

# SLB Series Subminiature RF Connectors

ONLINE  
CATALOG

Slide-on mating  
Frequency range DC-4 GHz  
Float mount / blind-mate versions



SMB and SMC connectors also shown for comparison



**APPLIED ENGINEERING PRODUCTS**

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# SLB Subminiature Connectors

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# SLB Specifications

## Specifications (MIL-PRF-39012 as applicable)

### Materials:

**Body components, male contacts:** Brass per ASTM-B-16, alloy 360, 1/2 hard.

**Female contacts:** Beryllium copper per ASTM-B-196, Condition HT.

**Insulators:** Teflon TFE per ASTM-D-1710.

### Finish:

**Center contacts:** Gold plated per current revision of MIL-PRF-39012\*

**Other metal parts:** Gold or nickel plated to meet current MIL-PRF-39012 corrosion requirements.\*

### Electrical:

**Impedance:** 50Ω. **Frequency range:** DC–4 GHz. **Insulation Resistance:** 1,000 megohms minimum.

**Voltage Rating:** 250VRMS @ sea level (RG-178 cable); 335VRMS @ sea level (RG-316 cable).

**Dielectric Withstanding Voltage:** 750VRMS @ sea level (RG-178 cable); 1000VRMS @ sea level (RG-316 cable).

### Contact Resistance:

Straight connectors: Initial: 6 milliohms maximum; after environmental test conditions: 8 milliohms maximum.

Right angle connectors: Initial: 12 milliohms maximum; after environmental test conditions: 16 milliohms maximum.

**Corona level:** 125V @70,000 ft. **RF highpot:** 400 VRMS @ 5 MHz.

**RF leakage:** -55 dB min @ 2–3 GHz. **Insertion loss:** .30 dB max (straight connectors), .60 dB max (right angle connectors) @ 1.5 GHz.

VSWR:	Cable	Straight connector	Right angle connector
	RG-178	$1.30 + (.04 \times F[\text{GHz}])$	$1.45 + (.06 \times F[\text{GHz}])$
	RG-316	$1.25 + (.04 \times F[\text{GHz}])$	$1.35 + (.04 \times F[\text{GHz}])$

### Mechanical:

**Force to engage:** 6 pounds max.

**Contact retention:** 2 pounds min axial force. **Durability:** 500 mating cycles.

### Environmental (MIL-STD-202):

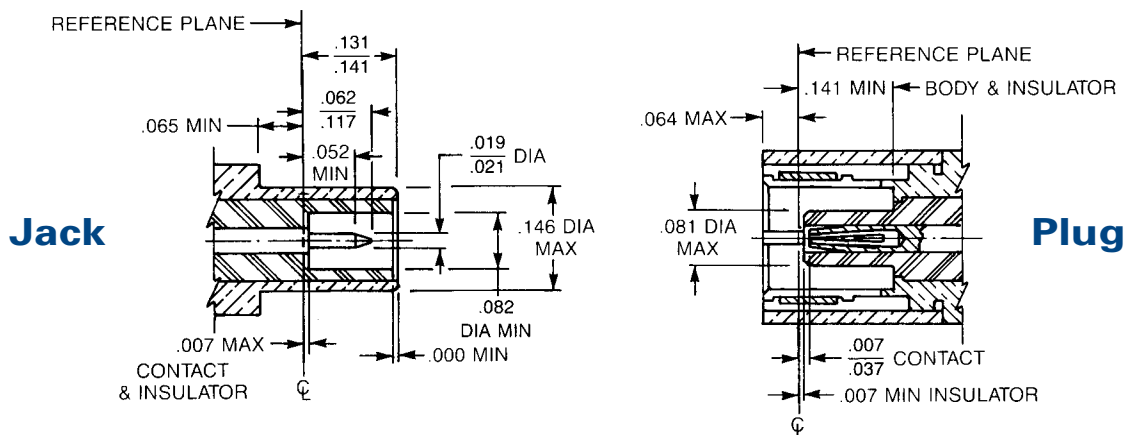
**Temperature range:** -65° C to +165° C. **Corrosion:** Method 101, condition B, 5% salt solution.

**Vibration (Method 204):** N/A.

**Mechanical shock (Method 213):** N/A. **Thermal shock (Method 107):** Condition B.

\*These specifications change periodically with updates to MIL-PRF-39012 requirements. Contact factory for latest specifications.

## Interface Dimensions



# SLB Cable Attachment Methods

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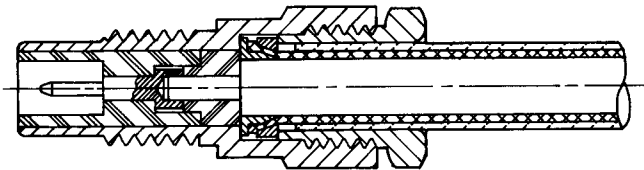
All SLB cable connectors in this catalog have captivated contacts which are soldered to the cable center conductor.

Both crimp and clamp types for flexible cable grip the cable braid with a force greater than the breaking strength of the braid.

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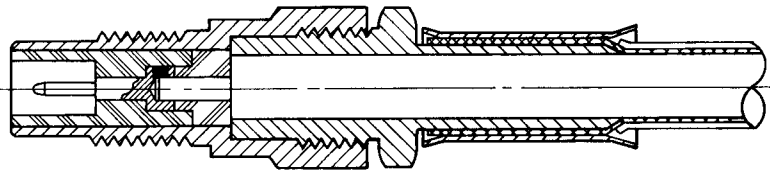
## **Clamp Type For Flexible Cable**

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



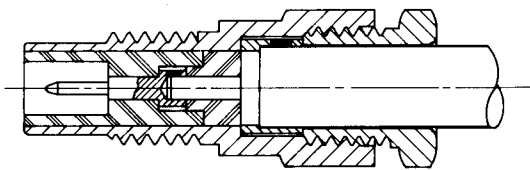
## **Crimp Type For Flexible Cable**

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.



# SLB Cable Plugs

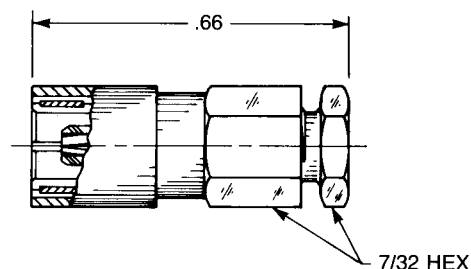
Click on part number to go directly to cable assembly instructions

## Straight Plugs

### Straight Female Cable Plug

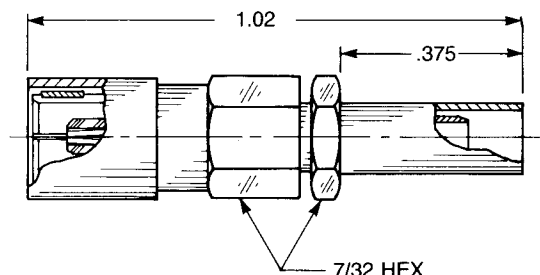
Clamp type for flexible cable:  
**3002-1551-0XX** (Gold plated)  
**3002-7551-0XX** (Nickel plated)

Solder-clamp for semi-rigid cable:  
**3002-1541-0XX** (Gold plated)  
**3002-7541-0XX** (Nickel plated)



### Straight Female Cable Plug

Crimp type for flexible cable:  
**3002-1571-0XX** (Gold plated)  
**3002-7571-0XX** (Nickel plated)

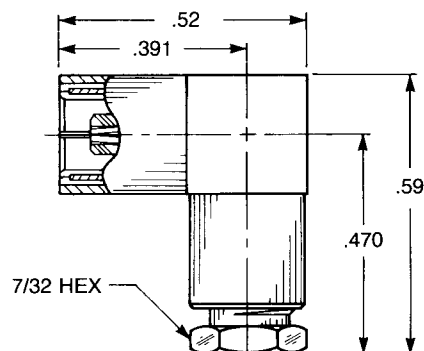


## Right Angle Plugs

### Right Angle Female Cable Plug

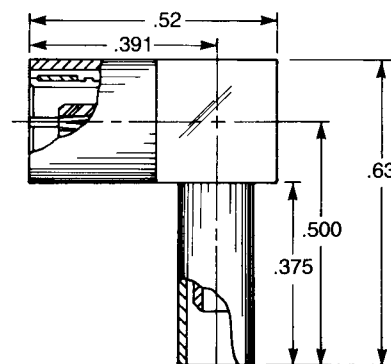
Clamp type for flexible cable:  
**3005-1551-0XX** (Gold plated)  
**3005-7551-0XX** (Nickel plated)

Solder-clamp for semi-rigid cable:  
**3005-1541-0XX** (Gold plated)  
**3005-7541-0XX** (Nickel plated)



### Right Angle Female Cable Plug

Crimp type for flexible cable:  
**3105-1521-0XX** (Gold plated)  
**3105-7521-0XX** (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



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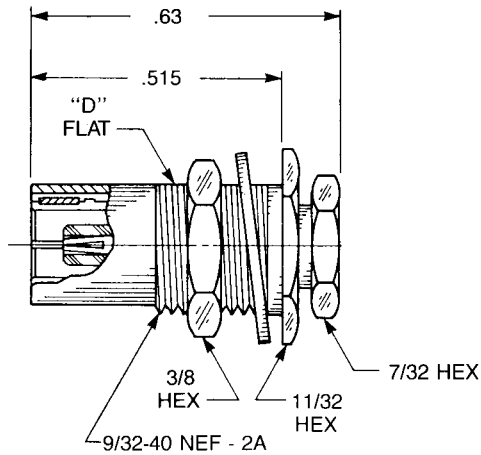
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# SLB Cable Plugs

Click on part number to go directly to cable assembly instructions

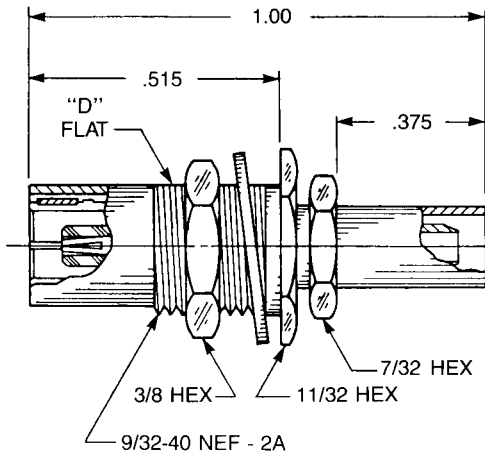
## Straight Bulkhead Mounted Plugs



### Bulkhead Mounted Straight Female Cable Plug

Clamp type for flexible cable:  
**3028-1551-0XX** (Gold plated)  
**3028-7551-0XX** (Nickel plated)

