



**707, 727-787
STANDARD WIRING PRACTICES MANUAL**

ITT CANNON DPX, DPD, AND DPA CONNECTORS

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1. PART NUMBERS AND DESCRIPTION

A. Connector Part Numbers

Table 1
CONNECTOR PART NUMBERS

Part Number	Supplier
CE9307-10	ITT Cannon
CE9307-11	ITT Cannon
CE9307-18	ITT Cannon
CE9307-19	ITT Cannon
DPA-32-33S	ITT Cannon
DPA-32-33S3	ITT Cannon
DPA-6-33S	ITT Cannon
DPA-6-34P	ITT Cannon
DPAF-2-33S	ITT Cannon
DPAL-L24C2-33S	ITT Cannon
DPAMA-32-33S	ITT Cannon
DPAMA-32-33S-1B	ITT Cannon
DPAMA-32-33SN	ITT Cannon
DPAMA-L24C2-33S	ITT Cannon
DPD-32-33S-()	ITT Cannon
DPD-32-34P-()	ITT Cannon
DPD-45-33S-()	ITT Cannon
DPD-66-33S-()	ITT Cannon
DPD-A15-33S-()	ITT Cannon
DPD-A8-33S-()	ITT Cannon
DPD-B18-33S-()	ITT Cannon
DPDB-20-34P-()	ITT Cannon
DPDB-58-33S-()	ITT Cannon
DPD-G20-33S-()	ITT Cannon
DPD-G20-34P-()	ITT Cannon
DPD-N10-33S-()	ITT Cannon
DPDB-58-34P-()	ITT Cannon
DPDB-G20-34P-()	ITT Cannon
DPDBMA-G20-33S-()	ITT Cannon
DPDBMA-G20-34P-()	ITT Cannon
DPD-G20-33S-()	ITT Cannon
DPD-G20-34P-()	ITT Cannon

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Table 1 CONNECTOR PART NUMBERS (Continued)

Part Number	Supplier
DPDMA-32C2-33S-()	ITT Cannon
DPDMA-45-33S-()	ITT Cannon
DPDMA-76-33S-()	ITT Cannon
DPDMA-A32-33S-()	ITT Cannon
DPDMA-G20-33S-()	ITT Cannon
DPDMA-U32C2-33S-()	ITT Cannon
DPDMB-32-33S-()	ITT Cannon
DPDMB-45-33S-()	ITT Cannon
DPDMB-76-33S-()	ITT Cannon
DPDMB-78-33S-()	ITT Cannon
DPDMB-U32C2-33S-()	ITT Cannon
DPD2MA-152-33S-()	ITT Cannon
DPD2MB-152-33S-()	ITT Cannon
DPX-17-33S-()	ITT Cannon
DPX-22017-()	ITT Cannon
DPXA-8-33S-()	ITT Cannon
DPXA-32-33S-()	ITT Cannon
DPXA-32-34P-()	ITT Cannon
DPX2-67S32C2S-33S-()	ITT Cannon
DPX2-B10C3SD32C2S-33B-()	ITT Cannon
DPX2-F40C1SF40C1S-33B-()	ITT Cannon
DPX2DA-26S7S-33B-()	ITT Cannon
DPX2EF-AC3S67S-33B-()	ITT Cannon
DPX2MA-00SD32W4S-33B-()	ITT Cannon
DPX2MA-00S57S-33-()	ITT Cannon
DPX2MA-00S57S-33B-()	ITT Cannon
DPX2MA-106P106P-33B-()	ITT Cannon
DPX2MA-106P57P-33B-()	ITT Cannon
DPX2MA-106PD32C2S-33B-()	ITT Cannon
DPX2MA-106S00S-34B-()	ITT Cannon
DPX2MA-106S106S-34B-()	ITT Cannon
DPX2MA-26P26P-34B-()	ITT Cannon
DPX2MA-26S26S-33B-()	ITT Cannon
DPX2MA-26S45S-33B-()	ITT Cannon
DPX2MA-26S57S-33B-()	ITT Cannon

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Table 1 CONNECTOR PART NUMBERS (Continued)

Part Number	Supplier
DPX2MA-32W4SD106P-33B-()	ITT Cannon
DPX2MA-40B1S40B1S-33B-()	ITT Cannon
DPX2MA-40S40S-33B-()	ITT Cannon
DPX2MA-40W1S40W1S-33B-()	ITT Cannon
DPX2MA-45S40S-33B-()	ITT Cannon
DPX2MA-45S45S-33B-()	ITT Cannon
DPX2MA-57P-106S-34B-()	ITT Cannon
DPX2MA-57S00S-33B-()	ITT Cannon
DPX2MA-57S106P-33B-()	ITT Cannon
DPX2MA-57S26S-33B-()	ITT Cannon
DPX2MA-57S40S-32B-()	ITT Cannon
DPX2MA-57S45S-33B-()	ITT Cannon
DPX2MA-57S57S-33B-()	ITT Cannon
DPX2MA-57S57S-34B-()	ITT Cannon
DPX2MA-57S67S-33B-()	ITT Cannon
DPX2MA-57SD106P-33B-()	ITT Cannon
DPX2MA-67S67S-33B-()	ITT Cannon
DPX2MA-67S32A2S-33B-()	ITT Cannon
DPX2MA-67S32C2S-33B-()	ITT Cannon
DPX2MA-67S32W2S-33B-()	ITT Cannon
DPX2MA-67S67S-33B-()	ITT Cannon
DPX2MA-67SD8S-33B-()	ITT Cannon
DPX2MA-A106PA106P-33B-()	ITT Cannon
DPX2MA-67SA106P-33B-()	ITT Cannon
DPX2MA-AC3S67S-33B-()	ITT Cannon
DPX2MA-C2MS57S-33B-()	ITT Cannon
DPX2MA-C2MSF40C1S-33B-()	ITT Cannon
DPX2MA-C2S57S-33B-()	ITT Cannon
DPX2MA-C8AS67S-33B-()	ITT Cannon
DPX2MA-C8ASC8AS-33B-()	ITT Cannon
DPX2MA-C8CS67S-33B-()	ITT Cannon
DPX2MA-D106P40B1S-33B-()	ITT Cannon
DPX2MA-D106PC8AS-33B-()	ITT Cannon
DPX2MA-D106PD106P-33B-()	ITT Cannon
DPX2MA-D32C2S57S-33B-()	ITT Cannon

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Table 1 CONNECTOR PART NUMBERS (Continued)

Part Number	Supplier
DPX2MA-D32C2S67S-33B-()	ITT Cannon
DPX2MA-F40C1SF40C1S-33B-()	ITT Cannon
DPX2MA-W8S67S-33B-()	ITT Cannon
DPX2MB-00S67S-33B-()	ITT Cannon
DPX2MB-26S26S-33B-()	ITT Cannon
DPX2MB-26S67S-33A-()	ITT Cannon
DPX2MB-26S8S-33B-()	ITT Cannon
DPX2MB-26SC8CS-33B-()	ITT Cannon
DPX2MB-40B1S40B1S-33B-()	ITT Cannon
DPX2MB-40S40S-33B-()	ITT Cannon
DPX2MB-40S40S-33F-()	ITT Cannon
DPX2MB-45S45S-33B-()	ITT Cannon
DPX2MB-57S00S-33B-()	ITT Cannon
DPX2MB-57S57S-33A-()	ITT Cannon
DPX2MB-57S57S-33B-()	ITT Cannon
DPX2MB-67S67S-33B-()	ITT Cannon
DPX2MB-AC3S67S-33B-()	ITT Cannon
DPX2MB-C2DS57S-33B-()	ITT Cannon
DPX2MB-D32C2S57S-33B-()	ITT Cannon
DPX2P-67S32C2S-33B-()	ITT Cannon
DPX2-ZA16C3S26S-33B-()	ITT Cannon
DPX2-ZA16C3SB10C3S-33B-()	ITT Cannon
DPX3MA-32W4S-D106P-67S-33-()	ITT Cannon
DPX3MA66565-252	ITT Cannon
DPX3MA-A318-A318-33P-()	ITT Cannon
DPX3MA-B32C4S-D106P-67S-33-()	ITT Cannon
DPX3MA-B96-33S-()	ITT Cannon
DPX3MA-D32C4S-D106P-67S-33-()	ITT Cannon
DPX3MA-E96-33S-0001	ITT Cannon
DPX3MB-26S-67S-67S-33B-()	ITT Cannon
DPX3ME-D205-33PS-()	ITT Cannon
DPX4MA-105-33S-()	ITT Cannon
DPX4MA-A307-33PS-()	ITT Cannon
DPX51252-1-()	ITT Cannon
DPX51252-2-()	ITT Cannon

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Table 1 CONNECTOR PART NUMBERS (Continued)

Part Number	Supplier
DPXAMA-26-33S-()	ITT Cannon
DPXAMA-26-34P-()	ITT Cannon
DPXAMA-32-33S-()	ITT Cannon
DPXAMA-32-34P-()	ITT Cannon
DPXAMA-32B2-33S-()	ITT Cannon
DPXAMA-40-33S-()	ITT Cannon
DPXAMA-57-34P-()	ITT Cannon
DPXAMA-A10-33S-()	ITT Cannon
DPXAMA-26-33S-()	ITT Cannon
DPXAMA-26-34P-()	ITT Cannon
DPXAMA-32B2-33S-()	ITT Cannon
DPXAMA-40-33P-()	ITT Cannon
DPXAMA-40-33S-()	ITT Cannon
DPXAMA-45-33S-()	ITT Cannon
DPXAMB-26-33S-()	ITT Cannon
DPXAMB-32B2-33S-()	ITT Cannon
DPXAMB-32W2-33S-()	ITT Cannon
DPXAMB-57-33S-()	ITT Cannon
DPXB-17-33S-()	ITT Cannon
DPXB-32-33S-()	ITT Cannon
DPXB-40-33S-()	ITT Cannon
DPXB-45-33S-()	ITT Cannon
DPXB-8-33S-()	ITT Cannon
DPXB-32-33S-()	ITT Cannon
DPXBMA-10-33P-()	ITT Cannon
DPXBMA-32-33S-()	ITT Cannon
DPXBMA-32W4-33S-()	ITT Cannon
DPXBMA-40-33S-()	ITT Cannon
DPXBMA-45-33S-()	ITT Cannon
DPXBMA-57-33S-()	ITT Cannon
DPXBMA-67-33S()	ITT Cannon
DPXBMA-67-33S-()	ITT Cannon
DPXBMA-8-33S-()	ITT Cannon
DPXBMA-8-34S-()	ITT Cannon
DPXBMA-B32C4-33S-()	ITT Cannon

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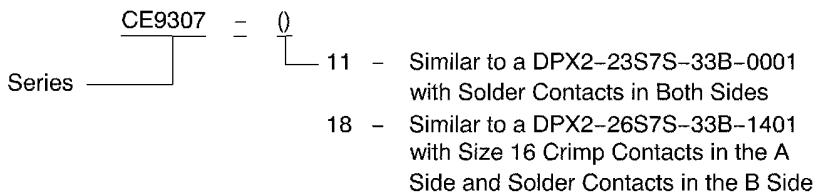


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Table 1 CONNECTOR PART NUMBERS (Continued)

Part Number	Supplier
DPXBMA-D106-33P-()	ITT Cannon
DPXBMA-D32C4-33S-()	ITT Cannon
DPXBMA-D32W4-33S-()	ITT Cannon
DPXBMA-32W4-33S-()	ITT Cannon
DPXBMA-57-33S-()	ITT Cannon
DPXBMA-67-33S-()	ITT Cannon
DPXBMA-6733S-()	ITT Cannon
DPXBMA-8-34S-()	ITT Cannon
DPXBMA-D106-33P-()	ITT Cannon
DPXBMB-40-33S-()	ITT Cannon
DPXBMB-45-33S-()	ITT Cannon
DPXBMB-57-33S-()	ITT Cannon
DPXBMB-67-33S-()	ITT Cannon
DPXBMB-8-33S-()	ITT Cannon
DPXBME-10-33S-()	ITT Cannon
DPXBME-40-33S-()	ITT Cannon
DPXBME-57-33S-()	ITT Cannon
DPXBNA-67M-33S-()	ITT Cannon
DPXMA-26-33S-()	ITT Cannon
DPXRC-20C5-33A1-()	ITT Cannon



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ITT CANNON CE TWO GANG CONNECTOR PART NUMBER STRUCTURE

Figure 1

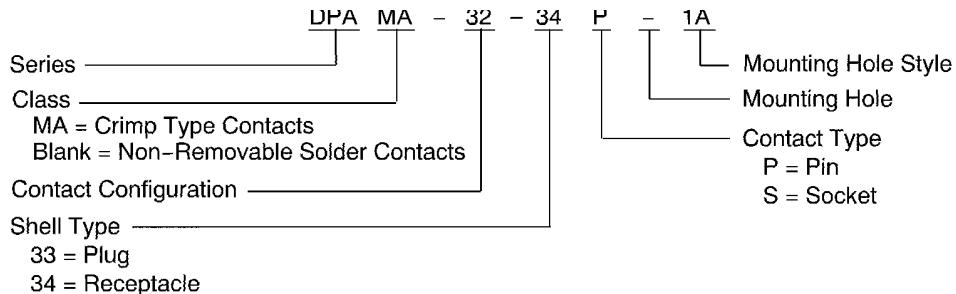
NOTE: The CE connectors have DPX insert configurations. Refer to Paragraph 3.C.

