

BNC, N, TNC Connectors

ONLINE
CATALOG

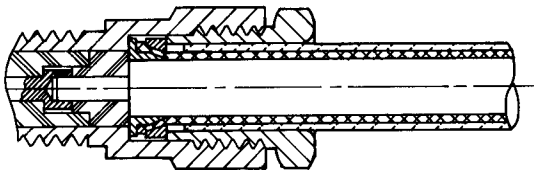
AEP BNC, N, and TNC series connectors are specifically designed for use with miniature flexible and semi-rigid cable. They are available with gold-plated or nickel-plated bodies and hardware. These connectors have solder-clamp attachment for semi-rigid cable, or clamp or crimp attachment for flexible cable. Both crimp and clamp types for flexible cable grip the cable braid with a force greater than the breaking strength of the braid. All have captive contacts.

The precision N connectors on page 4 have stainless-steel bodies, and captive plug-on center contacts for easy cable assembly.

Contents

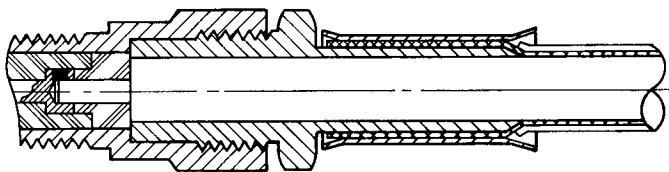
BNC Connectors for Miniature Cable	2
Standard N Connectors for Miniature Cable	3
Precision N Connectors for Semi-Rigid Cable	4
TNC Connectors for Miniature Cable	5
Assembly Instructions.	6
Mounting Dimensions.	9
Assembly Tooling	9
Index by part number	9

Cable Attachment Methods



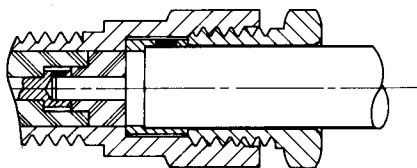
Clamp Type For Flexible Cable

These connectors can be assembled without special tooling, and are field replaceable. They provide metal-to-metal clamping of the cable braid.



Crimp Type For Flexible Cable

Crimping the cable braid is the most reliable and repeatable method of cable assembly, and provides support for the cable during flexure. AEP crimp type connectors are assembled quickly and easily using readily-available commercial or MIL crimp tools.



Solder-Clamp For Semi-Rigid Cable

This method allows retrimming of the cable dielectric, if necessary, during assembly. Connectors can be repositioned relative to the cable after assembly by loosening the clamp nut. Solder-clamp connectors are field replaceable without special tools.



BNC Connectors for Miniature Cable

Click on part number to go directly to cable assembly instructions

Straight Plug

Clamp type for flexible cable:

6500-1051-0XX (Gold plated)

6500-7051-0XX (Nickel plated)

Crimp type for flexible cable:

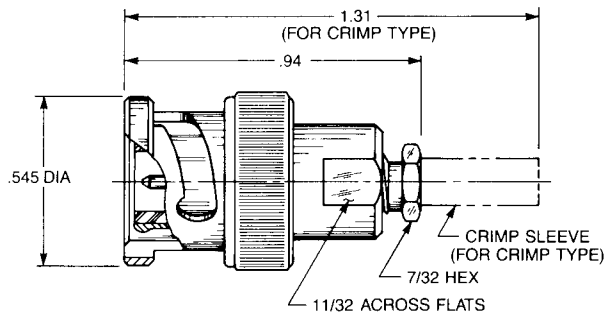
6500-1071-0XX (Gold plated)

6500-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6500-1041-0XX (Gold plated)

6500-7041-0XX (Nickel plated)



Bulkhead Mounted Jacks

Front Mount

Clamp type for flexible cable:

6502-1051-0XX (Gold plated)

6502-7051-0XX (Nickel plated)

Crimp type for flexible cable:

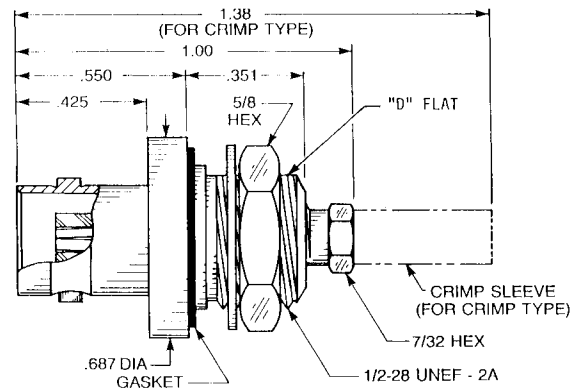
6502-1071-0XX (Gold plated)

6502-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6502-1041-0XX (Gold plated)

6502-7041-0XX (Nickel plated)



Rear Mount

Clamp type for flexible cable:

6501-1051-0XX (Gold plated)

6501-7051-0XX (Nickel plated)

Crimp type for flexible cable:

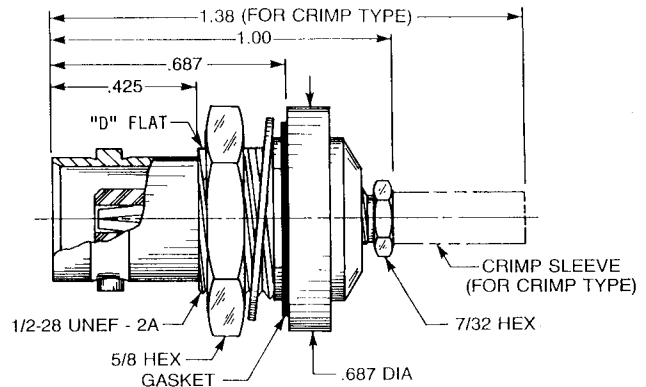
6501-1071-0XX (Gold plated)

6501-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6501-1041-0XX (Gold plated)

6501-7041-0XX (Nickel plated)



Substitute the appropriate cable group number for "XX" when ordering:

GROUP	CABLE TYPES	GROUP	CABLE TYPES	GROUP	CABLE TYPES
02	RG178, RG196, M17/93, M17/169	05	RG178DS, RG196DS	10	.085" semi-rigid, RG405, M17/133
03	RG174, RG179, RG316, M17/113, M17/119, M17/172, M17/189	09	.141" semi-rigid, RG 402M17/130	19	RG174DS, RG316DS, M17/151, M17/152, Times RD-316



APPLIED ENGINEERING PRODUCTS

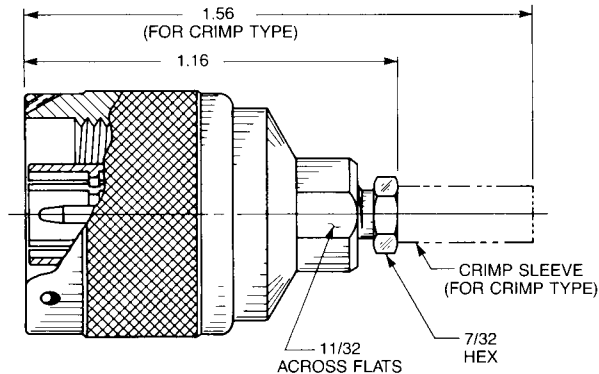
(203) 776-2813 • FAX (203) 776-8294

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N Connectors for Miniature Cable

Click on part number to go directly to cable assembly instructions

Straight Plug

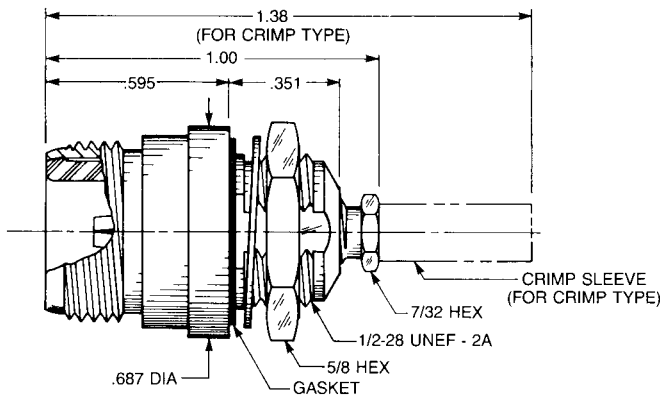


Clamp type for flexible cable:
4000-1051-0XX (Gold plated)
4000-7051-0XX (Nickel plated)

