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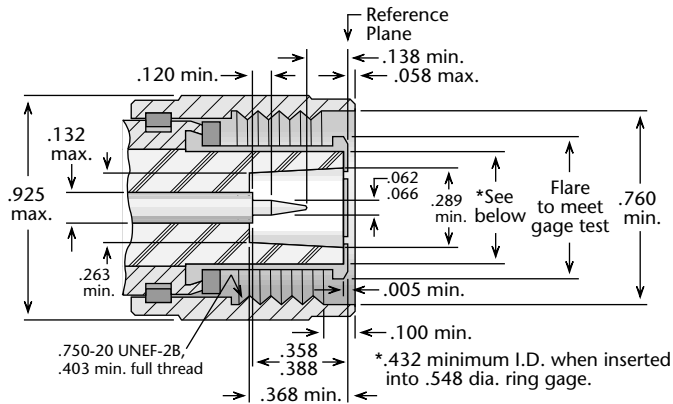
## **Technical Information**

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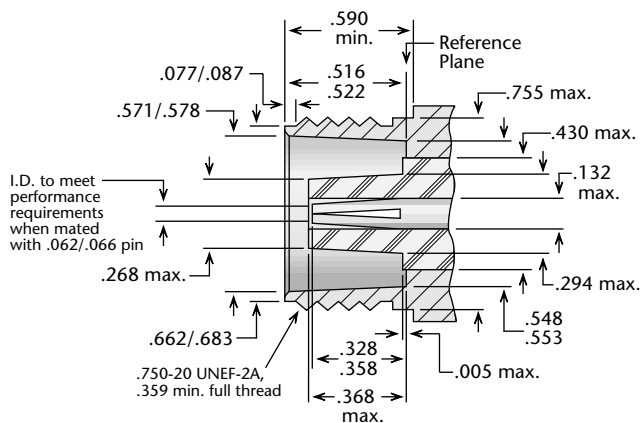


## HN Specifications\*

### Plug Interface\*\*



### Jack Interface\*\*



\*\*Some proportions altered to illustrate detail.

### Electrical:

**Nominal Impedance:** 50 ohms.  
**Frequency Range:** DC-4 GHz.  
**Voltage Rating:** 1,500 volts RMS.  
**Dielectric Withstanding Voltage:** 5,000 VRMS.  
**Insulation Resistance:** 5,000 megohms.

### Materials/Finishes:

**Insulators:** Teflon per ASTM D1710, or  
 Rexolite per MIL-P-77.

**Male Contacts:** Brass per ASTM B16.

**Female Contacts:** Beryllium Copper per  
 ASTM B196.

**Contact Plating:** Silver per QQ-S-365, or  
 Gold per MIL-G-45204.

**Gaskets:** Silicone rubber per ZZ-R-765,  
 Class II, Grade 50.

**Other Metal Parts:** Brass per ASTM B16, plated:  
 Silver per QQ-S-365, or  
 Nickel per QQ-N-290.

All other specifications are in accordance with the latest issues of MIL-PRF-39012, or MIL-C-3643, or other applicable MIL specifications, and interfaces are in accordance with MIL-STD-348.

\*These specifications are typical and may not apply to all connectors. Detailed specifications for individual connectors are available on request.



## Straight Plug—Military Clamp for Flexible Cable

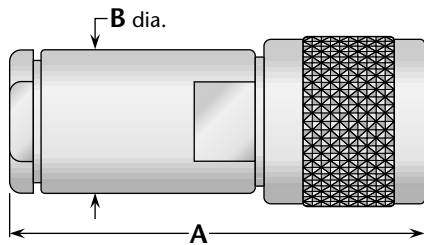


Figure 1

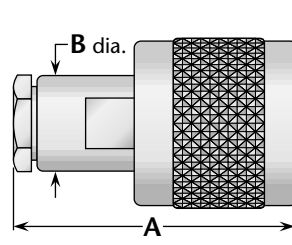


Figure 2

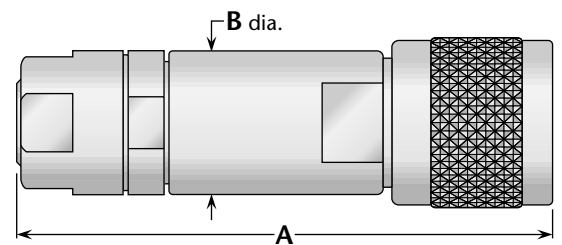


Figure 3 (Includes armor clamp)

Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
2, 3	1	2.38	.69	Nickel	Silver	UG-59B/U	***
2, 3	1	2.25	.75	Nickel	Silver	UG-59E/U	A/26
2, 3	1	2.81	.69	Nickel	Silver (C)	UG-1213/U	***
4	1	2.23	.75	Nickel	Silver (C)	1601-079-N001	***
5, 6	2	1.50	.50	Nickel	Silver	1601-015-N000	A/17
15	3	2.84	.75	Nickel	Silver	UG-925B/U	D/05
16	1	2.41	.88	Nickel	Silver	UG-494B/U	A/27
17	1	2.59	1.31	Nickel	Silver	UG-495D/U	A/28
17	3	3.53	1.31	Nickel	Silver	UG-1148/U	***
20	3	3.20	1.31	Nickel	Silver	UG-926A/U	D/06

## Right Angle Plug—Military Clamp for Flexible Cable

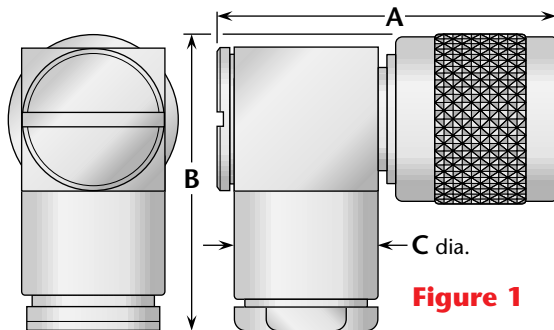


Figure 1

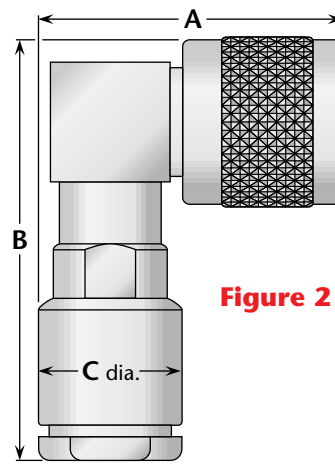


Figure 2

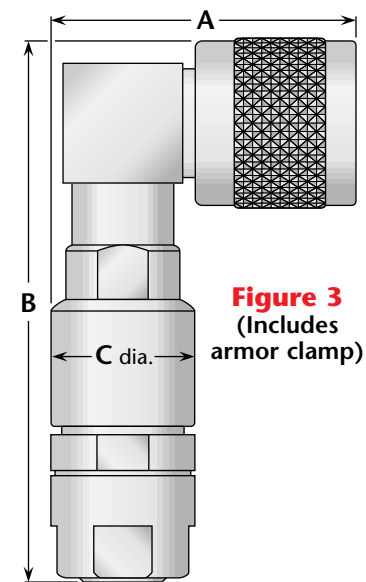
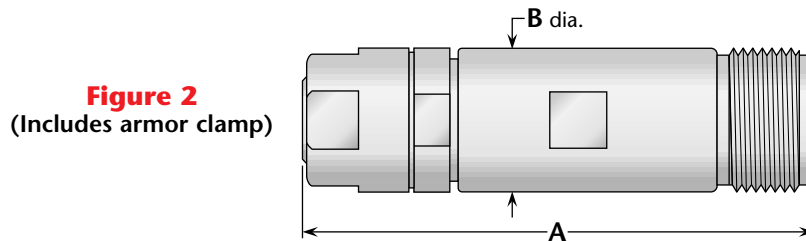
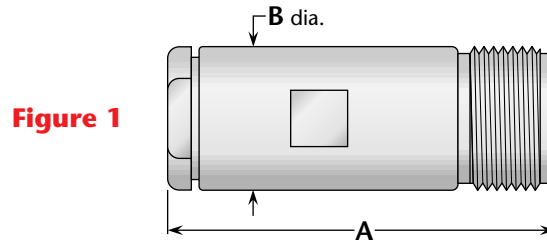


Figure 3  
(Includes armor clamp)

Cable Group	Figure	Dimensions			Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	C	Body	Contact		
2, 3	1	1.73	1.63	.75	Nickel	Silver (C)	1605-004-N001-2	A/29
2, 3	2	1.53	2.25	.69	Nickel	Silver (C)	1604-004-N001	***
2, 3	2	1.56	2.48	.75	Nickel	Silver	1604-005-N000	A/27
4	2	1.56	2.48	.75	Nickel	Silver (C)	1604-079-N001-1	***
15	3	1.56	3.05	.75	Nickel	Silver	1604-006-N000	D/05

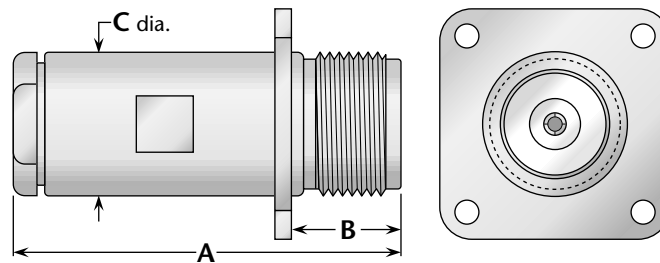
\*\*\*Contact factory for cable assembly instructions. • (C) in contact plating column indicates captive contact.

