Introduction

The ITT Cannon range of SMZ connectors are extensively used in 75Ω communication systems and have become the recognised standard in telecommunications in many parts of the world.

Designed around the requirements of BS 9210 F0022 and draft specifications CECC 122 300, a wide range of connectors featuring some of the latest innovations are now available.

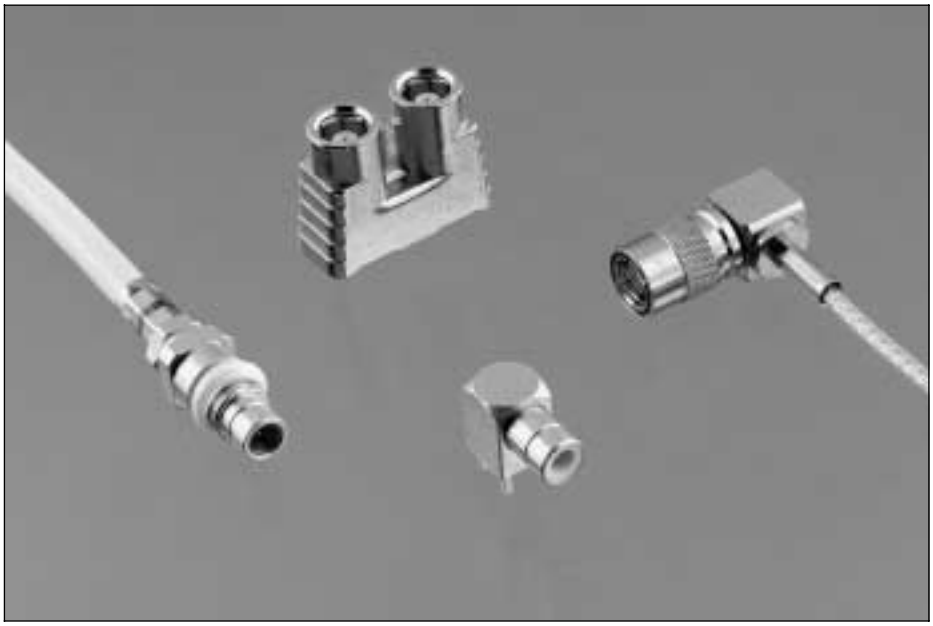
The **new** ITT Cannon developed QT™ (Quick Termination) technique for terminating coaxial cables to connectors is a feature of this range. The QT connector provides a high performance termination of the center conductor, without the use of crimp or solder tooling and reduces termination time significantly.

The range also offers the popular Posi-Lock™ locking connector together with recently developed PCB connectors that are a snap fit to the board, overcoming the need for jigging and possible re-work.

A full range of connectors for use with HDC and BT TEP 1E racking systems are available.

SMZ Connectors feature:

- Styles to suit most popular 75Ω coaxial cables
- Center contact termination using crimp, solder or the **new** QT™ termination method to reduce installed costs
- Performance in accordance with BS 9210 F0022 and CECC 122 300 (Draft at the time of this publication)
- Available for BT standard and HDC distribution frames
- Gold Plated contact surfaces
- Locking options prevent accidental disconnection, or ease of disconnection for testing
- ''Teplock'' mounting reduces the time needed for fitting to DDFs



Choice of Three Latching Styles

ITT Cannon 75Ω connectors employ three forms of latching mechanism. Standard types have a snap-on mechanism permitting easy push-on, pull-off. Posi-Lock plugs mate with all jacks but employ a sliding latch mechanism.

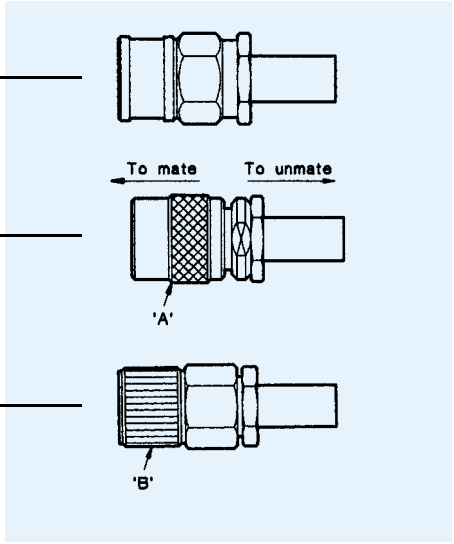
1) Snap-On
There are no external moving parts on either jack or plug. To connect push plug onto jack until retaining mechanism snaps together. To disconnect pull firmly on plug body.

2) Posi-Lock
The knurled, nickel plated sleeve 'A' locks the connector. This is released by pushing the sleeve forward when connecting and pulling the sleeve back when disconnecting.

3) Screw-Lock
To connect push plug onto jack until retaining mechanism snaps together. Then rotate the knurled, nickel plated nut 'B' clockwise to lock. Disconnection is the reverse of this sequence.

In addition to the three latching styles described, ITT Cannon also supplies a number of screw-on (75Ω SMC) connectors. Please contact ITT Cannon Technical Sales for details.

Screw-Lock jacks and plugs use the basic snap-on engagement with the addition of a finger operated locking nut. Both Posi-Lock and Screw-Lock provide security against accidental disconnection.



ITT Cannon

Dimensions are shown in mm (inch)
Dimensions subject to change

Specifications

ELECTRICAL	Impedance	75 Ω nominal
	Frequency Range	0 to 3.0 GHz
	Working Voltage (dc or ac peak)	At sea level, inner conductor to shell = 500 V
	Proof Voltage (dc or ac peak)	At sea level = 1500 V
	Insulation Resistance	5 GΩ minimum
	Contact Resistance*	Center contact: 5.0 mΩ maximum. Outer contact: 1.0 mΩ maximum
	Reflection Coefficient	Refer to CECC122300
	Current Rating	1.5 A dc maximum
MECHANICAL	Engagement Forces	All snap-on, Screw-Lock & Posi-Lock styles except U Links = 60 N (13.5 lbs.) maximum U Links (reduced force snap-on) = 40 N (9 lbs.) maximum
	Separation Forces	All snap-on, Screw-Lock & Posi-Lock styles except U Links = 60 N (13.5 lbs.) max, 8 N (1.8 lbs.) min. U Links (reduced force snap-on) = 40 N (9 lbs.) maximum, 20 N (4.5 lbs.) minimum
	Posi-Lock Latch withstand Pull	220 N (50 lbs.)
	Contact and Insulator Retention	21 N (4.7 lbs.)
	Materials	Body components: Copper or zinc alloy. Center contacts (male/female): Copper alloy. Insulators: PTFE or thermoset plastic. Crimp ferrules: Annealed copper alloy
	Finish/Plating	Center contacts: Gold. Outer contacts: Gold. Other metal parts: Nickel, tin/lead or zinc
ENVIRONMENTAL	Vibration Severity	(a) Frequency range: 10 Hz to 500 Hz. (b) Displacement**: 0,75 (.029). (c) Acceleration**: 98 m/s² (321 ft./s²). (d) Duration: 6 hours. ** Cross over at approx. 60 Hz
	Shock Severity	490 m/s² for 11 ms
	Impact Severity (free specimens only)	5 impacts at 1 m
	Climatic Catagory	40/100/21
	Bump	4000 total at 390 m/s²
	Free Fall (U Link only)	BS2011: Part 2.1 Ed. Procedure 2. Severity: 50 falls
GENERAL	Connector Durability	250 matings minimum

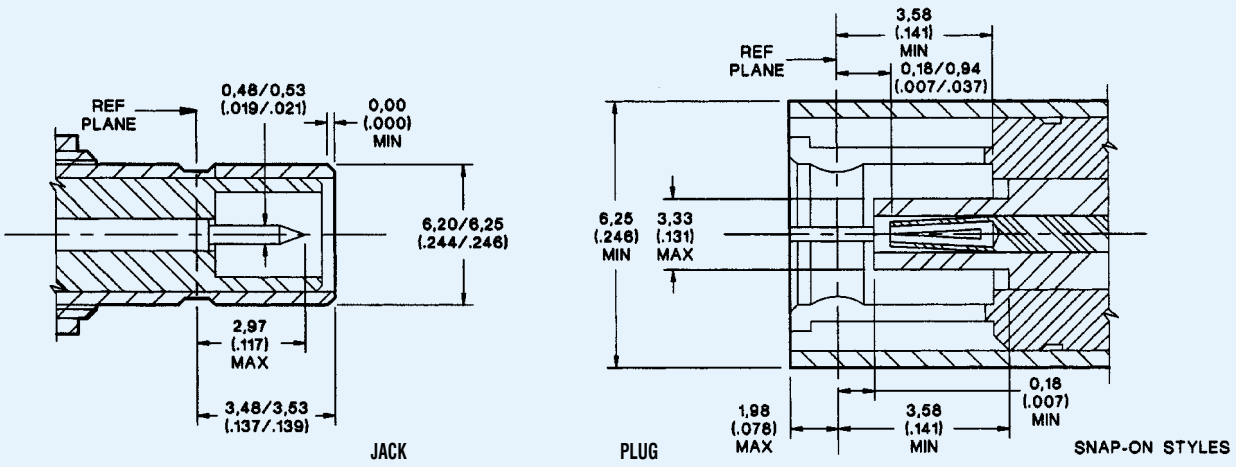
*Except U Link connectors. See BS9210 F0022 for details.

NOTES

[1] Values in this specification are typical for this range. Specific connectors may vary.

[2] ITT Cannon's 75 ohm coaxial connnectors are designed to meet or exceed the requirements of BS9210 F0022 where applicable. This specification will be superseded by CECC 122 300 and the details listed above are subject to change without notice to comply with changes in these specifications.

Mating Interfaces



Plugs

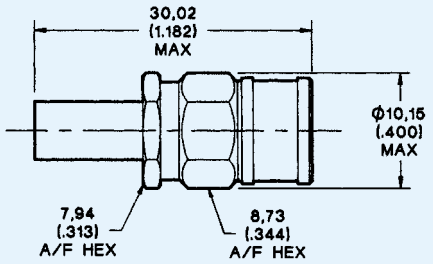
Straight Plug, Snap-On

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-124-9569A90	SKT43/1E	BT2001
051-124-9579A90	SKT43/2E	BT2002
051-124-9589A90	SKT43/3E	BT2003
051-124-9649A90	SKT43/5E	BT3002, TZC75024
051-124-9599A90	–	RG179B/U, 187A/U

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-124-9269A90	SKT43/1A	BT2001
051-124-9279A90	SKT43/2A	BT2002
051-124-9289A90	SKT43/3A	BT2003
051-124-9349A90	–	BT3002, TZC75024
051-124-9129A90	–	RG59/U, 62/U, 140/U
051-124-9309A90	SKT43/4A	RG179B/U, 187A/U
051-124-0000A90	–	RG180/U, 195A/U
051-124-9399A90	–	RD179



Crimp Contact — Assembly Instruction BBAI-1119 (Page 133)
Solder Contact — Assembly Instruction BBAI-1040 (Page 131)

Straight Plug, Posi-Lock

With QT Contact (packed in trays of 25)

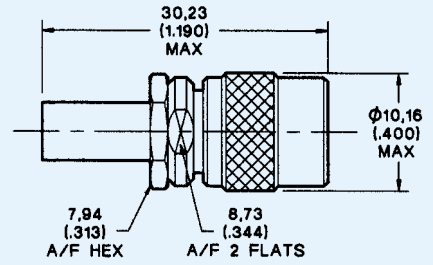
Part Number	Replaces BT Ref.	Cable Numbers
U51-124-953991A	S43/3F & 3B	BT2003
U51-124-963991A	S43/5F	BT3002, TZC75024

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-124-9519910	SKT43/1F	BT2001
051-124-9529910	SKT43/2F	BT2002
051-124-9539910	SKT43/3F	BT2003
051-124-9639910	SKT43/5F	BT3002, TZC75024
051-124-9669S9A	–	RG59B/U
051-124-9549910	–	RG179B/U, 187A/U

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-124-9219910	SKT43/1B	BT2001
051-124-9229910	SKT43/2B	BT2002
051-124-9239910	SKT43/3B	BT2003
051-124-9339910	–	BT3002, TZC75024
051-124-9139A90	–	RG59/U, 62/U, 140/U
051-124-9249910	SKT43/4B	RG179B/U, 187A/U
051-124-9499910	–	RD179

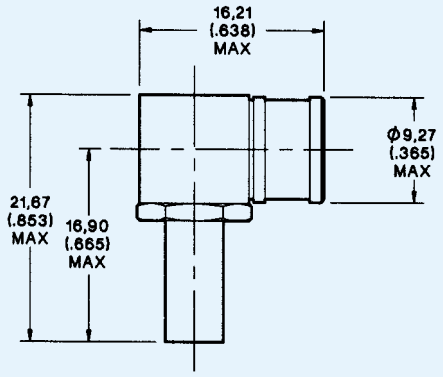


QT™ Contact — Assembly Instruction BBAI-1238 (Page 138)
Crimp Contact — Assembly Instruction BBAI-1119 (Page 133)
Solder Contact — Assembly Instruction BBAI-1040 (Page 131)

Plugs

Right Angle Plug, Snap-On

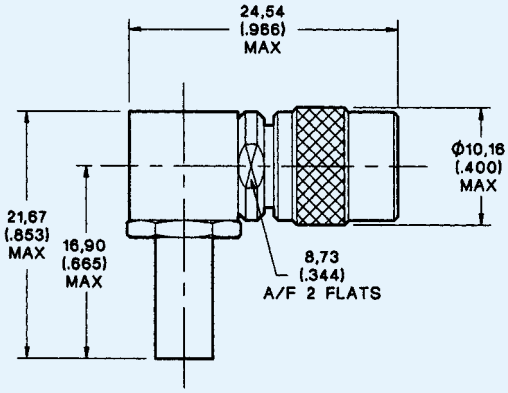
Part Number	BT Ref.	Cable Numbers
051-128-9369910	SKT43/1D	BT2001
051-128-9379910	SKT43/2D	BT2002
051-128-9389910	SKT43/3D	BT2003
051-128-9639910	SKT43/5D	BT3002, TZC75024
051-128-9299910	–	RG59/U, 62/U, 140/U
051-128-9409910	SKT43/4D	RG179B/U, 187A/U
051-128-9511910	–	RG180/U, 195A/U



Assembly Instruction BBAI-1041 (Page 132)

Right Angle Plug, Posi-Lock

Part Number	BT Ref.	Cable Numbers
051-128-9219910	SKT43/1C	BT2001
051-128-9229910	SKT43/2C	BT2002
051-128-9239910	SKT43/3C	BT2003
051-128-9339910	SKT43/5C	BT3002, TZC75024
051-128-9159910	–	RG59/U, 62/U, 140/U
051-128-9249910	SKT43/4C	RG179B/U, 187A/U



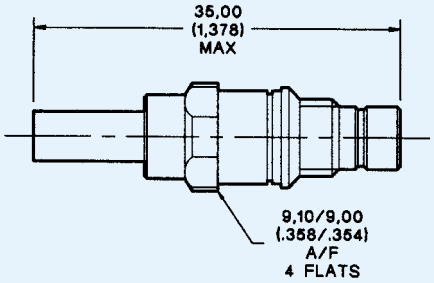
Assembly Instruction BBAI-1041 (Page 132)

Teplock DDF Cable Jacks

DDF JACKS MAY BE REMOVED FROM THE FRAME USING ITT CANNON TOOL T4653

With QT™ Contact (packed in trays of 25)

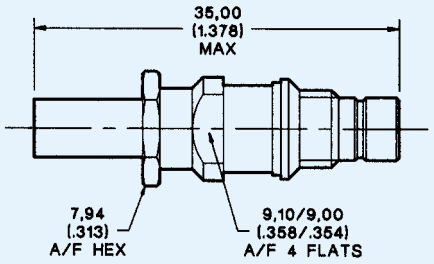
Part Number	Replaces BT Ref.	Cable Numbers
W51-127-9439A9A	P43/3GTI, 3G & 3C	BT2003
W51-127-9459A9A	P43/5GTI, 5G & 5C	BT3002, TZC75024



Assembly Instruction BBAI-1238 (Page 138)

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-127-9419A90	P43/1GTI	BT2001
051-127-9429A90	P43/2GTI	BT2002
051-127-9439A90	P43/3GTI	BT2003
051-127-9459A90	P43/5GTI	BT3002, TZC75024
051-127-9449A90	–	RG179B/U, 187A/U

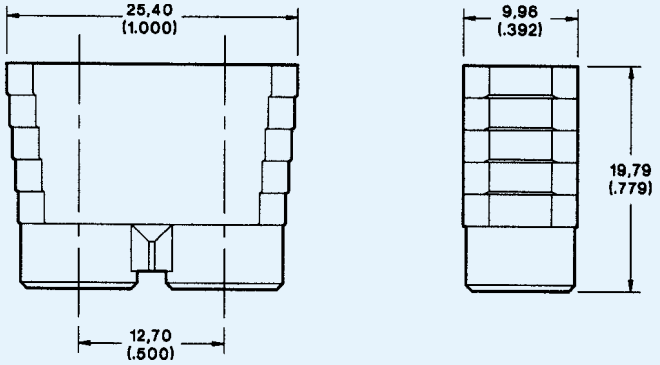


Assembly Instruction BBAI-1119 (Page 133)

Coaxial Links

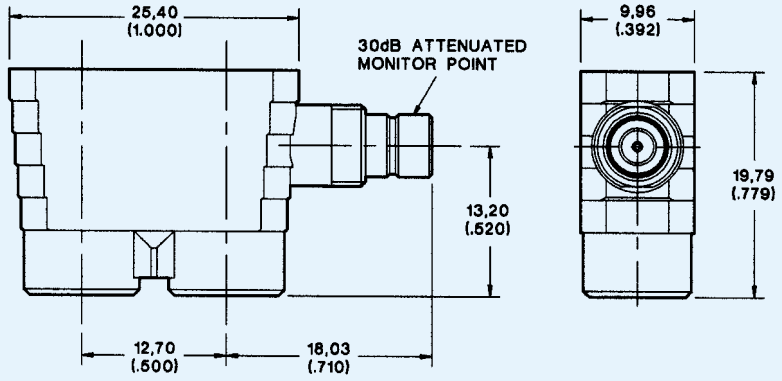
Link

Part Number	BT Ref.
055-181-9079AZ0	LINK 13A



Test Port Link 30 dB

Part Number	BT Ref.
055-181-9119AZ0	LINK 13B



THE CONNECTORS ON THIS PAGE ARE FOR USE WITH TEP1E FRAME DISTRIBUTION 6000 AND 6003 OR SIMILAR.