Solder-clamp for semi-rigid cable:  
**3028-1541-0XX** (Gold plated)  
**3028-7541-0XX** (Nickel plated)



### Bulkhead Mounted Straight Female Cable Plug

Crimp type for flexible cable:  
**3028-1571-0XX** (Gold plated)  
**3028-7571-0XX** (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

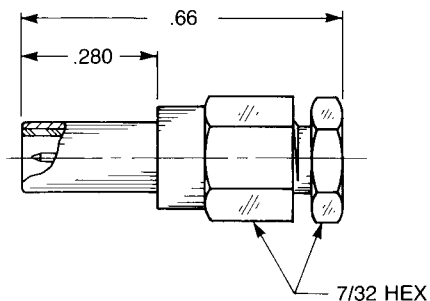
# SLB Cable Jacks

Click on part number to go directly to cable assembly instructions

## Straight Jacks

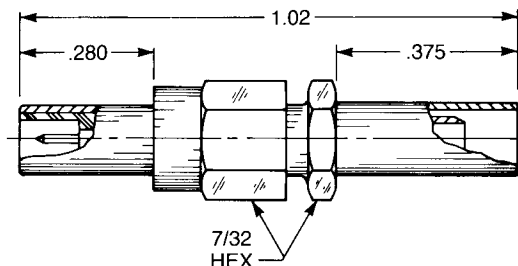
### Straight Male Cable Jack

Clamp type for flexible cable: Solder-clamp for semi-rigid cable:  
**3001-1551-0XX** (Gold plated)    **3001-1541-0XX** (Gold Plated)  
**3001-7551-0XX** (Nickel plated)    **3001-7541-0XX** (Nickel plated)



### Straight Male Cable Jack

Crimp type for flexible cable:  
**3001-1571-0XX** (Gold plated)  
**3001-7571-0XX** (Nickel plated)

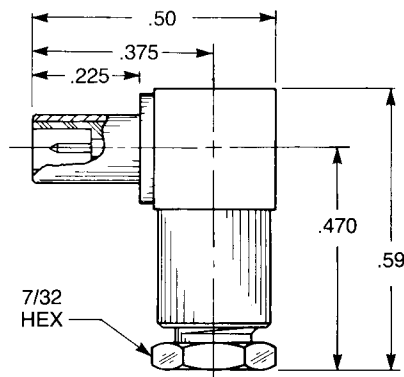


## Right Angle Jacks

### Right Angle Male Cable Jack

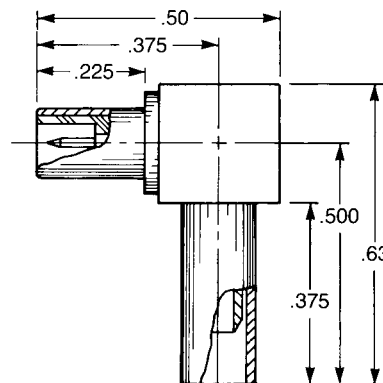
Clamp type for flexible cable:  
**3041-1551-0XX** (Gold plated)  
**3041-7551-0XX** (Nickel plated)

Solder-clamp for semi-rigid cable:  
**3041-1541-0XX** (Gold plated)  
**3041-7541-0XX** (Nickel plated)



### Right Angle Male Cable Jack

Crimp type for flexible cable:  
**3141-1521-0XX** (Gold plated)  
**3141-7521-0XX** (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



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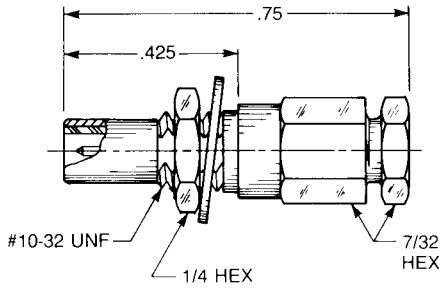
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# SLB Bulkhead Mounted Cable Jacks

Click on part number to go directly to cable assembly instructions

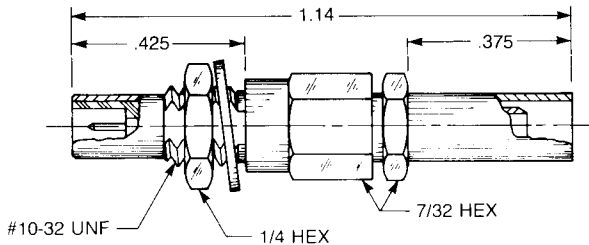
## Straight Jacks



### Straight Male Bulkhead Cable Jack

Clamp type for flexible cable:  
**3003-1551-0XX** (Gold plated)  
**3003-7551-0XX** (Nickel plated)

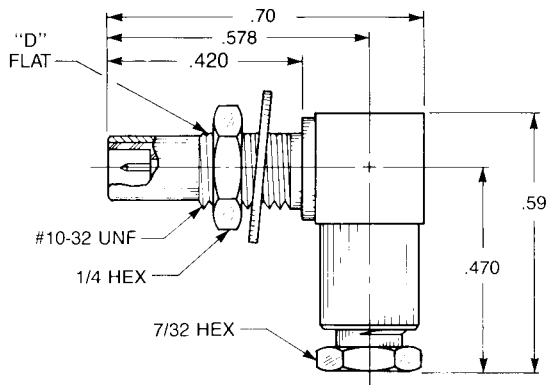
Solder-clamp for semi-rigid cable:  
**3003-1541-0XX** (Gold plated)  
**3003-7541-0XX** (Nickel plated)



### Straight Male Bulkhead Cable Jack

Crimp type for flexible cable:  
**3003-1571-0XX** (Gold plated)  
**3003-7571-0XX** (Nickel plated)

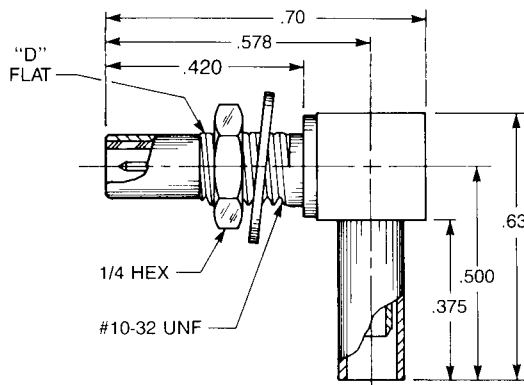
## Right Angle Jacks



### Right Angle Male Bulkhead Cable Jack

Clamp type for flexible cable:  
**3006-1551-0XX** (Gold plated)  
**3006-7551-0XX** (Nickel plated)

Solder-clamp for semi-rigid cable:  
**3006-1541-0XX** (Gold plated)  
**3006-7541-0XX** (Nickel plated)



### Right Angle Male Bulkhead Cable Jack

Crimp type for flexible cable:  
**3106-1521-0XX** (Gold plated)  
**3106-7521-0XX** (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



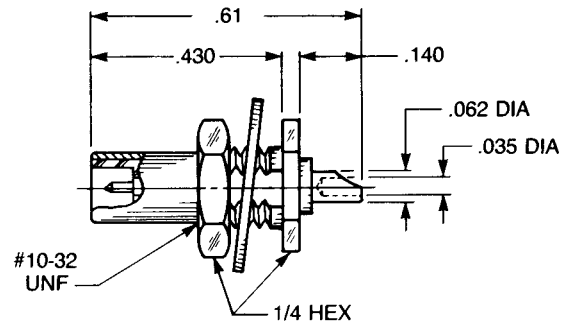
# SLB Bulkhead Jack Receptacles

## Straight Jacks

### **Straight Male Bulkhead Jack Receptacle**

- Solder pot contact
- Rear mount

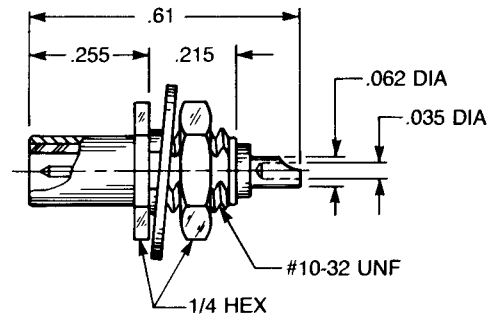
3004-1511-000 (Gold plated)  
3004-7511-000 (Nickel plated)



### **Straight Male Bulkhead Jack Receptacle**

- Solder pot contact
- Front mount

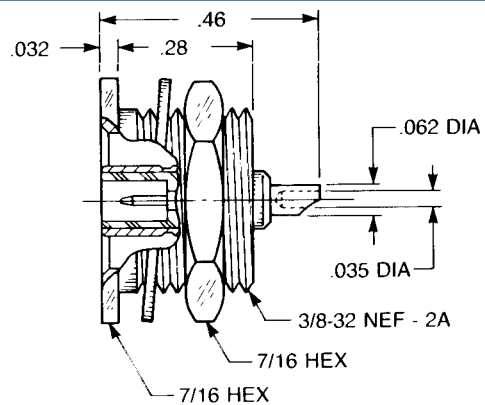
3019-1511-000 (Gold plated)  
3019-7511-000 (Nickel plated)



### **Straight Male Bulkhead Jack Receptacle**

- Solder pot contact
- Recessed front mount

3014-1511-000 (Gold plated)  
3014-7511-000 (Nickel plated)

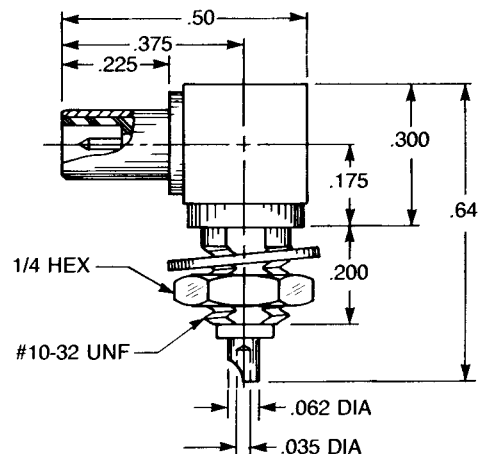


## Right Angle Jacks

### **Right Angle Male Bulkhead Jack Receptacle**

- Solder pot contact
- Front mount

3012-1511-000 (Gold plated)  
3012-7511-000 (Nickel plated)



(All fit .093" max panel thickness)



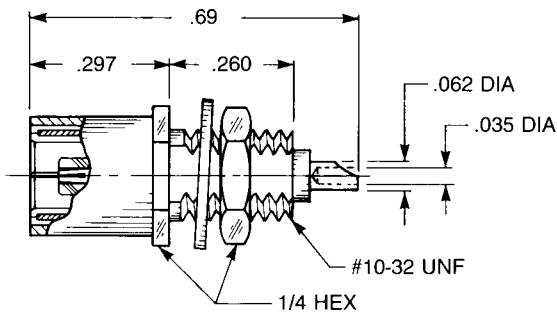
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# SLB Bulkhead Plug Receptacles