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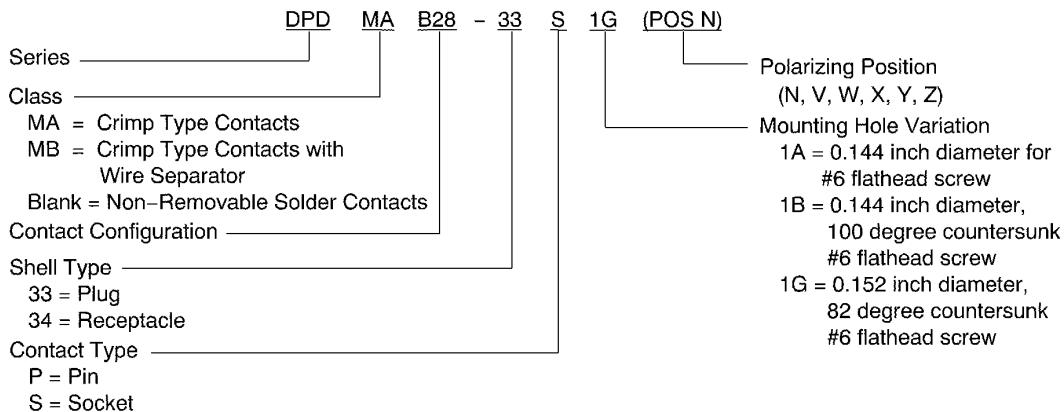
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ITT CANNON DPA CONNECTOR PART NUMBER STRUCTURE

Figure 2

Table 2
ITT CANNON DPA CONNECTOR CLASSES

Class	Series	DPA Connector Type
None	DPA-	Non-removable solder contacts
F	DPAF-	Non-removable solder contacts, float mount connector shell
L	DPAL-	Non-removable solder contacts, large flange connector shell
MA	DPAMA-	Rear release, crimp contacts



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ITT CANNON DPD SINGLE GANG CONNECTOR PART NUMBER STRUCTURE

Figure 3

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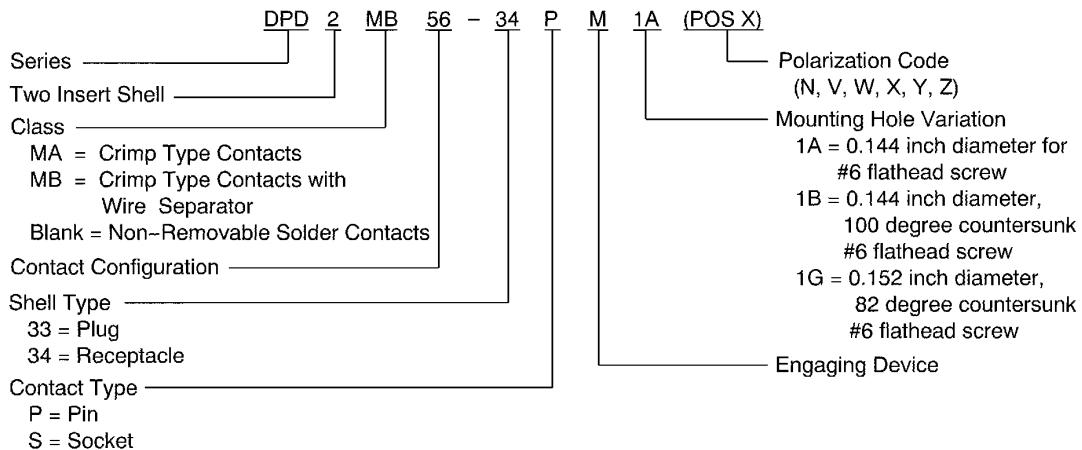


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ITT CANNON DPX, DPD, AND DPA CONNECTORS

Table 3
DPD CONNECTOR CLASSES

Class	Series	DPD Connector Type
None	DPD-	Non-removable solder contacts
B	DPDB-	Non-removable solder contacts
BMA	DPDBMA-	Rear release, crimp contacts
MA	DPDMA-	Rear release, crimp contacts
	DPD2MA-	Rear release, crimp contacts
MB	DPDMB-	Rear release, crimp contacts, insert that has an elastomeric wire separator
	DPD2MB-	Rear release, crimp contacts, inserts that have an elastomeric wire separator



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ITT CANNON DPD TWO GANG CONNECTOR PART NUMBER STRUCTURE

Figure 4

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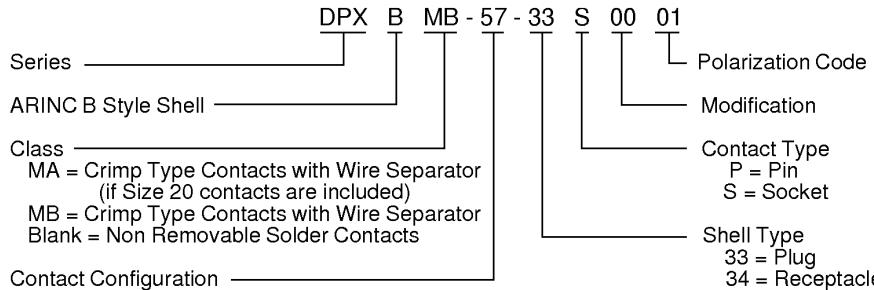
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ITT CANNON DPX SINGLE GANG CONNECTOR PART NUMBER STRUCTURE

Figure 5

Table 4
ITT CANNON DPX CONNECTOR SHELL STYLES

Shell Style	Description
NONE	Single insert shell - no polarization
A	Single insert shell - no polarization
B	Single insert shell that has polarization
2	Two insert shell that has polarization
3	Three insert shell that has polarization
4	Four insert shell that has polarization

Table 5
ITT CANNON DPX CONNECTOR CLASSES

Class	Series	DPX Connector Type
DA	DPX2DA	Rear release crimp contacts in insert A; solder contacts in insert B
MA	DPXAMA	Rear release, crimp contacts
	DPXBMA	
	DPX2MA	
	DPX3MA	
	DPX4MA	

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Table 5 ITT CANNON DPX CONNECTOR CLASSES (Continued)

Class	Series	DPX Connector Type
MB	DPXAMB	Rear release, crimp contacts, inserts that have an elastomeric wire separator
	DPXBMB	
	DPX2MB	
	DPX3MB	
	DPX4MB	
ME	DPXAME	Rear release, crimp contacts, inserts that have a rear wire grommet seal
	DPXBME	
	DPX2ME	
	DPX3ME	
	DPX4ME	
NA	DPXANA	Rear release, crimp contacts, military version, connector uses size 2020HD contacts instead of size 2020 contacts.
	DPXBNA	
	DPX2NA	
	DPX3NA	
	DPX4NA	
None	DPX-	Solder contacts
	DPXA	
	DPXB	
	DPX2-	

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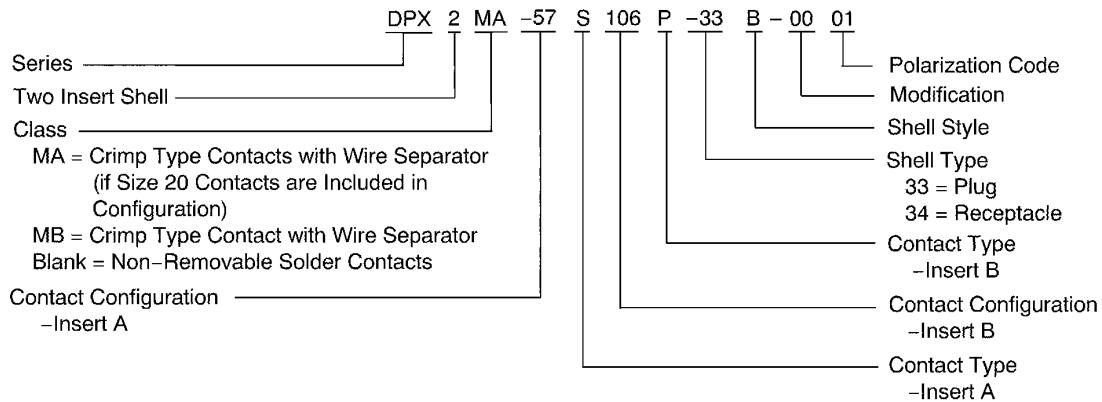
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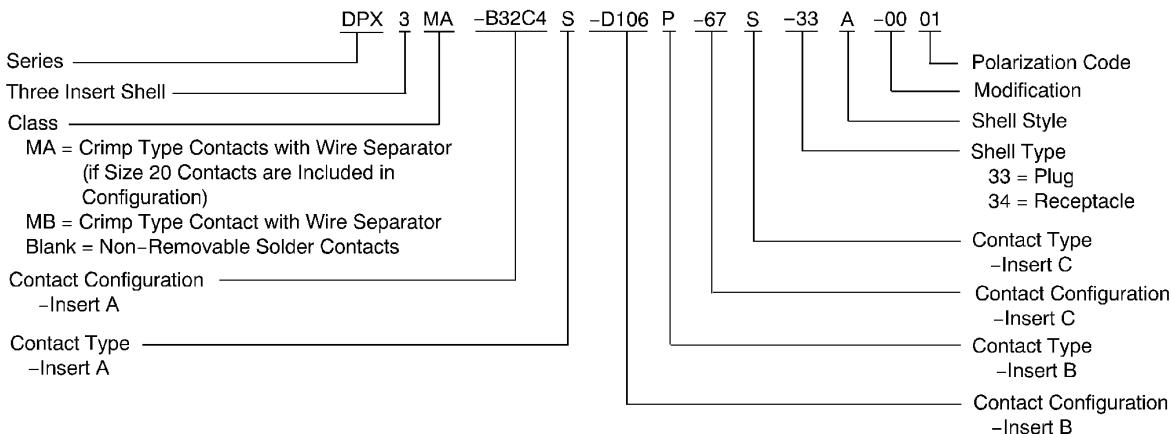
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ITT CANNON DPX TWO GANG CONNECTOR PART NUMBER STRUCTURE