Crimp type for flexible cable:
4000-1071-0XX (Gold plated)
4000-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:
4000-1041-0XX (Gold plated)
4000-7041-0XX (Nickel plated)

Bulkhead Mounted Jacks

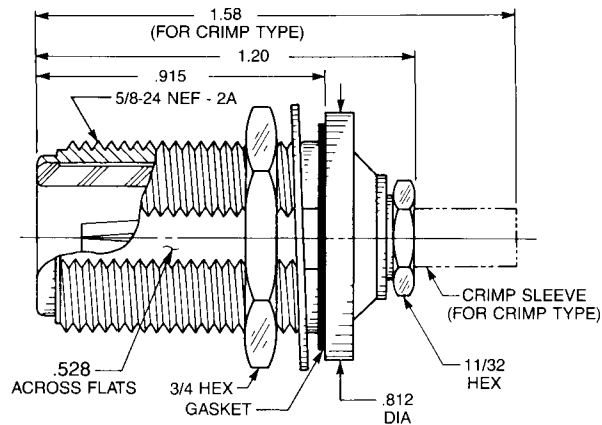


Front Mount

Clamp type for flexible cable:
4502-1051-0XX (Gold plated)
4502-7051-0XX (Nickel plated)

Crimp type for flexible cable:
4502-1071-0XX (Gold plated)
4502-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:
4502-1041-0XX (Gold plated)
4502-7041-0XX (Nickel plated)



Rear Mount

Clamp type for flexible cable:
4501-1051-0XX (Gold plated)
4501-7051-0XX (Nickel plated)

Crimp type for flexible cable:
4501-1071-0XX (Gold plated)
4501-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:
4501-1041-0XX (Gold plated)
4501-7041-0XX (Nickel plated)

Substitute the appropriate cable group number for "XX" when ordering:

GROUP	CABLE TYPES	GROUP	CABLE TYPES	GROUP	CABLE TYPES
02	RG178, RG196, M17/93, M17/169	05	RG178DS, RG196DS	10	.085" semi-rigid, RG405, M17/133
03	RG174, RG179, RG316, M17/113, M17/119, M17/172, M17/189	09	.141" semi-rigid, RG 402M17/130	19	RG174DS, RG316DS, M17/151, M17/152, Times RD-316

Precision N Connectors for Semi-Rigid Cable

Click on part number to go directly to cable assembly instructions

These precision N connectors are constructed with 303 stainless steel bodies, Teflon insulators, and beryllium copper contacts.

They feature captivated contacts which plug on to the cable center conductor, eliminating contact gapping and soldering during assembly—simply trim the cable, slide the connector on, and solder the jacket.

Straight Plug

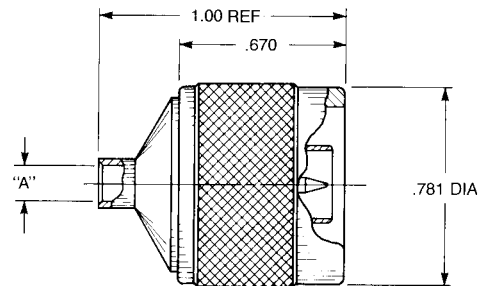
- Direct solder type
- Gold plated body, passivated coupling nut.

For .085" semi-rigid (A = .089):

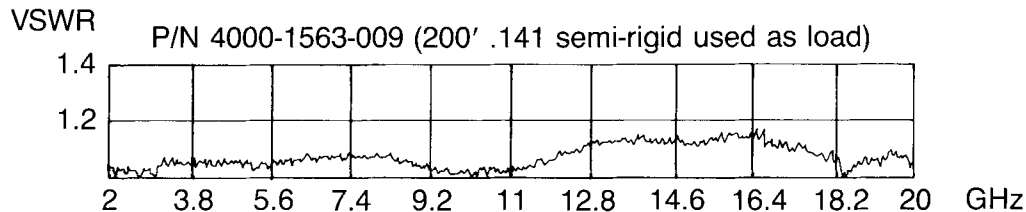
4000-1563-010

For .141" semi-rigid (A = .144):