Bulkhead Jacks

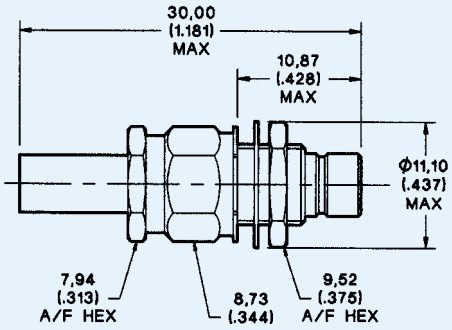
Straight Bulkhead Jack

With Crimp Contact

Part Number	BT Ref.	Cable Numbers
051-127-9519A90	PLUG43/1F	BT2001
051-127-9529A90	PLUG43/2F	BT2002
051-127-9539A90	PLUG43/3F	BT2003
051-127-9639A90	PLUG43/5F	BT3002, TZC75024
051-127-9589A90	–	RG179B/U, 187A/U

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-127-9219A90	PLUG43/1A	BT2001
051-127-9229A90	PLUG43/2A	BT2002
051-127-9239A90	PLUG43/3A	BT2003
051-127-9339A90	–	BT3002, TZC75024
051-127-9309A90	PLUG43/4A	RG179B/U, 187A/U
051-127-0000A90	–	RG180/U, 195A/U
051-127-9399A90	–	RD179

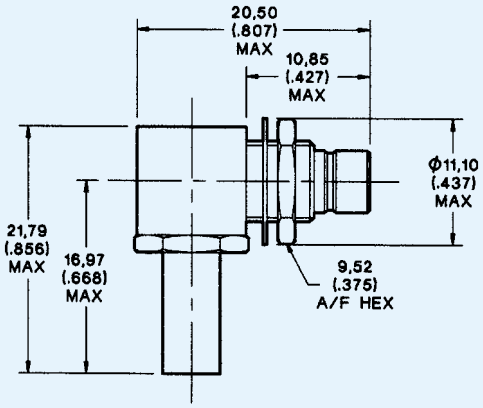


Crimp Contact — Assembly Instruction BBAI-1119 (Page 133)
Solder Contact — Assembly Instruction BBAI-1040 (Page 131)
Mounting Plan X (Page 109)
Maximum Panel Thickness 2,40 (.094)

Right Angle Bulkhead Jack

With Solder Contact

Part Number	BT Ref.	Cable Numbers
051-130-9219A90	PLUG43/1B	BT2001
051-130-9229A90	PLUG43/2B	BT2002
051-130-9239A90	PLUG43/3B	BT2003
051-130-9339A90	PLUG43/5B	BT3002, TZC75024
051-130-9309A90	PLUG43/4B	RG179B/U, 187A/U
051-130-9399A90	–	RD179

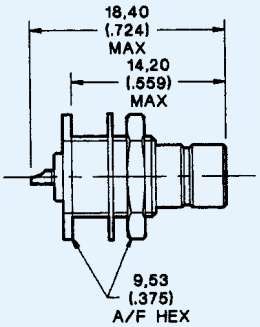


Assembly Instruction BBAI-1041 (Page 132)
Mounting Plan N (Page 108)
Maximum Panel Thickness 2,40 (0.94)

Bulkhead Jacks

Straight Bulkhead Jack, Solder Pot, Rear Mounted

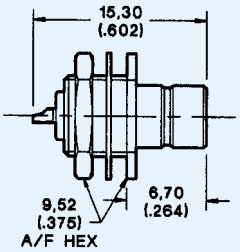
Part Number
051-143-9039220



Mounting Plan X (Page 109)
Maximum Panel Thickness 2,40 (.094)

Straight Bulkhead Jack, Solder Pot, Front Mounted

Part Number
051-145-0000A90

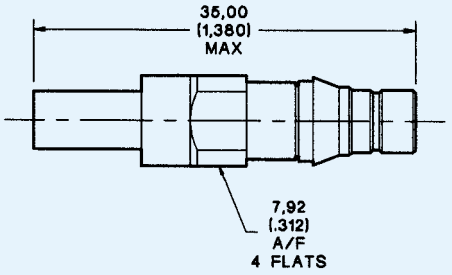


Mounting Plan X (Page 109)
Maximum Panel Thickness 2,40 (.094)

Teplock High Density DDF Cable Jacks

With QT™ Contact (packed in trays of 25)

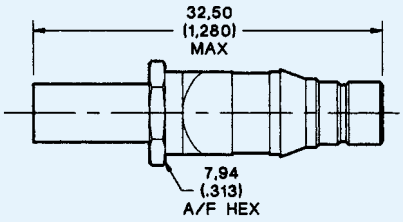
Part Number	Cable Numbers
W51-127-9929A9A	BT2003
W51-127-9909A9A	BT3002, TZC75024



Assembly Instruction BBAI-1238 (Page 138)

With Crimp Contact

Part Number	Cable Numbers
051-127-9929A90	BT2003
051-127-9909A90	BT3002, TZC75024
051-127-9919A90	RG179B/U, 187A/U

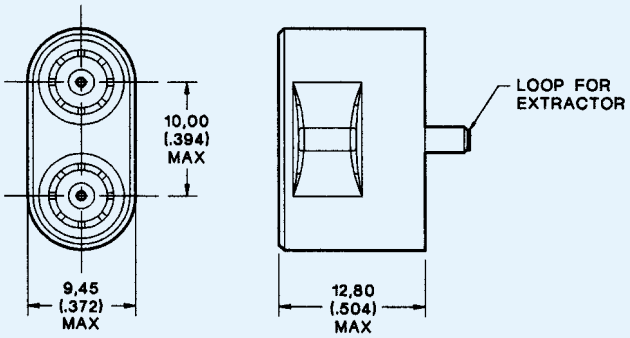


Assembly Instruction BBAI-1119 (Page 133)

High Density Coaxial Links

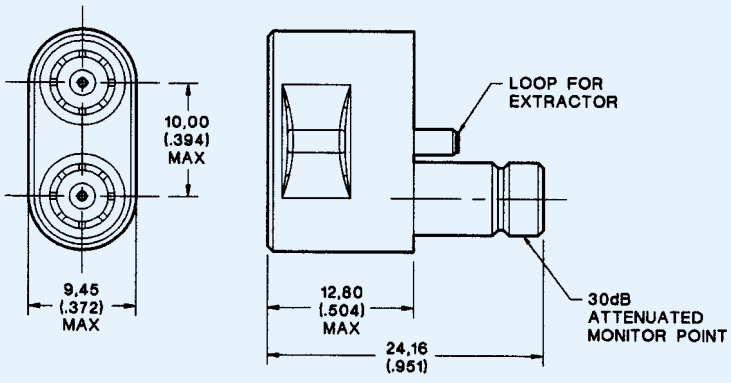
Link

Part Number	BT Ref.
055-181-9129AZ0	LINK 10A



Test Port Link 30 dB

Part Number	BT Ref.
055-181-9139AZ0	LINK 10B



The Combination Extractor T4825 may be used for the removal of the above jacks and links. (See Page 140)

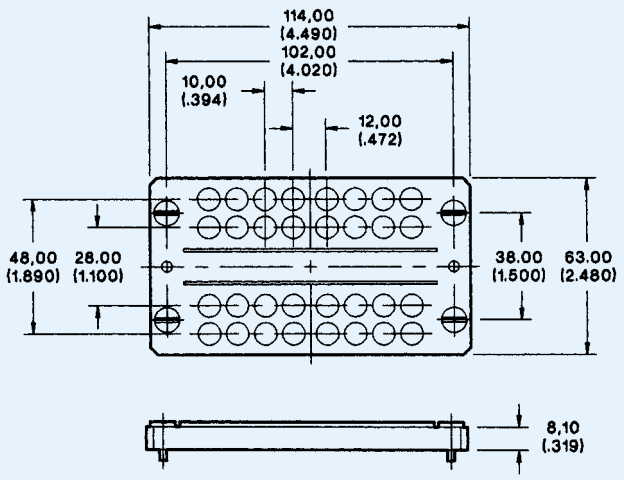
THE CONNECTORS ON THIS PAGE ARE SUITABLE FOR USE WITH MOUNTING BLOCK A0023351 OR OTHER HDC (HIGH DENSITY) DISTRIBUTION FRAMES.

High Density Mounting Panel

Part Number
A0023351

Includes captive screws for simplified mounting.

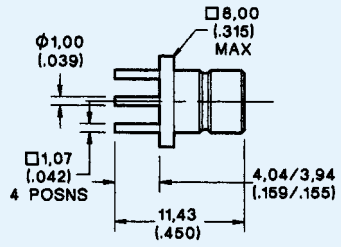
Holes are spaced in groups of 4 on a 10 mm (.393 in.) pitch. Adjacent groups are spaced to avoid accidental linking between groups.



Printed Circuit Board Connectors

Straight PCB Jack

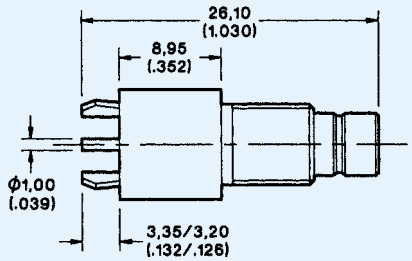
	Part Number	BT Ref.
Single Piece	051-151-9019A90	PLUG43/1D
Tray Packed (100)	051-151-9019A9A	PLUG43/1D



Mounting Plan A (Page 108)

Straight Bulkhead PCB Jack

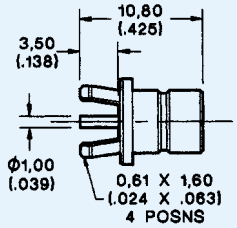
	Part Number
Tray Packed (100)	051-151-9079A9A
Panel Mounting Hardware Kit	A0023384



Mounting Plan A (Page 108)

Straight PCB Jack with Board Retaining Legs

	Part Number
Tray Packed (100)	051-151-9099A9A

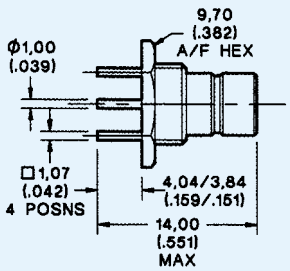


Mounting Plan A (Page 108)

Straight Screw-Lock PCB Jack

	Part Number
Single Piece	051-151-9029A90
Tray Packed (100)	051-151-9029A9A

Refer to page 49 for Screw-Lock plugs.

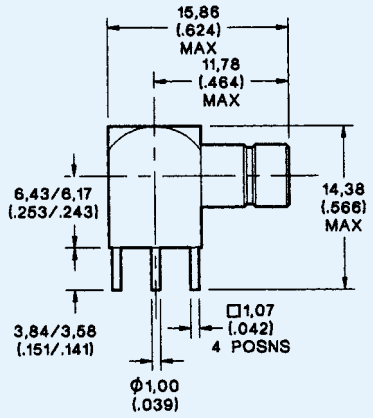


Mounting Plan A (Page 108)

Printed Circuit Board Connectors

Right Angle PCB Jack

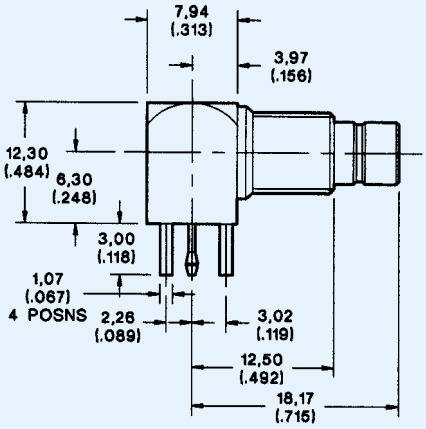
	Part Number	BT Ref.
Single Piece	051-153-9089A90	PLUG43/1E
Tray Packed (100)	051-153-9089A9A	PLUG43/1E



Mounting Plan A (Page 108)

Right Angle Bulkhead PCB Jack with Board Retaining Legs

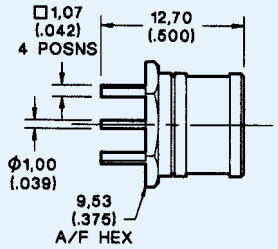
	Part Number
Tray Packed (100)	051-153-9119BAA
Panel Mounting Hardware Kit	B0023382



Mounting Plan A (Page 108)

Straight PCB Snap-On Plug

Part Number
051-152-0000220

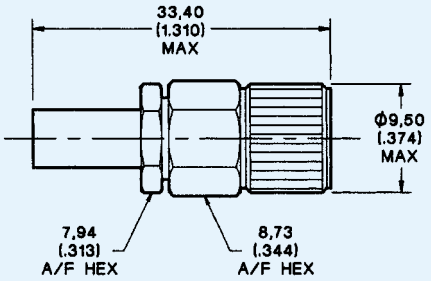


Mounting Plan A (Page 108)

Screw-Lock Series Connectors

Straight Screw-Lock Plug

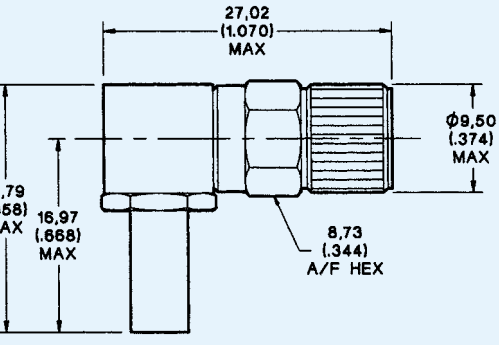
Part Number	Cable Numbers
055-124-9519910	BT2001
055-124-9529910	BT2002
055-124-9539910	BT2003
055-124-9639910	BT3002, TZC75024
055-124-9549910	RG179B/U, 187A/U



Assembly Instruction BBAI-1119 (Page 133)
[055-124-9549910 - Assembly Instruction BBAI-1040 (Page 131)]

Right Angle Screw-Lock Plug

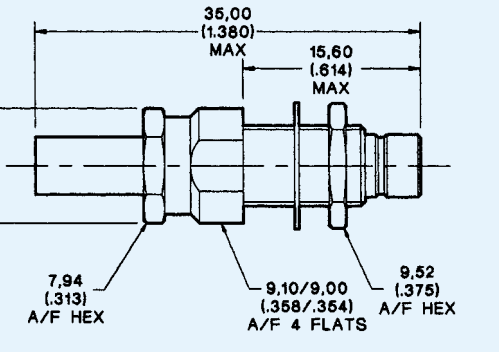
Part Number	Cable Numbers
055-128-9219910	BT2001
055-128-9229910	BT2002
055-128-9239910	BT2003
055-128-9339910	BT3002, TZC75024
055-128-9249910	RG179B/U, 187A/U



Assembly Instruction BBAI-1041 (Page 132)

Straight Screw-Lock Bulkhead Jack

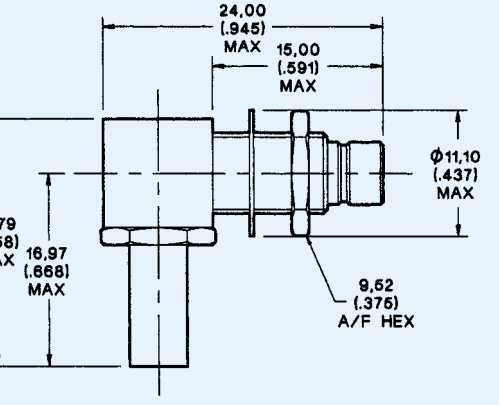
Part Number	Cable Numbers
055-127-9519A90	BT2001
055-127-9529A90	BT2002
055-127-9539A90	BT2003
055-127-9639A90	BT3002, TZC75024
055-127-9549A90	RG179B/U, 187A/U



Mounting Plan X (Page 109). Maximum Panel Thickness 5,00 (.197). Assembly Instruction BBAI-1119 (Page 133). [055-127-9549A90 - Assembly Instruction BBAI-1040 (Page 131)]

Right Angle Screw-Lock Bulkhead Jack

Part Number	Cable Numbers
055-130-9519A90	BT2001
055-130-9529A90	BT2002
055-130-9539A90	BT2003
055-130-9639A90	BT3002, TZC75024
055-130-9549A90	RG179B/U, 187A/U

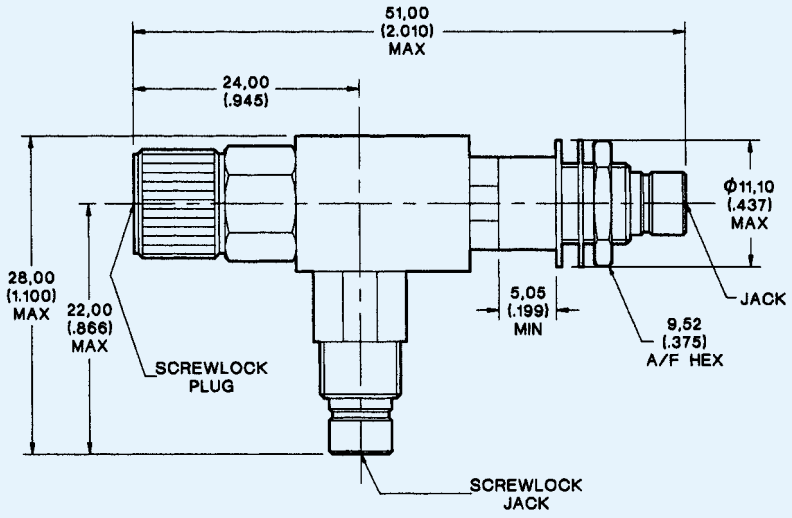


Mounting Plan X (Page 109). Max. Panel Thickness 5,00 (.197). Assembly Instruction BBAI-1041 (Page 132)