Figure 6



2448084 S00061547301_V1

ITT CANNON DPX THREE GANG CONNECTOR PART NUMBER STRUCTURE

Figure 7

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Table 6
ALTERNATIVE CONNECTOR PART NUMBERS

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
DPAM()	ITT Cannon	DPAMA()	ITT Cannon
DPX()	ITT Cannon	CPX()	Cory
	ITT Cannon	CPX()	Tri-Star
DPX2AF-32S45S-33B-00()	ITT Cannon	DPX2-32S45S-33B-00()	ITT Cannon
DPX2DA-26S7S-33B-14()	ITT Cannon	DPX2DA-26S7S-33B-00()	ITT Cannon
DPX2EF-AC3S67S-33B-00()	ITT Cannon	DPX2MB-AC3S67S-33B-00()	ITT Cannon
	ITT Cannon	DSX2H43S23S00()-00()	Radiall
DPX2EF-C2ESD32C2S-33B-00()	ITT Cannon	DPX2EF-C2S32A2S-33B-00()	ITT Cannon
DPX2MA-()(-)00()	ITT Cannon	DPX2MB-()(-)00()	ITT Cannon
DPX2MA-00P67P-34B-00()	ITT Cannon	DSX2G10S22S00()	Radiall
DPX2MA-00S32W4S-33B-00()	ITT Cannon	DSX2H11S41S00()	Radiall
DPX2MA-106P106P-33B-00()	ITT Cannon	DPX2MA-D106PD106P-33B-00()	ITT Cannon
DPX2MA-106P106P-33M-01()	ITT Cannon	DPX2MA-D106PD106P-33M-01()	ITT Cannon
DPX2MA-106P106P-34F-01()	ITT Cannon	DPX2MA-D106PD106P-34F-01()	ITT Cannon
DPX2MA-106S106S-34F-01()	ITT Cannon	DPX2MA-D106SD106S-34F-01()	ITT Cannon
DPX2MA-26S45S-33B-00()	ITT Cannon	DSX2H15S19S00()	Radiall
DPX2MA-40S40S-33B-00()	ITT Cannon	DSX2H17S17S00()	Radiall
DPX2MA-40W1S40W1S-33B-00()	ITT Cannon	DSX2H29S29S00()	Radiall
DPX2MA-45S40S-33B-00()	ITT Cannon	DSX2H19S17S00()	Radiall
DPX2MA-45S45S-33B-00()	ITT Cannon	DSX2H19S19S00()	Radiall
DPX2MA-57P57P-34B-00()	ITT Cannon	DSX2G20S20S00()	Radiall
DPX2MA-57S106P-33B-00()	ITT Cannon	DSX2H21S24S00()	Radiall
DPX2MA-57S45S-33B-00()	ITT Cannon	DSX2H21S19S00()	Radiall
DPX2MA-57S57S-33B-00()	ITT Cannon	AM2P-57S57S-80()	Tyco/Amp
	ITT Cannon	DSX2H21S21S00()	Radiall
DPX2MA-57S67S-33B-00()	ITT Cannon	DSX2H21S23S00()	Radiall
DPX2MA-67P67P-34B-00()	ITT Cannon	DSX2G22S22S00()	Radiall
DPX2MA-67S67S-33B-00()	ITT Cannon	AM2P-67S67S-80()	Tyco/Amp
	ITT Cannon	DSX2H23S23S00()	Radiall
DPX2MA-A106PA106P-33B-00()	ITT Cannon	DPX2MA-A106PD106P-33B-00()	ITT Cannon
	ITT Cannon	DPX2MA-D106PA106P-33B-00()	ITT Cannon
	ITT Cannon	DPX2MA-D106PD106P-33B-00()	ITT Cannon
DPX2MA-AC3S67S-33B-00()	ITT Cannon	DSX2H43S23S00()	Radiall
DPX2MA-C2MS57S-33B-00()	ITT Cannon	DSX2H35X21S00()	Radiall

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Table 6 ALTERNATIVE CONNECTOR PART NUMBERS (Continued)

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
DPX2MA-C2MSF40C1S-33B-00()	ITT Cannon	DSX2H35X29S00()	Radiall
DPX2MA-C8ASC8AS-33B-00()	ITT Cannon	DSX2H31X31X00()	Radiall
DPX2MA-D106PD106P-33B-00()	ITT Cannon	DPX2MA-A106PA106P-33B-00()	ITT Cannon
	ITT Cannon	DPX2MA-A106PD106P-33B-00()	ITT Cannon
	ITT Cannon	DPX2MA-D106PA106P-33B-00()	ITT Cannon
	ITT Cannon	DSX2H24S24S00()	Radiall
DPX2MA-D32C2S57S-33B-00()	ITT Cannon	DSX2H27S21S00()	Radiall
DPX2MA-D32C2S67S-33B-00()	ITT Cannon	DSX2H27S23S00()	Radiall
DPX2MA-F40C1SF40C1S-33B-00()	ITT Cannon	DSX2H29S29S00()	Radiall
DPX2MA-W8S67S-33B-00()	ITT Cannon	DSX2H31X23S00()	Radiall
DPX2MB-(-)-03()	ITT Cannon	DPX2MA-(-)-03()	ITT Cannon
DPX2MB-00P67P-34B-00()	ITT Cannon	DSX2G10S22S00()	Radiall
DPX2MB-00S67S-33B-00()	ITT Cannon	DSX2H11S23S00()	Radiall
DPX2MB-26P26P-34B-00()	ITT Cannon	DSX2G14S14S00()	Radiall
DPX2MB-26P8P-34B-00()	ITT Cannon	DSX2G14S12S00()	Radiall
DPX2MB-26S8S-33B-00()	ITT Cannon	DSX2H15S13S00()	Radiall
DPX2MB-26SC8CS-33B-00()	ITT Cannon	DSX2H15S31X00()	Radiall
DPX2MB-40B1S40B1S-33B-00()	ITT Cannon	DPX2MB-F40C1SF40C1S-33B-00()	ITT Cannon
	ITT Cannon	DSX2H29S29S00()	Radiall
DPX2MB-40S40S-33B-00()	ITT Cannon	DPX2MA-40S40S-33B-00()	ITT Cannon
DPX2MB-45S45S-33B-00()	ITT Cannon	DSX2H19S19S00()	Radiall
DPX2MB-57P57P-34B-00()	ITT Cannon	DSX2G20S20S00()	Radiall
DPX2MB-57S57S-33-00()	ITT Cannon	DPX2MA-57S57S-33-00()	ITT Cannon
DPX2MB-57S57S-33B-00()	ITT Cannon	DSX2H21S21S00()	Radiall
DPX2MB-67P67P-34B-00()	ITT Cannon	DSX2G22S22S00()	Radiall
DPX2MB-AC3S67S-33B-00()	ITT Cannon	DPX2MA-AC3S67S-33B-00()	ITT Cannon
DPX2MB-D32C2S57S-33B-00()	ITT Cannon	DPX2MA-D32C2S57S-33B-00()	ITT Cannon
	ITT Cannon	DSX2H27S21S00()	Radiall
DPX3MB-26S67S67S-33B-0001	ITT Cannon	DPX3MB-A160-33B-00()	ITT Cannon
DPX3MB-78-34P-00()	ITT Cannon	DSX3G14S14S14S00()	Radiall
DPXAMA-26-34P	ITT Cannon	DSX1E14S00	Radiall
DPXAMB-26-33S	ITT Cannon	DSX1F15S00	Radiall
DPXAMB-26-34P	ITT Cannon	DSX1E14S00	Radiall
DPXAMB-32B2-33S	ITT Cannon	DPXA-F32C2-33S	ITT Cannon

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Table 6 ALTERNATIVE CONNECTOR PART NUMBERS (Continued)

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
DPXAMB-32W2-33S	ITT Cannon	DSX1F27S00	Radiall
	ITT Cannon	DSX1F27S00	Radiall
DPXAMB-57-33S	ITT Cannon	DPXA-57-33S	ITT Cannon
DPXAMB-67-33S	ITT Cannon	DPXA-67-33S	ITT Cannon
DPXB32-33S-00()	ITT Cannon	CPXBMA32-33S-00()	Cory
	ITT Cannon	CPXBMA32-33S-00()	Tri-Star
DPXBMA-()-33S-00()	ITT Cannon	DPXBMB-()-33S-00()	ITT Cannon
DPXBMA-32-33S-00()	ITT Cannon	DPXBMB-32-33S-00()	ITT Cannon
DPXBMA-32W4-33S-00()	ITT Cannon	DSX1H41S00()	Radiall
DPXBMA-40-33S-00()	ITT Cannon	DSX1H17S00()	Radiall
DPXBMA-45-33S-00()	ITT Cannon	DSX1H19S00()	Radiall
DPXBMA-57-33S-00()	ITT Cannon	AM1P-57S-80()	Tyco/Amp
	ITT Cannon	DSX1H21S00()	Radiall
	ITT Cannon	AM1P-57S-80()	Tyco/Amp
DPXBMA-57-34P-00()	ITT Cannon	DSX1G20S00()	Radiall
DPXBMA-67-33S-00()	ITT Cannon	AM1P-67S-80()	Tyco/Amp
	ITT Cannon	DSX1H23S00()	Radiall
	ITT Cannon	DPXBMB-67-33S-00()	ITT Cannon
DPXBMA-8-33S-00()	ITT Cannon	DSX1H13S00()	Radiall
DPXBMA-D106-33P-00()	ITT Cannon	DSX1H24S00()	Radiall
DPXBMA-D32C4-33S00()	ITT Cannon	DSX1H41S00()	Radiall
DPXBMA-D32C4-34P00()	ITT Cannon	DSX1G40S00()	Radiall
DPXBMB-()-33S-00()	ITT Cannon	DPXBMA-()-33S-00()	ITT Cannon
DPXBMB-40-33S-00()	ITT Cannon	DSX1H17S00()	Radiall
DPXBMB-45-33S-00()	ITT Cannon	DPXBMA-45-33S-00()	ITT Cannon
	ITT Cannon	DSX1H19S00()	Radiall
DPXBMB-57-33S-00()	ITT Cannon	DPXBMA-57-33S-00()	ITT Cannon
	ITT Cannon	DSX1H21S00()	Radiall
DPXBMB-57-34P-00()	ITT Cannon	DSX1G20S00()	Radiall
DPXBMB-67-33S-00()	ITT Cannon	DPXBMA-67-33S-00()	ITT Cannon
	ITT Cannon	DSX1H23S00()	Radiall
DPXBMB-8-33S-00()	ITT Cannon	DPXB-8-33S-00()	ITT Cannon

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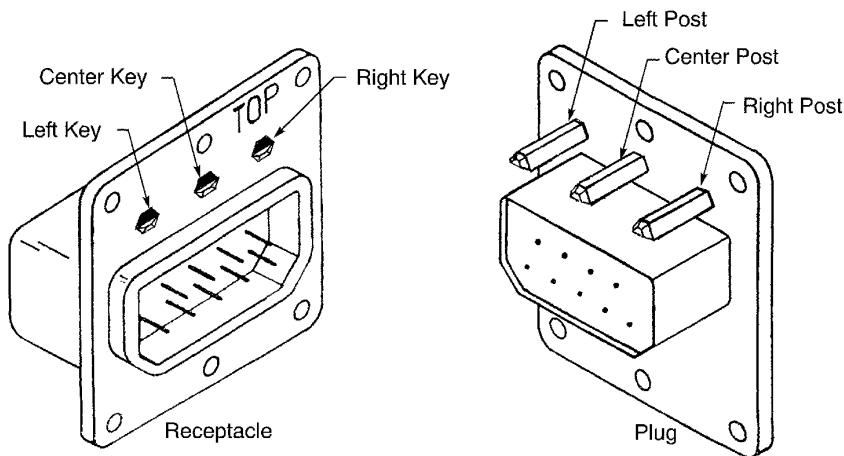
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NOTE: The part of the part number within the parentheses in Table 6 must be the same for the specified connector and the alternative connector.