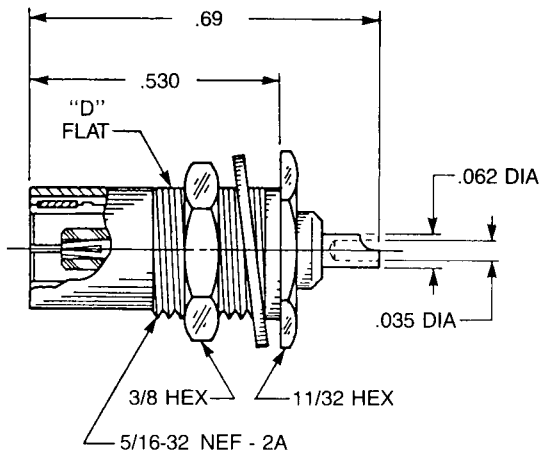
## Straight Plugs



### **Straight Female Bulkhead Plug Receptacle**

- Solder pot contact
- Front mount

3017-1511-000 (Gold plated)  
3017-7511-000 (Nickel plated)

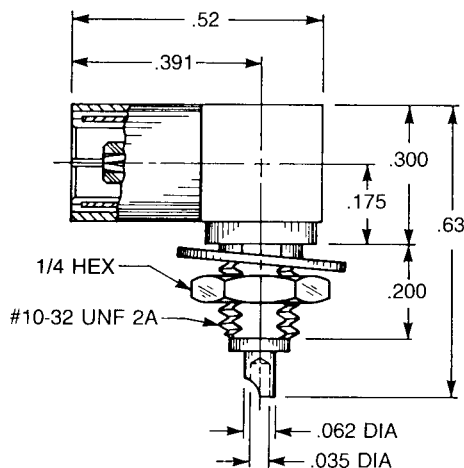


### **Straight Female Bulkhead Plug Receptacle**

- Solder pot contact
- Rear mount

3048-1511-000 (Gold plated)  
3048-7511-000 (Nickel plated)

## Right Angle Plugs



### **Right Angle Female Bulkhead Plug Receptacle**

- Solder pot contact
- Front mount

3097-1511-000 (Gold plated)  
3097-7511-000 (Nickel plated)

(All fit .093" max panel thickness)



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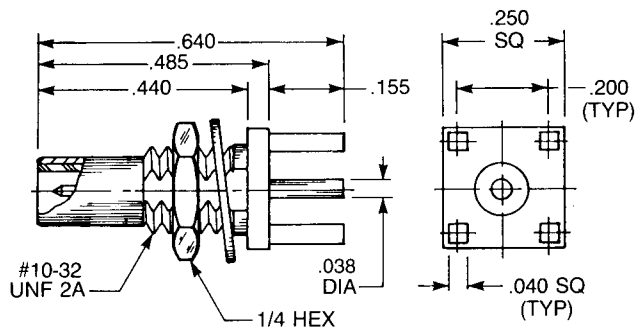
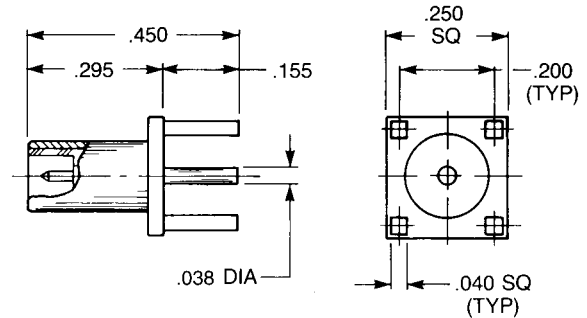
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# SLB P.C. Board Receptacles

## Straight Jacks

### Straight Male Jack Receptacle

3009-1511-000 (Gold plated)  
3009-7511-000 (Nickel plated)



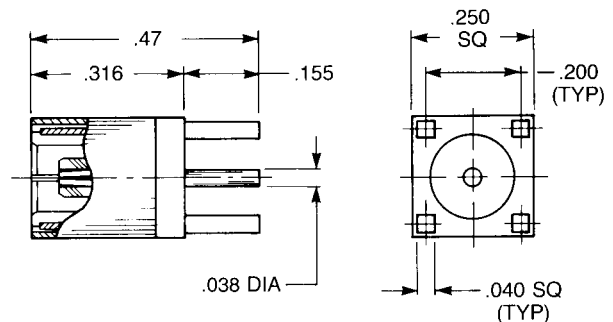
### Bulkhead Mounted Straight Male Jack P.C. Board Receptacle

3109-1511-000 (Gold plated)  
3109-7511-000 (Nickel plated)

## Straight Plug

### Straight Female Plug Receptacle

3025-1511-000 (Gold plated)  
3025-7511-000 (Nickel plated)



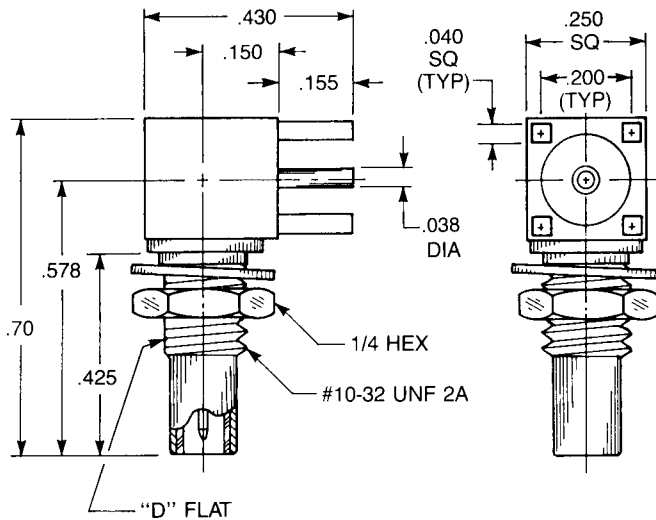
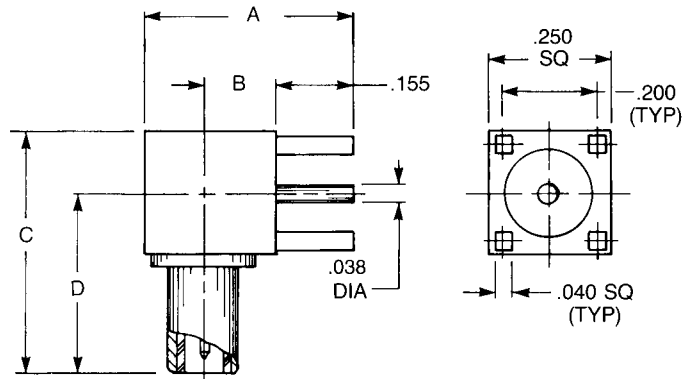
# SLB P.C. Board Receptacles

## Right Angle Jacks

### Right Angle Male Jack Receptacle

A	B	C	D
.43	.15	.50	.38
3010-1511-000		(Gold plated)	
3010-7511-000		(Nickel plated)	

A	B	C	D
.50	.215	.56	.437
3010-1511-003		(Gold plated)	
3010-7511-003		(Nickel plated)	



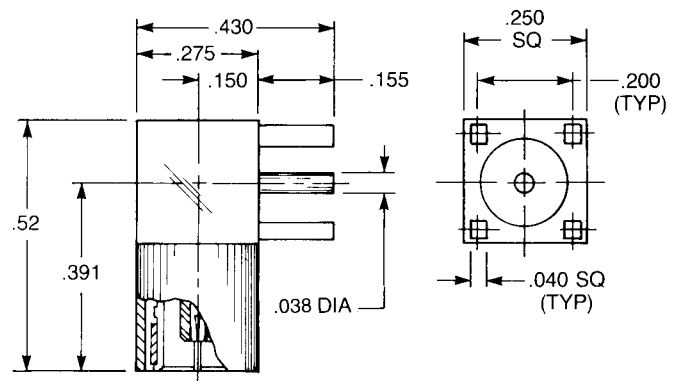
### Bulkhead Mounted Right Angle Male Jack P.C. Board Receptacle

- 3110-1511-000 (Gold plated)
- 3110-7511-000 (Nickel plated)

## Right Angle Plug

### Right Angle Female Plug Receptacle

- 3042-1511-000 (Gold plated)
- 3042-7511-000 (Nickel plated)



# SLB Float Mount / Blind Mate

## Introduction

This series of SLB connectors with float mount hardware can provide a low-cost alternative to other blind-mate connector systems in applications below 4 GHz.

The radial float of the panel mounted connectors, combined with the closed-entry mating end hood of the plugs, allows the mating pairs to be misaligned up to .025" without damage occurring during mating. Since the axial float is not spring-loaded, panel-to-panel separation should be maintained within  $\pm .010$ " of the recommended dimension when mated.

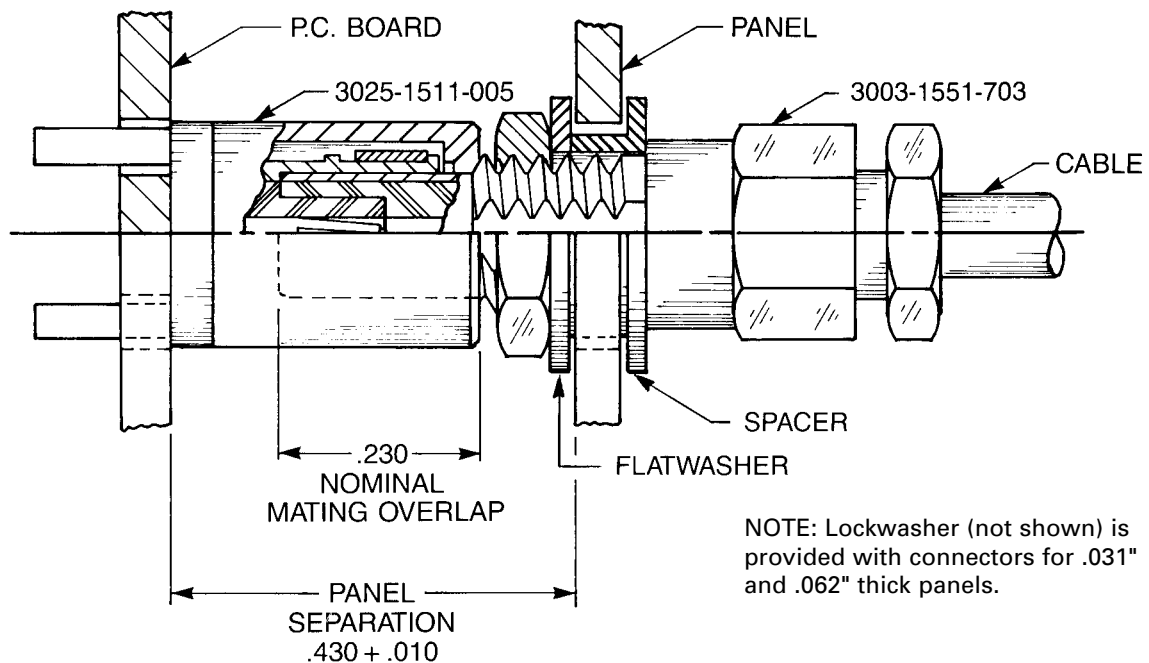
Mating force per connector pair is 3 pounds maximum, and unmating force is 8 ounces minimum per pair. External actuators, such as levers, guide rails, or jackscrews, should be incorporated in applications requiring simultaneous mating of multiple connector pairs. This is particularly important when one side is mounted to a P.C. board.