Adaptors

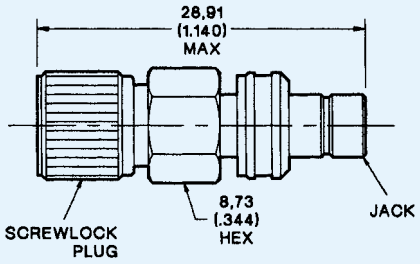
30 dB Test Port Adaptor

Part Number
055-185-9029C90



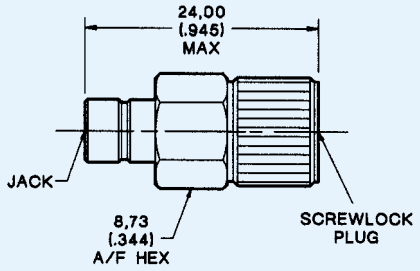
Jack to Screw-Lock Plug Filter Adaptor

Part Number
055-174-9019A90



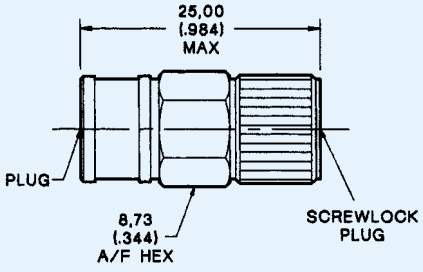
Jack to Screw-Lock Plug Adaptor

Part Number
051-174-9019220



Screw-Lock Plug to Snap-On Plug Adaptor

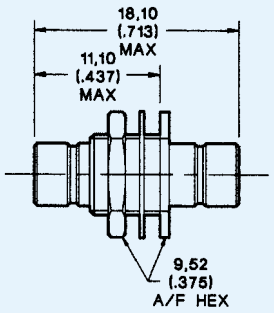
Part Number
051-173-9009220



Adaptors

Jack to Jack Bulkhead Adaptor

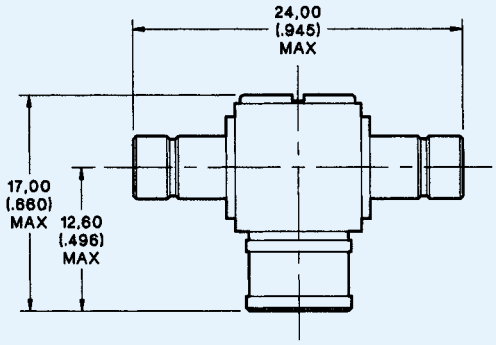
Part Number
051-175-0000220



Mounting Plan X (Page 109)
Maximum Panel Thickness 2,40 (.094)

Jack-Plug-Jack "T" Adaptor

Part Number
051-185-0000220



SMZ

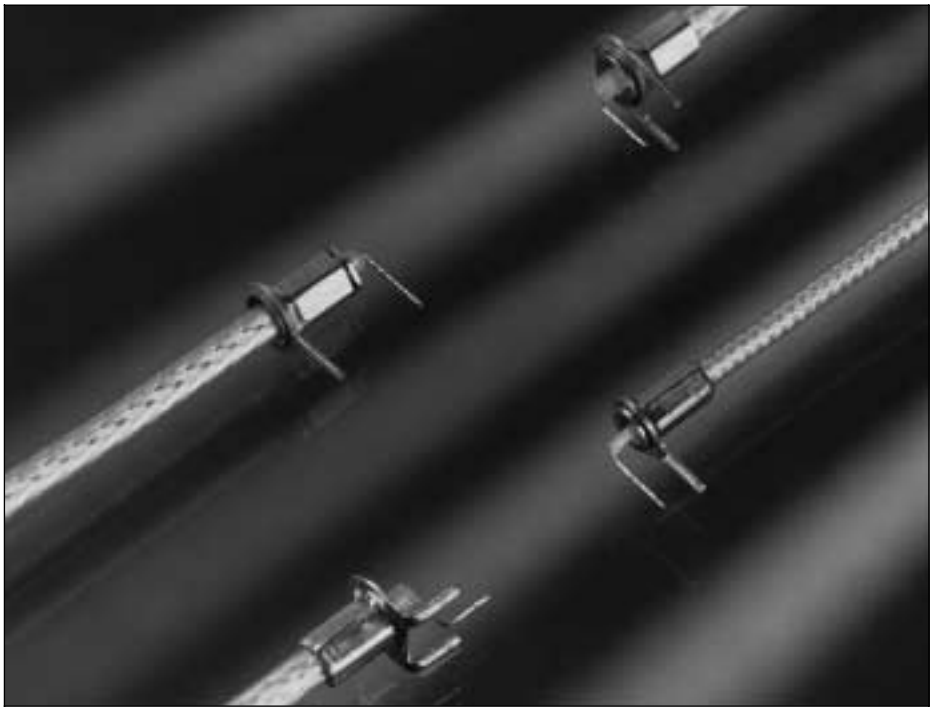
Introduction

ITT Cannon's Coaxial Terminators provide a low cost means of cable junction to a printed circuit where engagement and disengagement are not required. This method of terminating cable on PCBs eliminates the inconsistency associated with hard wiring.

Styles are available for a variety of popular RG series cable types and cables of similar dimensions. The tapered leg is an interference fit into the PCB hole enabling pre-assembly for wave soldering.

Coaxial Terminators feature:
- Low cost
- Easy to assemble
- Only two piece parts
- Surface mount option
- No solder transfer down braid
- Good stability – two point fixing
- Variable pitch, 2,50 (.098) – 10,00 (.393)

All parts have electro-plated tin finish.

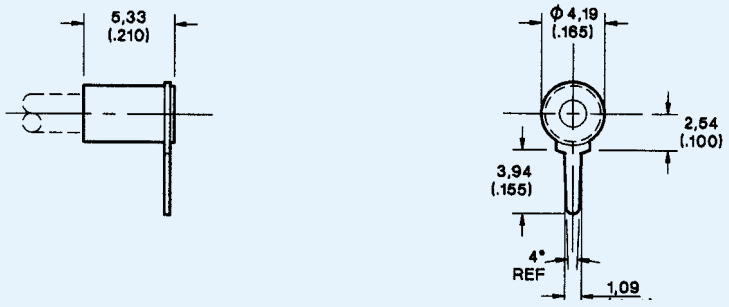


Terminators

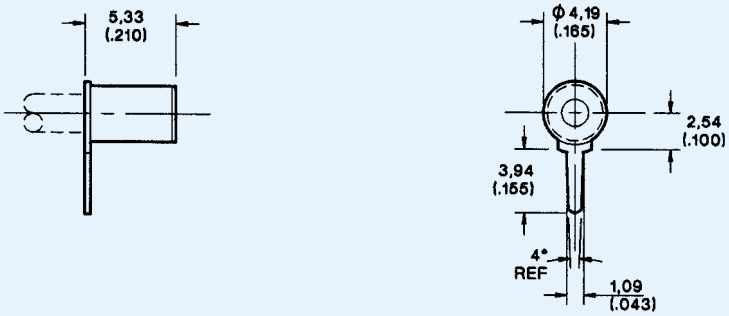
Single Leg

Part Number	Cable Numbers
055-939-9019AR6	RG178/U, 196/U
055-939-9029AR6	RG174/U, 179/U, 188/U, 316/U

NOTE
Both part numbers may be assembled with leg either at front or rear.



Assembled with Leg at Front. Mounting Plan R



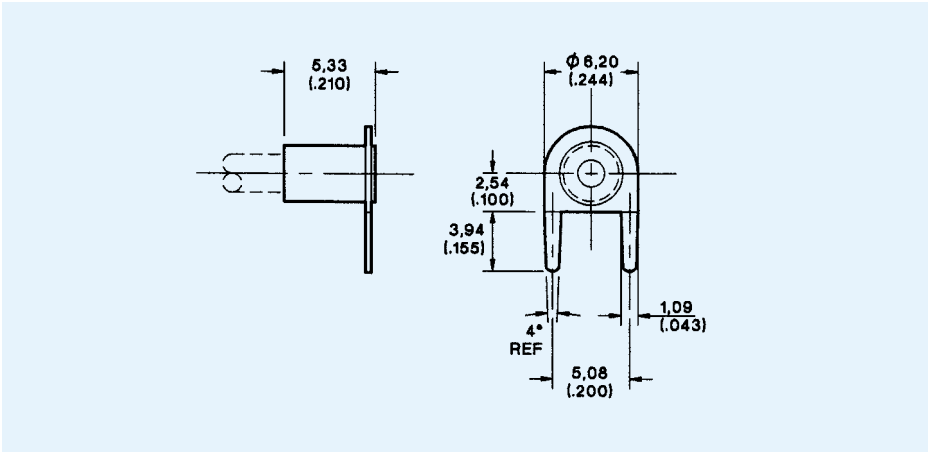
Assembled with Leg at Rear. Mounting Plan S

Assembly Instruction BBAI-1203 (Page 134)

Terminators

Two Legs at Front – Standard

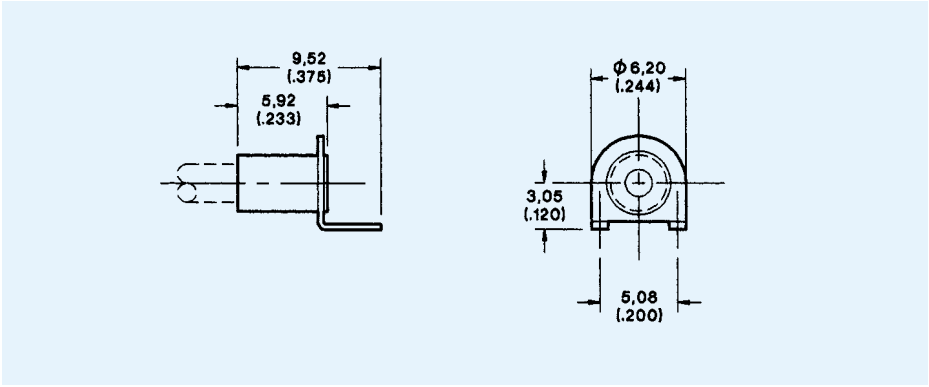
Part Number	Cable Numbers
055-939-9039AR6	RG178/U, 196/U
055-939-9049AR6	RG174/U, 179/U, 188/U, 316/U



Mounting Plan T (Page 109). Assembly Instruction BBAI-1203 (Page 134)

Two Legs at Front – Surface and Vertical Mount

Part Number	Cable Numbers
055-939-9059AR6	RG178/U, 196/U
055-939-9069AR6	RG174/U, 179/U, 188/U, 316/U

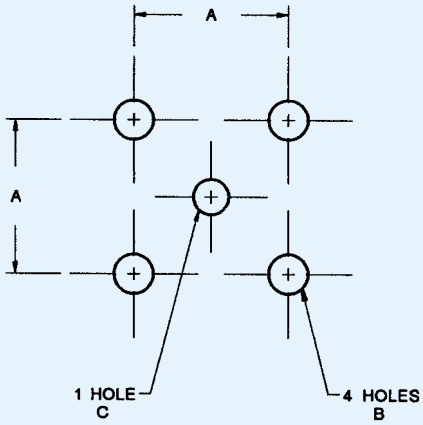


Mounting Plan T (Page 109). Assembly Instruction BBAI-1203 (Page 134)

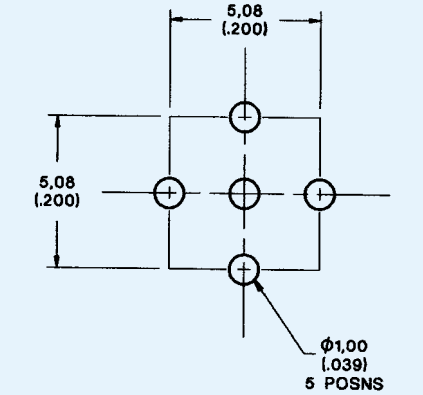
Terminator

Recommended Mounting Hole Dimensions

Plan	A	B (min.) 4 positions	C (min.) 1 position
A	5,08 (.200)	Ø 1,70/1,85 (.067/.080)	Ø 1,17/1,35 (.046/.053)
B	5,08 (.200)	Ø 1,30 (.051)	Ø 1,30 (.051)
C	2,54 (.100)	Ø 0,97 (.038)	Ø 0,91 (.036)
D	5,08 (.200)	Ø 1,70 (.067)	Ø 1,70 (.067)
E	5,60 (.220)	Ø 1,60 (.063)	Ø 1,30 (.051)
F	5,08 (.200)	Ø 1,50 (.059)	Ø 1,10 (.043)
G	5,08 (.200)	Ø 1,00 (.039)	Ø 1,00 (.039)

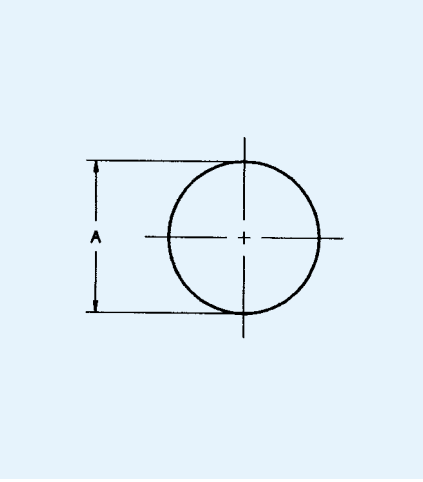


Plan A - G



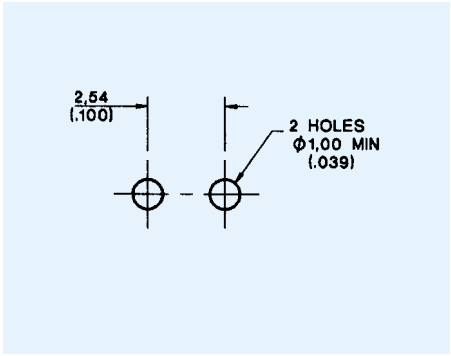
Plan H

Plan	Thread Size	A min.	A max.
I	N/A	5,44 (.214)	5,49 (.216)
J	N/A	5,67 (.223)	5,80 (.228)
K	N/A	6,16 (.243)	6,33 (.249)
L	N/A	6,50 (.256)	6,55 (.258)
M	9/32-40, UNS-2A	7,14 (.281)	7,24 (.285)
N	5/16-32, UNEF-2A	7,94 (.313)	8,04 (.317)
O	N/A	9,91 (.390)	9,96 (.392)
P	M9	9,20 (.362)	9,40 (.370)
Q	N/A	9,15 (.360)	9,35 (.368)

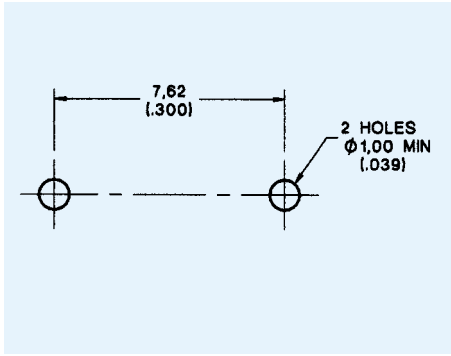


Plan I - Q

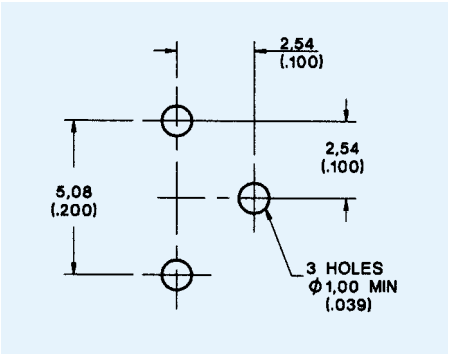
Recommended Mounting Hole Dimensions



Plan R

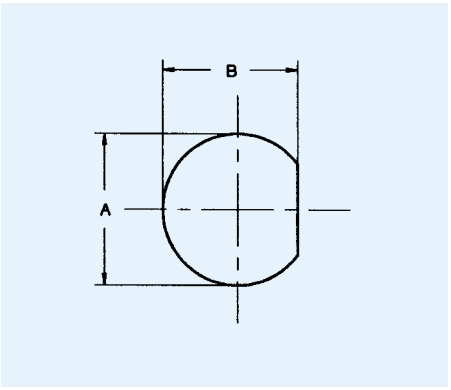


Plan S



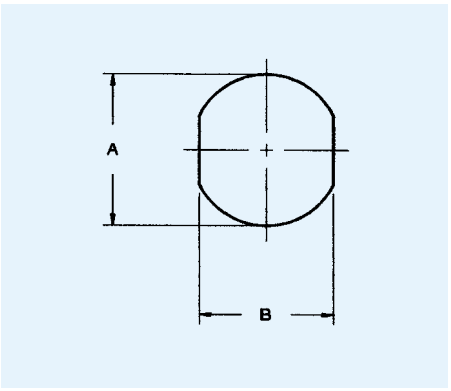
Plan T

Plan	Thread Size	A $^{+0,13\ (.005)}_{-0,00\ (.000)}$	B $^{+0,13\ (.005)}_{-0,00\ (.000)}$
U	6-40 UNF-2A	3,56 (.140)	3,20 (.126)
V	10-32 UNF-2A	4,95 (.195)	4,50 (.177)
W	1/4-36 UNS-2A	6,73 (.265)	5,92 (.233)
X	5/16-32 UNEF-2A	7,94 (.313)	7,40 (.291)
Y	7/16-28 UNEF-2A	11,91 (.469)	10,41 (.410)
Z	1/2-28 UNEF-2A	13,08 (.515)	12,19 (.480)
AA	5/8-24 UNEF-2A	16,26 (.640)	15,24 (.600)

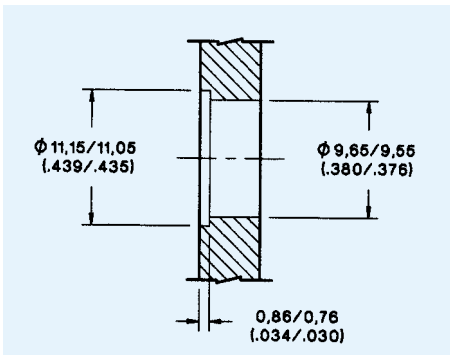


Plan U - AA

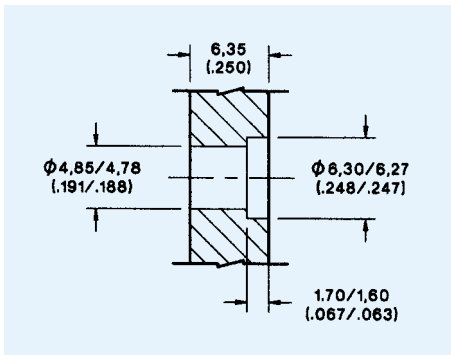
Plan	Thread Size	A $^{+0,10\ (.004)}_{-0,03\ (.001)}$	B $^{+0,10\ (.004)}_{-0,03\ (.001)}$
BB	M9	9,20 (.362)	8,20 (.322)
CC	M5	5,90 (.232)	5,00 (.197)



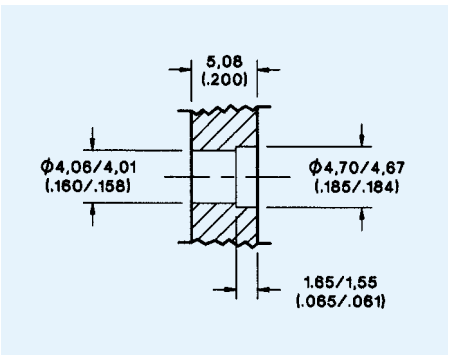
Plan BB-CC



Plan DD

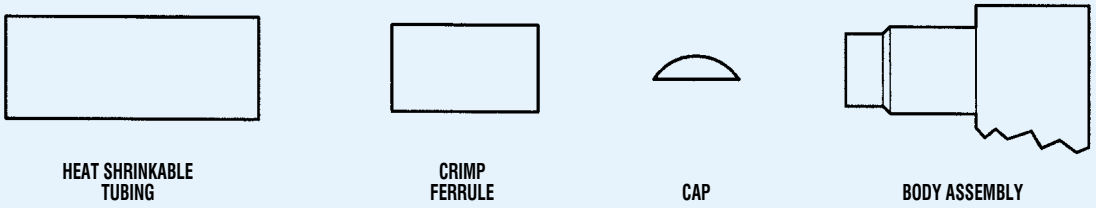


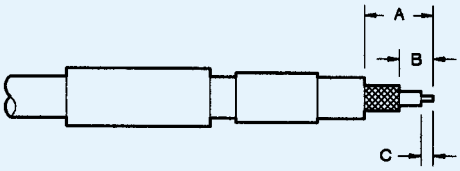
Plan EE



Plan FF

AI-90, AI-237, AI-773 & BBAI-1212 SMA & MCX Right Angle Connectors, Crimp Type for Braided Cable



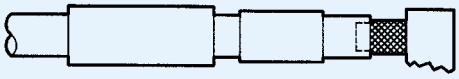


1. Slide ferrule and (if supplied) heat shrinkable tubing on to cable.

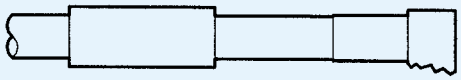
2. Trim cable to dimensions shown.