NOTE: The coax contacts for the alternative connectors from the different manufacturers in Table 6 are not interchangeable.

B. Connector Shell Styles



2448080 S00061547302_V1

ITT CANNON DPXB(34) AND DPXB(33) - SINGLE INSERT CONNECTOR SHELLS WITH POLARIZATION

Figure 8

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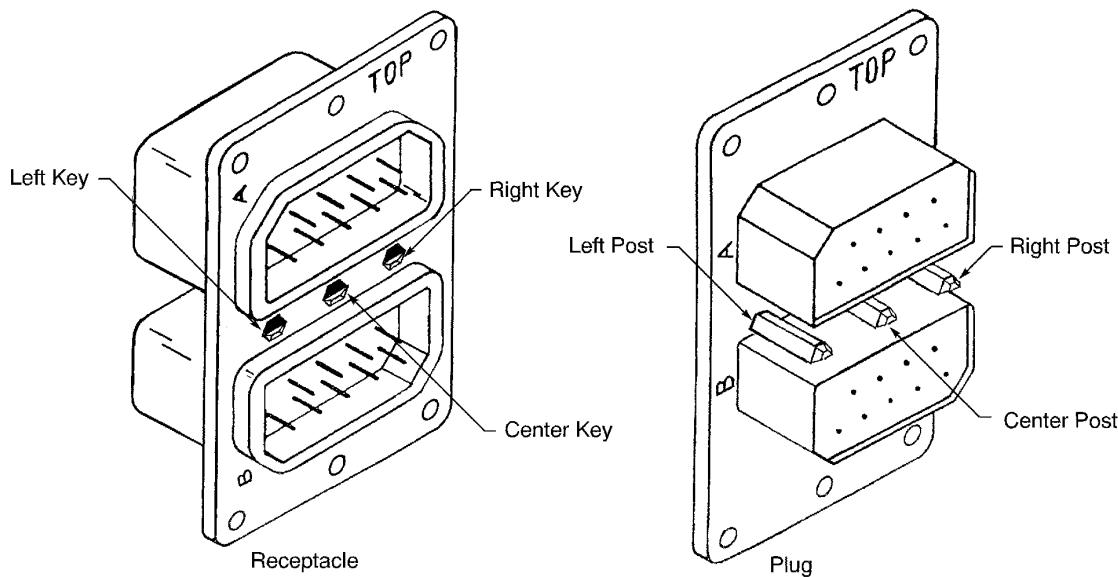
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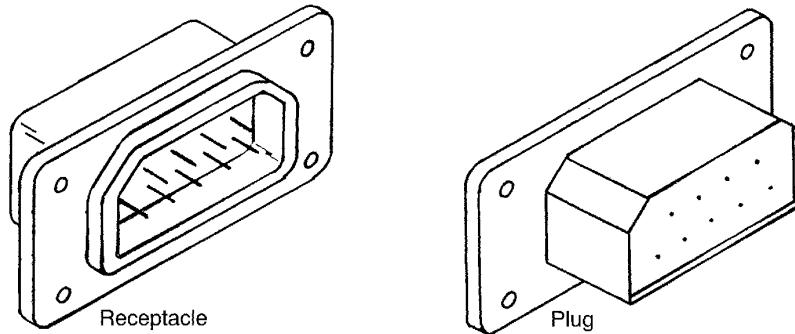
ITT CANNON DPX, DPD, AND DPA CONNECTORS



2448082 S00061547303_V1

ITT CANNON DPX2(34B) AND DPX2(33B) - TWO INSERT CONNECTOR SHELLS WITH
POLARIZATION

Figure 9



2448081 S00061547304_V1

ITT CANNON DPXA(34) AND DPXA(33) - SINGLE INSERT CONNECTOR SHELLS WITHOUT
POLARIZATION

Figure 10

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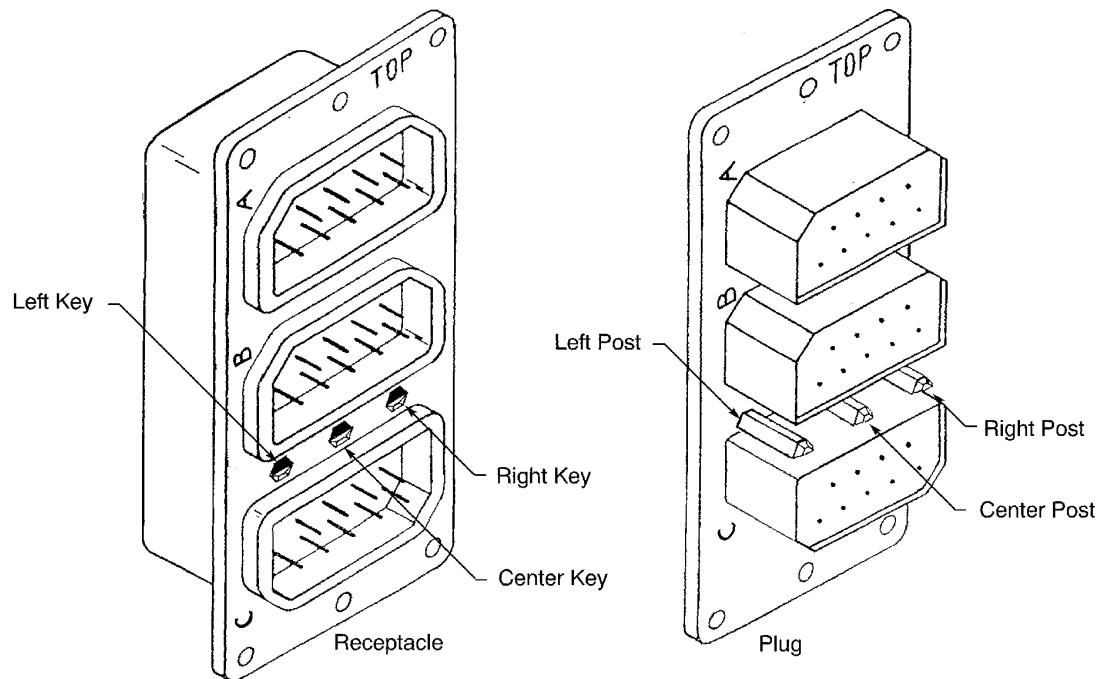
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2448083 S00061547305_V1

ITT CANNON DPX3(34B) AND DPX3(33B) - THREE INSERT CONNECTOR SHELLS WITH
POLARIZATION

Figure 11

C. Contact Part Numbers

This paragraph gives the part numbers for rear release, rear removable, crimp type contacts.

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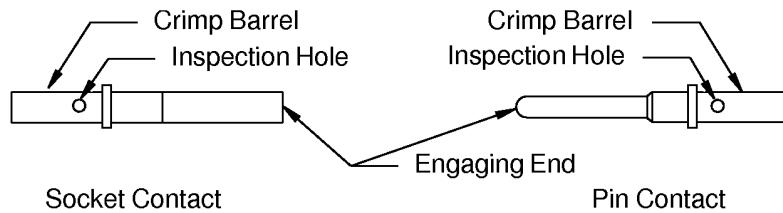
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2449030 S00061547132_V1

REAR RELEASE CONTACTS

Figure 12

20 20
Engaging End Size Crimp Barrel Size

2446651 S00061545900_V1

EXAMPLE OF CONTACT SIZE

Figure 13

NOTE: The size 2020HD high density contact has a size 20 engaging end and a size 20 crimp barrel.

Table 7
CONTACT PART NUMBERS FOR DPA() CONNECTORS

Contact Size	Contact Type	Part Number	Supplier
2020	Pin	030-9173-003	ITT Cannon
	Socket	031-9174-003	ITT Cannon

Table 8
CONTACT PART NUMBERS FOR DPD() CONNECTORS

Contact Size	Contact Type	Part Number	Contact Plating	Supplier
2020	Pin	030-9081-000	Gold	ITT Cannon
		616-220		Radiall
	Socket	031-9134-001	Gold	ITT Cannon
		616-325		Radiall

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Table 8 CONTACT PART NUMBERS FOR DPD() CONNECTORS (Continued)

Contact Size	Contact Type	Part Number	Contact Plating	Supplier
1616	Pin	030-9083-000	Silver	ITT Cannon
		030-9083-001	Gold	ITT Cannon
		616-230		Radiall
	Socket	031-9206-003	Silver	ITT Cannon
		031-9206-004	Gold	ITT Cannon
		616-330		Radiall
1212	Pin	030-1909-000	Silver	ITT Cannon
		030-1909-001	Gold	ITT Cannon
		616-240		Radiall
	Socket	031-1059-000	Silver	ITT Cannon
		031-1059-001	Gold	ITT Cannon
		616-340		Radiall
0808	Pin	030-1908-000	Silver	ITT Cannon
		030-1908-001	Gold	ITT Cannon
	Socket	030-9201-003	Silver	ITT Cannon
		031-1154-000	Gold	ITT Cannon

NOTE: A gold plated contact and a silver plated contact give equivalent performance.

Table 9
CONTACT PART NUMBERS FOR CE() AND DPX() CONNECTORS

Contact Size	Contact Type	Part Number	Contact Plating	Supplier
2222	Pin	030-1975-000	Gold	ITT Cannon
		030-1975-005	Gold	ITT Cannon
		030-1975-007	Gold	ITT Cannon
		030-1975-008	Gold	ITT Cannon
		204873-4	Gold	Tyco/Amp
		616-200	Gold	Radiall
		M39029/11-144	Gold	QPL
	Socket	031-1113-000	Gold	ITT Cannon
		031-1113-007	Gold	ITT Cannon
		031-1113-008	Gold	ITT Cannon
		205103-3	Gold	Tyco/Amp
		616-300	Gold	Radiall
		M39029/12-148	Gold	QPL

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Table 9 CONTACT PART NUMBERS FOR CE() AND DPX() CONNECTORS (Continued)

Contact Size	Contact Type	Part Number	Contact Plating	Supplier
2020HD	Pin	030-9081-003	Gold	ITT Cannon
		030-1892-002	Gold	ITT Cannon
		030-1892-004	Gold	ITT Cannon
		204938-3	Gold	Tyco/Amp
		616-210	Gold	Radiall
		M39029/11-145	Gold	QPL
	Socket	031-1047-002	Gold	ITT Cannon
		031-1047-003	Gold	ITT Cannon
		031-1302-000	Gold	ITT Cannon
		031-9134-004	Gold	ITT Cannon
		118-2020-074	Gold	Tri-Star
		208267-2	Gold	Tyco/Amp
		205116-1	Gold	Tyco/Amp
		316-2020-081	Gold	Tri-Star
		318-2020-302	Gold	Tri-Star
		616-310	Gold	Radiall
		620-310	Gold	Radiall
		8660-248	Gold	Souriau
2020	Pin	BACC47EG2	Gold	Boeing
		M39029/12-149	Gold	QPL
		030-2040-000	Gold	ITT Cannon
	Socket	030-9081-000	Gold	ITT Cannon
		610-220	Gold	Radiall
	Socket	031-1046-002	Gold	ITT Cannon
		031-9134-001	Gold	ITT Cannon
		610-325	Gold	Radiall

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Table 9 CONTACT PART NUMBERS FOR CE() AND DPX() CONNECTORS (Continued)