## Straight Jack—Military Clamp for Flexible Cable



Cable Group	Figure	Dimensions		Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	Body	Contact		
2, 3	1	2.53	.69	Nickel	Silver	UG-60B/U	***
2, 3	1	2.03	.75	Nickel	Silver	UG-60E/U	A/26
2, 3	1	2.94	.69	Nickel	Silver (C)	UG-1214/U	***
15	2	2.63	.75	Nickel	Silver	UG-927B/U	D/05
17	1	2.53	1.31	Nickel	Silver	UG-333C/U	A/28

## Panel Jack—Military Clamp for Flexible Cable

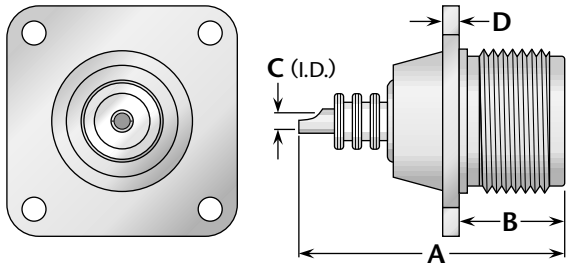


Cable Group	Fig.	Dimensions			Mounting Figure	Plating		Delta P/N	Assembly Procedure/ Trim Code
		A	B	C		Body	Contact		
2, 3	1	2.53	.59	.69	40	Nickel	Silver	UG-61B/U	***
2, 3	1	2.03	.59	.75	40	Nickel	Silver	UG-61E/U	A/26
2, 3	1	2.03	.59	.75	36	Nickel	Silver	UG-427C/U	A/26

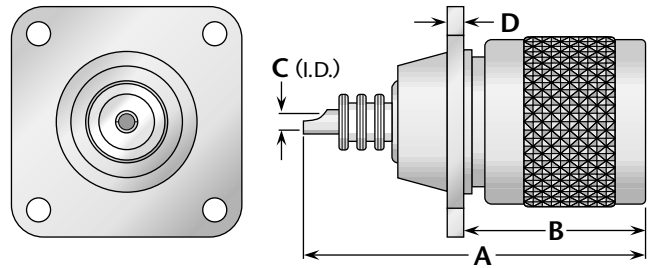
(C) in contact plating column indicates captive contact. • \*\*\*Contact factory for cable assembly instructions.

# HN Receptacles/Accessories

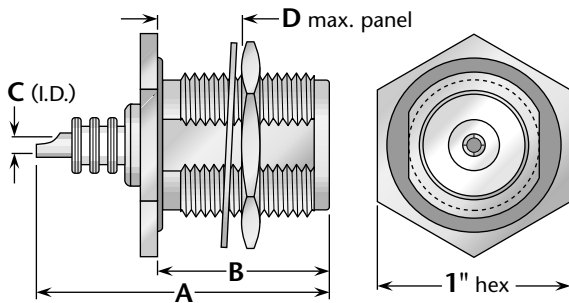
## Panel and Bulkhead Receptacles



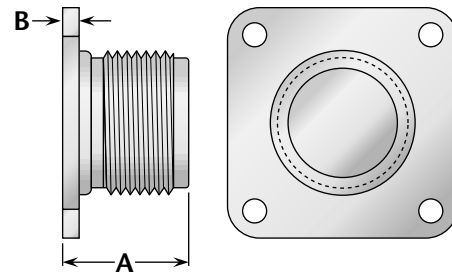
**Figure 1**  
(Panel jack receptacle)