Assembly Instruction No.	A	B	C
AI-90 & AI-237	11,10 (.437)	5,16 (.203)	1,57 (.062)
AI-773	11,68 (.460)	4,55 (.179)	1,78 (.070)
BBAI-1212	8,50 (.335)	3,00 (.118)	2,00 (.078)

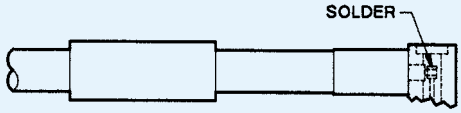
3. Tin center conductor (DO NOT OVER TIN).



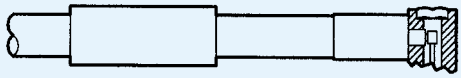
4. Slide body over cable dielectric and under the braid until braid is flush against under-side of body. Ensure center conductor is located in the forked end of the contact.
NOTE: When using cables with inflexible jackets it is permissible to make two 3,17 (.125) longitudinal slits in the outer jacket.



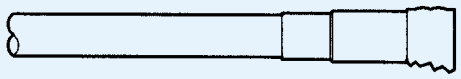
5. Slide ferrule flush against the body and crimp in position using ITT Cannon's Crimp Tool and suitable die set (see table).



6. Using a small soldering iron solder center conductor to contact.
NOTE: The center conductor should not protrude beyond the contact or touch the body. Solder should not protrude beyond the slotted section of the contact.



7. Locate the cap in rear of body and dimple or lightly punch to ensure it is locked in position.

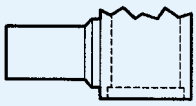


8. Slide heat shrinkable tubing over ferrule flush against body and heat until tubing shrinks down.

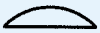
Only common cable retention features are shown in detail. Various body configurations can apply.

Cable	Cable Code	Die Size
RG142/U	9142	5,42 (.213)
RG196/U	9196	2,67 (.105)
RG316/U	9188	3,25 (.128)
RD 316	9399/9875	3,84 (.151)

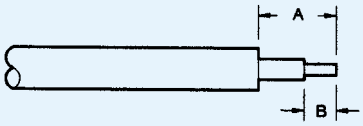
AI-98 SMA Right Angle Connectors, Direct Solder Type for Semi-Rigid Cable



BODY ASSEMBLY

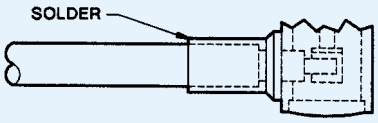


CAP

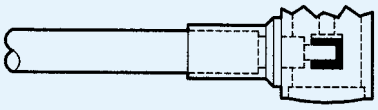


1. Trim cable jacket, dielectric and center conductor to dimensions shown, being careful not to fracture the center conductor. Tin center conductor (DO NOT OVER TIN).

A	B
4,75 ± 0,13 (.187 ± .005)	2,29 ± 0,13 (.097 ± .005)

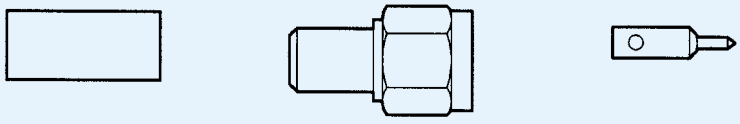


2. Slide cable into body and solder into place.

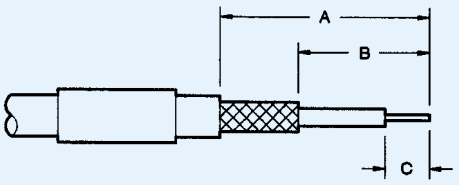


3. Solder center conductor to contact (do not over solder), then locate the cap in rear of body and dimple or lightly punch to ensure it is locked in position.

AI-102, AI-236 & AI-771 SMA Straight Connectors, Crimp Type for Braided Cable

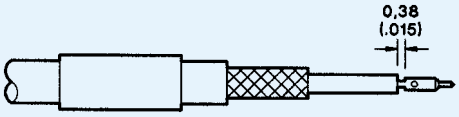


CRIMP FERRULE BODY ASSEMBLY CONTACT



1. Trim cable to dimensions shown being careful not to nick the braid or center conductor. Tin center conductor, (DO NOT OVER TIN) then slip ferrule (and shrink tubing if supplied) over cable.

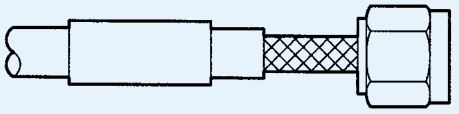
Assembly Instruction No.	A	B	C
AI-102 & AI-236	10,31 (.406)	4,37 (.172)	2,77 (.109)
AI-771	10,62 (.418)	5,16 (.203)	3,56 (.140)



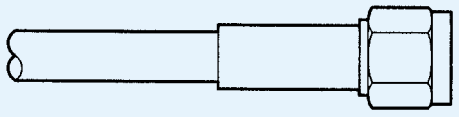
2. Solder center conductor to contact. With AI-771 the contact bottoms on the dielectric. With AI-102 & AI-236 the gap shown is to be maintained.

   Alternatively with AI-771.
   Crimp attachment: Crimp contact to inner conductor using ITT Cannon's Hand Tool P/N 050-000-0155 (Astro tool P/N 615708), setting 3 with positioner P/N 050-000-0156. (Astro turret head P/N 650027), color code per chart.

Cable Type	Colour Code
RG161/U, RG171/U	Red
RG188/U, RG316/U	
RD316	

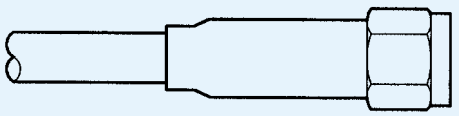


3. Insert trimmed cable into the rear of the body assembly. Tubular body extension will slide under the braid with the rear portion of extension fitting under the jacket as shown.
   NOTE: When using cables with inflexible jackets it is permissible to make two 3,17 (.125) long longitudinal slits in the outer jacket.



4. Slip ferrule flush against the body and crimp in position using ITT Cannon crimp tool and suitable die set (see table).

Cable	Cable Code	Die Size
RG141/U	9141	5,42 (.213)
RG142/U	9142	5,42 (.213)
RG188/U	9188	3,25 (.128)
RG196/U	9196	2,67 (.105)
RD316	9875/9399	3,84 (.151)

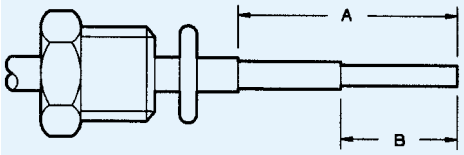


5. Slide heat shrinkable tubing over ferrule and apply heat until tubing shrinks down.

Dimensions are shown in mm (inch)
Dimensions subject to change

AI-106 SMA Straight Connectors, Clamp Type for Braided Cable

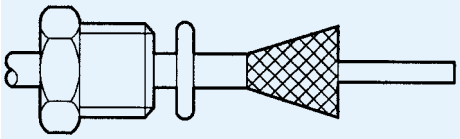
CLAMP NUT '0' RING SLEEVE INSULATOR CONTACT FRONT BODY



1. Slide clamp nut and '0' ring over cable.

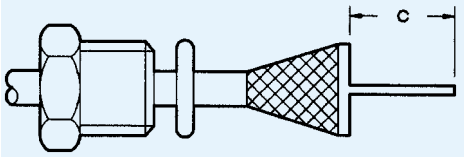
2. Trim cable to dimensions shown being careful not to nick the braid.

A	B	C
6,35 (.250)	4,78 (.188)	3,18 (.125)



3. Thumb braid out radially to expose the cable dielectric.

4. Slide sleeve over dielectric and under braid until sleeve is flush with braid. N.B. When using cables with inflexible jackets it is permissible to make two 3,17 (.125) long longitudinal slits in the outer jacket.

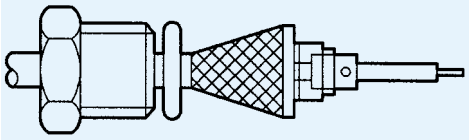


5. Trim braid flush with flange of sleeve.

6. Trim back dielectric to dimension shown.

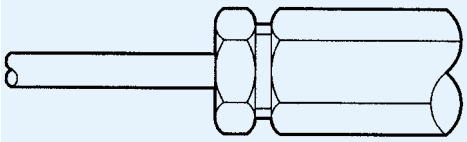
7. Tin center conductor (DO NOT OVER TIN).

8. Fit insulator over center conductor with counterbore in direction shown.



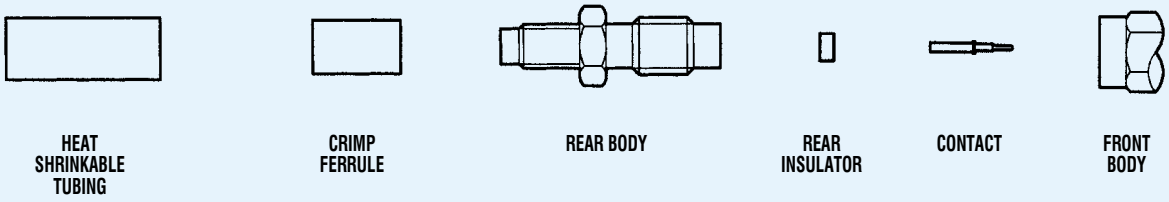
9. Place a small solder preform made from 0,26 - 0,31 (.010 - .012) dia. (28 swg) multi-core solder in rear of contact on center conductor. Heat to make solder connection ensuring shoulder of contact is flush against rear insulator. Do not allow solder to protrude outside spill hole.

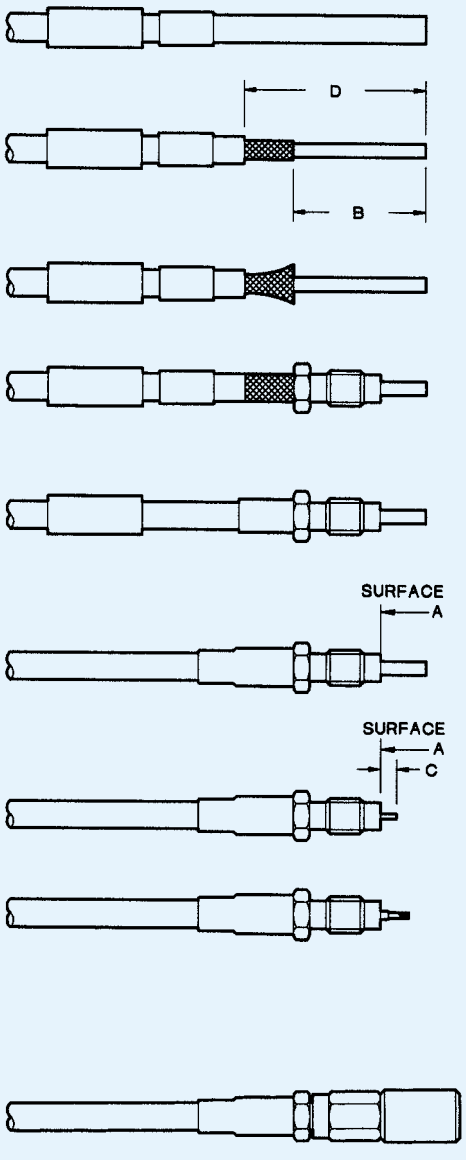
10. Fit front insulator if not part of body.



11. Thread on body and tighten clamp nut to 1.02 Nm (9 in. lbs.).

AI-128 & AI-663 SSMB/SSMC Straight Connectors, Crimp Type for Braided Cable





1. Slide heat shrinkable tubing and ferrule on to cable.
2. Trim cable to dimensions shown.

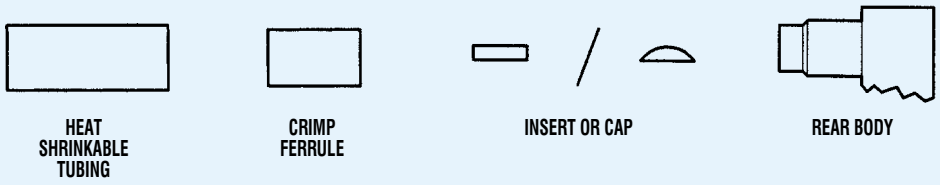
Assembly Instruction No.	B	C	D
AI-663	6,86 (.270)	2,29 (.090)	10,41 (.410)
AI-128 - For center conductors Ø 0,51 (.020)	6,76 (.266)	2,29 (.090)	9,53 (.375)
AI-128 - For all other conductor sizes	7,54 (.297)	3,05 (.120)	10,31 (.406)

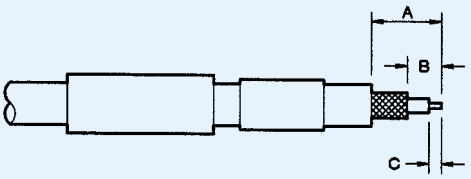
3. Slide rear body over dielectric and under the braid until braid is flush with flange.
   N.B. When using cable with inflexible jackets it is permissible to make two 3,00 (.118) long longitudinal slits in the outer jacket.
4. Slide ferrule over exposed braid up to hex. flange.
5. Crimp using ITT Cannon Crimp Tool and suitable die set (see table). Ensure ferrule is held close to hex. flange.
6. Slide heat shrinkable tubing over crimp and heat shrink into place using hot air gun. Air temperature should be approximately 125°C.
7. Trim dielectric flush with surface 'A' on body using a sharp knife. Take care not to nick center conductor.
8. Trim center conductor as shown.
9. Tin center conductor (do not allow solder to touch end of body or dielectric).
10. Place a small solder preform made from 0,26 - 0,31 (.010 - .012) dia. (28 swg) multi-core solder in rear of contact.
11. Place rear insulator over center conductor. When insulator has counterbore, the contact fits into the counterbore.
12. Assemble contact onto center conductor, heat to make solder connection. Do not allow solder to protrude outside spill hole.
13. Solder should be visible at inspection hole, if excess solder runs from inspection hole, remove with sharp blade taking care not to damage plating.
14. Screw on the front body and tighten to a torque of 0.14 Nm (20 in. ozs.).

    Only common cable retention features are shown in detail - various body configurations can apply.

Cable Type	Cable Code	Die Size
RG196/U	3196	2,67 (.105)
RG316/U	3188	3,25 (.128)
RD316	3875	3,84 (.151)

AI-129, AI-286 & AI-696 SSMB/SSMC Right Angle Connectors, Crimp Type for Braided Cable

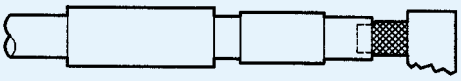




1. Slide heat shrinkable tubing and ferrule on to cable.

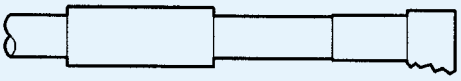
2. Trim cable to dimensions shown.

Assembly Instruction No.	A	B	C
AI-129	5,56 (.219)	2,77 (.109)	1,19 (.047)
AI-286	6,35 (.250)	2,77 (.109)	0,79 (.031)
AI-696	6,22 (.245)	2,54 (.100)	1,14 (.045)

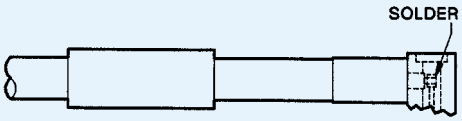


3. Tin center conductor (DO NOT OVER TIN).

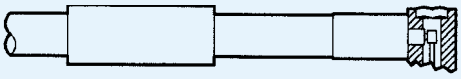
4. Slide body over cable dielectric and under the braid until braid is flush against under-side of rear body. Ensure center conductor is located in the forked end of the contact.
NOTE. When using cables with inflexible jackets it is permissible to make two 3,00 (.118) longitudinal slits in the outer jacket.



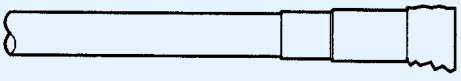
5. Slide ferrule flush against the body and crimp in position using ITT Cannon Crimp Tool and suitable die set (see table).



6. Using a small soldering iron solder center conduct to contact.
NOTE: The center conductor should not protrude beyond the contact or touch the body. Solder should not protrude beyond the slotted section of the contact.



7. Press insert into place or locate the cap in rear of body and dimple or lightly punch to ensure it is locked in position (recommended tool, flat pin ∅3,07 ± 0,05 (.121 ± .002).