Contact Size	Contact Type	Part Number	Contact Plating	Supplier
1616	Pin	030-9083-001	Gold	ITT Cannon
		030-9083-002	Gold	ITT Cannon
		030-9083-012	Gold	ITT Cannon
		204978-3	Gold	Tyco/Amp
		616-230	Gold	Radiall
		M39029/11-146	Gold	QPL
	Socket	031-1271-000	Gold	ITT Cannon
		031-9206-004	Gold	ITT Cannon
		031-9206-021	Gold	ITT Cannon
		205117-1	Gold	Tyco/Amp
		616-330	Gold	Radiall
		M39029/12-150	Gold	QPL
1212	Pin	030-1909-001	Gold	ITT Cannon
		030-1909-002	Gold	ITT Cannon
		030-2045-000	Gold	ITT Cannon
		205763-3	Gold	Tyco/Amp
		205763-5	Gold	Tyco/Amp
		616-240	Gold	Radiall
		M39029/11-147	Gold	QPL
	Socket	031-1059-001	Gold	ITT Cannon
		031-1059-002	Gold	ITT Cannon
		205851-2	Gold	Tyco/Amp
		616-340	Gold	Radiall
		M39029/12-151	Gold	QPL
0808	Pin	030-1908-001	Gold	ITT Cannon
	Socket	031-1154-000	Gold	ITT Cannon
0406	Pin	030-2049-000	Gold	ITT Cannon
	Socket	031-1151-000	Gold	ITT Cannon

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Table 10
THERMOCOUPLE CONTACT PART NUMBERS FOR CE(), DPD() AND DPX() CONNECTORS

Contact Size	Type	Material	Part Number	Supplier
2222	Pin	Alumel	030-1975-009	ITT Cannon
		Chromel	030-1975-010	ITT Cannon
	Socket	Alumel	031-1113-009	ITT Cannon
		Chromel	031-1113-010	ITT Cannon
2020	Pin	Alumel	030-1899-000	ITT Cannon
		Chromel	030-1900-000	ITT Cannon
	Socket	Alumel	031-1048-000	ITT Cannon
		Chromel	031-1049-000	ITT Cannon

Table 11
ALTERNATIVE CONTACT PART NUMBERS FOR CE(), DPD() AND DPX() CONNECTORS

Contact Size	Contact Type	Specified Contact		Alternative Contact	
		Part Number	Supplier	Part Number	Supplier
2020	Chromel Pin	030-2900-000	ITT Cannon	030-1900-000	ITT Cannon

D. Coax Contact Part Numbers

Table 12
COAX CONTACT PART NUMBERS

Coax Contact							Coax Cable	
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier
249-0268-000	ITT Cannon	DPX	-	Socket	Solder, Not Removable	10C3	09-058	QPL
							BA-6903	Boeing
							RG-142	QPL
							RG-223	QPL
							RG-58	QPL
							BA-5903	Boeing
249-0366-000	ITT Cannon	DPD	-	Socket	Not Removable	32C2	RG-59	QPL
							RG-62	QPL
							RG-7	QPL
249-0398-000	ITT Cannon	DPD	-	Socket	Not Removable	U32C2	RG-210	QPL
							RG-59	QPL
							RG-62	QPL
							RG-7	QPL

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Table 12 COAX CONTACT PART NUMBERS (Continued)

Coax Contact							Coax Cable	
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier
249-0750-000	ITT Cannon	DPX	5	Socket	Solder, Not Removable	32W2	09-058	QPL
							RG-58	QPL
							RG-142	QPL
							RG-223	QPL
							RG-5903	Boeing
							BA-6903	Boeing
						40W1	09-058	QPL
							RG-58	QPL
							RG-142	QPL
							RG-223	QPL
							RG-5903	Boeing
							BA-6903	Boeing
249-1390-000	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	D32C2	BA-5903	Boeing
							RG-58	QPL
						32W2	BA-5903	Boeing
							RG-58	QPL
						F40C1	BA-5903	Boeing
							RG-58	QPL
						40W1	BA-5903	Boeing
							RG-58	QPL
249-1398-000	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	32B2	RG-59	QPL
							RG-62	
						32W2	RG-59	QPL
							RG-62	
						40W1	RG-59	QPL
							RG-62	

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Table 12 COAX CONTACT PART NUMBERS (Continued)

Coax Contact							Coax Cable	
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier
249-1400-000	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	32A2	BA-5903	Boeing
							BMS 13-65 Type OF	QPL
							RG-58	QPL
						32W2	BA-5903	Boeing
							BMS 13-65 Type OF	QPL
							RG-58	QPL
						40B1	BA-5903	Boeing
							BMS 13-65 Type OF	QPL
							RG-58	QPL
						40W1	BA-5903	Boeing
							BMS 13-65 Type OF	QPL
							RG-58	QPL
249-1400-003	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	32A2	5020G3442	Raychem
						32W2		
						40B1		
						40W1		
249-1404-003	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	32C2	RG-316	QPL
						32W2		
						40W1		
249-1521-000	ITT Cannon	DPX	1	Pin	Mechanical Assembly	C2	BA-6903	Boeing
							RG-214	QPL
249-1522-000	ITT Cannon	DPX	1	Socket	Mechanical Assembly	C2	BA-6903	Boeing
							RG-214	QPL
249-1598-000	ITT Cannon	DPX	5	Socket	Solder, Not Removable	32W2	RG-142	QPL
						40W1		
249-1608-000	ITT Cannon	DPX	5	Socket	Front Release Ring-Loc	32W2	RG-59	QPL
						40W1		

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Table 12 COAX CONTACT PART NUMBERS (Continued)

Coax Contact							Coax Cable		
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier	
249-1632-000	ITT Cannon	DPX	9	Socket	Rear Release	C8A	BA-5903	Boeing	
						RG-58	QPL		
						W8	BA-5903	Boeing	
							RG-58	QPL	
						D32C4	BA-5903	Boeing	
							RG-58	QPL	
						32W4	BA-5903	Boeing	
							RG-58	QPL	

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Table 12 COAX CONTACT PART NUMBERS (Continued)

Coax Contact							Coax Cable	
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier
249-1634-000	ITT Cannon	DPX	9	Socket	Rear Release	C8C	10-60875	Boeing
							5024A1314	Raychem
							BMS 13-42	Boeing
							BMS 13-48	Boeing
							BMS 13-65 Type OE	Boeing
							RG-174	QPL
							RG-316	QPL
						W8	10-60875	Boeing
							5024A1314	Raychem
							BMS 13-42	Boeing
							BMS 13-48	Boeing
							BMS 13-65 Type OE	Boeing
							RG-174	QPL
							RG-316	QPL
						B32C4	10-60875	Boeing
							5024A1314	Raychem
							BMS 13-42	Boeing
							BMS 13-48	Boeing
							BMS 13-65 Type OE	Boeing
							RG-174	QPL
							RG-316	QPL
						32W4	10-60875	Boeing
							5024A1314	Raychem
							BMS 13-42	Boeing
							BMS 13-48	Boeing
							BMS 13-65 Type OE	Boeing
							RG-174	QPL
							RG-316	QPL
249-1830-000	ITT Cannon	DPX	7	Socket	Mechanical Assembly	AC3	BA-5903	Boeing
249-1858-000	ITT Cannon	-	-	Pin	-	-	RG-58	QPL
							RG-115	QPL

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Table 12 COAX CONTACT PART NUMBERS (Continued)

Coax Contact							Coax Cable	
Part Number	Supplier	Connector Series	Size	Type	Retention Description	Insert	Part Number	Supplier
249-1959-000	ITT Cannon	DPX	9	Socket	Rear Release	W8	RG-223	QPL
						32C4		
						32W4		
249-1982-000	ITT Cannon	DPX	9	Pin	Rear Release	W8	BMS 13-65 Type OF	Boeing
						32W4		
249-1983-000	ITT Cannon	DPX	9	Socket	Rear Release	W8	BMS 13-65 Type OF	Boeing
						32W4		
249-2020-001	ITT Cannon	DPX	9	Socket	Rear Release	W8	BMS 13-65 Type OF	Boeing
						32W4		
249-5008-000	ITT Cannon	DPA	-	Socket	Snap-In, Not Removable	L24C2	BA-5903	Boeing
249-5027-004	ITT Cannon	DPX	3	Socket	Mechanical Assembly	AC3	BA-6903	Boeing
							RG-214	QPL
249-9104-000	ITT Cannon	-	-	-	-	-	BA-5903	Boeing
							RG-233	QPL

Table 13
ALTERNATIVE COAX CONTACT PART NUMBERS

Specified Contact		Alternative Contact	
Part Number	Supplier	Part Number	Supplier
249-1983-000	ITT Cannon	249-2020-001	ITT Cannon
249-2020-001	ITT Cannon	249-1983-000	ITT Cannon

E. Ferrule Part Numbers

Table 14
FERRULES FOR SPECIFIED CONTACTS AND COAX CABLES

Contact	Cable	Boeing Standard	
		Inner Ferrule	Outer Ferrule
249-0268-000	BA6903	BACS13S128B	BACS13S187C
	RG-142	BACS13S128B	BACS13S205C
	RG-223	BACS13S134B	BACS13S219C
	RG-5903	BACS13S128B	BACS13S187C

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Table 14 FERRULES FOR SPECIFIED CONTACTS AND COAX CABLES (Continued)

Contact	Cable	Boeing Standard	
		Inner Ferrule	Outer Ferrule
249-0366-000	RG-59	BACS13S219B	BACS13S297C
	RG-62	BACS13S219B	BACS13S281C
	RG-71	BACS13S219B	BACS13S312C
249-0398-000	RG-59	BACS13S219B	BACS13S297C
	RG-62	BACS13S219B	BACS13S281C
	RG-71	BACS13S219B	BACS13S312C
249-0750-000	BA6903	BACS13S128B	BACS13S187C
	RG-142	BACS13S128B	BACS13S205C
	RG-223	BACS13S134B	BACS13S219C
	RG-5903	BACS13S128B	BACS13S187C
249-1398-000	RG-59	BACS13S232B	BACS13S297C
	RG-62	BACS13S232B	BACS13S297C
249-1400-000	BA5903	BACS13S156B	BACS13S219C
	RG-58	BACS13S165B	BACS13S232C
249-1598-000	RG-142	BACS13S165B	BACS13S261C
249-1608-000	RG-59	BACS13S232B	BACS13S297C
249-1858-000	RG-115	BACS13S297B	BACS13S405C

NOTE: Refer to Subject 20-00-11 for approved suppliers and alternative part numbers for BACS13S ferrules.

F. Replacement Polarization Component Part Numbers for DPX Connectors

Table 15
REPLACEMENT POLARIZATION COMPONENT PART NUMBERS

DPX Shell Type	Polarization Component		
	Type	Part Number	Supplier
Plug	Post	230-0113-001	ITT Cannon
	Nut	217-0979-000	ITT Cannon
	Washer	990-0019-062	ITT Cannon
Receptacle	Key	201-0070-000	ITT Cannon
	Plate	227-1153-000	ITT Cannon
	Screw	980-0000-635	ITT Cannon



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2. PROTECTIVE CAP PART NUMBERS AND DESCRIPTION

A. General Data

Protective caps are used on DPA, DPD, and DPX connectors:

- To keep contamination from the contacts
- To prevent damage that can be caused by electrostatic discharge (ESD)
- To prevent mechanical damage.