**Figure 2**  
(Panel plug receptacle)



**Figure 3**  
(Bulkhead jack receptacle)

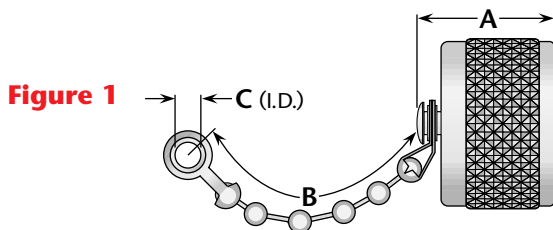


**Figure 4**  
(Dummy receptacle)

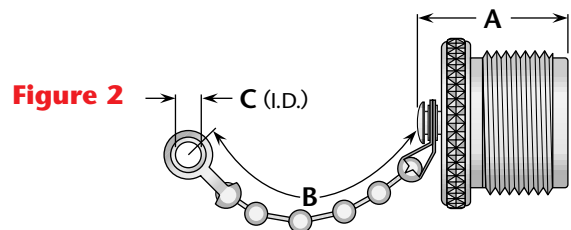
Figure	Dimensions				Mounting Figure	Plating		Delta P/N
	A	B	C	D		Body	Contact	
1	1.50	.59	.106	.080	40	Nickel	Silver (C)	UG-496/U
2	1.88	.94	.106	.080	40	Nickel	Silver (C)	1623-000-N401
3	1.55	.89	.106	.25	69	Nickel	Silver (C)	1621-000-N691
4	.875	.125	—	—	34*	Nickel	—	1663-000-N340

\* Except mounting holes are .120 diameter.

## Dust Caps



**Figure 1**

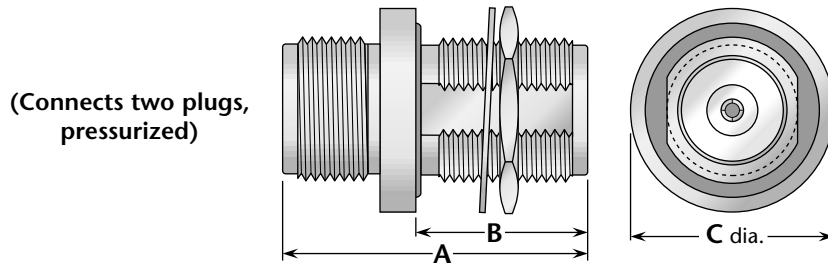


**Figure 2**

Figure	Dimensions			Features	Plating		Delta P/N
	A	B	C		Body	Contact	
1	.70	3.50	.144	Bead chain	Nickel	—	1632-000-N000
2	.70	3.50	.144	Bead chain	Nickel	—	1633-000-N000

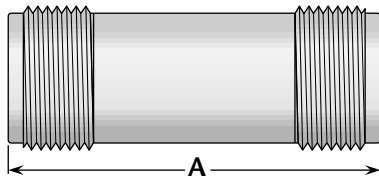
(C) in contact plating column indicates captive contact. • Dust caps available with other chain styles and lengths.

## Bulkhead Jack-Jack Adapter

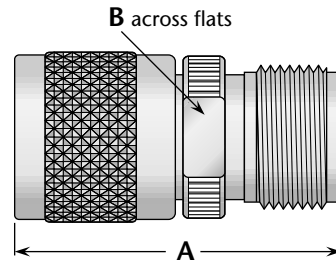


Dimensions			Max. Panel	Mounting Figure	Plating		Delta P/N
A	B	C			Body	Contact	
1.94	1.06	1.06	.25	69	Nickel	Silver (C)	UG-1019A/U

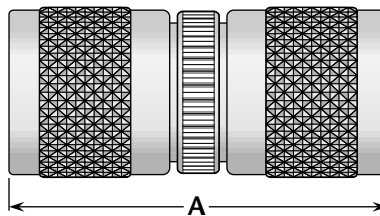
## Straight Adapters



**Figure 1**  
(Straight jack-jack;  
connects two plugs)



**Figure 2**  
(Straight plug-jack; connects one  
plug and one jack)



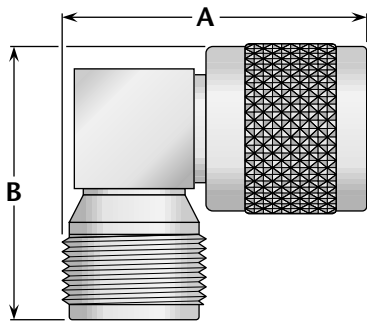
**Figure 3**  
(Straight plug-plug;  
connects two jacks)

Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	2.00	—	Nickel	Silver (C)	1628-000-N000
2	1.63	.75	Nickel	Silver (C)	1634-000-N001
3	1.94	—	Nickel	Silver (C)	1627-000-N000

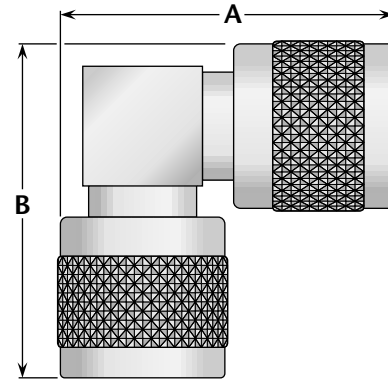
(C) in contact plating column indicates captive contact.