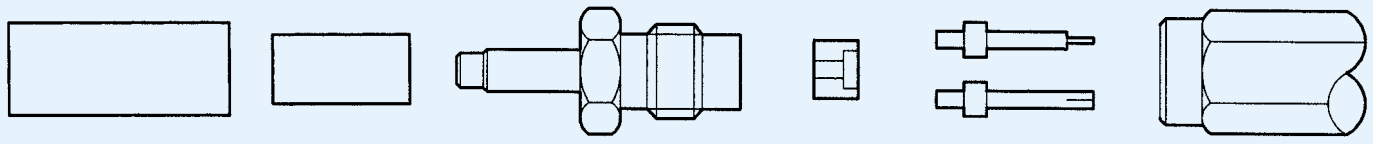


8. Slide heat shrinkable tubing over ferrule flush against body and heat until tubing shrinks down.

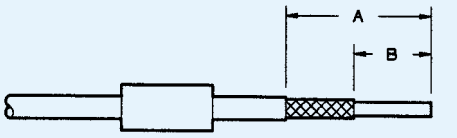
Only common cable retention features are shown in detail. Various body configurations can apply.

Cable Type	Cable Code	Die Size
RG196/U	3196	2,67 (.105)
RG316/U	3188	3,25 (.128)
RD316	3875	3,84 (.151)

AI-227 SMA Straight Connectors, Crimp Type for Braided Cable — Captive Contact

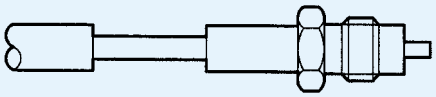


HEAT SHRINKABLE TUBING | CRIMP FERRULE | REAR BODY | INSULATOR | CONTACT | FRONT BODY

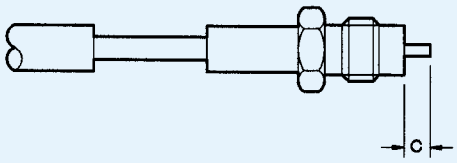


1. Slide ferrule and heat shrinkable tubing on to cable.
2. Trim cable to dimensions as shown

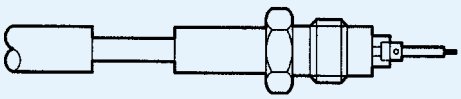
A	B	C
15,00 (.590)	9,00 (.354)	3,00 (.118)



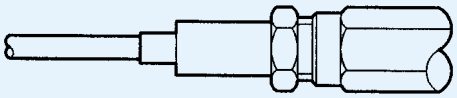
3. Slide body over cable dielectric and under the braid until the braid is flush against the rear of the hexagonal nut.
   NOTE: When using cables with inflexible jackets, it is permissible to make two 3,17 (.125) longitudinal slits in the outer jacket.
4. Slide ferrule flush against the body and crimp in position using ITT Cannon Crimp Tool and suitable die set (see table).



5. Trim back dielectric and center conductor to dimensions shown.
6. Tin center conductor (DO NOT OVER TIN).
7. Assemble insulator over center conductor with counterbore in direction shown.
8. Place a small solder preform made from 0,26 - 0,31 (.010 - .012) dia. (28 swg) multi-core solder in rear of contact.



9. Assemble contact on center conductor, heat to make solder connection ensuring shoulder of contact is flush against rear insulator. Do not allow solder to protrude outside spill hole.
10. Insert crimped assembly into back end of body and tighten to a torque of 0.70 - 0.80 Nm (100 - 110 in. ozs.).

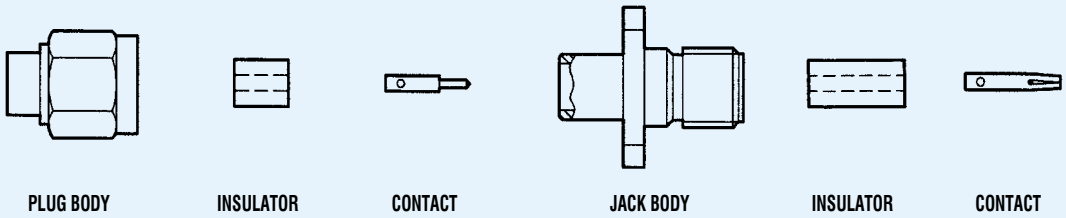


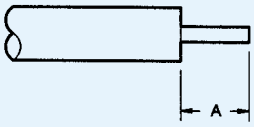
11. Slide heat shrinkable tubing over ferrule and apply heat until tubing shrinks down.

Cable Type	Cable Code	Die Size
RG142/U	3196	2,67 (.105)
RG316/U	3188	3,25 (.128)
RD316	3875	3,84 (.151)

Dimensions are shown in mm (inch)
Dimensions subject to change

AI-252 & AI-278 SMA Straight Connectors, Direct Solder (Separate Center Contact) Type for Semi-Rigid Cable

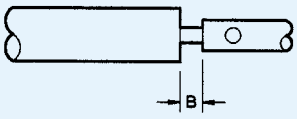




1. Cut cable end square. Trim the cable outer conductor and dielectric as shown taking care not to nick the center conductor. Deburr outer conductor at point of cut.

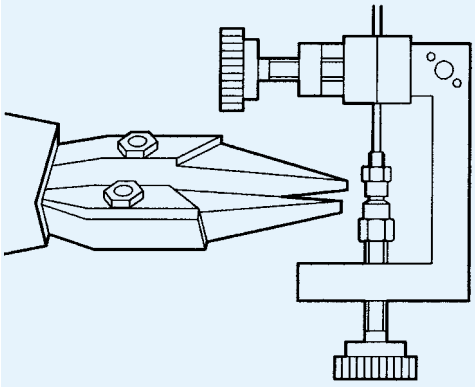
Assembly Instruction No.	Configuration	A	B
AI-252	Plug	3,18 ± 0,25 (.125 ± .010)	0,38 (.015)
AI-278	Flange Jack	2,54 ± 0,25 (.100 ± .010)	0,38 (.015)

2. Tin center conductor (DO NOT OVER TIN).



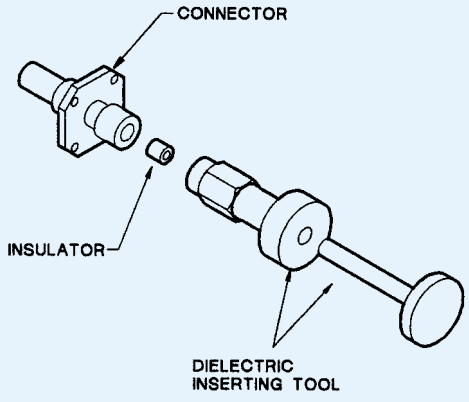
3. Solder contact to center conductor ensuring that dimension shown is maintained. Remove any excess solder.

4. Clean housing area of outer conductor with abrasive paper and clean in a suitable agent.



5. Place connector assembly in Assembly Jig T1848, or other suitable clamping arrangement, with contact in locator tool as shown.

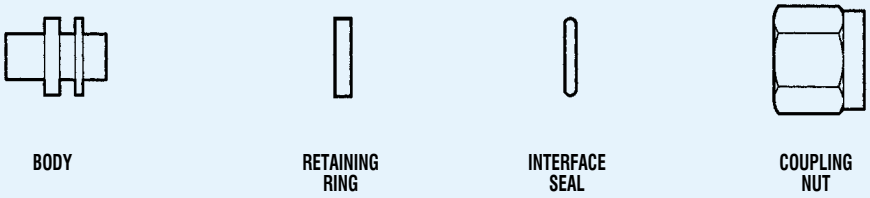
   Tighten screw to secure cable between inserts then tighten locator to seat cable firmly. Place solder ring around cable adjacent to connector body and heat the connector body using an appropriate heat source (solder tongs with variable control). Apply sufficient heat for solder to flow but using minimum heat cycle.

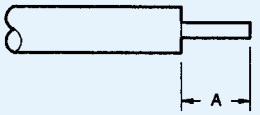


6. Using dielectric insertion Tool T2508 (for plugs) or T2509 (for jacks), press insulator into body. Assembly is now ready for use.

   N.B. Various body configurations can apply.

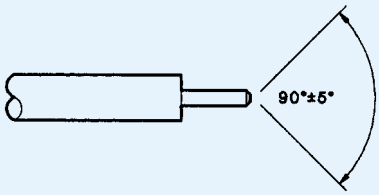
AI-302 SMA Straight Connectors, Direct Solder (Cable Conductor used as Center Contact) Type for Semi-Rigid Cable





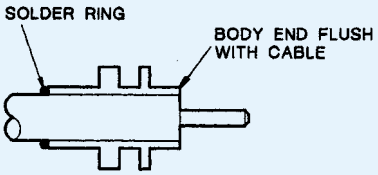
1. Trim the cable outer conductor and dielectric as shown taking care not to nick the center conductor using Tool T2624, if available, or other cable cutting tool. Deburr outer conductor at point of cut.

   'A' = 2,16 ± 0,13 (.085 ± .005)



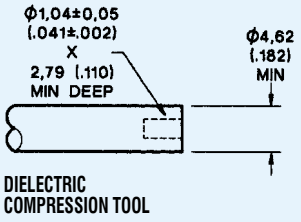
2. Point the end of the center conductor using Tool T2297 if available or a miniature file.

3. If style - 9073 is being assembled slip the coupling nut onto the cable.



4. Clean housing area of outer conductor with abrasive paper and clean in a suitable agent. Place 24 s.w.g. soldering ring and connector body on prepared end of cable. Ensure body is correct way round. End of cable to be flush with end of connector body as shown.

   Using Assembly Jig T1848, or other suitable clamping arrangement, clamp in a vertical position. Heat the connector body using an appropriate heat source (solder tongs with variable control). Apply sufficient heat for solder to flow but using minimum heat cycle.

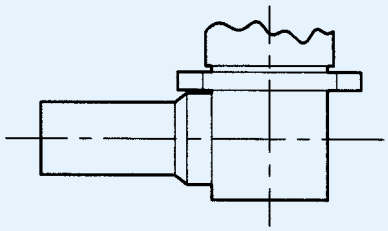


5. Compress expanded dielectric back into cable outer conductor with Dielectric Compression Tool as shown, until it is flush with end of body and outer conductor.

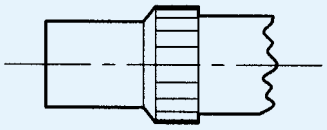
6. Fit the interface seal.

7. Install the spring retaining ring, compress with tool T0557/1 and fit the coupling nut.

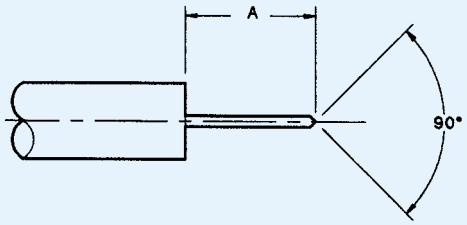
AI-436, AI-499 & AI-523 SMS & SSIS® Straight and Right Angle Connectors, Direct Solder Type for Semi-Rigid Cable



BODY ASSEMBLY

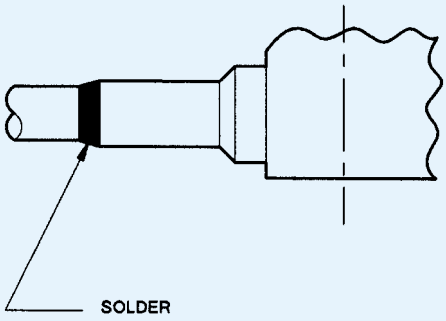


BODY ASSEMBLY



1. Trim cable to dimensions shown, being careful not to nick center conductor

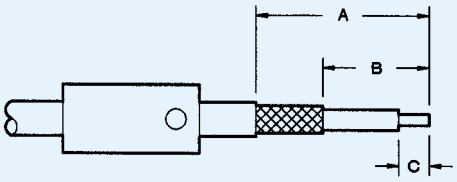
   'A' = 2,29 (.090).



2. Insert cable into rear of body until cable seats in counterbore. Holding firm in this position. Solder cable to body.

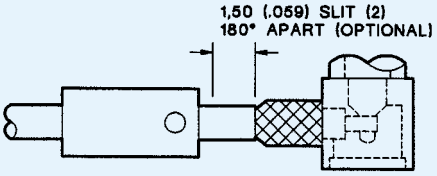
NOTE
Only common cable entry features are shown in detail. Various body configurations can apply.

AI-472 & BAI-015 SMB & SMS Right Angle Connectors, Crimp Type for Braided Cable

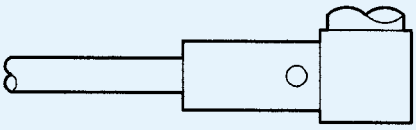


1. Trim cable to dimensions shown taking care not to nick braid or center conductor. Tin center conductor (DO NOT OVER TIN) then slip crimp ferrule (and tubing with SMS) over cable with inspection hole toward trimmed end.

Assembly Instruction No.	A	B	C
BAI-015	10,00 (.393)	4,00 (.157)	1,50 (.059)
AI-472	11,10 (.437)	4,37 (.172)	0,79 (.031)



2. Insert trimmed cable into back end of body. The tubular body extension will slide under the braid with the rear portion of extension fitting under the jacket as shown. The center conductor will extend into slot in contact.
   NOTE: On smaller diameter cables, two longitudinal slits in the jacket, 180° apart, may be cut to ease assembly.



3. Slip ferrule up over braid to face of square body and crimp, using ITT Cannon Crimp Tool and suitable die set (see table).

Cable Type	Cable Code	Die Size
RG142/U	9052	5,41 (.213)
RG196/U	3196	2,67 (.105)
RG316/U	0000	3,25 (.128)
RG316/U	3188/9416	3,25 (.128)
RD316	9399	3,84 (.151)

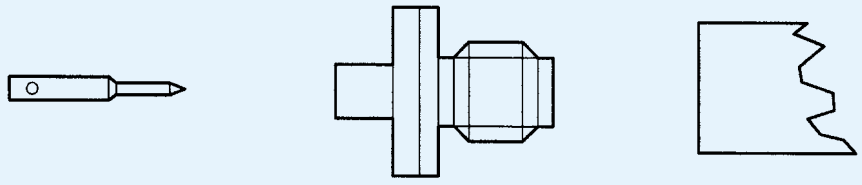
4. Using a small soldering iron solder center conductor to contact.
   NOTE: The center conductor should not protrude beyond the contact to touch the body. Solder should not protrude beyond the slotted section of the contact.

5. Locate the cap in rear of body and dimple or lightly punch to ensure it is locked in position. (A flat punch is recommended).

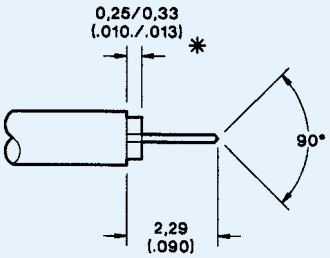
6. On SMS slip tubing over the ferrule and heat until the shrinkable tubing fits smoothly around the cable.

Only common cable retention features are shown in detail. Various body configurations can apply.

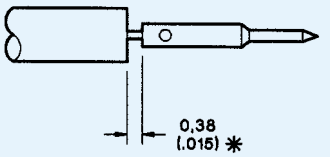
AI-480 SSIS® Straight Plug Connectors, Direct Solder Type for Semi-Rigid Cable



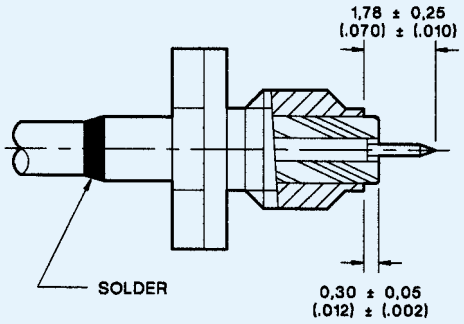
CONTACT BODY BUSHING



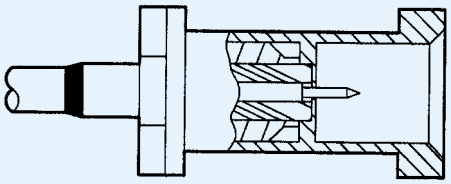
1. Trim cable to dimensions shown, being careful not to nick center conductor. Tin center conductor (DO NOT OVER TIN).
   * Trim dielectric as shown for Belden Conformable cable only.



2. Using a 0,38 (.015) spacer, solder contact to center conductor.
   * Use 0,13 (.005) spacer on Belden Conformable cable only.

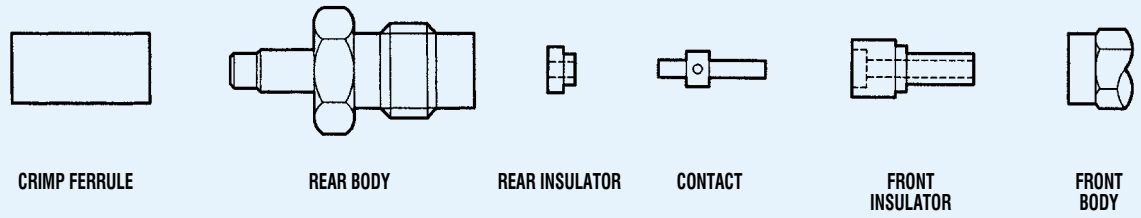


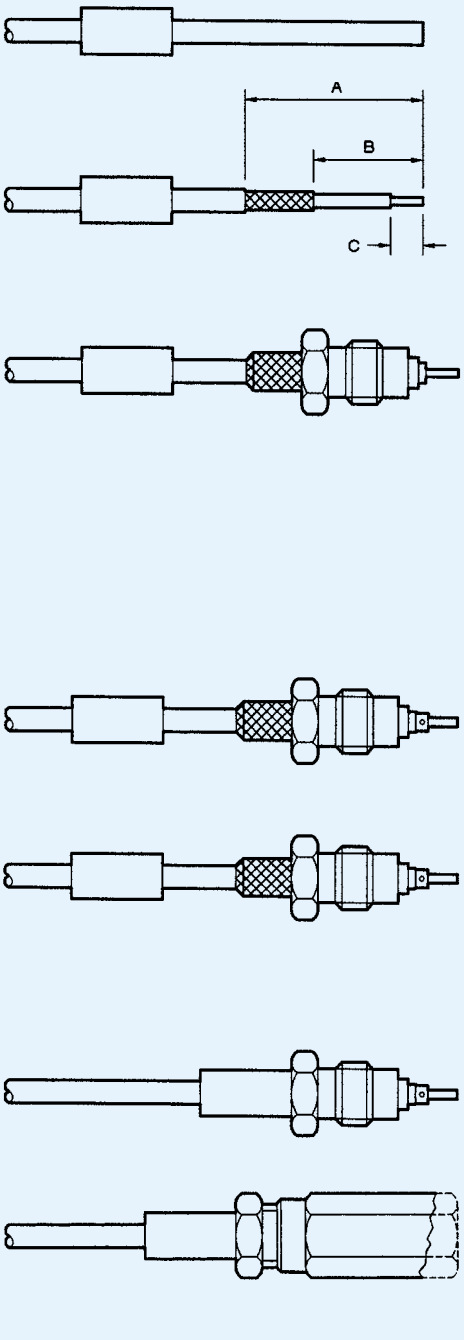
3. Slide cable into rear of body. Holding securely in this position, solder body to cable.