B. Protective Cap Part Numbers

**Table 16
CONDUCTIVE PROTECTIVE CAP PART NUMBERS**

Connector		Protective Cap	
Series	Shell	Part Number	Supplier
DPX	Plug	DPXA-59	ITT Cannon
		025-0749-001	ITT Cannon
	Receptacle	DPXB-60-1	ITT Cannon
		025-0767-001	ITT Cannon

**Table 17
NON-CONDUCTIVE PROTECTIVE CAP PART NUMBERS**

Connector		Protective Cap	
Series	Shell	Part Number	Supplier
DPD	-	025-0585-000	ITT Cannon
DPA	Plug	DPA-59	ITT Cannon
		025-0572-000	ITT Cannon
	Receptacle	DPA-60	ITT Cannon
		025-0573-000	ITT Cannon
DPX	Plug	DPX-59	ITT Cannon
		025-0749-000	ITT Cannon
	Receptacle	DPX-60	ITT Cannon
		025-0767-000	ITT Cannon

3. INSERT CONFIGURATIONS

A. DPA Insert Configurations

**Table 18
CONNECTORS THAT HAVE DPA INSERT CONFIGURATIONS**

Part Number	Contact Description	Insert
DPA-32-33S	Solder, Not Removable	32
DPA-32-33S3	Solder, Not Removable	32

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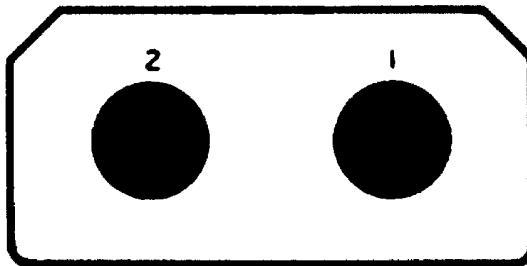
Table 18 CONNECTORS THAT HAVE DPA INSERT CONFIGURATIONS (Continued)

Part Number	Contact Description	Insert
DPA-6-33S	Solder, Not Removable	6
DPA-6-34P	Solder, Not Removable	6
DPAF-2-33S	Solder, Not Removable	2
DPAL-L24C2-33S	Solder, Not Removable	L24C2
DPAMA-32-33S	Crimp, Removable	32
DPAMA-32-33S-1B	Crimp, Removable	32
DPAMA-32-33SN	Crimp, Removable	32
DPAMA-L24C2-33S	Crimp, Removable	L24C2

Table 19
DPA CONNECTOR INSERT CONFIGURATIONS

Insert	Contacts or Contact Cavitites				
	Count	Size	Type	Notes	Reference
2	2	0404	-	Non-removable Solder Contacts	Figure 14
6	2	2020	-	Non-removable Solder Contacts	Figure 15
	2	1212	-	Non-removable Solder Contacts	
	2	0808	-	Non-removable Solder Contacts	
L24C2	22	2020	-	Crimp, Rear Release Contacts	Figure 16
	2	-	Coax	Rear Release Contacts	
	22	2020	-	Non-removable Solder Contacts	Figure 16
	2	-	Coax		
32	32	2020	-	Crimp, Rear Release Contacts	Figure 17
	32	2020	-	Non-removable Solder Contacts	Figure 17

NOTE: Figure 14 through Figure 17 show the rear face of an insert that has socket contacts. The view of the rear face of an insert that has pin contacts is the mirror image of this view.



2448067 S00061547306_V1

DPA INSERT 2
Figure 14

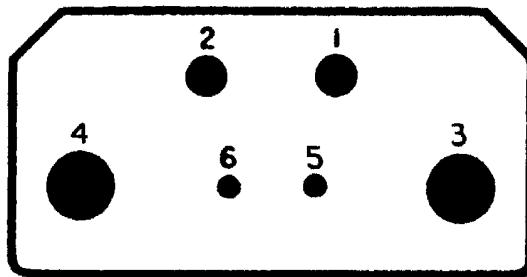
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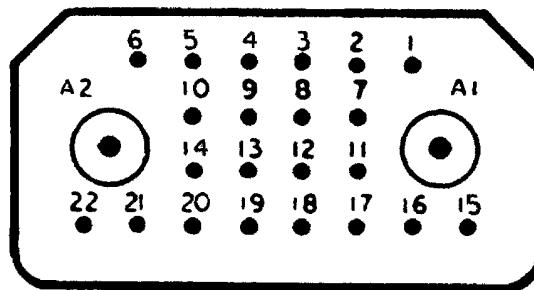


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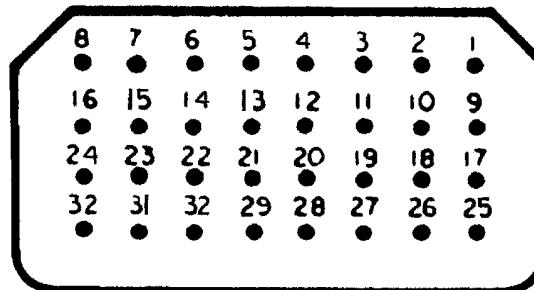
2448069 S00061547307_V1

DPA INSERT 6
Figure 15



2448070 S00061547308_V1

DPA INSERT L24C2
Figure 16



2448068 S00061547309_V1

DPA INSERT 32
Figure 17

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B. DPD Insert Configurations

Table 20
CONNECTORS THAT HAVE DPD INSERT CONFIGURATIONS

Part Number	Contact Description	Insert	
		A	B
DPD-32-33S-()	Solder, Not Removable	32	-
DPD-32-34P-()	Solder, Not Removable	32	-
DPD-45-33S-()	Solder, Not Removable	45	-
DPD-66-33S-()	Solder, Not Removable	-	-
DPD-A15-33S-()	Solder, Not Removable	-	-
DPD-A8-33S-()	Solder, Not Removable	-	-
DPD-B18-33S-()	Solder, Not Removable	-	-
DPDB-20-34P-()	Solder, Not Removable	-	-
DPDB-58-33S-()	Solder, Not Removable	-	-
DPD-G20-33S-()	Solder, Not Removable	G20	-
DPD-G20-34P-()	Solder, Not Removable	G20	-
DPD-N10-33S-()	Solder, Not Removable	N10	-
DPDB-58-34P-()	Solder, Not Removable	-	-
DPDB-G20-34P-()	Solder, Not Removable	G20	-
DPDBMA-G20-33S-()	Crimp, Removable	G20	-
DPDBMA-G20-34P-()	Crimp, Removable	G20	-
DPD-G20-33S-()	Solder, Not Removable	G20	-
DPD-G20-34P-()	Solder, Not Removable	G20	-
DPDMA-32C2-33S-()	Crimp, Removable	32C2	-
DPDMA-45-33S-()	Crimp, Removable	45	-
DPDMA-76-33S-()	Crimp, Removable	76	-
DPDMA-A32-33S-()	Solder, Removable in A1, A2	32C2	-
DPDMA-G20-33S-()	Crimp, Removable	G20	-
DPDMA-U32C2-33S-()	Crimp, Removable	U32C2	-
DPDMB-32-33S-()	Crimp, Removable	32	-
DPDMB-45-33S-()	Crimp, Removable	45	-
DPDMB-76-33S-()	Crimp, Removable	76	-
DPDMB-78-33S-()	Crimp, Removable	78	-
DPDMB-U32C2-33S-()	Crimp, Removable	U32C2	-
DPD2MA-152-33S-()	Crimp, Removable	76	76
DPD2MB-152-33S-()	Crimp, Removable	76	76

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Table 21
DPD CONNECTOR INSERT CONFIGURATIONS

Insert	Contacts or Contact Cavities				
	Count	Size	Type	Notes	Reference
20	-	-	-	-	-
32	28	1616	-	Non-removable Solder Contacts	Figure 20
	4	0808	-		
32C2	28	1616	-	Crimp, Rear Release Contacts	Figure 21
	2	0808	-		
	2	-	Coax	249-0366-000, Not Removable	
45	43	1616	-	Non-removable Solder Contacts	Figure 22
	2	1010	-		
58	-	-	-	-	-
66	-	-	-	-	-
76	73	2020	-	Non-removable Solder Contacts	Figure 23
	3	1616	-		
78	78	1616	-	Non-removable Solder Contacts	Figure 24
A8	-	-	-	-	-
A15	-	-	-	-	-
A32	30	1616	-	Non-removable Solder Contacts	Figure 21
	2	0808	-	Removable Contacts	
B18	-	-	-	-	-
G20	10	1414	-	Crimp, Rear Release Contacts	Figure 19
	2	1010	-		
	8	0808	-		
N10	5	0404	-	Non-removable Solder Contacts	Figure 18
	6	1616	-		
U32C2	28	1616	-	Crimp, Rear Release Contacts	Figure 21
	2	0808	-		
	2	-	Coax	249-0398-000, Not Removable	

NOTE: Figure 18 through Figure 24 show the rear face of an insert that has socket contacts. The view of the rear face of an insert that has pin contacts is the mirror image of this view.

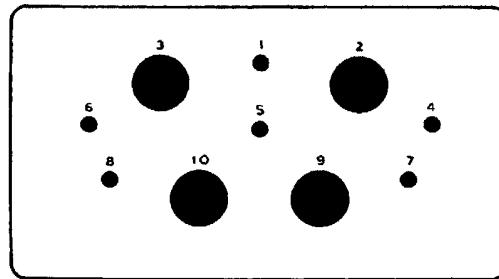
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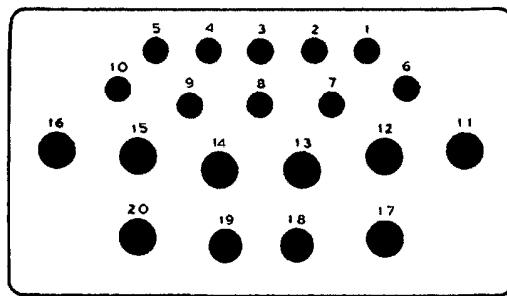


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DPD INSERT N10
Figure 18



2448072 S00061547311_V1

DPD INSERT G20
Figure 19

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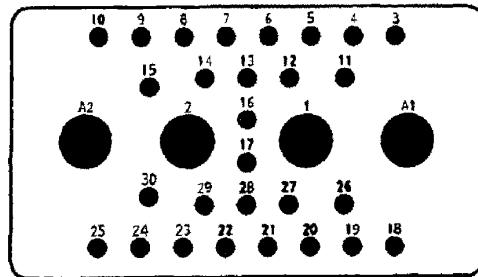
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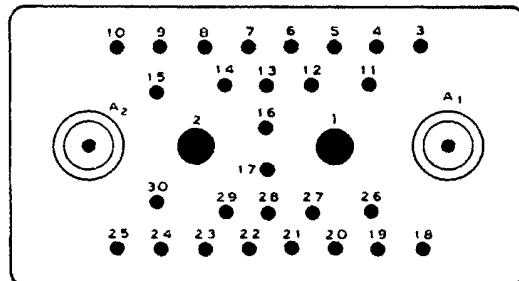
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2448077 S00061547312_V1

DPD INSERT 32

Figure 20



2448073 S00061547313 V1

DPD INSERT 32C2

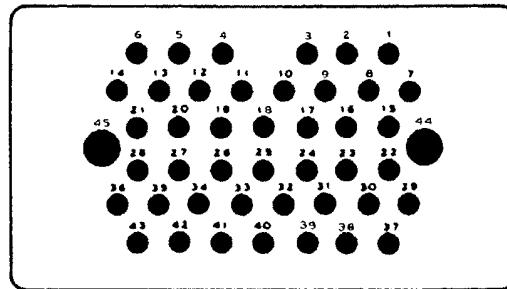
Figure 21

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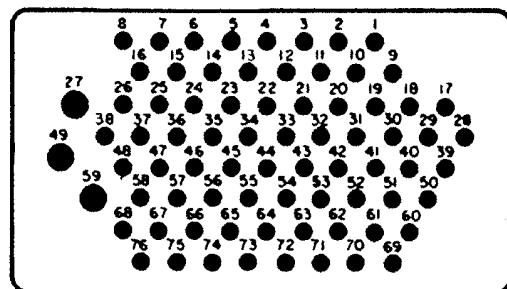
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2448074 S00061547314_V1