4000-1563-009



Typical VSWR:



Bulkhead Mounted Jack

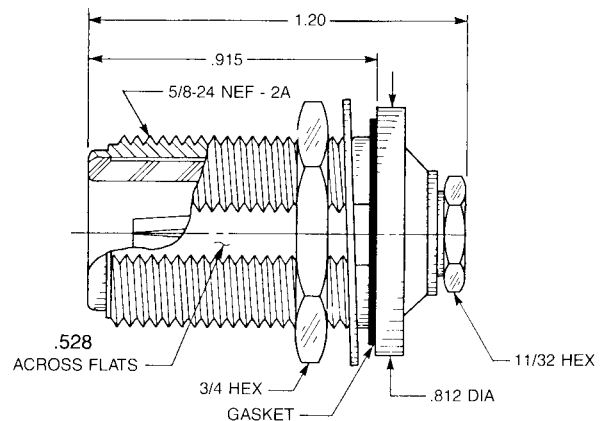
- Solder-clamp type to allow repositioning of D-flats after assembly.
- Passivated body, gold plated solder ferrule.
- Rear mount

For .085" semi-rigid:

4501-9543-010

For .141" semi-rigid:

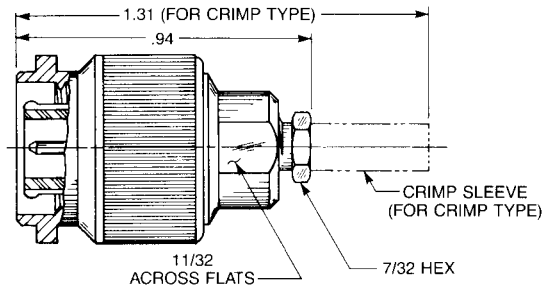
4501-9543-009



TNC Connectors for Miniature Cable

Click on part number to go directly to cable assembly instructions

Straight Plug



Clamp type for flexible cable:

6000-1051-0XX (Gold plated)
6000-7051-0XX (Nickel plated)

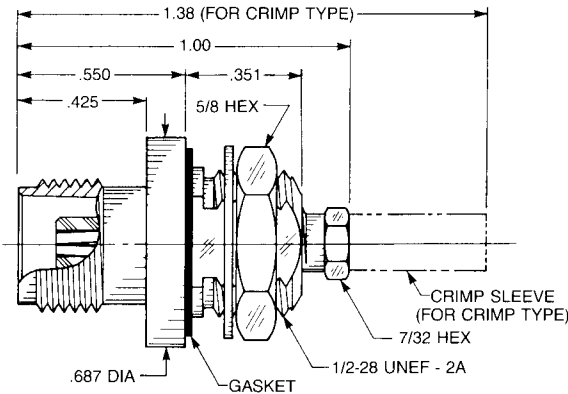
Crimp type for flexible cable:

6000-1071-0XX (Gold plated)
6000-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6000-1041-0XX (Gold plated)
6000-7041-0XX (Nickel plated)

Bulkhead Mounted Jacks



Front Mount

Clamp type for flexible cable:

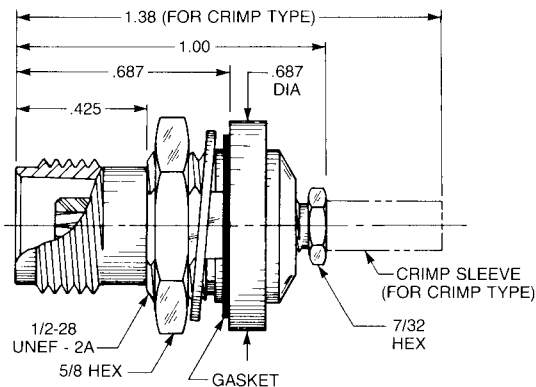
6002-1051-0XX (Gold plated)
6002-7051-0XX (Nickel plated)

Crimp type for flexible cable:

6002-1071-0XX (Gold plated)
6002-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6002-1041-0XX (Gold plated)
6002-7041-0XX (Nickel plated)



Rear Mount

Clamp type for flexible cable:

6001-1051-0XX (Gold plated)
6001-7051-0XX (Nickel plated)

Crimp type for flexible cable:

6001-1071-0XX (Gold plated)
6001-7071-0XX (Nickel plated)

Solder-clamp for semi-rigid cable:

6001-1041-0XX (Gold plated)
6001-7041-0XX (Nickel plated)

Substitute the appropriate cable group number for "XX" when ordering:

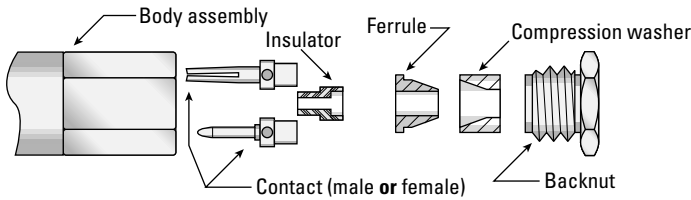
GROUP	CABLE TYPES	GROUP	CABLE TYPES	GROUP	CABLE TYPES
02	RG178, RG196, M17/93, M17/169	05	RG178DS, RG196DS	10	.085" semi-rigid, RG405, M17/133
03	RG174, RG179, RG316, M17/113, M17/119, M17/172, M17/189	09	.141" semi-rigid, RG 402M17/130	19	RG174DS, RG316DS, M17/151, M17/152, Times RD-316

Cable Assembly Instructions

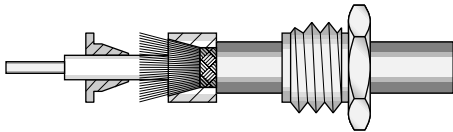
Clamp type connectors for flexible cable

Straight Connectors—Flexible Cable

Parts list

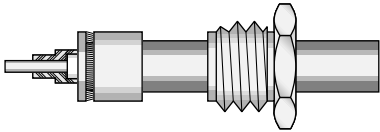


1



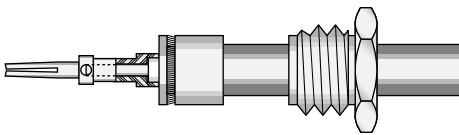
- Trim cable per trim code below; tin end of center conductor.
- Slide backnut onto cable. Slide compression washer onto cable in the orientation shown until it stops against cable jacket.
- Flare cable braid by rotating dielectric and slide ferrule under braid.

2



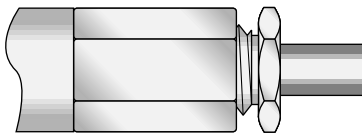
- Press ferrule against compression washer.
- Trim excess braid flush with outer diameter of compression washer and ferrule.
- Assemble insulator over cable center conductor and dielectric.

3



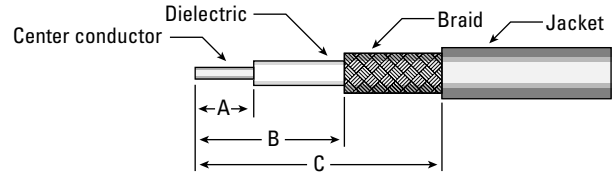
- Assemble contact onto cable center conductor.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact).

4



- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)

Cable Trim Dimensions



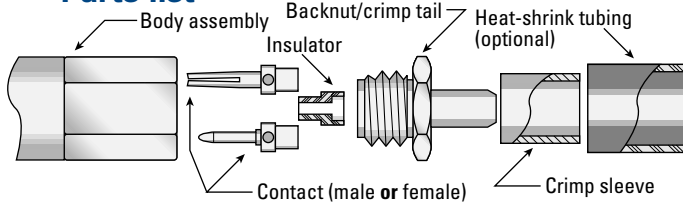
CONNECTOR TYPE	A	B	C
BNC and TNC plugs	.125	.325	.425
BNC and TNC bulkhead jacks	.125	.300	.400
N plugs	.150	.300	.400
N bulkhead jacks (front mount)	.200	.220	.310
N bulkhead jacks (rear mount)	.125	.125	.275

Cable Assembly Instructions

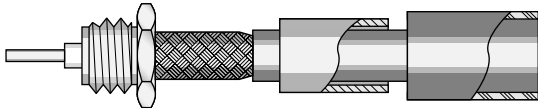
Crimp type connectors for flexible cable