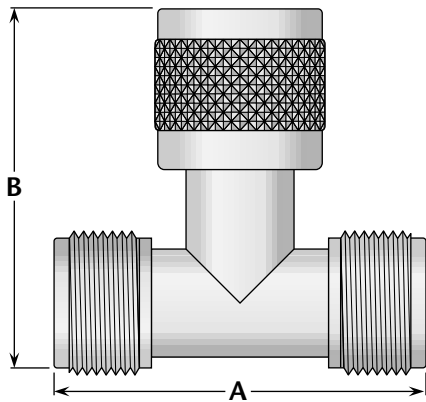
## Right Angle and Tee Adapters



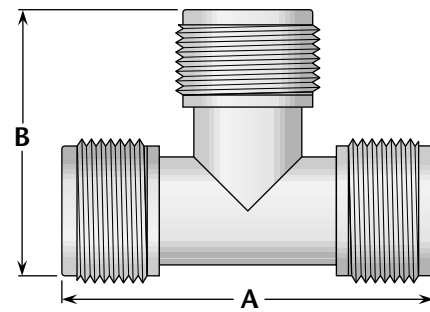
**Figure 1**  
(Right angle jack-plug; connects one plug and one jack)



**Figure 2**  
(Right angle plug-plug; connects two jacks)



**Figure 3**  
(Tee jack-plug-jack; connects two jacks and one jack)



**Figure 4**  
(Tee jack-jack-jack; connects three plugs)

**Figure 5**  
(Tee plug-jack-plug; connects two jacks and one plug)

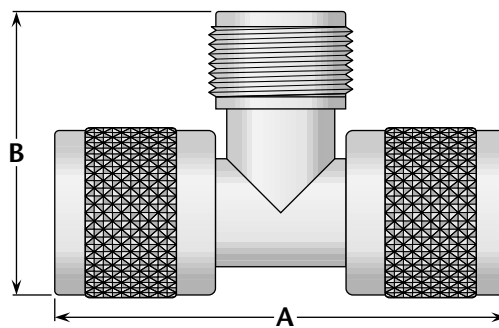
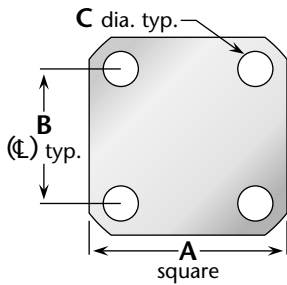


Figure	Dimensions		Plating		Delta P/N
	A	B	Body	Contact	
1	1.50	1.38	Nickel	Silver (C)	UG-212C/U
2	1.63	1.63	Nickel	Silver (C)	1637-000-N000
3	1.94	1.88	Nickel	Silver (C)	1630-000-N000
4	1.94	1.28	Nickel	Silver (C)	1638-000-N000
5	2.33	1.50	Nickel	Silver (C)	UG-1109/U

(C) in contact plating column indicates captive contact.

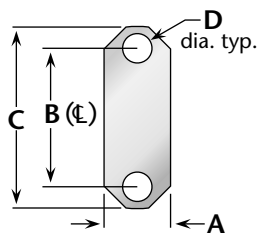
## Connector Flanges (Panel mounted connectors)



### 4-hole flanges

Figure	A	B	C
04	1/2	.360	.089
05	1/2	.340	.102
07	11/16	.500	#3-56 tap
08	11/16	.500	.136
09	11/16	.500	.125
10	11/16	.500	.120
12	11/16	.500	.109
18	3/4	.531	.136
26	1	.718	#6-32 tap
27	1	.718	#4-40 tap
30	1	.718	.166
32	1	.718	.136
32A	1	.718	.136*
33	1	.718	.125
34	13/32	.812	.150
36	13/16	.906	#6-32 tap
39	13/16	.906	.152
40	13/16	.906	.125
45	2	1.437	.257
91	.375	.250	.067
91A	.375	.232	.093

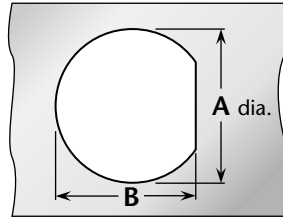
\* Countersunk to .245 dia.



