



C Connectors

ONLINE CATALOG

Contents CLICK ON ANY LINE TO GO DIRECTLY TO THE INDICATED PAGE Cable Connectors Right Angle Cable Plugs......5 Receptacles Panel Plug Receptacles......8 Accessories **Technical Information**

Online Catalog Navigation Guide

We have configured this online catalog to take advantage of Acrobat navigation shortcuts (links). However, these links are not visible on the pages— making them visible would compromise the page's readability.

- Clicking on any entry in the Table of Contents will take you to the indicated page.
- Shown below are the "hot spots" on all of the product pages that will take you to background information on various connector characteristics.
- After you use a link to jump to another page, you can use the "back" arrow in Acrobat's menu bar to return to the page you jumped from.
- Configure Acrobat Reader to show bookmarks for a table of contents by specific characteristic (for example, cable plugs broken out by cable attachment method).
- To find a specific part number, use Acrobat's search feature.

In addition, the pages are formatted to fit within the margins of standard laser or inkjet printers—no need to use the "shrink to fit" option when printing pages from Acrobat.

Click here to go to the Table of Contents

Click on the Delta logo on any page to jump to the table of contents.

Click on the page title to jump to specifications and interface dimensions.



DELTA ELECTRONICS MANUFACTURING

BNC Cable Jacks

Panel Jack—Military Clamp for Flexible Cable C dia. B

Figure 1

C dia.

Figure 2

	Cable	Fig.	Dimensions		Mounting		Plating		Delta P/N	Assembly Procedure/	
	Group Fig.		A	В	C	Figure		Body	Contact	Delta I / N	Trim Code
	1	1	1.75	.63	.75		33	Nickel	Silver	1011-001-N330	A/20
	2, 3	1	1.75	.63	.75		33	Nickel	Silver	1011-004-N330	A/20
I	5, 6	2	1.16	.55	.50		07	Nickel	Silver	UG-291C/U	A/ 17

Click here to jump to dimensions for Delta mounting figures.

Click here to jump to the cable assembly procedure for this connector.

Click here to jump to information on alternate body plating.

Click here to jump to a guide to Delta cable groups.

Click here to go to Delta's website if your computer is configured for Web connection via Acrobat.

General Description

Delta C series connectors are medium-size, 50Ω impedance connectors with two-stud bayonet coupling and good power handling capability, particularly those connectors noted as high-voltage types. They are best suited for use with cables in the range of .350" to .450" diameter, but are available for other cables from .100" to over 1"

diameter. Our extensive line of C receptacles includes configurations for virtually any packaging requirement, and we can supply any adapter or accessory you need to complete your system design.

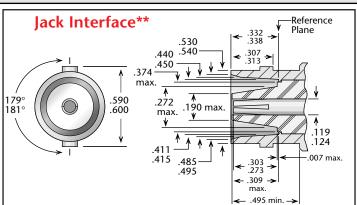
As with our other connector series, Delta's *customer-driven design* results in C series connectors with practical and unique features that make your design and assembly process easier. Some of these include:

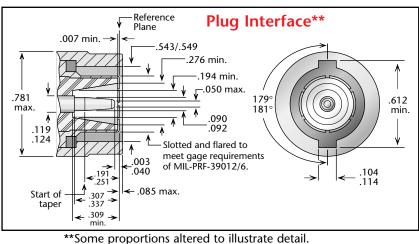
- High-voltage types for high-power applications.
- Cable plugs and jacks for armored cables.

Our C series product line is still growing, so please call if you don't see what you need.

For adapters between C and other series, download the document *DeltaABS.pdf* from our website.

C Specifications*





Electrical:

Nominal Impedance: 50 ohms.

Frequency Range: DC-11 GHz (standard);

DC-2 GHz (high-voltage).

Voltage Rating: 1,000 volts RMS (standard);

3,000 volts RMS (high-voltage).

Dielectric Withstanding Voltage: 3,000 VRMS. Insulation Resistance: 5,000 megohms.

Materials/Finishes:

Insulators: Teflon per ASTM D1710.

Male Contacts: Brass per ASTM-B-16.

Female Contacts: Beryllium Copper per

ASTM-B-196.

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-A-55339, 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.