Only one side of the mating [pair should be float mounted; float mounting both connectors in a mating pair will allow a radial float that exceeds the plug mating end hood's ability to guide the jack into proper orientation.

**This style of float mounting is not recommended for applications which undergo vibration while powered. Vibration of this style of float mounting can cause intermittent ground interrupts. For SLB connectors with vibration-proof float mounts, see page 20.**

## Mating Detail

MATING DETAIL, 3025-1511-005 AND 3003-1551-703



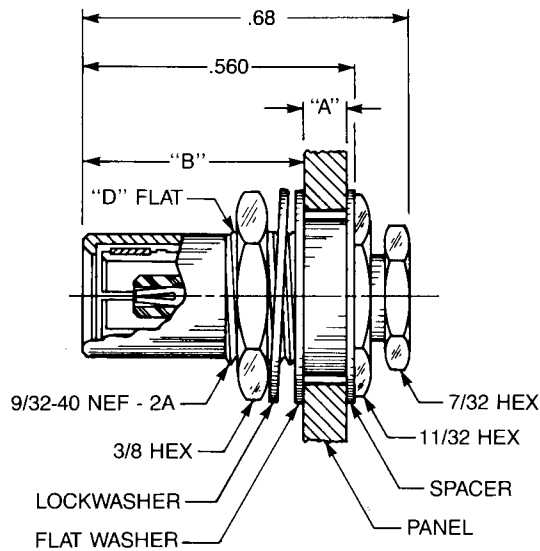
To determine panel separation: Add projection from panel or P.C. board for each connector in the mating pair and subtract the nominal mating overlap (.230"). the projection for each connector is shown on the product pages, and is measured with all axial float loaded toward the panel. Axial float is .008" for all connectors.

Radial float: Because these connectors provide a maximum .025" radial float, panels can be drilled up to .255" mounting hole diameter. Center-to-center tolerances of drilled panel holes should be subtracted from this diameter to keep within maximum float tolerances.

# SLB Float Mounted Cable Plugs

Click on part number to go directly to cable assembly instructions

## Clamp Type for Flexible Cable or Solder-Clamp for Semi-Rigid Cable



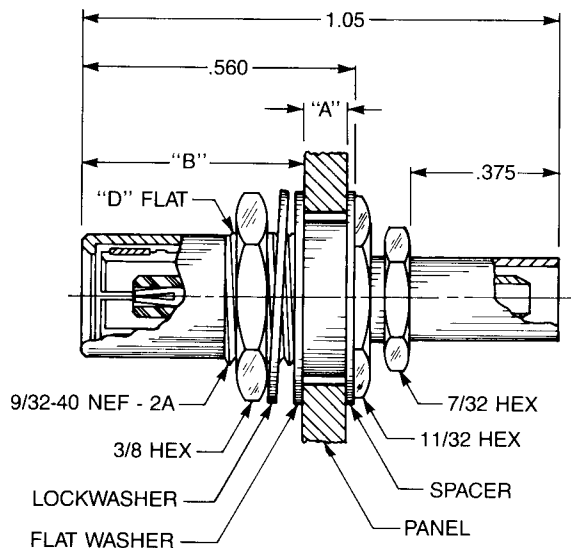
### Bulkhead Mounted Straight Female Cable Plug Float Mount/Blind Mate

- Closed-entry mating end hood

Dim. A	Dim. B	Clamp type for flexible cable:
.031	.500	<b>3028-1551-5XX</b> (Gold plated) <b>3028-7551-5XX</b> (Nickel plated)
.062	.469	<b>3028-1551-6XX</b> (Gold plated) <b>3028-7551-6XX</b> (Nickel plated)
.093	.438	<b>3028-1551-7XX</b> (Gold plated) <b>3028-7551-7XX</b> (Nickel plated)

Dim. A	Dim. B	Solder-clamp for semi-rigid cable:
.031	.500	<b>3028-1541-5XX</b> (Gold plated) <b>3028-7541-5XX</b> (Nickel plated)
.062	.469	<b>3028-1541-6XX</b> (Gold plated) <b>3028-7541-6XX</b> (Nickel plated)
.093	.438	<b>3028-1541-7XX</b> (Gold plated) <b>3028-7541-7XX</b> (Nickel plated)

## Crimp Type for Flexible Cable



### Bulkhead Mounted Straight Female Cable Plug Float Mount/Blind Mate

- Closed-entry mating end hood

Dim. A	Dim. B	Crimp type for flexible cable:
.031	.500	<b>3028-1571-5XX</b> (Gold plated) <b>3028-7571-5XX</b> (Nickel plated)
.062	.469	<b>3028-1571-6XX</b> (Gold plated) <b>3028-7571-6XX</b> (Nickel plated)
.093	.438	<b>3028-1571-7XX</b> (Gold plated) <b>3028-7571-7XX</b> (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

# SLB Float Mounted Bulkhead Jacks

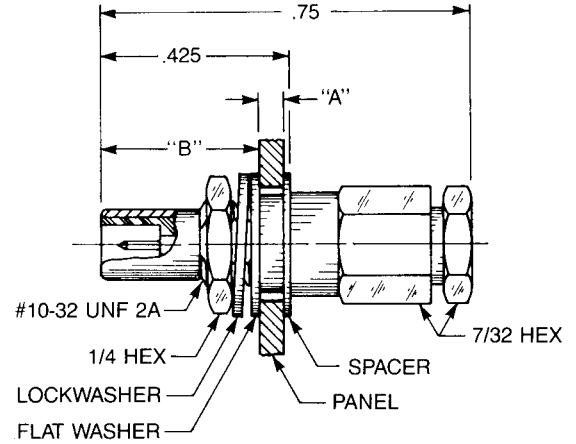
Click on part number to go directly to cable assembly instructions

## Clamp Type for Flexible Cable or Solder-Clamp for Semi-Rigid Cable

### Float Mount Straight Male Bulkhead Cable Jack

Dim. A	Dim. B	Clamp type for flexible cable:
.031	.365	<b>3003-1551-5XX</b> (Gold plated) <b>3003-7551-5XX</b> (Nickel plated)
.062	.334	<b>3003-1551-6XX</b> (Gold plated) <b>3003-7551-6XX</b> (Nickel plated)
.093	.303	<b>3003-1551-7XX</b> (Gold plated) <b>3003-7551-7XX</b> (Nickel plated)

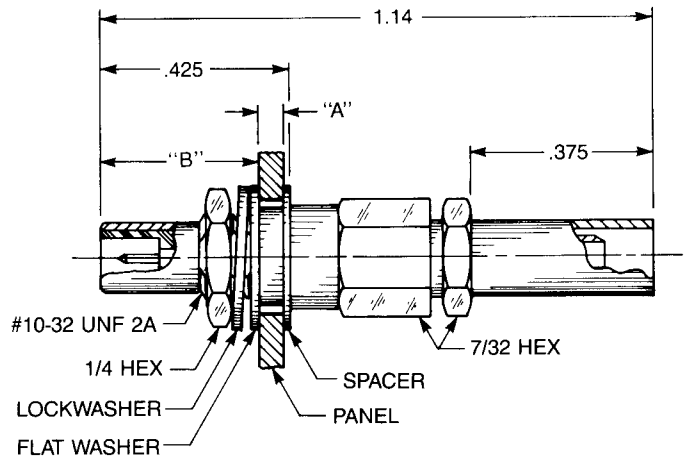
Dim. A	Dim. B	Solder-clamp for semi-rigid cable:
.031	.365	<b>3003-1541-5XX</b> (Gold plated) <b>3003-7541-5XX</b> (Nickel plated)
.062	.334	<b>3003-1541-6XX</b> (Gold plated) <b>3003-7541-6XX</b> (Nickel plated)
.093	.303	<b>3003-1541-7XX</b> (Gold plated) <b>3003-7541-7XX</b> (Nickel plated)



## Crimp Type for Flexible Cable

### Float Mount Straight Male Bulkhead Cable Jack

Dim. A	Dim. B	Crimp type for flexible cable:
.031	.365	<b>3003-1571-5XX</b> (Gold plated) <b>3003-7571-5XX</b> (Nickel plated)
.062	.334	<b>3003-1571-6XX</b> (Gold plated) <b>3003-7571-6XX</b> (Nickel plated)
.093	.303	<b>3003-1571-7XX</b> (Gold plated) <b>3003-7571-7XX</b> (Nickel plated)



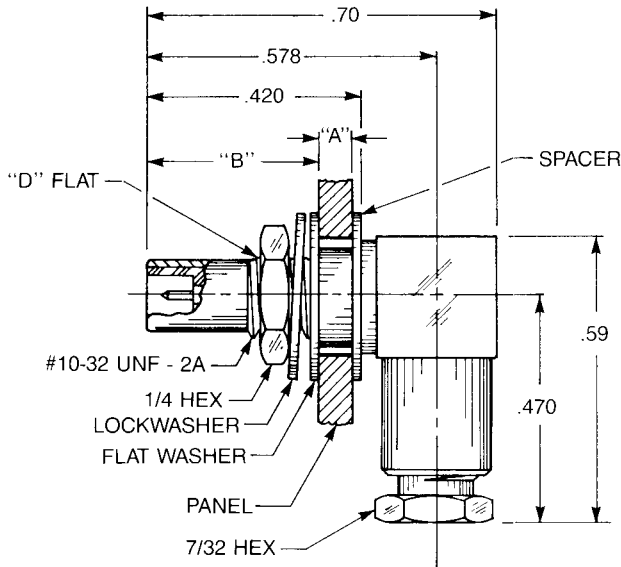
Substitute the appropriate cable group number for "XX" when ordering:

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

# SLB Float Mounted Bulkhead Jacks

Click on part number to go directly to cable assembly instructions

## Clamp Type for Flexible Cable or Solder-Clamp for Semi-Rigid Cable

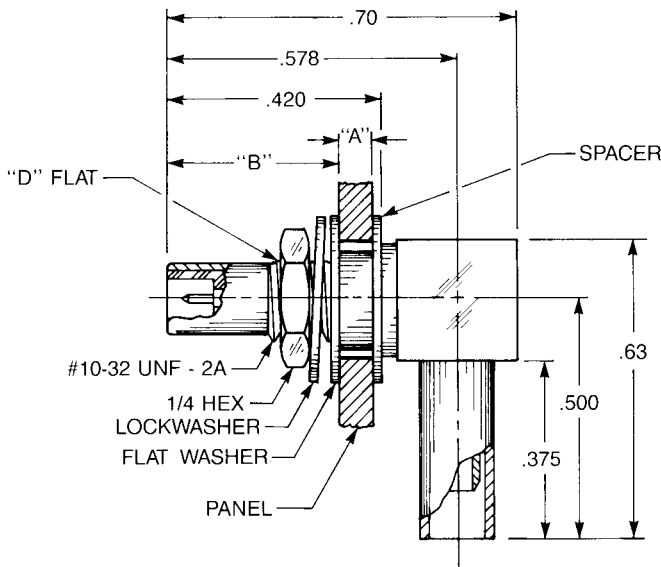


### Float Mount Right Angle Male Bulkhead Cable Jack

Dim. A	Dim. B	Clamp type for flexible cable:
.031	.360	<b>3006-1551-5XX</b> (Gold plated) <b>3006-7551-5XX</b> (Nickel plated)
.062	.329	<b>3006-1551-6XX</b> (Gold plated) <b>3006-7551-6XX</b> (Nickel plated)
.093	.298	<b>3006-1551-7XX</b> (Gold plated) <b>3006-7551-7XX</b> (Nickel plated)

Dim. A	Dim. B	Solder-clamp for semi-rigid cable:
.031	.360	<b>3006-1541-5XX</b> (Gold plated) <b>3006-7541-5XX</b> (Nickel plated)
.062	.329	<b>3006-1541-6XX</b> (Gold plated) <b>3006-7541-6XX</b> (Nickel plated)
.093	.298	<b>3006-1541-7XX</b> (Gold plated) <b>3006-7541-7XX</b> (Nickel plated)

## Crimp Type for Flexible Cable



### Float Mount Right Angle Male Bulkhead Cable Jack

Dim. A	Dim. B	Crimp type for flexible cable:
.031	.360	<b>3106-1521-5XX</b> (Gold plated) <b>3106-7521-5XX</b> (Nickel plated)
.062	.329	<b>3106-1521-6XX</b> (Gold plated) <b>3106-7521-6XX</b> (Nickel plated)
.093	.298	<b>3106-1521-7XX</b> (Gold plated) <b>3106-7521-7XX</b> (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



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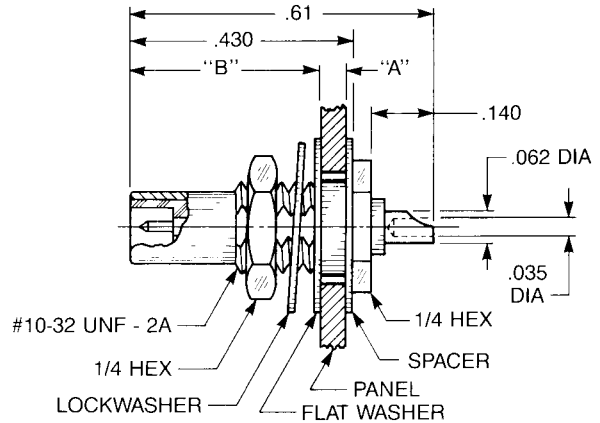
# SLB Float Mounted Jack Receptacles

## Rear Mount

### Float Mount Straight Male Bulkhead Jack Receptacle

- Solder pot contact
- Rear mount

Dim. A	Dim. B	Part Number	Plating
.031	.370	3004-1511-500	(Gold plated)
		3004-7511-500	(Nickel plated)
.062	.339	3004-1511-600	(Gold plated)
		3004-7511-600	(Nickel plated)
.093	.308	3004-1511-700	(Gold plated)
		3004-7511-700	(Nickel plated)

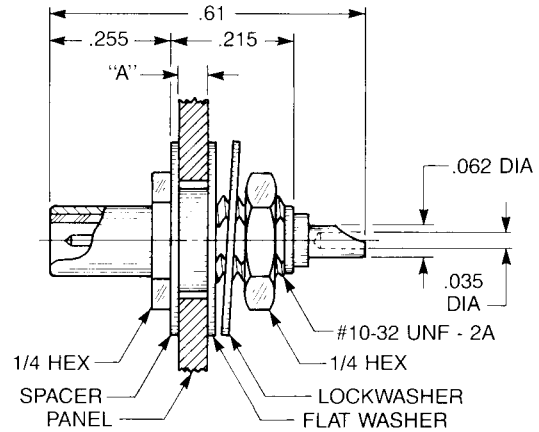


## Front Mount

### Float Mount Straight Male Bulkhead Jack Receptacle

- Solder pot contact
- Front mount

Dim. A	Part Number	Plating
.031	3019-1511-500	(Gold plated)
	3019-7511-500	(Nickel plated)
.062	3019-1511-600	(Gold plated)
	3019-7511-600	(Nickel plated)
.093	3019-1511-700	(Gold plated)
	3019-7511-700	(Nickel plated)

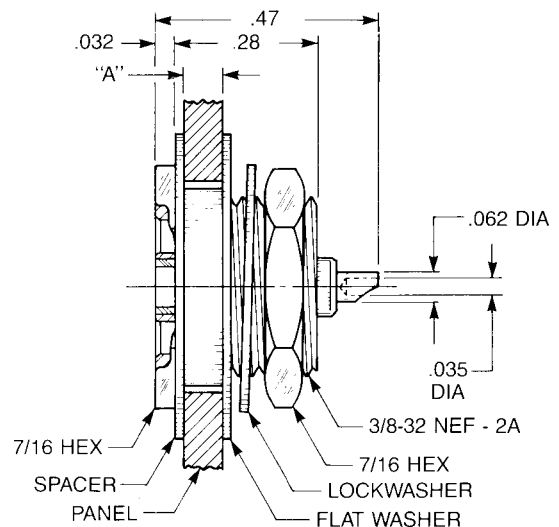


## Recessed Mount

### Float Mount Straight Male Bulkhead Jack Receptacle

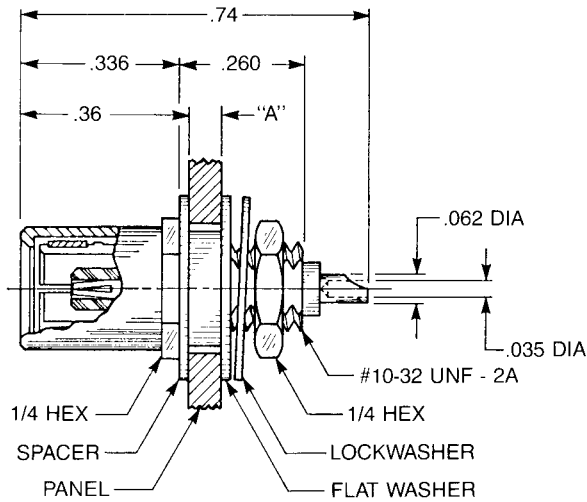
- Solder pot contact
- Recessed front mount

Dim. A	Part Number	Plating
.031	3014-1511-500	(Gold plated)
	3014-7511-500	(Nickel plated)
.062	3014-1511-600	(Gold plated)
	3014-7511-600	(Nickel plated)
.093	3014-1511-700	(Gold plated)
	3014-7511-700	(Nickel plated)



# SLB Float Mounted Plug Receptacles

## Front Mount



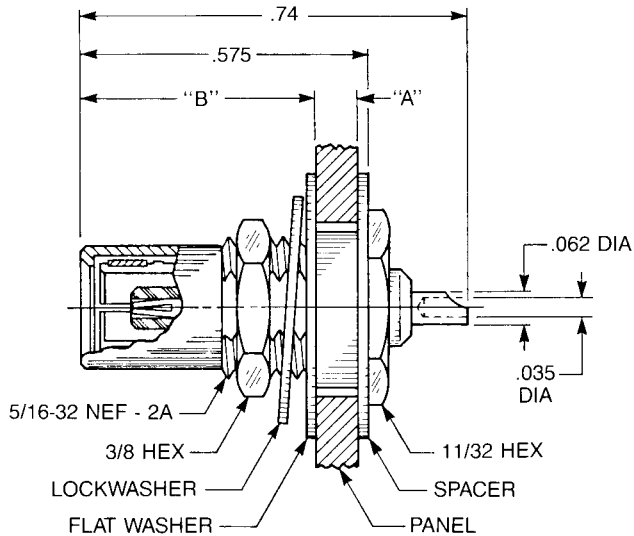
### Float Mount Straight Female Bulkhead Plug Receptacle

- Solder pot contact
- Front mount
- Closed-entry mating end hood

#### Dim. A

.031	<b>3017-1511-500</b>	(Gold plated)
	<b>3017-7511-500</b>	(Nickel plated)
.062	<b>3017-1511-600</b>	(Gold plated)
	<b>3017-7511-600</b>	(Nickel plated)
.093	<b>3017-1511-700</b>	(Gold plated)
	<b>3017-7511-700</b>	(Nickel plated)

## Rear Mount



### Float Mount Straight Female Bulkhead Plug Receptacle

- Solder pot contact
- Rear mount
- Closed-entry mating end hood

#### Dim. A Dim. B

.031	.515	<b>3048-1511-500</b>	(Gold plated)
		<b>3048-7511-500</b>	(Nickel plated)
.062	.484	<b>3048-1511-600</b>	(Gold plated)
		<b>3048-7511-600</b>	(Nickel plated)
.093	.453	<b>3048-1511-700</b>	(Gold plated)
		<b>3048-7511-700</b>	(Nickel plated)