### 2-hole flanges

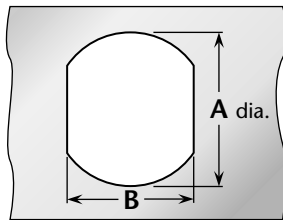
Figure	A	B	C	D
92	.223	.481	.625	.102
92A	.260	.481	.625	.102
95	.640	1.015	1.30	.125

## Panel Cutouts (Bulkhead mounted connectors)



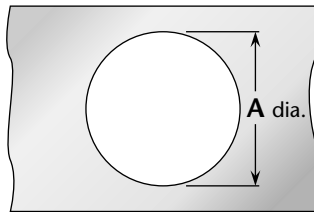
### D-Hole

Figure	A	B
51	.755	.723
54	.630	.598
55	.630	.583
57	.557	.531
59	.505	.473
62	.442	.410
63	.407	.362
65	.380	.348
66	.319	.292
67	.255	.236
68	.195	.176



### Double D-Hole

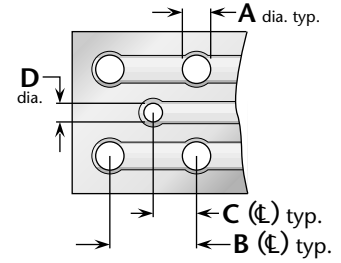
Figure	A	B
69	.755	.692
72	.630	.536
75	.380	.341
84	.319	.278



### Round Hole

Figure	A
82	.255
89	.380

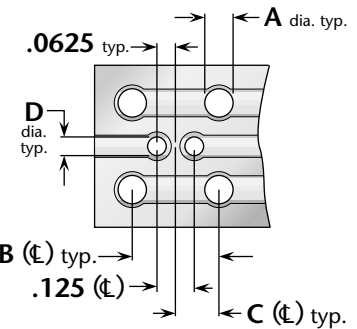
## P.C. Board Drilling



(PCB traces are shown for illustrative purpose only, and are not representative of actual circuitry.)

### Coaxial connectors

Figure	A	B	C	D
PCB01	.067	.400	.200	.045
PCB02	.045	.500	.250	.045
PCB03	.067	.300	.150	.035
PCB05	.067	.200	.100	.055
PCB06	.067	.200	.100	.045
PCB07	.045	.177	.088	.045
PCB08	.032	.100	.050	.032



(PCB traces are shown for illustrative purpose only, and are not representative of actual circuitry.)

### Twiax connectors

Figure	A	B	C	D
PCB04	.045	.500	.250	.045

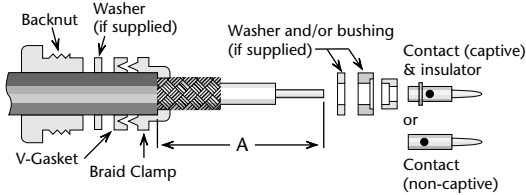
# Cable Groups

Cable Group Finder			
Cable	Group	Cable	Group
RG-5, 5A, B	1A	RG-225	3C
RG-6, 6A	1B	RG-228A	20
RG-8, 8A	2A	RG-302	22
RG-9, 9A, B	3A	RG-303	23
RG-10	15	RG-304	24
RG-11, 11A	2B	RG-316	9A
RG-12	15	RG-316DS	10
RG-13A	3B	RG-393	4
RG-14A	16	RG-400	6A
RG-17A	17	RG-401	12
RG-18A	18	RG-402	13
RG-21, 21A	1A	RG-405	14
RG-22, 22A, B	28	M17/2	1B
RG-55, 55B	6B	M17/6	2B
RG-55A	6A	M17/15	28
RG-58, 58A, C	5	M17/28	5
RG-59, 59A, B	7A	M17/29	7A
RG-62, 62A, B, C	7A	M17/30	7A
RG-71, 71A, B	7B	M17/45	27
RG-108, 108A	27	M17/73	1A
RG-115A	19	M17/162	1A
RG-118A	20	M17/112	1C
RG-122	8A	M17/74	2A
RG-126	21	M17/75	3A
RG-141, 141A	5	M17/127	3C
RG-142, 142A	6A	M17/77	3B
RG-142B	6B	M17/60	6A
RG-143, 143A	1C	M18/84	6A
RG-174	9A	M17/128	6A
RG-174DS	10	M17/97	7A
RG-178, 178A, B	11	M17/54	8A
RG-179A, 179B	9B	M17/95	8B
RG-180, 180A, B	8B	M17/137	8B
RG-187, 187A	9B	M17/152	9A
RG-188, 188A	9A	M17/93	11
RG-195	8B	M17/129	12
RG-196, 196A	11	M17/130	13
RG-210	7A	M17/133	14
RG-212	1C	M17/78	16
RG-213	2A	M17/165	16
RG-214	3A	M17/176	30
RG-215	15	AT&T 735A	31
RG-217	16	Belden 8281	26
RG-218	17	Belden 9207	29
RG-219	18	Dearborn 6207	29
RG-222	1C	IBM 7362211	29
RG-223	6A		