Straight Connectors—Flexible Cable

Parts list

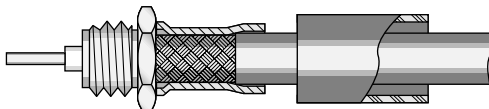


1



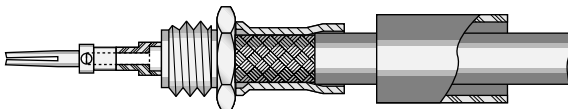
- Trim cable per trim code below; tin end of center conductor.
- Slide heat-shrink tubing and crimp sleeve over cable.
- Flare cable braid by rotating dielectric and slide cable into crimp tail.

2



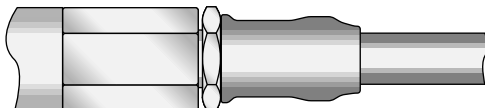
- Position cable so braid touches rear of back nut.
- Slide crimp sleeve forward to touch rear of back nut.
- Crimp braid with appropriate die size from chart below.

3



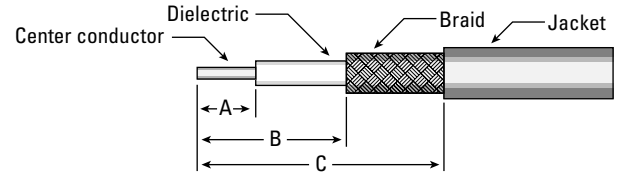
- Assemble insulator and contact onto cable dielectric and center conductor.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact).

4



- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)
- Slide shrink tubing over crimp sleeve and shrink to fit.

Cable Trim Dimensions



CONNECTOR TYPE	A	B	C
BNC and TNC plugs	.100	.600	.870
BNC and TNC bulkhead jacks	.125	.600	.850
N plugs	.150	.600	.850
N bulkhead jacks (front mount)	.200	.510	.760
N bulkhead jacks (rear mount)	.125	.515	.765

Crimp Die Sizes

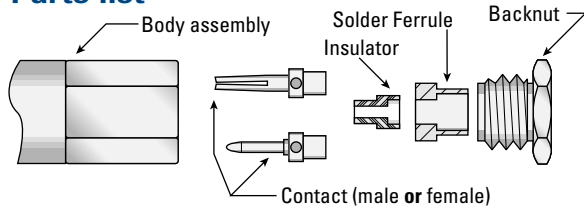
CABLE GROUP	HEX DIE SIZE
02	.105
03	.128
05	.128
19	.128

Cable Assembly Instructions

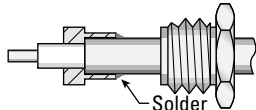
Solder-clamp connectors for semi-rigid cable

Straight Connectors—Semi-Rigid Cable

Parts list

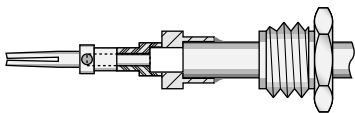


1



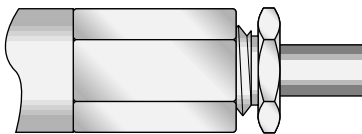
- Trim cable per trim code below; tin end of center conductor. (For precision N bulkhead jack, chamfer end of center conductor and do not tin.)
- Slide backnut over cable. Slide solder ferrule over cable until it stops against cable jacket.
- Solder cable jacket to ferrule.

2



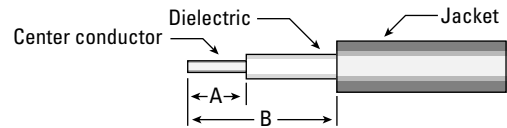
- Assemble insulator and contact onto cable dielectric and center conductor. If insulator is not flush against solder ferrule due to dielectric extrusion, retrim dielectric.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact). (omit this step for precision N bulkhead jacks)

3



- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)