DPD INSERT 45

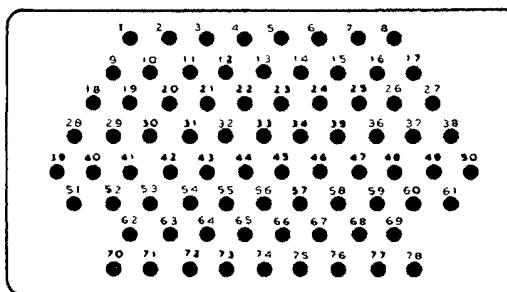
Figure 22



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DPD INSERT 76

Figure 23



2448076 S00061547316_V1

DPD INSERT 78

Figure 24

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C. DPX Insert Configurations

**Table 22
CONNECTORS THAT HAVE DPX INSERT CONFIGURATIONS**

Part Number	Contact Description	Insert				Notes
		A	B	C	D	
CE9307-10	Solder, Not Removable	23	7	-	-	Recep- tacle
CE9307-11	Solder, Not Removable	23	7	-	-	Plug
CE9307-18	Insert A Crimp, Insert B Solder	26	7	-	-	Plug
CE9307-19	Insert A Crimp, Insert B Solder	26	7	-	-	Recep- tacle
DPX-17-33S-()	Solder, Not Removable	17	-	-	-	-
DPX-22017-()	Solder, Not Removable	-	-	-	-	-
DPXA-8-33S-()	Solder, Not Removable	8	-	-	-	-
DPXA-32-33S-()	Solder, Not Removable	32	-	-	-	-
DPXA-32-34P-()	Solder, Not Removable	32	-	-	-	-
DPX2-67S32C2S-33S-()	Solder, Not Removable	67	32C2	-	-	-
DPX2-B10C3SD32C2S-33B-()	Solder, Not Removable	B10C3	D32C2	-	-	-
DPX2-F40C1SF40C1S-33B-()	Solder, Not Removable	F40C1	F40C1	-	-	-
DPX2DA-26S7S-33B-()	Insert A Crimp, Insert B Solder	26	7	-	-	-
DPX2EF-AC3S67S-33B-()	-	AC3	67	-	-	-
DPX2MA-00SD32W4S-33B-()	Crimp, Removable	00	D32W4	-	-	-
DPX2MA-00S57S-33-()	Crimp, Removable	00	57	-	-	-
DPX2MA-00S57S-33B-()	Crimp, Removable	00	57	-	-	-
DPX2MA-106P106P-33B-()	Crimp, Removable	106	106	-	-	-
DPX2MA-106P57P-33B-()	Crimp, Removable	106	57	-	-	-
DPX2MA-106PD32C2S-33B-()	Crimp, Removable	106	D32C2	-	-	-
DPX2MA-106S00S-34B-()	Crimp, Removable	106	00	-	-	-
DPX2MA-106S106S-34B-()	Crimp, Removable	106	106	-	-	-
DPX2MA-26P26P-34B-()	Crimp, Removable	26	26	-	-	-
DPX2MA-26S26S-33B-()	Crimp, Removable	26	26	-	-	-
DPX2MA-26S45S-33B-()	Crimp, Removable	26	45	-	-	-
DPX2MA-26S57S-33B-()	Crimp, Removable	26	57	-	-	-
DPX2MA-32W4SD106P-33B-()	Crimp, Removable	32W4	D106	-	-	-
DPX2MA-40B1S40B1S-33B-()	Crimp, Removable	40B1	40B1	-	-	-
DPX2MA-40S40S-33B-()	Crimp, Removable	40	40	-	-	-
DPX2MA-40W1S40W1S-33B-()	Crimp, Removable	40W1	40W1	-	-	-

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Table 22 CONNECTORS THAT HAVE DPX INSERT CONFIGURATIONS (Continued)

Part Number	Contact Description	Insert				Notes
		A	B	C	D	
DPX2MA-45S40S-33B-()	Crimp, Removable	45	40	-	-	-
DPX2MA-45S45S-33B-()	Crimp, Removable	45	45	-	-	-
DPX2MA-57P-106S-34B-()	Crimp, Removable	57	106	-	-	-
DPX2MA-57S00S-33B-()	Crimp, Removable	57	00	-	-	-
DPX2MA-57S106P-33B-()	Crimp, Removable	57	106	-	-	-
DPX2MA-57S26S-33B-()	Crimp, Removable	57	26	-	-	-
DPX2MA-57S40S-32B-()	Crimp, Removable	57	40	-	-	-
DPX2MA-57S45S-33B-()	Crimp, Removable	57	45	-	-	-
DPX2MA-57S57S-33B-()	Crimp, Removable	57	57	-	-	-
DPX2MA-57S57S-34B-()	Crimp, Removable	57	57	-	-	-
DPX2MA-57S67S-33B-()	Crimp, Removable	57	67	-	-	-
DPX2MA-57SD106P-33B-()	Crimp, Removable	57	D106	-	-	-
DPX2MA-67S67S-33B-()	Crimp, Removable	67	67	-	-	-
DPX2MA-67S32A2S-33B-()	Crimp, Removable	67	32A2	-	-	-
DPX2MA-67S32C2S-33B-()	Crimp, Removable	67	32C2	-	-	-
DPX2MA-67S32W2S-33B-()	Crimp, Removable	67	32W2	-	-	-
DPX2MA-67S67S-33B-()	Crimp, Removable	67	67	-	-	-
DPX2MA-67SD8S-33B-()	Crimp, Removable	67	8	-	-	-
DPX2MA-A106PA106P-33B-()	Crimp, Removable	A106	A106	-	-	-
DPX2MA-67SA106P-33B-()	Crimp, Removable	67	A106	-	-	-
DPX2MA-AC3S67S-33B-()	Crimp, Removable	AC3	67	-	-	-
DPX2MA-C2MS57S-33B-()	Crimp, Removable	C2M	57	-	-	-
DPX2MA-C2MSF40C1S-33B-()	Crimp, Removable	C2M	40C1	-	-	-
DPX2MA-C2S57S-33B-()	Crimp, Removable	C2	57	-	-	-
DPX2MA-C8AS67S-33B-()	Crimp, Removable	C8A	67	-	-	-
DPX2MA-C8ASC8AS-33B-()	Crimp, Removable	C8A	C8A	-	-	-
DPX2MA-C8CS67S-33B-()	Crimp, Removable	C8C	67	-	-	-
DPX2MA-D106P40B1S-33B-()	Crimp, Removable	D106	40B1	-	-	-
DPX2MA-D106PC8AS-33B-()	Crimp, Removable	D106	C8A	-	-	-
DPX2MA-D106PD106P-33B-()	Crimp, Removable	D106	D106	-	-	-
DPX2MA-D32C2S57S-33B-()	Crimp, Removable	D32C2	57	-	-	-
DPX2MA-D32C2S67S-33B-()	Crimp, Removable	D32C2	67	-	-	-
DPX2MA-F40C1SF40C1S-33B-()	Crimp, Removable	F40C1	F40C1	-	-	-
DPX2MA-W8S67S-33B-()	Crimp, Removable	W8	67	-	-	-

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Table 22 CONNECTORS THAT HAVE DPX INSERT CONFIGURATIONS (Continued)

Part Number	Contact Description	Insert				Notes
		A	B	C	D	
DPX2MB-00S67S-33B-()	Crimp, Removable	00	67	-	-	-
DPX2MB-26S26S-33B-()	Crimp, Removable	26	26	-	-	-
DPX2MB-26S67S-33A-()	Crimp, Removable	26	67	-	-	-
DPX2MB-26S8S-33B-()	Crimp, Removable	26	8	-	-	-
DPX2MB-26SC8CS-33B-()	Crimp, Removable	26	C8C	-	-	-
DPX2MB-40B1S40B1S-33B-()	Crimp, Removable	40B1	40B1	-	-	-
DPX2MB-40S40S-33B-()	Crimp, Removable	40	40	-	-	-
DPX2MB-40S40S-33F-()	Crimp, Removable	40	40	-	-	-
DPX2MB-45S45S-33B-()	Crimp, Removable	45	45	-	-	-
DPX2MB-57S00S-33B-()	Crimp, Removable	57	00	-	-	-
DPX2MB-57S57S-33A-()	Crimp, Removable	57	57	-	-	-
DPX2MB-57S57S-33B-()	Crimp, Removable	57	57	-	-	-
DPX2MB-67S67S-33B-()	Crimp, Removable	67	67	-	-	-
DPX2MB-AC3S67S-33B-()	Crimp, Removable	AC3	67	-	-	-
DPX2MB-C2DS57S-33B-()	Crimp, Removable	C2D	57	-	-	-
DPX2MB-D32C2S57S-33B-()	Crimp, Removable	D32C2	57	-	-	-
DPX2P-67S32C2S-33B-()	Crimp, Removable	67	32C2	-	-	-
DPX2-ZA16C3S26S-33B-()	-	-	26	-	-	-
DPX2-ZA16C3SB10C3S-33B-()	-	-	B10C3	-	-	-
DPX3MA-32W4S-D106P-67S-33-()	Crimp, Removable	32W4	D106	67	-	-
DPX3MA66565-252	Crimp, Removable	3	26	67	-	Polari- zation Code 66
DPX3MA-A318-A318-33P-()	Crimp, Removable	A106	A106	A106	-	-
DPX3MA-B32C4S-D106P-67S-33-()	Crimp, Removable	B32C4	D106	67	-	-
DPX3MA-B96-33S-()	Crimp, Removable	32W4	32W4	32W4	-	-
DPX3MA-D32C4S-D106P-67S-33-()	Crimp, Removable	D32C4	D106	67	-	-
DPX3MA-E96-33S-0001	Crimp, Removable	3	26	67	-	Polari- zation Code 66
DPX3MB-26S-67S-67S-33B-()	Crimp, Removable	26	67	67	-	-
DPX3ME-D205-33PS-()	Crimp, Removable	-	-	-	-	-
DPX4MA-105-33S-()	Crimp, Removable	W8	57	W8	32W4	-
DPX4MA-A307-33PS-()	Crimp, Removable	-	-	-	-	-
DPX51252-1-()	Solder, Not Removable	-	-	-	-	-
DPX51252-2-()	Solder, Not Removable	-	-	-	-	-
DPXAMA-26-33S-()	Crimp, Removable	26	-	-	-	-

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Table 22 CONNECTORS THAT HAVE DPX INSERT CONFIGURATIONS (Continued)