About Delta's Customer-Driven Design

At Delta, *Customer-Driven Design* isn't just a catchy slogan. It means that we make RF connectors that help you build your products efficiently, quickly, and cost-effectively. Because we design for *your* needs, nobody else can offer you such a broad line of standard connectors, along with an ever-growing list of innovative, user-friendly design variations like those detailed on these pages.

These featured connector technologies grew out of real-world requirements, and have saved our customers untold hours and dollars over the years. And there are thousands of other special connector designs we've produced that we don't have space to include in this catalog.

So if you don't see the exact connector configuration you need, please call us—we may have already made it. If not, we'll work with you to provide the the connectors you need, with the best price/performance balance in the business, and with quality and delivery that will enhance your products and production schedules.

Plating Options for Economy and Performance

(Albaloy or nickel—available for all connector series except SMA)

Silver plating has long been standard on RF connectors with brass bodies, but its high cost and low corrosion resistance make it less than ideal in most applications. Nickel plating is less expensive and more durable than silver, and is standard on many of our connectors.

However, in some applications, nickel plating can introduce unwanted intermodulation distortion, particularly on large size connectors. For these applications, we offer optional Albaloy plating, a tin/zinc/copper composite with a bright white finish, the corrosion resistance of nickel, and the low intermodulation distortion of silver plating.

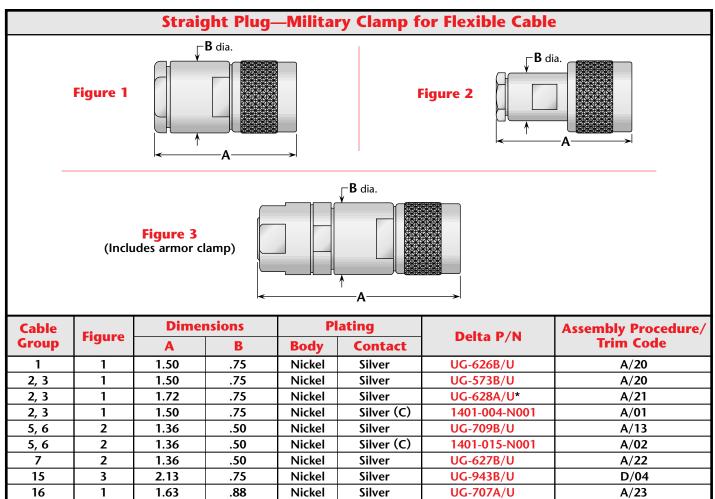
Albaloy plating has the same composition as, and is fully compatible with, other commercial platings designated Sucoplate[®], IP-23, White Bronze, and Tri-Alloy.

To order a Delta connector with plating other than the listed finish, substitute **A**, **N**, or **Q** in the Delta part number as below:

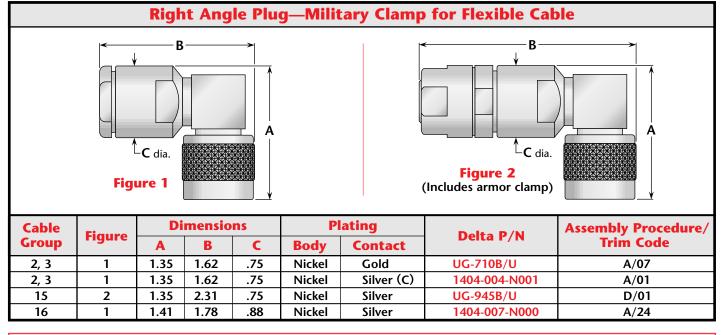
For silver plating: 1111-111-A111. For nickel plating: 1111-111-N111. For Albaloy plating: 1111-111-Q111.

Note: M39012 and M55339 QPL connectors can only be supplied with the specified plating. SMA connectors with stainless-steel bodies are available

with gold plating or passivated finish.

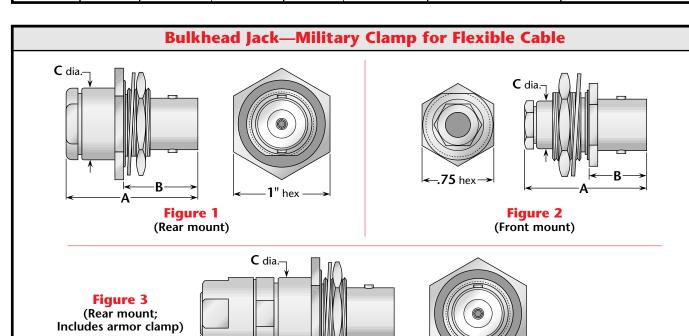


* High-voltage type.