4. Insert into rear of bushing and tighten with a torque of 0,21 Nm (30 in. ozs.)

AI-504 & BAI-003 SMB/SMC & SMS Straight Connectors, Crimp Type for Braided Cable





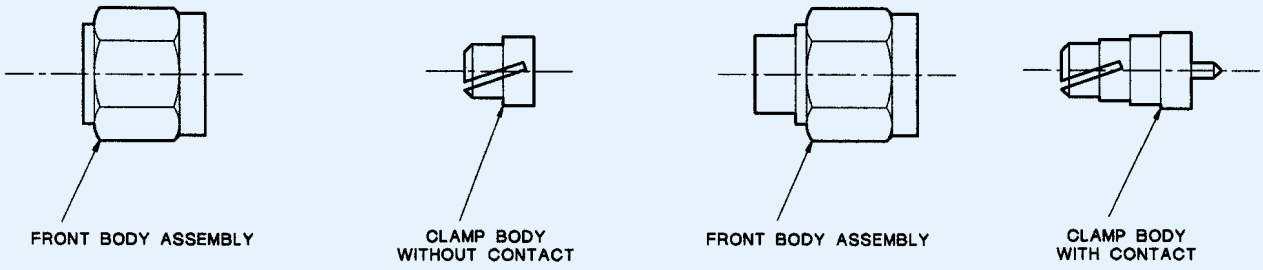
1. Slide ferrule on cable, (and tubing with SMS)
2. Trim cable to dimensions shown taking care not to nick braid or center conductor.

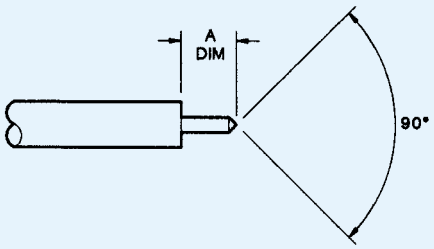
Assembly Instruction No.	A	B	C
BAI-003	15,50 (.610)	9,50 (.374)	2,50 (.098)
AI-504	17,01 (.672)	11,13 (.438)	3,18 (.125)

3. Tin center conductor (DO NOT OVER TIN).
4. Slide rear body over cable dielectric and under the braid until the braid is flush against the rear of the hexagonal nut.
   NOTE: When using cables with inflexible jackets two 3,17 (.125) slits in the outer jacket are permissible.
5. Slide on rear insulator so that the counterbore rests against the cable dielectric.
6. Place a small solder preform made from 0,26 - 0,31 (.010 - .012) dia (28 swg) multi-core solder in rear of contact.
7. Assemble contact on center conductor, heat to make solder connection ensuring shoulder of contact is flush against rear insulator.
   N.B. Do not allow solder to protrude outside spill hole.
8. Slide ferrule against body and crimp using ITT Cannon Crimp Tool and suitable die set (see table below).
9. Slide on front insulator (if not already assembled in body).
10. Screw on front body and tighten to 0,63 - 0,70 Nm (90 - 100 in. ozs.).
11. On SMS slip tubing over the ferrule and heat until the shrinkable tubing fits smoothly around the cable.
    Only common cable retention features are shown in detail. Various body configurations can apply.

Cable Type	Cable Code	Die Size
RG142/U	9052	5,41 (.213)
RG196/U	3196	2,67 (.105)
RG316/U	0000/9416	3,25 (.128)
RD316	9399	3,84 (.151)

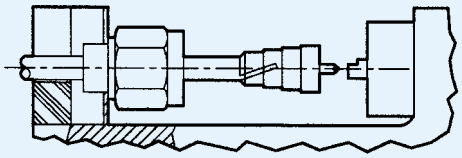
AI-507 & AI-521 SMA Straight Connectors, Solderless Type for Semi-Rigid Cable



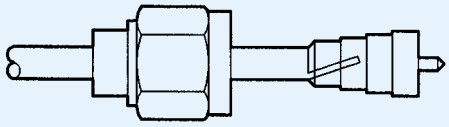


1. Trim cable to dimensions shown. Be careful not to nick center conductor. Ensure dielectric is flush. Remove burrs from the copper jacket end. Pointing of the center conductor is essential.

Assembly Instruction No.	Part Number	A
AI 507	055-624-6703890	2,16 ± 0,13 (.085 ± .005)
AI 521	055-607-6702890	1,78 ± 0,13 (.085 ± .005)
AI 521	055-607-6203890	2,16 ± 0,13 (.085 ± .005)

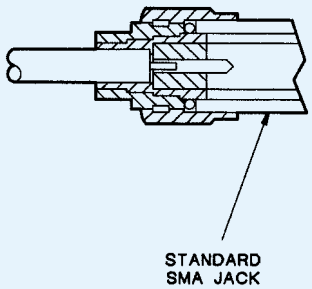


2. Slide front body assembly onto cable. Firmly seat the clamp body collet on end of cable. Place assembly into tool 050-000-0130000 with cable in holding jaws and cable end in piston die. Squeeze tool handles fully and release.



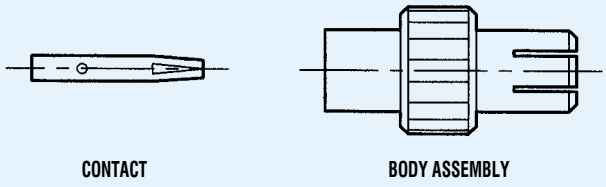
Alternatively

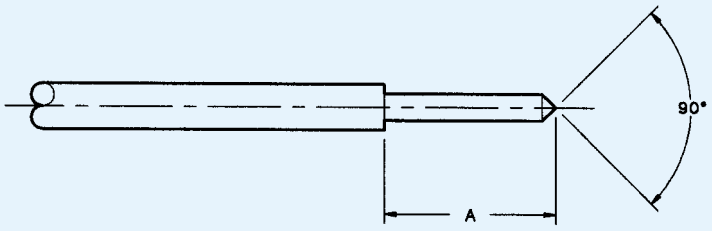
3. Slide front body assembly onto cable, then slide cable into rear end of clamp body until it seats firmly in counterbore.
NOTE: Where the separate contact versions are used the clamp body should be held securely in any standard SMA jack to avoid undue pressure on the center contact. The center conductor should click into place as it overcomes tension on the tynes.



4. Push front body assembly up over the clamp body then holding cable securely in counterbore, and using any standard SMA jack as shown, complete assembly by simply tightening mating jack with a torque of 0.79 to 1.13 Nm (7 to 10 in. lbs.).

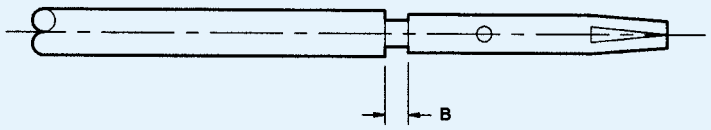
AI-632 SSIS® Straight Jack Connectors, Direct Solder Type for Semi-Rigid Cable



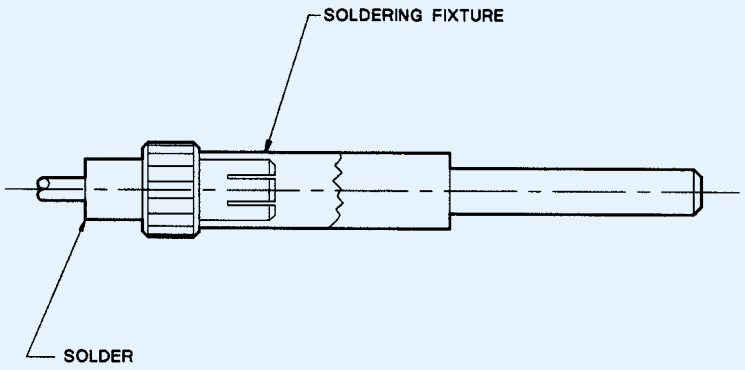


1. Trim cable to dimension shown. Being careful not to nick center conductor.

A	B
2,29 (.090)	0,25 ± 0,025 (.010 ± .001)

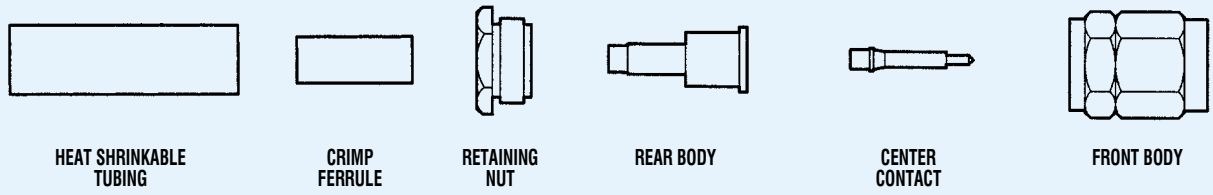


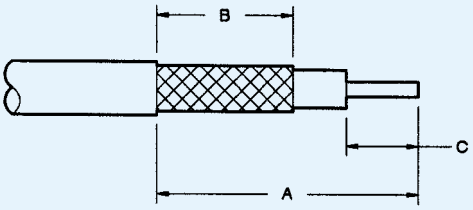
2. Solder contact to center conductor, maintaining 'B' dimension. Remove excess solder from outside of contact.



3. Insert body and insulator sub-assembly completely into soldering fixture (050-000-0930). Insert cable assembly into rear of sub-assembly with the contact butting against the soldering fixture. Apply soft solder to rear of sub-assembly and heat to make solder connection. Remove assembly from fixture.

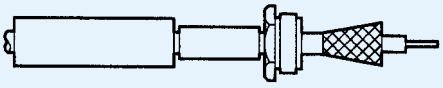
AI-703 SMA Straight Connectors, Captive Contact, Crimp Type for Braided Cable



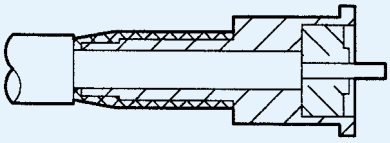


1. Strip cable to dimensions shown. Do not nick outer or inner conductors. Tin inner conductor.

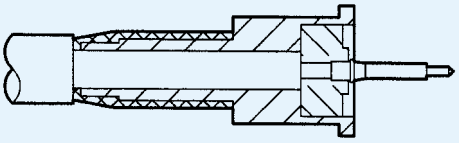
A	B	C
13,46 (.530)	7,11 (.280)	3,56 (.140)



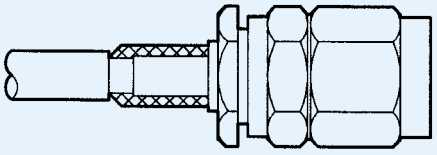
2. Place shrink tubing, crimp ferrule and retaining nut on cable. Flare the cable outer conductor as shown.



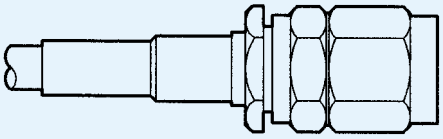
3. Insert cable dielectric into rear body until it bottoms firmly against insulator as shown.



4. Place a 0,38 (.015) dia x 2,50 ± 0,51 (.100 ± .020) long solder wire into solder hole of the center contact. Heat center contact and push it over cable inner conductor until it bottoms against insulator as shown. Remove excess solder if necessary.



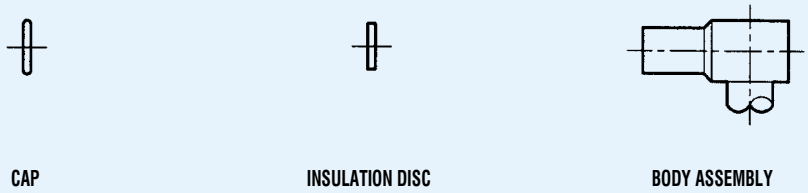
5. Insert rear body into front body. Engage threads of retaining nut to front body and hand tighten retaining nut. Hold front body firmly with a 7,93 (.312) hex. torque wrench and torque it to 1,13-1,69 Nm (10-15 in. lbs.). by turning retaining nut only.



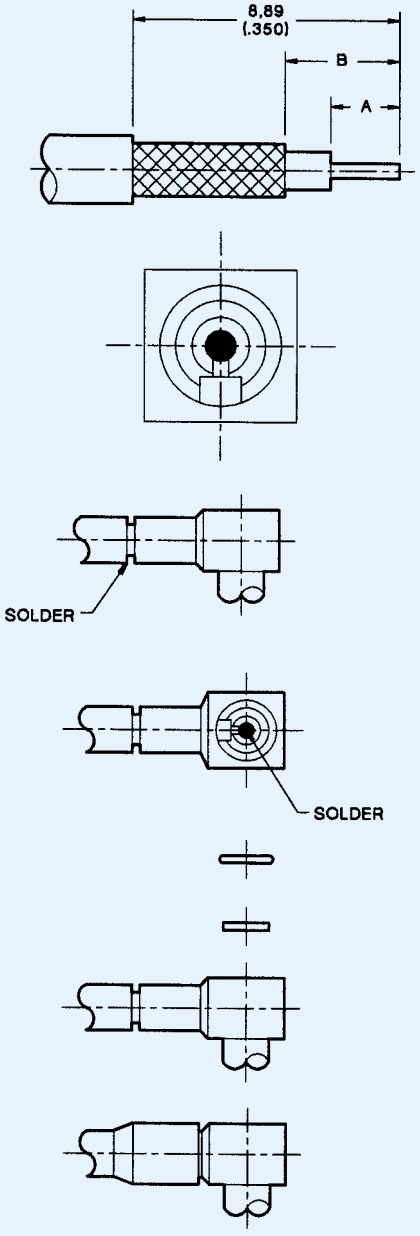
6. Slide crimp ferrule over flared portion of cable outer conductor. Crimp outer sleeve in place as shown. Push cable firmly toward connector when crimping. Trim and remove any excess outer conductor strands if necessary. Position shrink tubing over crimp sleeve apply indirect heat to shrink tubing down.

Cable Type	Cable Code	Die Size
RG142/U	9142	5,41 (.213)
RG316/U	9188	3,25 (.128)
RD316	9875	3,84 (.151)

AI-755 MCX Right Angle Connectors, Direct Solder Type for Times T - Flex Cable



CAP INSULATION DISC BODY ASSEMBLY



1. Dip 9,50 (.374) to 12,70 (.500) of both ends of the cable into a solder pot. Flux may be applied to the ends of the cable prior to dipping, if desired.

2. Trim cable to dimensions shown being careful not to nick the center conductor or braid. Trim center conductor (DO NOT OVER TIN).

A	B
2,29 (.090)	3,69 (.145)

3. Orientate slot of contact and insulator to be parallel to the cable entry hole as shown.

4. Push cable into body and solder in place.

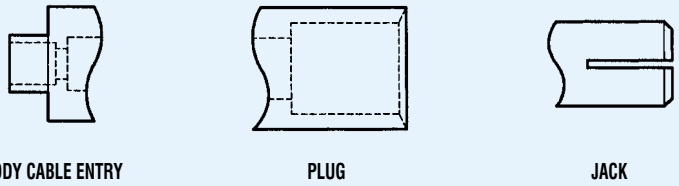
5. Solder center conductor to center contact (do not over solder).

6. Insert insulation disc (if supplied), into bore then dimple or lightly punch cap into counterbore until fully home.

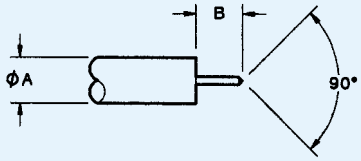
7. Install shrink tubing as shown, apply indirect heat to shrink the tubing down.

Dimensions are shown in mm (inch)
Dimensions subject to change

AI-762 & AI-763 CMM Straight Connectors, Direct Solder Type for Semi-Rigid Cable

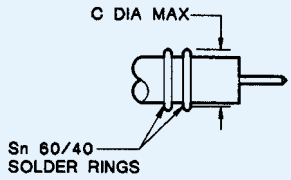


BODY CABLE ENTRY PLUG JACK



1. Trim cable to dimension 'B' shown. Being careful not to nick the center conductor.

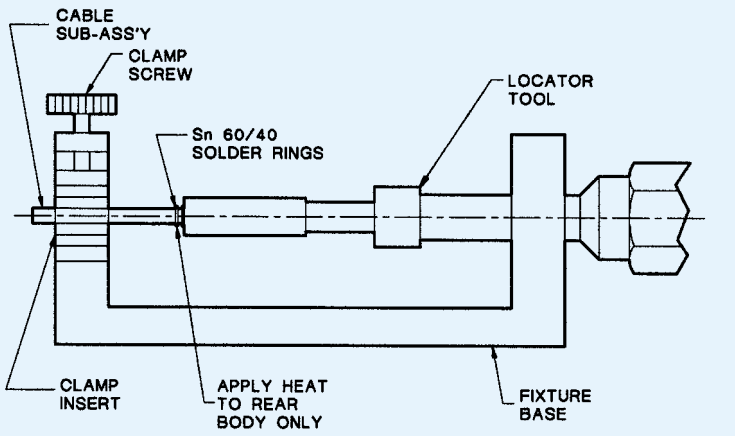
Cable Dia. A	B
1,20 (.047)	2,04 (.080)



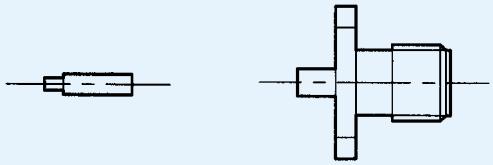
2. Place two solder rings per table below, over the cable.

Cable Dia.	'C' Dia. max	Solder Wire Dia.
1,20 (.047)	1,78 (.070)	0,26 (.010)

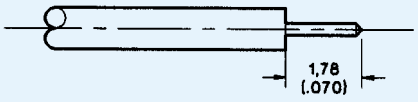
3. Place connector in fixture base seated against locator and insert cable into cable entry end of connector until cable seats firmly. Tighten Clamp screw to secure cable. Tighten locator tool firmly against connector interface (plug) or front of connector (jack). Slide solder rings against rear body as shown. Apply sufficient heat to rear body only using an appropriate heat source (solder tongs with variable control) for solder to flow but using minimum heat cycle.