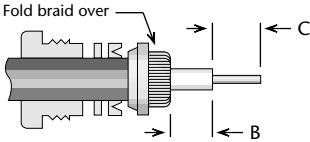
Delta Cable Groups	
Group	Cables
1	1A RG-5, 5A, 5B, 21, 21A; M17/73, /162
	1B RG-6, 6A; M17/2
	1C RG-143, 143A, 212, 222; M17/73, /112, /162
2	2A RG-8, 8A, 213; M17/74
	2B RG-11, 11A; M17/6
3	3A RG-9, 9A, 9B, 214; M17/75
	3B RG-13A, 216; M17/77
	3C RG-225; M17/127
4	RG-393; M17/127
5	RG-58, 58A, 58C, 141, 141A; M17/28, /111
6	6A RG-55A, 142, 142A, 223, 400; M17/60, /84, /128
	6B RG-55, 55B, 142B; M17/60, /84
7	7A RG-59, 59A, 59B, 62, 62A, 62B, 62C, 210; M17/29, /30, /97
	7B RG-71, 71A, 71B; M17/90
8	8A RG-122; M17/54
	8B RG-180, 180A, 180B, 195; M17/95, /137
9	9A RG-174, 188, 188A, 316; M17/152
	9B RG-179A, 179B, 187, 187A; M17/94, /136
10	Double-Shielded RG-174, 316; M17/152
11	RG-178, 178A, 178B, 196, 196A; M17/93
12	.250" semi-rigid; RG-401; M17/129
13	.141" semi-rigid; RG-402; M17/130
14	.085" semi-rigid; RG-405; M17/133
15	RG-10, 12, 215; M17/6, /74
16	RG-14A, 217; M17/78, /165
17	RG-17A, 218
18	RG-18A, 219
19	RG-115A
20	RG-118A, 228A
21	RG-126
22	RG-302
23	RG-303
24	RG-304
25	Special 8X cable; contact factory for details.
26	Belden 8281
27	RG-108, 108A; M17/45
28	RG-22, 22A, 22B; M17/15
29	Belden 9207; Dearborn 6207; IBM 7362211
30	M17/176
31	AT&T 735A

## Assembly Procedure A

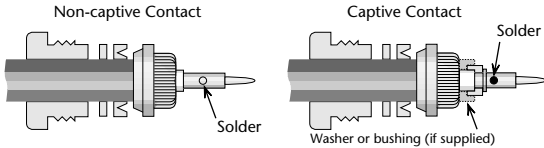
- 1)** Trim cable jacket to dimension A. Slide backnut, washer, V-gasket, and braid clamp onto cable as shown. Cable jacket should bottom on step in braid clamp.



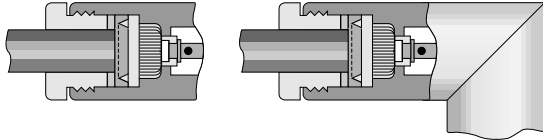
- 2)** Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with step of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.



- 3)** If support insulator is provided for RG-62 or 71 cable, insert into hollow in dielectric. Assemble rear bushing or washer (if supplied), rear insulator (if captive contact) and contact, and solder contact to center conductor. Rear of contact should be flush with cable dielectric end. For right angle connectors with access cap, omit this step entirely.



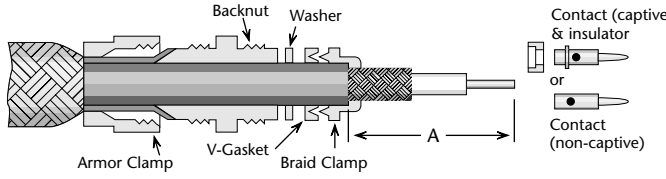
- 4)** Insert prepared cable and hardware into body and tighten backnut. For right angle connectors with access cap, solder center conductor into slot in contact and tighten access cap.