Cable	Figure	Dimensions		Pl	ating	Delta P/N	Assembly Procedure/	
Group	rigure	A	В	Body	Contact	Deita P/N	Trim Code	
1	1	1.41	.75	Nickel	Silver	UG-633A/U	A/20	
2, 3	1	1.41	.75	Nickel	Silver	UG-572A/U	A/20	
2, 3	1	1.41	.75	Nickel	Silver (C)	1408-004-N001	A/01	
15	2	2.00	.75	Nickel	Silver	UG-944A/U	D/04	

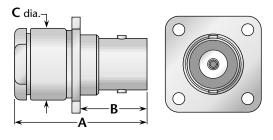


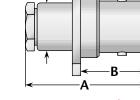
Cable	Eia	Dimensions		Mounting	Max.	Plating		Delta P/N	Assembly Procedure/	
Group	Fig.	A	В	C	Figure	Panel	Body	Contact	Delta P/N	Trim Code
1	1	1.41	.75	.75	51	.125	Nickel	Silver	UG-630A/U	A/20
2, 3	1	1.41	.75	.75	51	.125	Nickel	Silver	UG-570A/U	A/20
2, 3	1	1.72	.75	.75	51	.125	Nickel	Silver	UG-632A/U*	A/21
2, 3	1	1.41	.75	.75	51	.125	Nickel	Silver (C)	1416-004-N511	A/01
5, 6	2	1.25	.59	.50	54	.190	Nickel	Silver	UG-704B/U	A/25
7	2	1.25	.59	.50	54	.190	Nickel	Silver	UG-631A/U	A/22
15	3	2.00	.75	.75	51	.125	Nickel	Silver	UG-937A/U	D/04

-**1**" hex

^{*} High-voltage type.

Panel Jack—Military Clamp for Flexible Cable





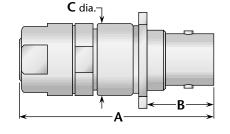
C dia.¬



Figure 2

Figure 1

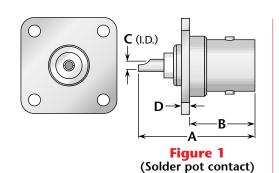
Figure 3 (Includes armor clamp)

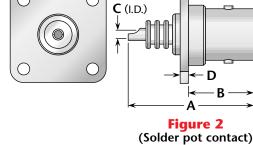


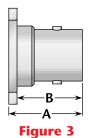


Cable	Fig.	Dimensions		ns	Mounting	Plating		Delta P/N	Assembly Procedure/
Group	rig.	Α	В	C	Figure	Body	Contact	Deita P/N	Trim Code
1	1	1.41	.69	.75	26	Nickel	Silver	UG-629A/U	A/20
2, 3	1	1.41	.69	.75	26	Nickel	Silver	UG-571A/U	A/20
2, 3	1	1.41	.69	.75	26	Nickel	Silver (C)	1411-004-N261	A/01
5, 6	2	1.28	.67	.50	26	Nickel	Silver	1411-015-N260	A/25
15	3	2.00	.69	.75	26	Nickel	Silver	UG-938A/U	D/04

Panel Jack Receptacle—Square Flange





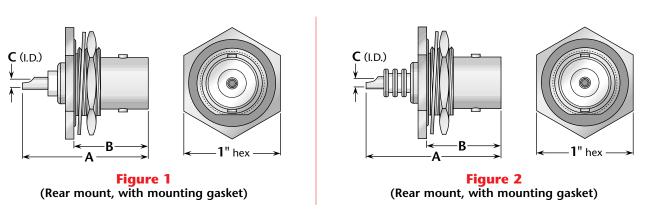


2 (Dummy receptacle)

Figure	Dimensions			Mounting	Pl	lating	Delta P/N	
Figure	A	В	C	D	Figure	Body	Contact	Deita P/N
1	1 1.06 .67		.106	.080	26	Nickel	Silver (C)	UG-568/U
1	1.06	6 .67 .1		.080	33	Nickel	Silver (C)	1413-000-N331
2	1.31	.67	.106	.080	33	Nickel	Gold (C)	1413-000-N331-1*
3	.740	.080	_	_	33	Nickel	_	1463-000-N330

^{*} High-voltage type.