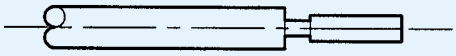
AI-770 SMA Flange Mount Connectors, Direct Solder Type for Semi-Rigid Cable



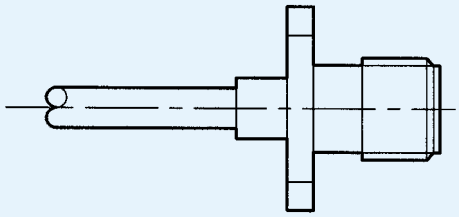
CONTACT BODY ASSEMBLY



1. Strip cable to dimension shown, do not nick inner conductor.



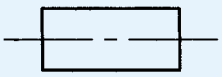
2. Insert contact over inner conductor and push until it bottoms against the cable dielectric as shown. Solder contact to inner conductor through solder hole. Trim excess of cable dielectric, if required.



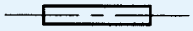
3. Slide contact and cable into rear of body assembly until it seats firmly against insulator in body. Solder cable to body applying sufficient heat to body for solder to flow, but using minimum heat cycle.

Dimensions are shown in mm (inch)
Dimensions subject to change

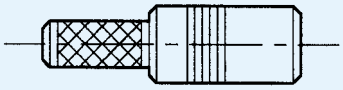
AI-772 MCX Straight Connectors, Crimp Type for Braided Cable



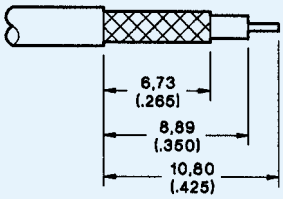
FERRULE



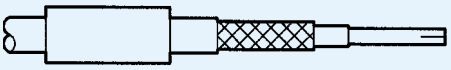
CONTACT



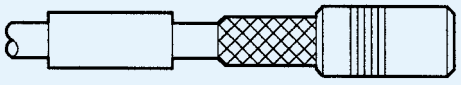
BODY ASSEMBLY



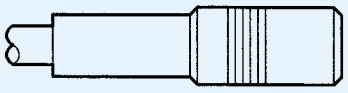
1. Trim cable to dimensions shown. Do not nick outer braid or center conductor. Tin center conductor with solder (DO NOT OVER TIN).



2. Slide ferrule over stripped end of cable. Tin inside diameter of contact with solder. Slide contact over center conductor while applying heat until contact butts on the dielectric of the cable.



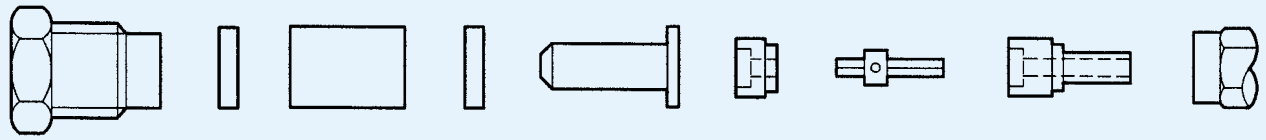
3. Slide contact and cable into the body sub-assembly until the dielectric of the cable stops on the insulator.



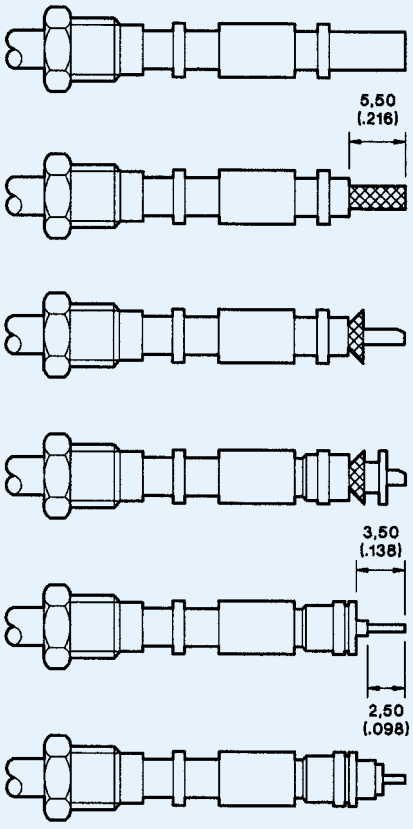
4. Slide ferrule up over the cable braid until it touches the body. Crimp the ferrule in place as shown using ITT Cannon Crimp Tool and suitable die set (see table).

Cable Type	Die Size
RG178/U	2,67 (.105)
RG316/U	3,25 (.128)

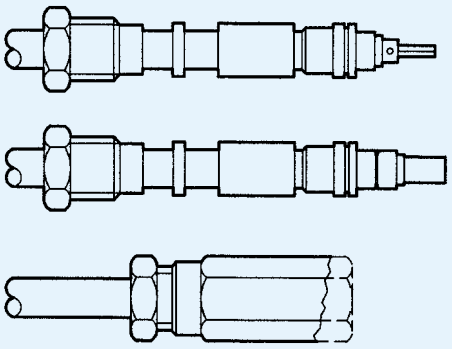
BAI-001 SMB/SMC Straight Connectors, Clamp Type for Braided Cable



CLAMP NUT | No. 1 WASHER | GASKET | No. 2 WASHER | SLEEVE | REAR INSULATOR | CONTACT | FRONT INSULATOR | FRONT BODY



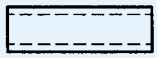
1. Slide clamp nut, No. 1 washer, gasket and No. 2 washer over cable.
2. Trim cable to dimension shown taking care not to nick the braid.
3. Thumb braid out radially at right angles to dielectric.
4. A small chamfer may now be cut on the end of cable dielectric, to assist assembly of sleeve.
5. Slide sleeve over cable dielectric and under braid and outer jacket until the flange of the sleeve is flush against the braid.
6. Move No.2 washer up to braid and trim braid flush with the flange of the sleeve.
7. Trim cable dielectric and center conductor to dimensions shown taking care not to nick the center conductor.
8. Tin center conductor (DO NOT OVER TIN).
9. Slide rear insulator over cable.
10. Place a small solder preform made from 0,26 - 0,31 (.010 - .012) dia (28 swg) multi-core solder in rear of contact.



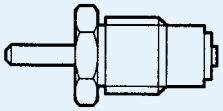
11. Push contact on center conductor as far as possible. Heat center conductor and push until the shoulder of the contact is flush against the rear insulator. Do not allow solder to protrude outside spill hole.
12. Slide on front insulator flush against rear insulator (if not already assembled in body).
13. Move clamp nut, No. 1 washer and gasket up to No. 2 washer, slide on front body and tighten clamp nut to required torque: 0,63 - 0,70 Nm (90 - 100 in. ozs.).

    Only common cable retention features are shown in detail. Various body configurations can apply.

BBAI-1040 SMZ Straight Connectors, Solder Contact, for Braided Cable



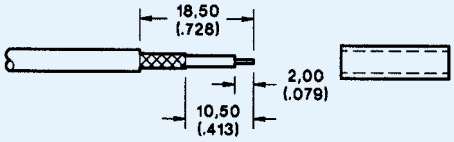
FERRULE



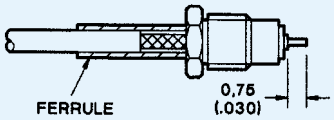
REAR BODY ASSEMBLY

CONTACT (REAR PORTION)

FRONT INSULATOR (PLUG ONLY)

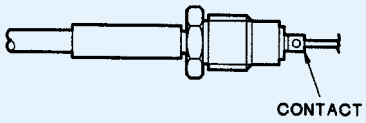


1. Trim cable to dimensions shown being careful not to nick the braid or center conductor. Tin center conductor, (DO NOT OVER TIN) then slip ferrule over cable.

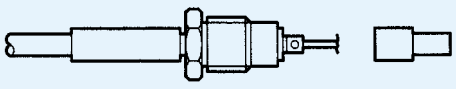


2. Insert trimmed cable into back end of rear body. The tubular extension will slide under the braid. The tinned end of the center conductor should project 0,75 (.030) beyond the face of the insulator. Slip ferrule up to hex. Face of rear body and crimp in position using ITT Cannon crimp tool and suitable die set (see table).

Cable	Die Size
BT2001	4,52 (.178)
BT2002	5,18 (.204)
BT2003	6,81 (.268)
BT3002	4,52 (.178)
RG59B/U	6,48 (.255)
RG62/U	6,48 (.255)
RG140/U	6,48 (.255)
RG179B/U	3,25 (.128)
RG180/U	4,52 (.178)
RG187A/U	3,25 (.128)
RG195A/U	4,52 (.178)
RD179	3,84 (.151)
TZC75024	4,52 (.178)

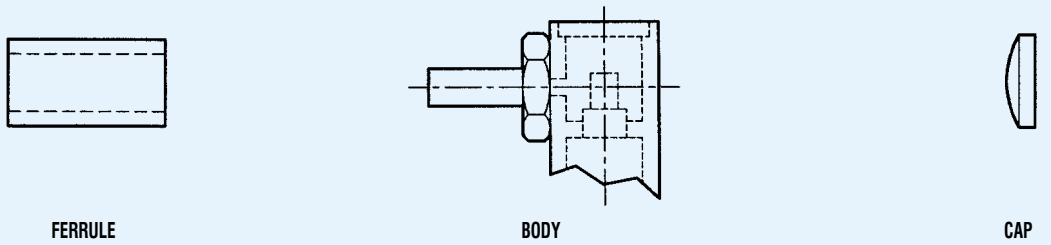


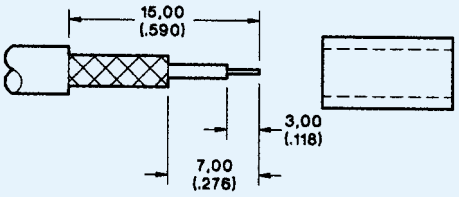
3. Add 2,00 (.078) long slug of 24 SWG60/40 tin/lead solder to bore of contact. Assemble contact onto center conductor with the shoulder of contact flush with insulator as shown. Heat to make soldered connection.



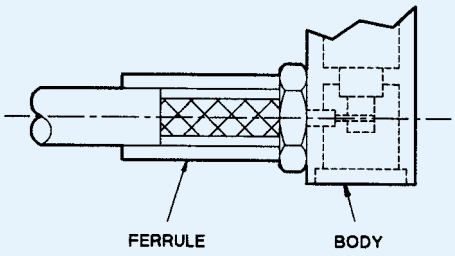
4. Assemble front insulator over contact (jack front insulator is pre-assembled into front body at the factory) then slip front body onto rear body and tighten with torque of 0,99 - 1,06 Nm (140 - 150 in. ozs.)

BBAI-1041 SMZ Right Angle Connectors, Solder Contact, for Braided Cable

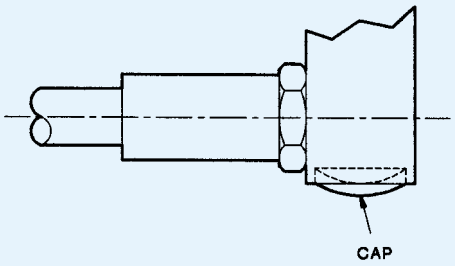




1. Trim cable to dimensions shown being careful not to nick the braid or center conductor. Tin center conductor, (DO NOT OVER TIN), then slip ferrule over cable.



2. Insert trimmed cable into tubular extension. This will slide under the braid. The center conductor will extend into the slotted contact.

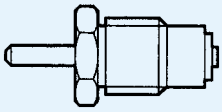


3. Slip cable and ferrule up to face of body and crimp in position using ITT Cannon crimp tool and suitable die set (see table). Solder center conductor to contact. Press cap into body using a flat punch or ITT Cannon Tool T2921.

Cable	Die Size
BT2001	4,52 (.178)
BT2002	5,18 (.204)
BT2003	6,81 (.268)
BT3002	4,52 (.178)
RG59B/U	6,48 (.255)
RG62/U	6,48 (.255)
RG140/U	6,48 (.255)
RG179B/U	3,25 (.128)
RG180/U	4,52 (.178)
RG187A/U	3,25 (.128)
RG195A/U	4,52 (.178)
RD179	3,84 (.151)
TZC75024	4,52 (.178)

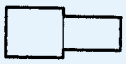
BBAI-1119 SMZ Straight Connectors, Crimp Contact, for Braided Cable

FERRULE

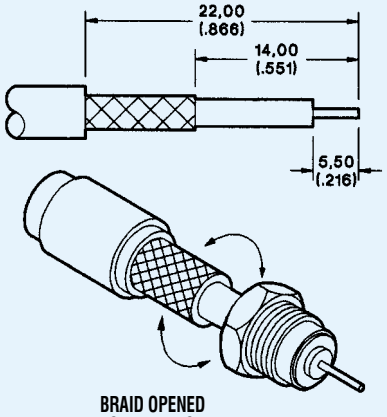


REAR BODY ASSEMBLY

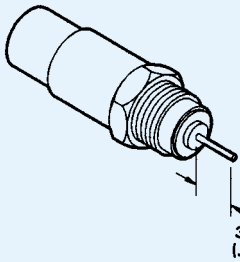
CONTACT (REAR PORTION)

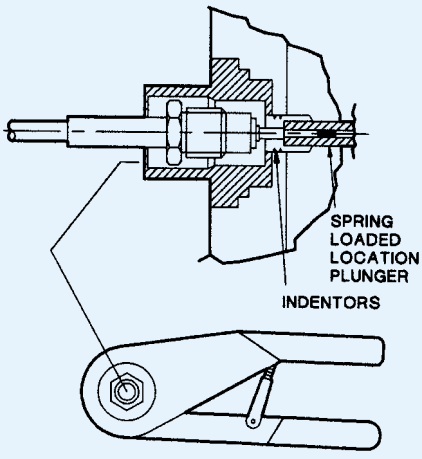


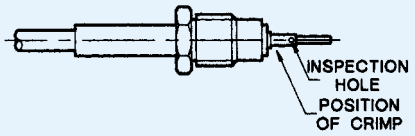
FRONT INSULATOR (PLUG ONLY)



BRAID OPENED FOR REAR BODY







1. Check that the center contact is a free fit in the front insulator and that you have all the connector parts. The termination technique and cable preparation dimensions for the sockets are the same.

2. Strip the cable to the dimensions shown taking care not to damage the braid, dielectric or inner conductor. Slip ferrule over cable.

3. Slide the connector body over the cable so that the rear body goes between the dielectric and the braid. Gently twisting and rocking the connector body to spread the braid will help. Care must be taken to ensure that no strands of braid are trapped under the body.

4. Slide the crimp ferrule forward over the braid until it butts up against the backnut. Crimp using ITT Cannon crimp tool fitted with suitable die set (see table).

Cable	Die Size
BT2001	4,52 (.178)
BT2002	5,18 (.204)
BT2003	6,81 (.268)
BT3002	4,52 (.178)
RG59B/U	6,48 (.255)
RG179B/U	3,25 (.128)
RG187A/U	3,25 (.128)
TZC75024	4,52 (.178)

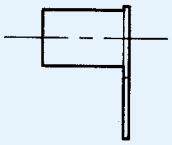
5. Trim the center conductor so that 3,50 (.138) protrudes from the face of the rear insulator. Position the crimp type center pin over the end of the center conductor. The wire should be visible through the inspection hole when positioned for crimping.

6. A separate crimping tool will be needed to crimp the center pin. A suitable tool being the ITT Cannon crimp tool T4519.

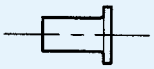
7. The center pin together with the connector body is inserted into the locator of the crimp tool, taking care that the center pin does not fall off in the process! As the connector body is inserted, the spring loaded plunger positions the center pin against the rear insulator. With the connector firmly pushed into the locator, crimp the center pin. (Ensure assembly is resting on bottom of locator.)

8. Withdraw the connector. Assemble the front and rear bodies. If a free fit front insulator is utilised ensure that it is positioned the correct way round. Finally tighten the two body sections using torque wrenches ITT Cannon part numbers T0854/M8/E and T0854/13/E, to a torque of 0,98 - 1,06 Nm (140 - 150 in. ozs.).

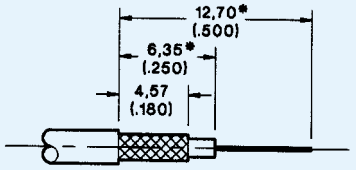
BBAI-1203 Coaxial Terminations, 1 and 2 Point Direct PCB



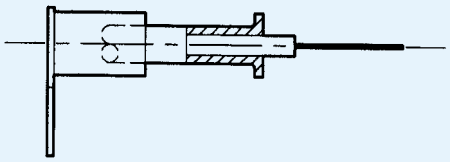
TAB FERRULE



CRIMP BODY

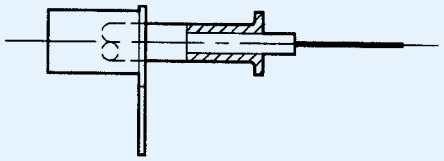


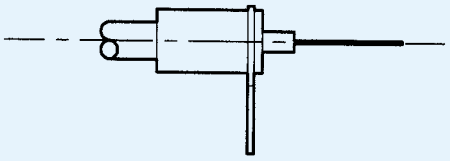
1. Trim cable to dimensions shown being careful not to nick or damage braids or center conductor. Trim center conductor.
   * These dimensions suit 2,54 (.100) and 7,62 (.300) PCB pitches, for other pitches see Note 4.



2. Slide Tab-Ferrule over cable.

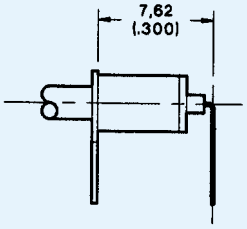
   NOTE: Orientation of tab-ferrule is optional depending upon mounting requirements. Flare braids and slide crimp body over cable dielectric until braids meet flange on crimp body.

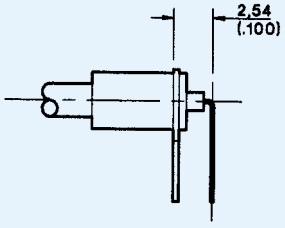




3. Slide tab-ferrule over braids to face of flange and crimp using ITT Cannon crimp tool and suitable die set (see table).

