of wire well, with a 47-1/2 watt soldering iron. As the solder liquefies, seat the conductor in the well. Continue heating until solder on conductor and in wire well is completely liquefied. Remove heat and maintain alignment of conductor and contact until solder solidifies. Allowing conductor or contact to move while solder is cooling through the plastic state, will result in crystallization and a weak solder joint. If additional solder is required, insert wire solder through hole in side of wire well and apply heat. Wipe solder from outside of wire well before it hardens.

#### CAUTION

Care must be exercised to prevent burning or scorching the teflon insulator during soldering operation.

12. Slide front insulator on center contact, large diameter first. Slide cable assembly into outer contact and thread the nut into rear of outer contact. See F of figure 1. Using the applicable \*11-8676 Wrench from Table I, torque nut to 30-36 ounce inches for size 8 contacts and 16-12 ounce inches for size 12 contacts.

\*The 11-8676 series wrench is made to adapt to any commercially available torque wrench that will register ounce inches by using a 7/16 inch drive socket.