Cable Trim Dimensions



CONNECTOR TYPE	A	B
BNC and TNC—.085" cable	.125	.330
BNC and TNC—.141" cable	.115	.330
N plugs	.200	.350
N bulkhead jacks (front mount)	.120	.150
Standard N bulkhead jacks (rear mount)—.085" cable	.125	.195
Standard N bulkhead jacks (rear mount)—.141" cable	.125	.125
Precision N plugs	.125	.125
Precision N bulkhead jacks (rear mount)—.085" cable	.125	.195
Precision N bulkhead jacks (rear mount)—.141" cable	.000	.125

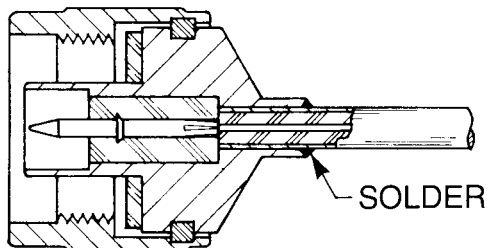
Precision N plugs for semi-rigid cable

1

- Trim cable per trim code below; chamfer end of center conductor.

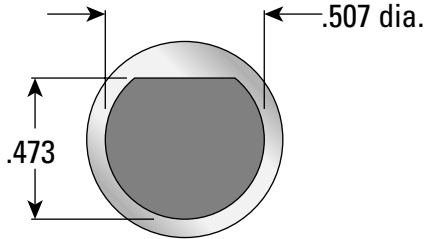
2

- Insert cable into body assembly until it stops.
- Solder cable jacket to connector body.

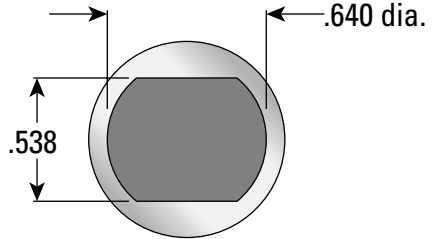


Mounting Dimensions

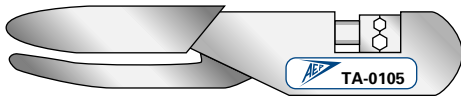
Bulkhead jacks (except N rear mount)



N rear mount bulkhead jacks



Assembly Tooling



DESCRIPTION	AEP P/N
Crimp tool with .105" and .128" hex dies	TA-0105



DESCRIPTION	AEP P/N
Torque wrench with 7/32" jaws for cable connector backnuts; 95 inch-ounces torque	TA-0436

Index by Part Number

Click on any line below to go directly to the appropriate page

P/N	Page	P/N	Page
4000-1041-0XX	3	6001-1051-0XX	5
4000-1051-0XX	3	6001-1071-0XX	5
4000-1071-0XX	3	6001-7041-0XX	5
4000-1563-009	4	6001-7051-0XX	5
4000-1563-010	4	6001-7071-0XX	5
4000-7041-0XX	3	6002-1041-0XX	5
4000-7051-0XX	3	6002-1051-0XX	5
4000-7071-0XX	3	6002-1071-0XX	5
4501-1041-0XX	3	6002-7041-0XX	5
4501-1051-0XX	3	6002-7051-0XX	5
4501-1071-0XX	3	6002-7071-0XX	5
4501-7041-0XX	3	6500-1041-0XX	2
4501-7051-0XX	3	6500-1051-0XX	2
4501-7071-0XX	3	6500-1071-0XX	2
4501-9543-009	4	6500-7041-0XX	2
4501-9543-010	4	6500-7051-0XX	2
4502-1041-0XX	3	6500-7071-0XX	2
4502-1051-0XX	3	6501-1041-0XX	2
4502-1071-0XX	3	6501-1051-0XX	2
4502-7041-0XX	3	6501-1071-0XX	2
4502-7051-0XX	3	6501-7041-0XX	2
4502-7071-0XX	3	6501-7051-0XX	2
6000-1041-0XX	5	6501-7071-0XX	2
6000-1051-0XX	5	6502-1041-0XX	2
6000-1071-0XX	5	6502-1051-0XX	2
6000-7041-0XX	5	6502-1071-0XX	2
6000-7051-0XX	5	6502-7041-0XX	2
6000-7071-0XX	5	6502-7051-0XX	2
6001-1041-0XX	5	6502-7071-0XX	2

-0XX Indicates cable connectors with various types on specified page.



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