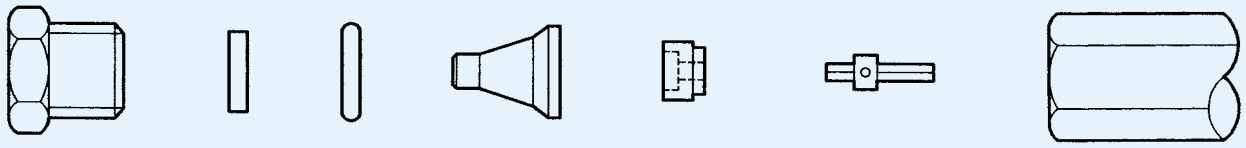
Cable	Die Size
RG174/U	3,25 (.128)
RG178/U	2,67 (.105)
RG179/U	3,25 (.128)
RG188/U	3,25 (.128)
RG196/U	2,67 (.105)
RG316/U	3,25 (.128)



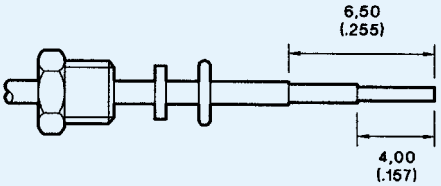


4. Bend center conductor to dimension shown depending upon preferred orientation. These dimensions suit 2,54 (.100) and 7,62 (.300) PCB pitches. For other pitches of 2,54 (.100) multiples add 2,54 (.100) multiples, to the 12,70 (.500) and 6,35 (.250) dimensions in the cable stripping instructions Note 1.

BBAI-1213 SMB Straight Connectors, Clamp Type for Braided Cable

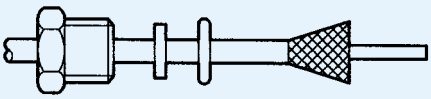


CLAMP NUT | WASHER | 'O' RING | SLEEVE | INSULATOR | CONTACT | BODY



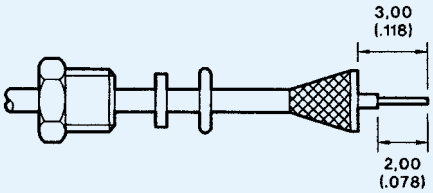
1. Slide clamp nut, washer and 'O' ring over cable.

2. Trim cable to dimensions shown being careful not to nick the braid.



3. Thumb braid out radially at right angles to cable dielectric.

4. Slide sleeve over dielectric and under braid until sleeve is flush with braid.
   NOTE: When using cables with inflexible jackets it is permissible to make two 3,17 (.125) longitudinal slits in the outer jacket.

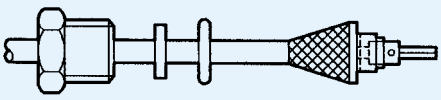


5. Trim braid flush with flange of sleeve.

6. Trim back dielectric to dimensions shown.

7. Tin center conductor (DO NOT OVER TIN).

8. Fit insulator over center conductor.

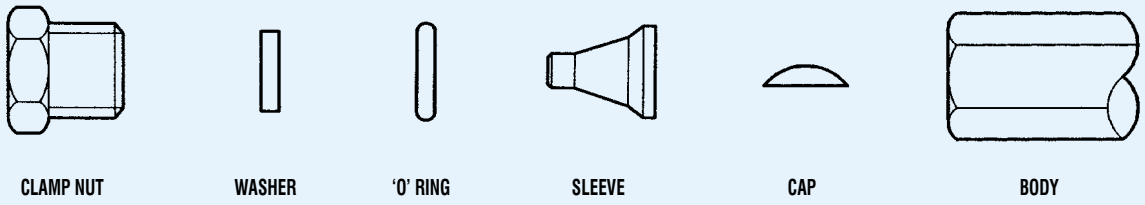


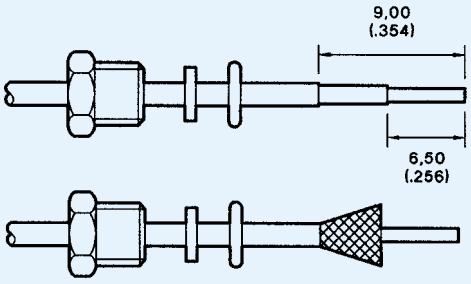
9. Place a solder preform, made from 0,26 - 0,31 (.010 - .012) dia. (28 swg) multi-core solder in rear of contact on center conductor. Heat to make solder connection ensuring shoulder of contact is flush against rear insulator. Do not allow solder to protrude outside spill hole.

10. Fit front insulator if not part of body. Slide 'O' ring forward to trap braid around sleeve.

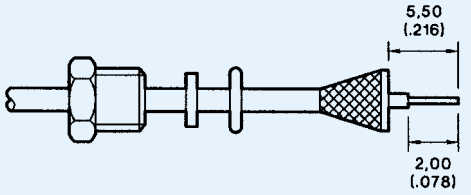
11. Thread on body and tighten clamp nut to 1.02 Nm (9 in. lbs.).

BBAI-1221 SMB Right Angle Connectors, Clamp Type for Braided Cable

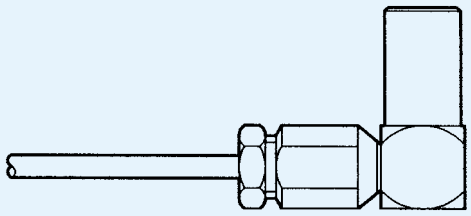




1. Slide clamp nut, washer and '0' ring over cable.
2. Trim cable to dimensions shown being careful not to nick the braid.
3. Thumb braid out radially at right angles to cable dielectric.
4. Slide sleeve over dielectric and under braid until sleeve is flush with braid.
   N.B. When using cables with inflexible jackets it is permissible to make two 3,17 (.125) longitudinal slits in the outer jacket.



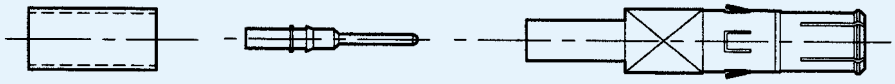
5. Trim braid flush with flange of sleeve.
6. Trim back dielectric to dimension shown.
7. Tin center conductor (DO NOT OVER TIN).
8. Slide '0' ring forward to trap braid around sleeve.
9. Thread into rear body and tighten clamp nut to 1,02 Nm (9 in. lbs.).



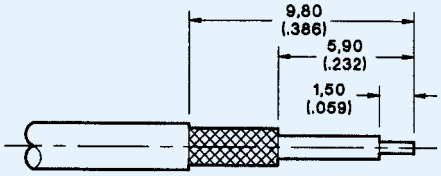
10. Center conductor will extend into contact slot. Using a small soldering iron solder center conductor onto contact.
11. Locate the cap in rear of body and dimple or lightly punch to ensure it is locked in position (recommended tool is a flat punch).

Dimensions are shown in mm (inch)
Dimensions subject to change

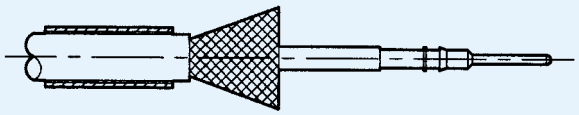
BBAI-1228 MPC Straight Connectors, Crimp Type for Braided Cable



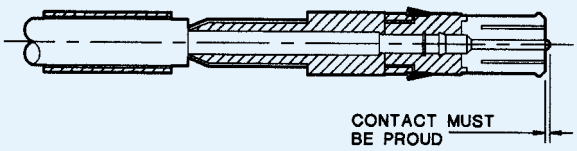
CRIMP FERRULE CONTACT BODY ASSEMBLY



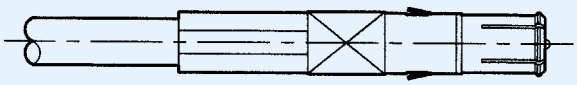
1. Trim cable to dimensions shown being careful not to nick or damage braids or center conductor. Twist center conductor filaments together.



2. Slide ferrule over cable. Slide contact over center conductor and crimp using ITT Cannon Tool CT120090-53 and Positioner 077350-1044. Flare braids as shown.

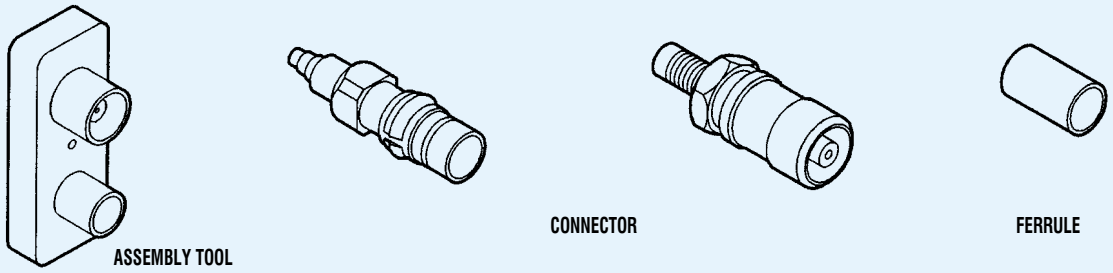


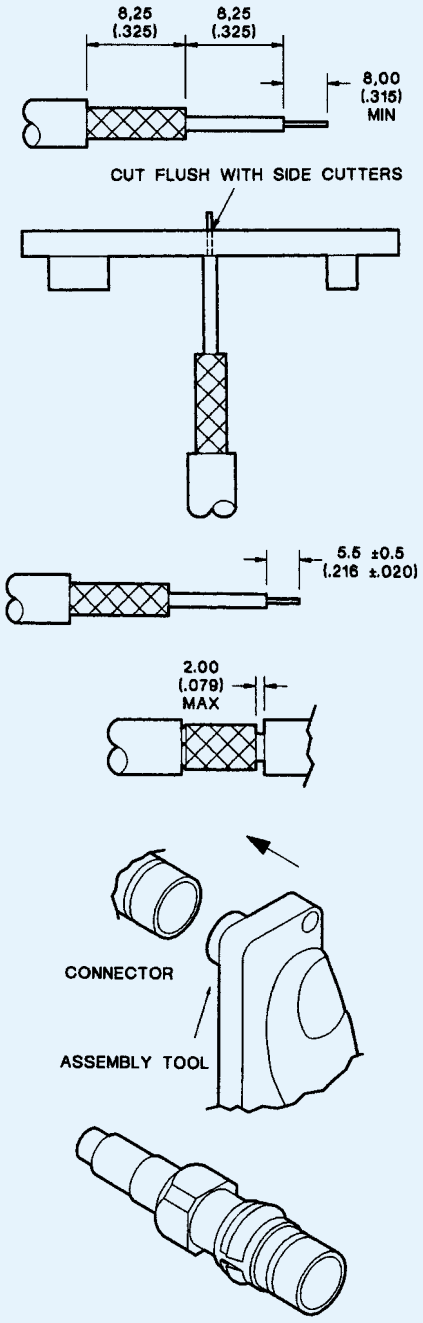
3. Slide rear end of body assembly over contact and cable and under braids until contact butts inside insulator, with full contact radius just protruding from front of insert, as shown.



4. Slide ferrule over braids until it butts against insert square flange and crimp using ITT Cannon Tool T1025/- and die set T1025/3.

BBAI-1238 SMZ QT™ Connectors for Braided Cable





1. Prepare cable, using a suitable stripping, tool to the dimensions shown being careful not to damage the braid, dielectric or inner conductor.

   NOTE: Do not attempt to mate unterminated connectors.

2. Trim center conductor to dimensions shown by inserting conductor through the hole in the center of the assembly tool and trimming, with sharp side cutters, flush with the face of the tool. DIMENSIONS CAN BE CHECKED USING THE TEMPLATE ON THE REAR FACE OF THE ASSEMBLY TOOL.

3. ENSURE THAT THE INNER CONDUCTOR IS STRAIGHT. Slide the crimp ferrule over the cable sheath. Fit the connector body onto the cable so that the rear body slides between the dielectric and the braid (gently twisting and rocking the connector body to spread the braid will help). Care must be taken to ensure that no strands of braid are trapped under the body. A small gap [2,00 (.079) maximum] should be evident between braid and face of body.

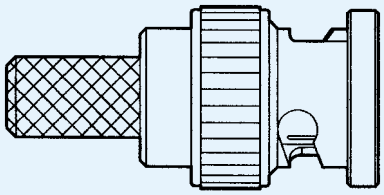
4. Support cable/connector in one hand. Press home insulator using assembly tool provided, using the larger for the DDF jack and the smaller for the Posilock plug.

5. Slide the crimp ferrule forward, over the braid, until it butts up against the rear of the connector. Crimp using ITT Cannon crimp tool fitted with a suitable die set (see table).

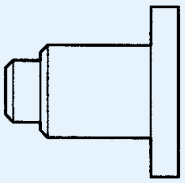
Cable	Die Size
BT2003	6,81 (.268)
BT3002	4,52 (.178)
TZC75024	4,52 (.178)

BBAI-1243 QT™ 75Ω BNC Plug for Braided Cable

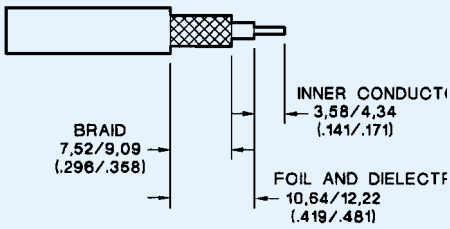
CRIMP FERRULE



PLUG ASSEMBLY



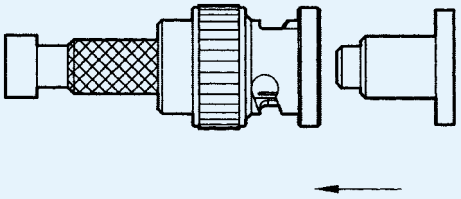
ASSEMBLY TOOL



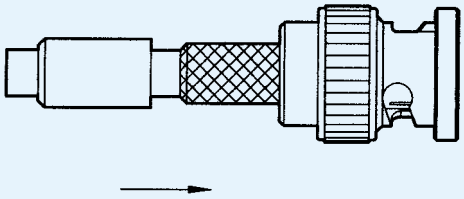
1. Prepare cable using a suitable stripping tool to the dimensions shown, being careful not to damage the braid, dielectric, foil or inner conductor.

   NOTE: Do not attempt to mate unterminated connectors.

2. ENSURE THAT THE INNER CONDUCTOR IS STRAIGHT.
   After removal of the assembly tool from the crimp barrel (if fitted), slide crimp ferrule over the cable sheath. Fit the plug assembly onto the cable so that the crimp barrel slides between the dielectric/foil and the braid (gently twisting and rocking the plug assembly to spread the braid will help). Care must be taken to ensure that no strands of braid are trapped under the body. The cable must be inserted until the dielectric can be felt butting against the rear insulator.

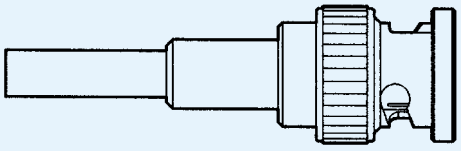


3. Supporting the cable and plug asembly in one hand, press the front insulator fully home using the assembly tool provided. A light pull on the cable will confirm the captivation of the center conductor.



4. Slide the ferrule over braid until it butts up to the back of the connector. Crimp in position using an ITT Cannon Crimp Tool and suitable die set (See table).

   Alternative method, using combined assembly/crimp tool
   Load the connector assembly into the combined assembly/crimp tool (see table) making sure that the center pin is aligned with the hole in the dielectric bushing and the ferrule aligned in the die. Close tool handles until ratchet releases. Allow tool handles to return to the open position and remove crimped connector assembly.



Cable	Cap Color	Cable Code	Die Size	Combined Assembly/ Crimp Tool Part Number
735A	Red	9019	4,52 (.178)	050-000-0030020
734	Dark Blue	9029	6,48 (.255)	050-000-0030040
M17/29-RG59/U	Light Blue	9039	6,48 (.255)	050-000-0030040
1694A	Black	9049	7,72 (.304)	050-000-0030010

Torque Wrenches

Jaw Size	Torque Nm (In. ozs.)	Part Number (USA)	Part Number (UK)
5,54 (.218)	0,42 - 0,49 (60 - 70)	050-000-0854080	T0854/8/A
5,54 (.218)	0,64 - 0,71 (90 - 100)	050-000-2854080	T0854/8/C
5,94 (.234)	0,42 - 0,49 (60 - 70)	050-000-0854090	T0854/9/A
5,94 (.234)	0,64 - 0,71 (90 - 100)	050-000-2854090	T0854/9/C
6,35 (.250)	0,56 - 0,64 (80 - 90)	050-000-1854100	T0854/10/K
7,92 (.312)	0,99 - 1,06 (140 - 150)	050-000-4854120	T0854/M8/E

This is not the entire range of Torque Wrenches. Contact Sales Department for details of other styles.

Crimp Tools and Die Sets

Description	Part Number (USA)	Part Number (UK)
Crimp Tool without Die Set	050-000-0000000	T1025/-
Die Set for Cables RG178/U, 196/U	050-000-0290000*	K29263 *2,67 (.105)
Die Set for Cables RG174/U, 316/U	050-000-0290000*	K29263 * 3,25 (.128)
Die Set for Cable RG142/U	050-000-0291000**	K29265 5,41 (.213)
Die Set for Cable RD316	050-000-0292000	T1025/9 3,84 (.151)
Die Set for Cables 2001, 3002, TZC75024		T1025/5 4,52 (.178)
Die Set for Cable 2002		T1025/6 5,18 (.204)
Die Set for Cable 2003		T1025/8 6,81 (.268)

This is not the entire range of Crimp Tools. Contact Sales Department for details of other styles.

	A/F Dimension
* 3 way die set	2,67 (.105) 3,25 (.128) 4,52 (.178)
** 2 way die set	3,25 (.128) 5,41 (.213)

SMA Tools

Description	Part Number
Universal Assembly Jig	T1848
Insulator Insertion Tool (Plugs)	T2508
Insulator Insertion Tool (Jacks)	T2509
Circlip Pliers	T0557/1
Center Conductor Pointing Tool for 3,58 (.141) Semi-Rigid Cable	T2297
Solderless Connector Compression Tool	050-000-0130000

SMZ Tools

Description	Part Number
Center Contact Crimp Tool for SMZ Connectors	T4519
Assembly Jig for Straight SMZ	T2887/A
Assembly Jig for Right Angle SMZ Connectors	T2921
Stripping Tool for 2001, 2002 & 2003 Cables	T4555
Stripping Tool for 3002 Cable	T4809
HDC Combination Extractor Tool	T4825
Extractor Tool 65A	T4653

QT™-BNC Assembly/Crimp Tools

For Cable Number	Part Number
Beldon 1694A	050-000-0030010
735A (AT&T)	050-000-0030020
734 and M17/29-RG59/U	050-000-0030040