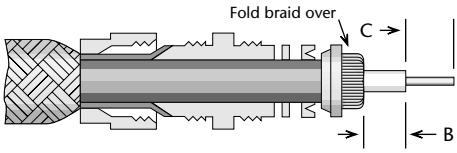
### Trim Codes For Assembly Procedure A

Code	A	B	C	Code	A	B	C
A/01	.375 (3/8)	.047 (3/64)	.203 (13/64)	A/20	.375 (3/8)	.047 (3/64)	.172 (11/64)
A/02	.375 (3/8)	.109 (7/64)	.203 (13/64)	A/21	.500 (1/2)	.313 (5/16)	.172 (11/64)
A/03	.438 (7/16)	.250 (1/4)	.188 (3/16)	A/22	.375 (3/8)	.188 (3/16)	.141 (9/64)
A/04	.281 (9/32)	.047 (3/64)	.125 (1/8)	A/23	.438 (7/16)	.078 (5/64)	.172 (11/64)
A/05	.313 (5/16)	.125 (1/8)	.109 (7/64)	A/24	.500 (1/2)	.094 (3/32)	.141 (9/64)
A/06	.594 (19/32)	.391 (25/64)	.156 (5/32)	A/25	.438 (7/16)	.141 (9/64)	.172 (11/64)
A/07	.375 (3/8)	.047 (3/64)	.125 (1/8)	A/26	.625 (5/8)	.281 (9/32)	.250 (1/4)
A/08	.281 (9/32)	.109 (7/64)	.094 (3/32)	A/27	.688 (11/16)	.281 (9/32)	.125 (1/8)
A/09	.344 (11/32)	.109 (7/64)	.094 (3/32)	A/28	.656 (21/32)	.297 (19/64)	.250 (1/4)
A/10	.406 (13/32)	.109 (7/64)	.203 (13/64)	A/29	.688 (11/16)	.125 (1/8)	.313 (5/16)
A/11	.500 (1/2)	.281 (9/32)	.156 (5/32)	A/30	.688 (11/16)	.469 (15/32)	.156 (5/32)
A/12	.343	.040	.219	A/31	.700 (21/32)	.453 (29/64)	.250 (1/4)
A/13	.375 (3/8)	.125 (1/8)	.156 (5/32)	A/32	.313 (5/16)	.078 (5/64)	.188 (3/16)
A/14	.355	.090	.188 (3/16)	A/33	.250 (1/4)	.078 (5/64)	.094 (3/32)
A/15	.425	.094 (3/32)	.259	A/34	.250 (1/4)	.062 (1/16)	.109 (7/64)
A/16	.328 (21/64)	.094 (3/32)	.188 (3/16)	A/35	.837	.575	.150
A/17	.375 (3/8)	.109 (7/64)	.125 (1/8)	A/36	.450	.250	.150
A/18	.375 (3/8)	.062 (1/16)	.172 (11/64)	A/37	.281	.038	.188
A/19	.375 (3/8)	.188 (3/16)	.094 (3/32)	A/38	.281	.069	.156

## Assembly Procedure D

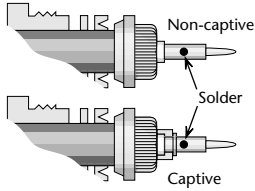


**1)** Slide armor clamp over cable. Push armor back to expose cable end. Slide backnut, washer (if supplied), gasket, and braid clamp onto cable as shown. Cable jacket should bottom on step in braid clamp. Trim cable jacket to dimension A.

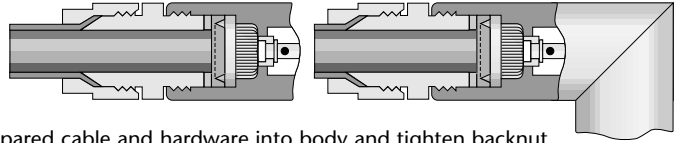


**2)** Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with edge of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.

Trim Codes			
Code	A	B	C
D/01	.375 (3/8)	.047 (3/64)	.250 (1/4)
D/02	.500 (1/2)	.188 (3/16)	.219 (7/32)
D/03	.344 (11/32)	.047 (3/64)	.219 (7/32)
D/04	.313 (5/16)	.047 (3/64)	.172 (11/64)
D/05	.625 (5/8)	.281 (9/32)	.250 (1/4)
D/06	.313 (5/16)	.062 (1/16)	.109 (7/64)



**3)** Assemble rear insulator (if captive contact) and contact, and solder contact to center conductor. Rear of contact should be flush with cable dielectric end.



**4)** Insert prepared cable and hardware into body and tighten backnut. Trim armor to fit between armor clamp and braid clamp. Tighten armor clamp.