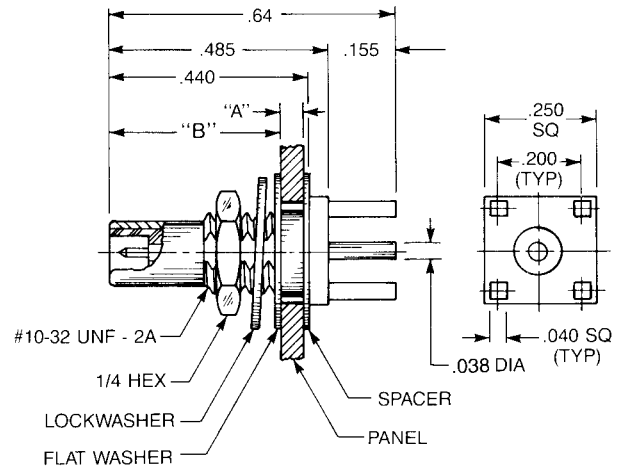


# SLB Float Mounted PCB Receptacles

## Straight Jack

### Float Mount Straight Male Jack P.C. Board Receptacle

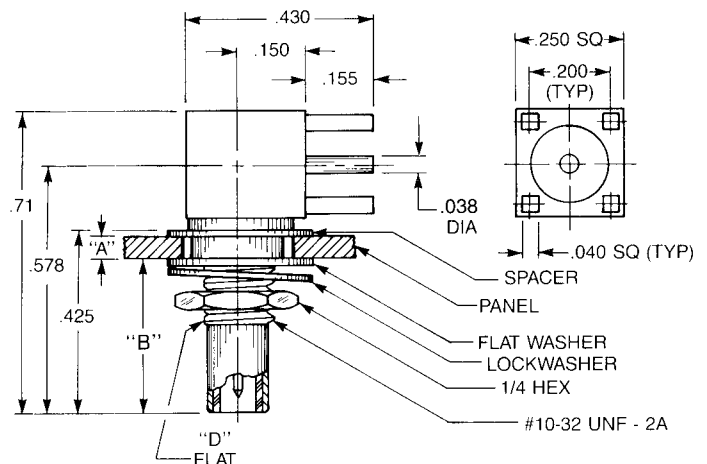
Dim. A	Dim. B	Part Number	Plating
.031	.380	3109-1511-500	Gold plated
		3109-7511-500	Nickel plated
.062	.349	3109-1511-600	Gold plated
		3109-7511-600	Nickel plated
.093	.318	3109-1511-700	Gold plated
		3109-7511-700	Nickel plated



## Right Angle Jack

### Float Mount Right Angle Male Jack P.C. Board Receptacle

Dim. A	Dim. B	Part Number	Plating
.031	.365	3110-1511-500	Gold plated
		3110-7511-500	Nickel plated
.062	.334	3110-1511-600	Gold plated
		3110-7511-600	Nickel plated
.093	.303	3110-1511-700	Gold plated
		3110-7511-700	Nickel plated



# SLB Closed-Entry PCB Plugs

For use with float-mounted jacks

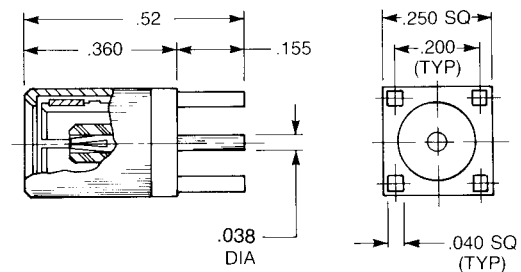
## Straight Plug

### Straight Female Plug P.C. Board Receptacle

- Closed-entry mating end hood

3025-1511-005 (Gold plated)

3025-7511-005 (Nickel plated)



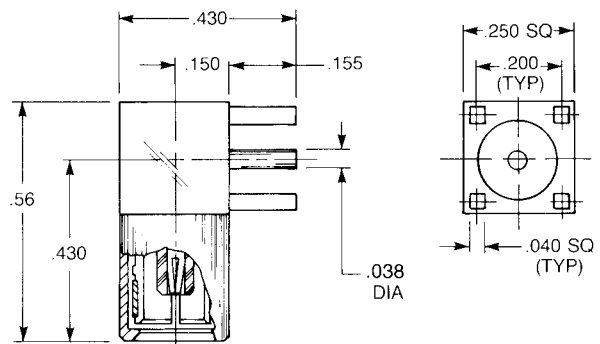
## Right Angle Plug

### Right Angle Female Plug P.C. Board Receptacle

- Closed-entry mating end hood

3042-1511-006 (Gold plated)

3042-7511-006 (Nickel plated)



# SLB Vibration-Proof Float Mounts

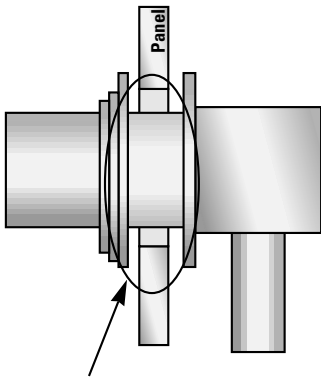
## Introduction

AEP's vibration-proof float mounted connectors use a tempered spring washer within the mounting system for reliable grounding between the connector and the panel under vibration. This system, combined with closed-end mating hoods and contacts, allows the connectors a wide range of float while mating without damage to the connectors.

AEP vibration-proof float mount connectors meet appropriate performance requirements of MIL-PRF-39012. The items on the next page are only the most commonly-used configurations; vibration-proof mounting hardware can be provided with any bulkhead-mounted SLB plug or jack in this catalog. All connectors shown have gold-plated, captive contacts and gold-plated bodies.

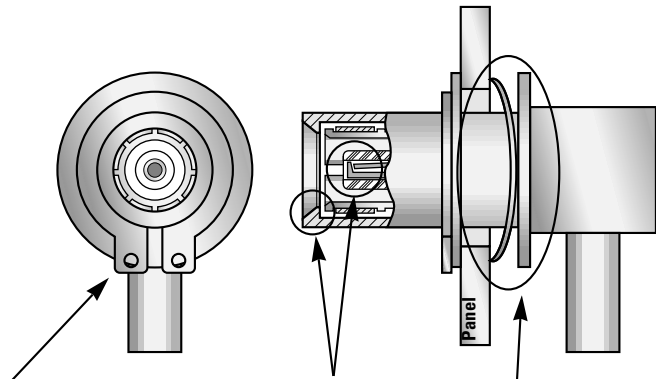
## How They Work

### Standard Float Mounts



Connectors that use shoulder washers as a float mount can, under vibration, intermittently become "suspended" in their mounting holes—resulting in loss of electrical contact between body and panel.  
(Proportions exaggerated to illustrate detail.)

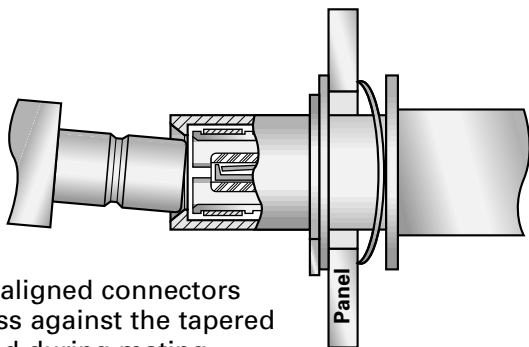
### AEP Vibration-Proof Float Mounts



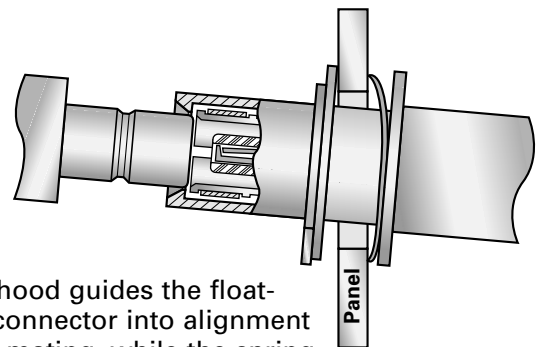
The Truarc retaining provides almost 360° of contact with its retaining groove, rather than the 10–20° of contact of C-rings or E-rings.

AEP's closed-entry mating end hood and center contact resist damage from misaligned mating connectors.

The spring washer ensures consistent grounding under vibration.



Misaligned connectors press against the tapered hood during mating...

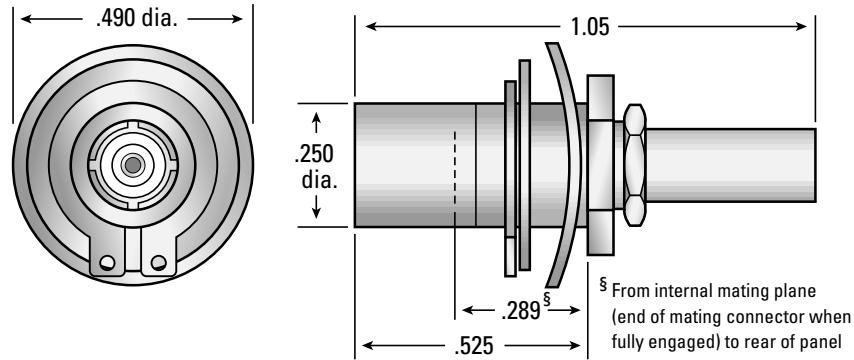


...and the hood guides the float-mounted connector into alignment for proper mating, while the spring washer deflects to accommodate the angular and radial movement with no loss of grounding.

# SLB Vibration-Proof Float Mounted Plugs

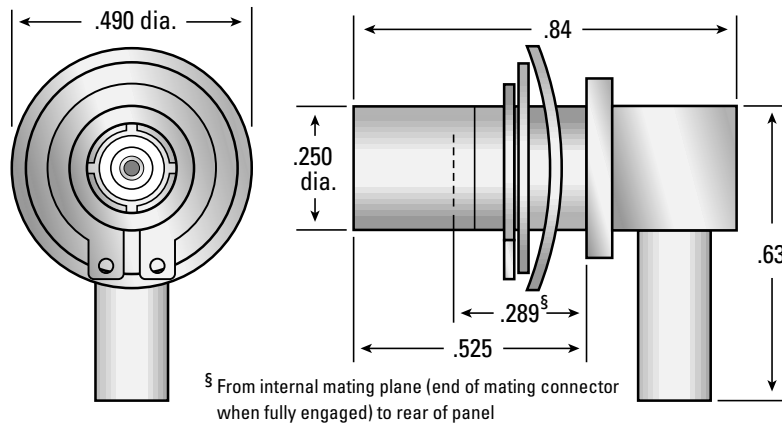
Click on part number to go directly to cable assembly instructions

## Straight Plug



PANEL THICKNESS	AEP P/N
.050	<a href="#">3096-1571-OXX*</a>
.093	<a href="#">3096-1571-2XX*</a>

## Right Angle Plug



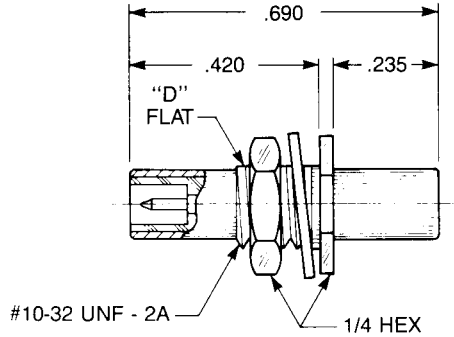
PANEL THICKNESS	AEP P/N
.050	<a href="#">3026-1521-OXX*</a>
.093	<a href="#">3026-1521-2XX*</a>