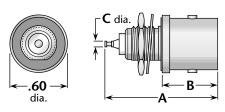
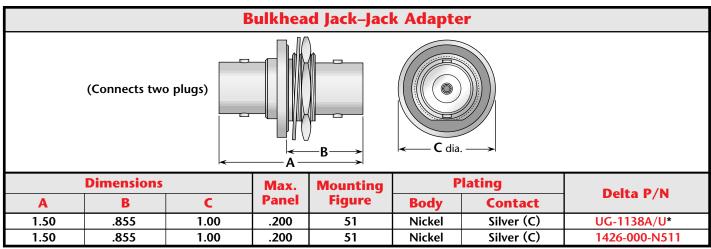
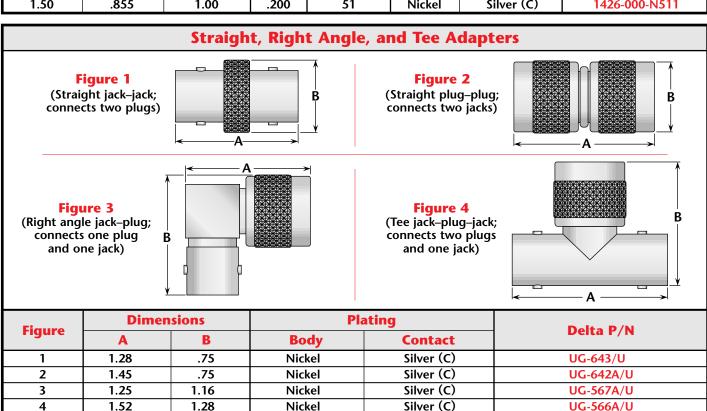


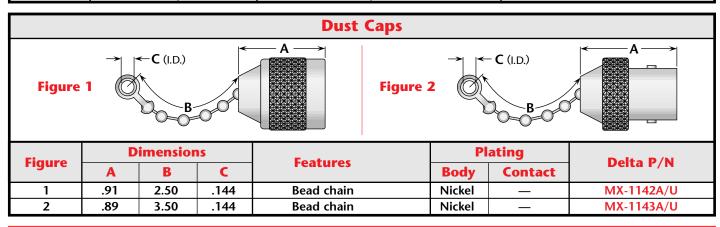
Figure 3 (Front mount, with mounting gasket)

Figure .		Dimension	S	Max.	Mounting	Plating		Dolto D/N
Figure	A	В	C	Panel	Figure	Body	Contact	Delta P/N
1	1.06	.75	.106	.125	51	Nickel	Silver (C)	UG-569A/U
2	1.32	.75	.106	.125	51	Nickel	Silver (C)	UG-634/U*
3	1.10	.58	.061	.125	65	Nickel	Silver (C)	UG-706A/U

^{*} High-voltage type.



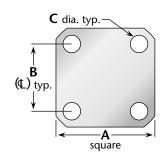






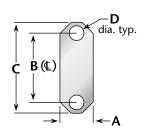
Connector Flanges

(Panel mounted connectors)



4-hole flanges								
Figure	A	В	0					
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.

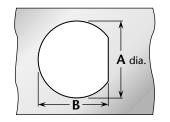


2-hole flanges

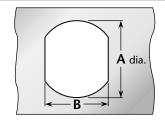
Figure	A	В	C	D
92	.223	.481	.625	.102
92A	.260	.481	.625	.102
95	.640	1.015	1.30	.125

Panel Cutouts

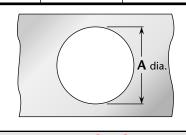
(Bulkhead mounted connectors)



D-Hole							
Figure	Α	В					
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					

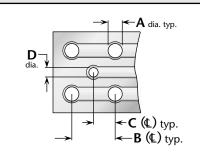


Double D-Hole							
Figure	Α	В					
69	.755	.692					
72	.630	.536					
75	.380	.341					
84	.319	.278					



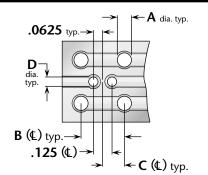
Round Hole					
Figure	A				
82	.255				
89	.380				