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

GROUP	CABLE TYPES	GROUP	CABLE TYPES
02	RG178, RG196, M17/93, M17/169	05	RG178DS, RG196DS
03	RG174, RG179, RG316, M17/113, M17/119, M17/172, M17/189	19	RG174DS, RG316DS, M17/152, Times RD316

# SLB Adapters

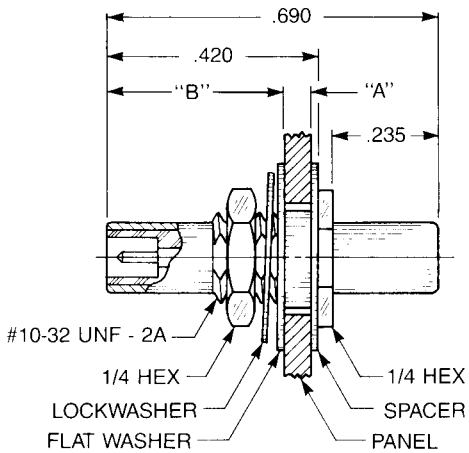
## Straight Jack to jack, Bulkhead Mounted



### Bulkhead Mounted Straight Male Jack to Jack Adapter

5252-1501-000 (Gold plated)  
5252-7501-000 (Nickel plated)

## Straight Jack to jack, Float Mounted



### Float Mount Straight Male Jack To Jack Adapter

- Connects two plugs

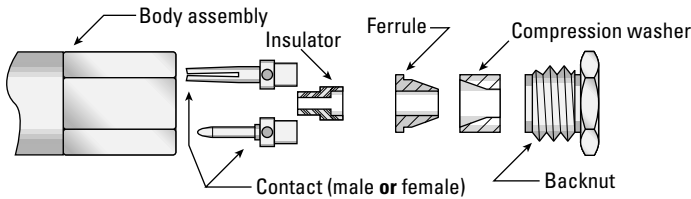
Dim. A	Dim. B	Part Number	Plating
.031	.360	5252-1501-500	(Gold plated)
		5252-7501-500	(Nickel plated)
.062	.329	5252-1501-600	(Gold plated)
		5252-7501-600	(Nickel plated)
.093	.298	5252-1501-700	(Gold plated)
		5252-7501-700	(Nickel plated)

# Cable Assembly Instructions

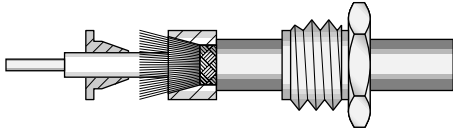
## Clamp type connectors for flexible cable

### Straight Connectors—Flexible Cable

#### Parts list

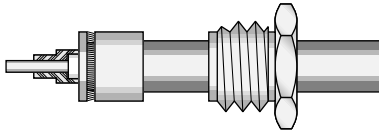


**1**



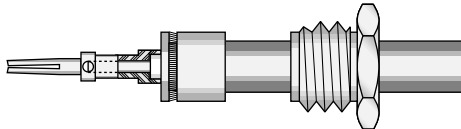
- Trim cable per trim code below; tin end of center conductor.
- Slide backnut onto cable. Slide compression washer onto cable in the orientation shown until it stops against cable jacket.
- Flare cable braid by rotating dielectric and slide ferrule under braid.

**2**



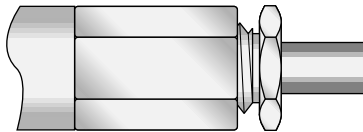
- Press ferrule against compression washer.
- Trim excess braid flush with outer diameter of compression washer and ferrule.
- Assemble insulator over cable center conductor and dielectric.

**3**



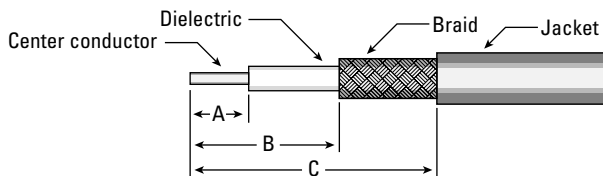
- Assemble contact onto cable center conductor.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact).

**4**



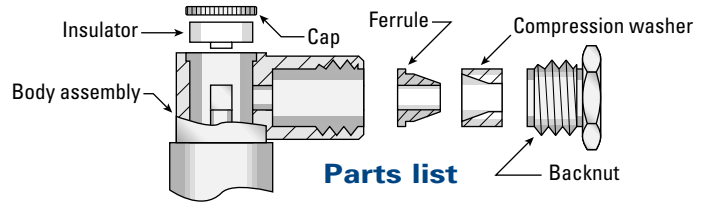
- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)

### Cable Trim Dimensions

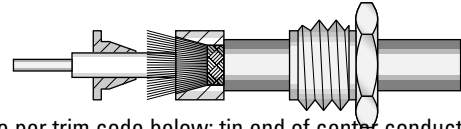


CONNECTOR TYPE	A	B	C
STRAIGHT CONNECTORS	.080	.120	.240
RIGHT ANGLE CONNECTORS	.080	.180	.300

### Right Angle Connectors—Flexible Cable

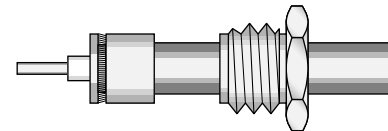


**1**



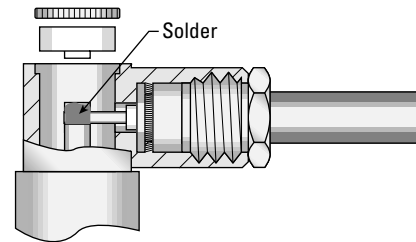
- Trim cable per trim code below; tin end of center conductor.
- Slide backnut onto cable. Slide compression washer onto cable in the orientation shown until it stops against cable jacket.
- Flare cable braid by rotating dielectric and slide ferrule under braid.

**2**



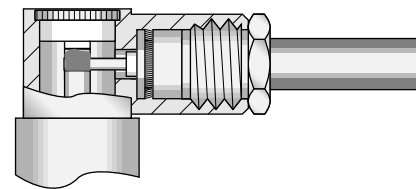
- Press ferrule against compression washer.
- Trim excess braid flush with outer diameter of compression washer and ferrule.
- Assemble insulator over cable center conductor and dielectric.

**3**



- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)
- Solder center conductor into notch in rear of contact with .025–.032" diameter chisel-tip soldering iron.
- Solder should cover center conductor, but not extend over top of notch in contact, or exceed contact diameter.

**4**



- Place insulator in body cavity, and press cap into place. Properly assembled cap will be slightly below end of body assembly.

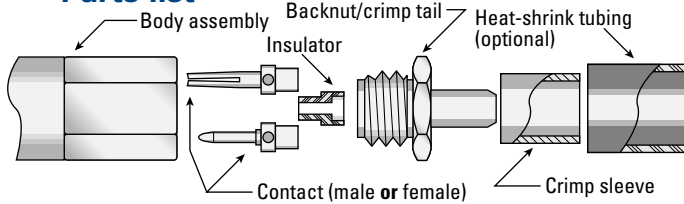


# Cable Assembly Instructions

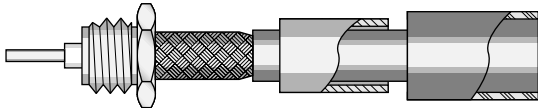
## Crimp type connectors for flexible cable

### Straight Connectors—Flexible Cable

#### Parts list

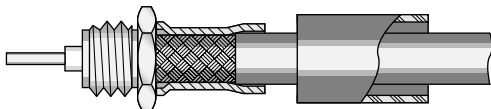


**1**



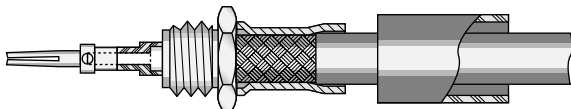
- Trim cable per trim code below; tin end of center conductor.
- Slide heat-shrink tubing and crimp sleeve over cable.
- Flare cable braid by rotating dielectric and slide cable into crimp tail.

**2**



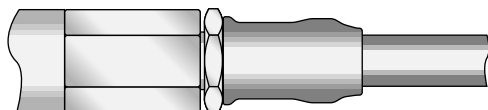
- Position cable so braid touches rear of back nut.
- Slide crimp sleeve forward to touch rear of back nut.
- Crimp braid with appropriate die size from chart below.

**3**



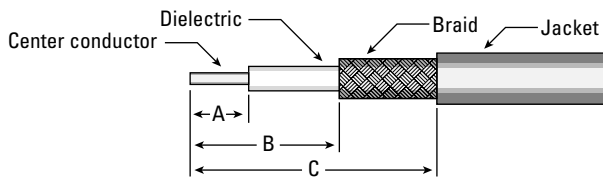
- Assemble insulator and contact onto cable dielectric and center conductor.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact).

**4**



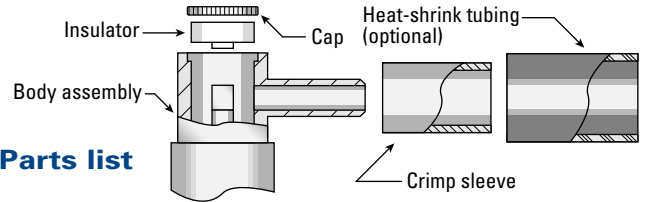
- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)
- Slide shrink tubing over crimp sleeve and shrink to fit.

### Cable Trim Dimensions

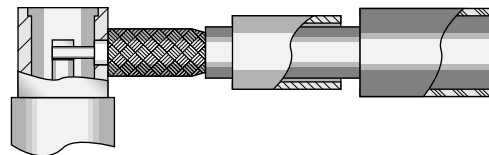


CONNECTOR TYPE	A	B	C
STRAIGHT CONNECTORS	.100	.430	.700
RIGHT ANGLE CONNECTORS	.070	.200	.450

### Right Angle Connectors—Flexible Cable

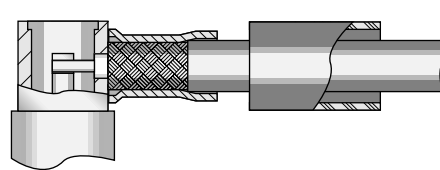


**1**



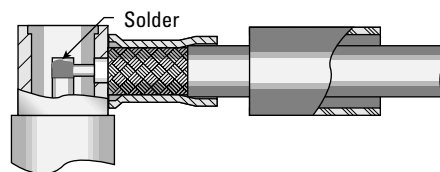
- Trim cable per trim code below; tin end of center conductor.
- Slide heat-shrink tubing and crimp sleeve over cable.
- Flare cable braid by rotating dielectric and slide cable into crimp tail.

**2**



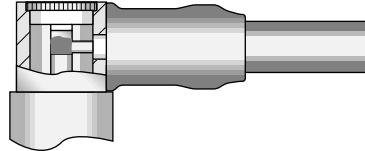
- Position cable so braid touches rear of body assembly.
- Slide crimp sleeve forward to touch rear of body assembly.
- Crimp braid with appropriate die size from chart below.

**3**



- Solder center conductor into notch in rear of contact with .025–.032" diameter chisel-tip soldering iron.
- Solder should cover center conductor, but not extend over top of notch in contact, or exceed contact diameter.

**4**



- Place insulator in body cavity, and press cap into place. Properly assembled cap will be slightly below end of body assembly.
- Slide shrink tubing over crimp sleeve and shrink to fit.

### Crimp Die Sizes

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

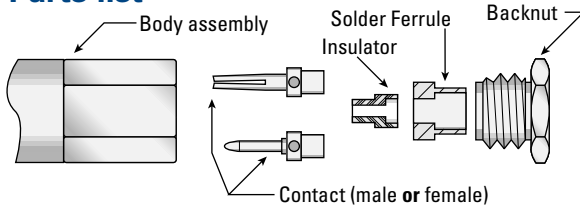


# Cable Assembly Instructions

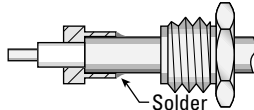
## Solder-clamp connectors for semi-rigid cable

### Straight Connectors—Semi-Rigid Cable

#### Parts list

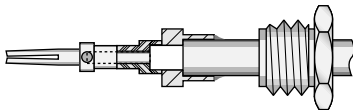


**1**



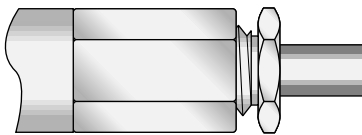
- Trim cable per trim code below; tin end of center conductor.
- Slide backnut over cable. Slide solder ferrule over cable until it stops against cable jacket.
- Solder cable jacket to ferrule.

**2**



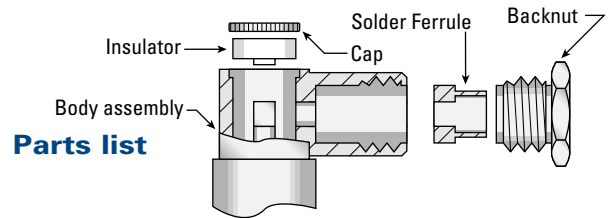
- Assemble insulator and contact onto cable dielectric and center conductor. If insulator is not flush against solder ferrule due to dielectric extrusion, retrim dielectric.
- Solder contact to center conductor by heating rear of contact (do not feed additional solder through inspection hole in contact).

**3**



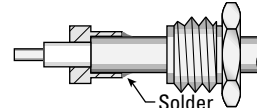
- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)

### Right Angle Connectors—Semi-Rigid Cable



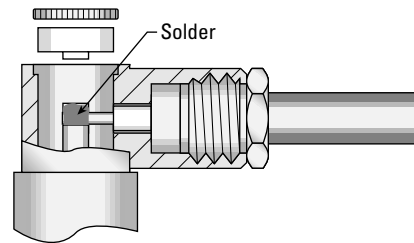
#### Parts list

**1**



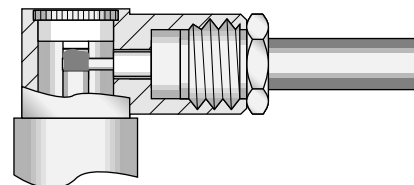
- Trim cable per trim code below; tin end of center conductor.
- Slide backnut over cable. Slide solder ferrule over cable until it stops against cable jacket.
- Solder cable jacket to ferrule.

**2**



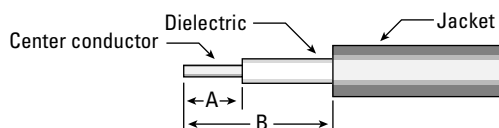
- Insert cable assembly into body assembly. Tighten to 90–100 inch-ounces torque. (Hold cable/hardware assembly stationary and rotate body when tightening.)
- Solder center conductor into notch in rear of contact with .025–.032" diameter chisel-tip soldering iron.
- Solder should cover center conductor, but not extend over top of notch in contact, or exceed contact diameter.

**3**



- Place insulator in body cavity, and press cap into place. Properly assembled cap will be slightly below end of body assembly.

### Cable Trim Dimensions

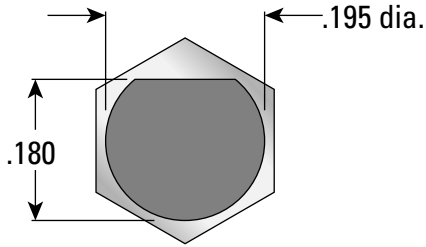


CONNECTOR TYPE	A	B
STRAIGHT CONNECTORS— <b>.085"</b> cable	<b>.090</b>	<b>.170</b>
STRAIGHT CONNECTORS— <b>.141"</b> cable	<b>.105</b>	<b>.130</b>
RIGHT ANGLE CONNECTORS	<b>.110</b>	<b>.150</b>



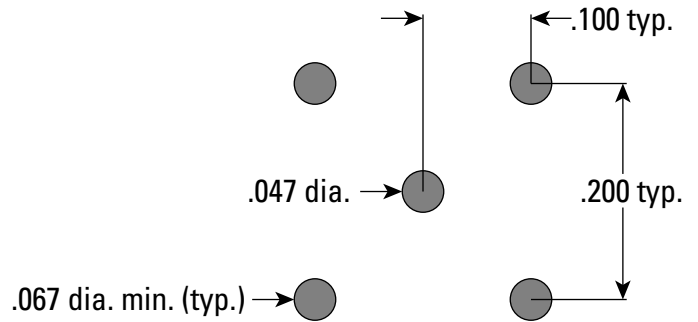
# Mounting Dimensions

## Bulkhead Receptacles



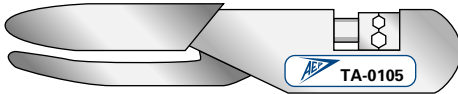
Flat of mounting surface is aligned with body hex as shown.

## P.C. Board Receptacles



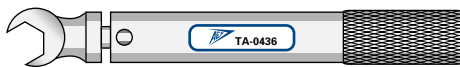
# Assembly Tooling

## Crimp tool



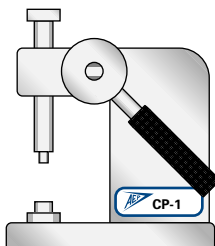
DESCRIPTION	AEP P/N
Crimp tool with .105" and .128" hex dies	TA-0105

## Torque Wrench



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

## Capping Press



DESCRIPTION	AEP P/N
Capping tool (arbor press) with base for SLB right angle plugs	CP-1
Capping tool (arbor press) with base for SLB right angle jacks	CP-6

# Index by Part Number

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3003-1571-6XX*	14	3014-1511-500	16	3028-7571-6XX*	13	3109-7511-700	18
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3004-7511-000	8	3019-1511-700	16	3048-1511-600	17	5252-7501-700	22
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\* Indicates cable connectors with various types on specified page.



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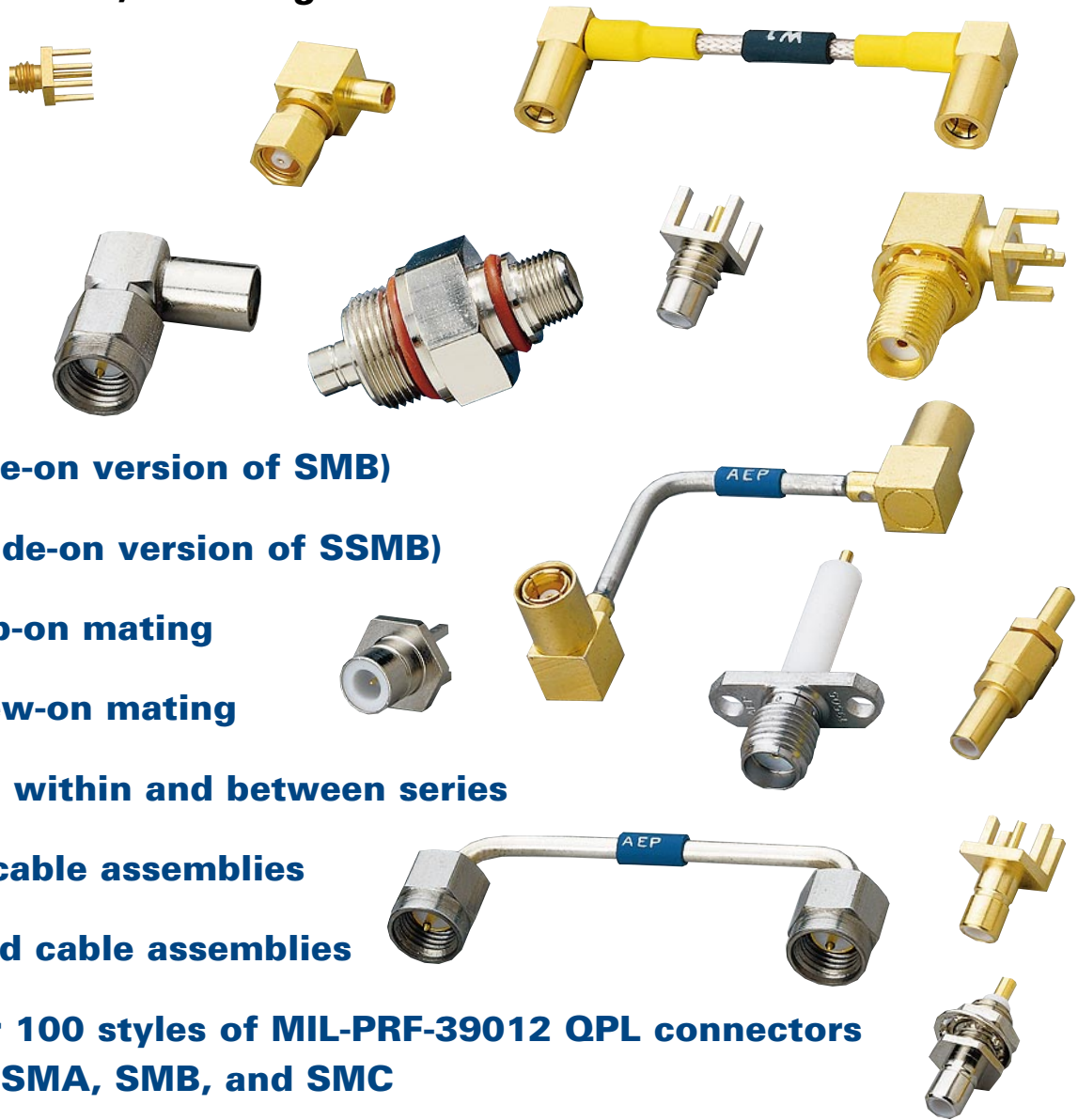
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