P.C. Board Drilling



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

Coaxial connectors								
Figure	A	В	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.)

lwinax connectors						
Figure	A	В	C	Q		
PCB04	.045	.500	.250	.045		



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				
	0, 1	<u> </u>			

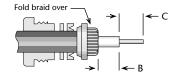
	Delta Cable Groups					
Gr	Group Cables					
	1A RG-5, 5A, 5B, 21, 21A; M17/73, /162					
1 1B 1C		RG-6, 6A; M17/2				
		RG-143, 143A, 212, 222; M17/73, /112, /162				
2A		RG-8, 8A, 213; M17/74				
2 ZB		RG-11, 11A; M17/6				
3A 3 3B		RG-9, 9A, 9B, 214; M17/75				
		RG-13A, 216; M17/77				
	3C	RG-225; M17/127				
	4	RG-393; M17/127				
	5	RG-58, 58A, 58C, 141, 141A; M17/28, /111				
	6A	RG-55A, 142, 142A, 223, 400; M17/60, /84, /128				
6	6B	RG-55, 55B, 142B; M17/60, /84				
_	7A	RG-59, 59A, 59B, 62, 62A, 62B, 62C, 210; M17/29, /30, /97				
7	7B	RG-71, 71A, 71B; M17/90				
	8A	RG-122; M17/54				
8	8B	RG-180, 180A, 180B, 195; M17/95, /137				
9	9A	RG-174, 188, 188A, 316; M17/152				
9	9В	RG-179A, 179B, 187, 187A; M17/94, /136				
10		Double-Shielded RG-174, 316; M17/152				
1	11	RG-178, 178A, 178B, 196, 196A; M17/93				
1	12	.250" semi-rigid; RG-401; M17/129				
1	13	.141" semi-rigid; RG-402; M17/130				
1	14	.085" semi-rigid; RG-405; M17/133				
1	15	RG-10, 12, 215; M17/6, /74				
1	16	RG-14A, 217; M17/78, /165				
1	17	RG-17A, 218				
1	18	RG-18A, 219				
	19	RG-115A				
	20	RG-118A, 228A				
_ 2	21	RG-126				
<u> </u>	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				
_2	29	Belden 9207; Dearborn 6207; IBM 7362211				
_ 3	30	M17/176				
31		AT&T 735A				

A

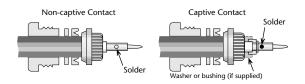
Assembly Procedure A

 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.

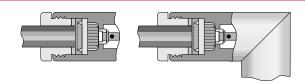
- Backnut Washer (if supplied) Washer and/or bushing (if supplied) Contact (captive) & insulator or or Contact (non-captive)
- **2)** Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with 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.

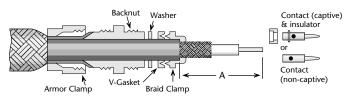


4) Insert prepared cable and hardware into body and tighten backnut. For right angle connectors with access cap, solder center conductor into slot in contact and tighten access cap.

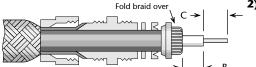


	Trim Codes For Assembly Procedure A							
Code	Α	В	С	П	Code	Α	В	С
A/01	.375 (3/8)	.047 (3/64)	.203 (13/64)	1 [A/20	.375 (3/8)	.047 (3/64)	.172 (11/64)
A/02	.375 (3/8)	.109 (7/64)	.203 (13/64)	1 [A/21	.500 (1/2)	.313 (5/16)	.172 (11/64)
A/03	.438 (7/16)	.250 (1/4)	.188 (3/16)	1 [A/22	.375 (3/8)	.188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

Assembly Procedure D

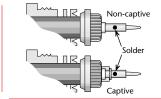


1) Slide armor clamp over cable. Push armor back to expose cable end. Slide backnut, washer, gasket, and braid clamp onto cable as shown. Cable jacket should bottom on step in braid clamp. Trim cable jacket to dimension A.

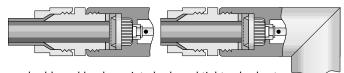


2) Comb braid wires out straight and fold back over front shoulder of braid clamp (braid wires should not overlap one another after folding). Trim braid wires flush with edge of braid clamp. Trim cable dielectric and center conductor to dimensions B and C.

Trim Codes						
Code	Α	В	С			
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.

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