Part Number	Contact Description	Insert				Notes
		A	B	C	D	
DPXAMA-26-34P-()	Crimp, Removable	26	-	-	-	-
DPXAMA-32-33S-()	Crimp, Removable	32	-	-	-	-
DPXAMA-32-34P-()	Crimp, Removable	32	-	-	-	-
DPXAMA-32B2-33S-()	Crimp, Removable	32B2	-	-	-	-
DPXAMA-40-33S-()	Crimp, Removable	40	-	-	-	-
DPXAMA-57-34P-()	Crimp, Removable	57	-	-	-	-
DPXAMA-A10-33S-()	Crimp, Removable	A10	-	-	-	-
DPXAMA-26-33S-()	Crimp, Removable	26	-	-	-	-
DPXAMA-26-34P-()	Crimp, Removable	26	-	-	-	-
DPXAMA-32B2-33S-()	Crimp, Removable	32B2	-	-	-	-
DPXAMA-40-33P-()	Crimp, Removable	40	-	-	-	-
DPXAMA-40-33S-()	Crimp, Removable	40	-	-	-	-
DPXAMA-45-33S-()	Crimp, Removable	45	-	-	-	-
DPXAMB-26-33S-()	Crimp, Removable	26	-	-	-	-
DPXAMB-32B2-33S-()	Crimp, Removable	32B2	-	-	-	-
DPXAMB-32W2-33S-()	Crimp, Removable	32B2	-	-	-	-
DPXAMB-57-33S-()	Crimp, Removable	57	-	-	-	-
DPXB-17-33S-()	Solder, Not Removable	17	-	-	-	-
DPXB-32-33S-()	Solder, Not Removable	32	-	-	-	-
DPXB-40-33S-()	Solder, Not Removable	40	-	-	-	-
DPXB-45-33S-()	Solder, Not Removable	45	-	-	-	-
DPXB-8-33S-()	Solder, Not Removable	8	-	-	-	-
DPXB-32-33S-()	Solder, Not Removable	32	-	-	-	-
DPXBMA-10-33P-()	Crimp, Removable	10	-	-	-	-
DPXBMA-32-33S-()	Crimp, Removable	32	-	-	-	-
DPXBMA-32W4-33S-()	Crimp, Removable	32W4	-	-	-	-
DPXBMA-40-33S-()	Crimp, Removable	40	-	-	-	-
DPXBMA-45-33S-()	Crimp, Removable	45	-	-	-	-
DPXBMA-57-33S-()	Crimp, Removable	57	-	-	-	-
DPXBMA-67-33S()	Crimp, Removable	67	-	-	-	-
DPXBMA-67-33S-()	Crimp, Removable	67	-	-	-	-
DPXBMA-8-33S-()	Crimp, Removable	8	-	-	-	-
DPXBMA-8-34S-()	Crimp, Removable	8	-	-	-	-
DPXBMA-B32C4-33S-()	Crimp, Removable	B32C4	-	-	-	-

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Table 22 CONNECTORS THAT HAVE DPX INSERT CONFIGURATIONS (Continued)

Part Number	Contact Description	Insert				Notes
		A	B	C	D	
DPXBMA-D106-33P-()	Crimp, Removable	D106	-	-	-	-
DPXBMA-D32C4-33S-()	Crimp, Removable	32W4	-	-	-	-
DPXBMA-D32W4-33S-()	Crimp, Removable	32W4	-	-	-	-
DPXBMA-32W4-33S-()	Crimp, Removable	32W4	-	-	-	-
DPXBMA-57-33S-()	Crimp, Removable	57	-	-	-	-
DPXBMA-67-33S-()	Crimp, Removable	67	-	-	-	-
DPXBMA-6733S-()	Crimp, Removable	67	-	-	-	-
DPXBMA-8-34S-()	Crimp, Removable	8	-	-	-	-
DPXBMA-D106-33P-()	Crimp, Removable	D106	-	-	-	-
DPXBMB-40-33S-()	Crimp, Removable	40	-	-	-	-
DPXBMB-45-33S-()	Crimp, Removable	45	-	-	-	-
DPXBMB-57-33S-()	Crimp, Removable	57	-	-	-	-
DPXBMB-67-33S-()	Crimp, Removable	67	-	-	-	-
DPXBMB-8-33S-()	Crimp, Removable	8	-	-	-	-
DPXBME-10-33S-()	Crimp, Removable	10	-	-	-	-
DPXBME-40-33S-()	Crimp, Removable	40	-	-	-	-
DPXBME-57-33S-()	Crimp, Removable	57	-	-	-	-
DPXBNA-67M-33S-()	Crimp, Removable	67	-	-	-	-
DPXMA-26-33S-()	Crimp, Removable	26	-	-	-	-
DPXRC-20C5-33A1-()	-	-	-	-	-	-

Table 23
DPX CONNECTOR INSERT CONFIGURATIONS

Insert	Contacts or Contact Cavities				Reference
	Count	Size	Type	Notes	
00	-	-	-	Blank Insert	Figure 25
10	8	2020	-	Crimp, Rear Release	Figure 33
	2	0808	-		
106	106	2222	-	Crimp, Rear Release; 106 is a satisfactory alternative to A106 and D106.	Figure 48
17	17	2020	-	Fixed Position Solder, Non-removable	Figure 37
23	23	2020	-	Fixed Position Solder, Non-removable	Figure 38
26	26	1616	-	Crimp, Rear Release	Figure 39
				Fixed Position Solder, Non-removable	
3	3	0406	-	Crimp, Rear Release	Figure 27

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Table 23 DPX CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert	Contacts or Contact Cavities				Reference	
	Count	Size	Type	Notes		
32	29	2020	-	Fixed Position Solder, Non-removable	Figure 40	
	3	1616	-			
32A2	30	2020	-	Crimp, Rear Release	Figure 41	
	2	5	Coax	Front Release, Ring-Loc Retention		
32B2	30	2020	-	Crimp, Rear Release	Figure 41	
	2	5	Coax	Front Release, Ring-Loc Retention		
32C2	30	2020	-	Crimp, Rear Release	Figure 41	
	2	5	Coax	Front Release, Ring-Loc Retention		
32W2	30	2020	-	Crimp, Rear Release	Figure 41	
	2	5	Coax	Front Release, Ring-Loc Retention		
32W4	24	2020HD	-	Crimp, Rear Release	Figure 42	
	4	1616	-			
	4	9	Coax	Rear Release		
40	40	2020	-	Crimp, Rear Release	Figure 43	
				Fixed Position Solder, Non-removable		
40B1	39	2020	-	Crimp, Rear Release	Figure 44	
	1	5	Coax	Front Release, Ring-Loc Retention		
40W1	39	2020	-	Crimp, Rear Release	Figure 44	
	1	5	Coax	Front Release, Ring-Loc Retention		
45	45	2020	-	Crimp, Rear Release	Figure 45	
				Fixed Position Solder, Non-removable		
57	57	2020	-	Crimp, Rear Release	Figure 46	
				Fixed Position Solder, Non-removable		
67	64	2020HD	-	Crimp, Rear Release	Figure 47	
	3	1616	-			
	64	2020	-	Fixed Position Solder, Non-removable		
	3	1616	-			
67M	64	2020HD	-	Crimp, Rear Release	Figure 47	
	3	1616	-			
7	7	0808	-	Fixed Position Solder, Non-removable	Figure 29	
8	8	12	-	Crimp, Rear Release	Figure 30	
				Fixed Position Solder, Non-removable		
A10	8	1616	-	Crimp, Rear Release	Figure 34	
	2	0406	-			

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Table 23 DPX CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert	Contacts or Contact Cavities				Reference	
	Count	Size	Type	Notes		
A106	106	2222	-	Crimp, Rear Release; A106 is a satisfactory alternative to 106 and D106.	Figure 48	
AC3	2	7	Coax	Fixed Position Solder, Non-removable	Figure 28	
	1	3				
	2	7	Coax	Mechanical Assembly - Refer to Paragraph 4.C.. or Paragraph 7.B..		
	1	3				
B10C3	7	2020HD	-	Crimp, Rear Release	Figure 35	
	3	11	Coax	Rear Release		
B16C3	13	1616	-	Crimp, Rear Release	Figure 36	
	3	5	Coax	Front Release, Ring-Loc Retention		
B32C4	24	2020HD	-	Crimp, Rear Release	Figure 42	
	4	1616	-			
	4	9	Coax	Rear Release		
C2	2	1	Coax	Plug connector has ITT Cannon 249-1522-000 socket contacts	Figure 26	
C2D	2	1	Coax	-	Figure 26	
C2M	2	1	Coax	Plug connector has ITT Cannon 249-5027-001 socket contacts	Figure 26	
C8A	8	9	Coax	Rear Release	Figure 32	
C8C	8	9	Coax	Rear Release	Figure 32	
D106	106	2222	-	Crimp, Rear Release; D106 is a satisfactory alternative to 106 and A106.	Figure 48	
D32C2	30	2020	-	Crimp, Rear Release	Figure 41	
	2	5	Coax	Front Release, Ring-Loc Retention		
D32C4	24	2020HD	-	Crimp, Rear Release	Figure 42	
	4	1616	-			
	4	9	Coax	Rear Release		
D32W4	24	2020HD	-	Crimp, Rear Release	Figure 42	
	4	1616	-			
	4	9	Coax	Rear Release		
D8	4	1616	-	Crimp, Rear Release	Figure 31	
	4	1212	-			
F40C1	39	2020	-	Crimp, Rear Release	Figure 44	
	1	5	Coax	Front Release, Ring-Loc Retention		
W8	8	9	Coax	Rear Release	Figure 32	

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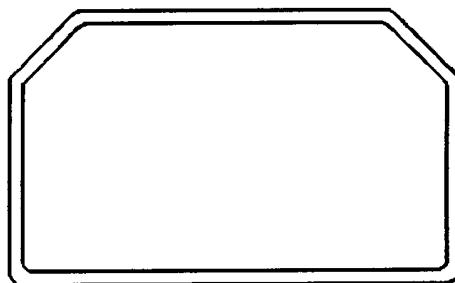
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Table 23 DPX CONNECTOR INSERT CONFIGURATIONS (Continued)

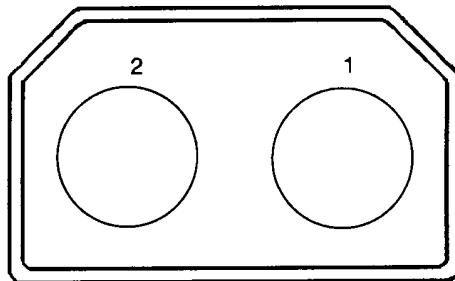
Insert	Contacts or Contact Cavities				Reference
	Count	Size	Type	Notes	
ZA16C3	13	1616	-	-	Figure 36
	3	5	Coax	-	

NOTE: Figure 25 through Figure 48 show the rear face of an insert that has socket contacts. The view of the rear face of an insert that has pin contacts is the mirror image of this view.



2446551 S00061547317_V1

DPX INSERT 00
Figure 25



2443662 S00061547318_V1

DPX INSERT C2
Figure 26

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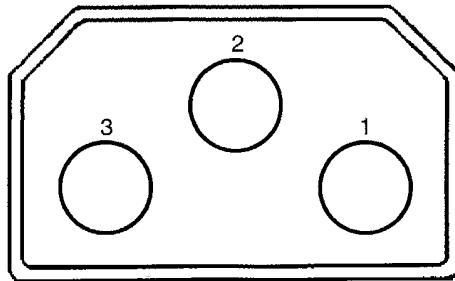
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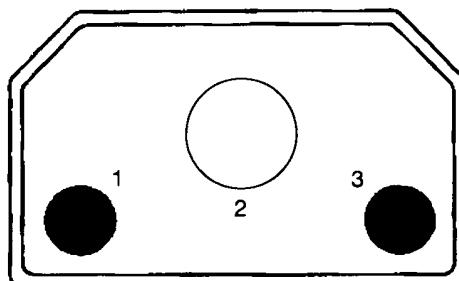


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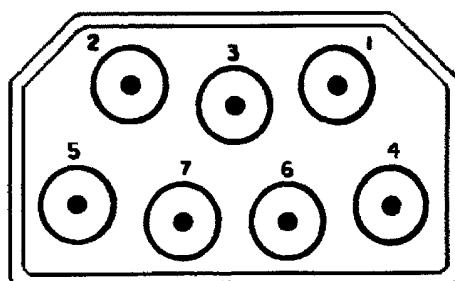
2448095 S00061547319_V1

DPX INSERT 3
Figure 27



2448066 S00061547320_V1

DPX INSERT AC3
Figure 28



2448064 S00061547321_V1

DPX INSERT 7
Figure 29

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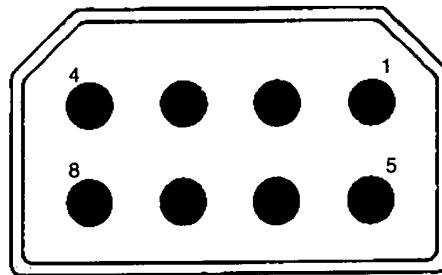
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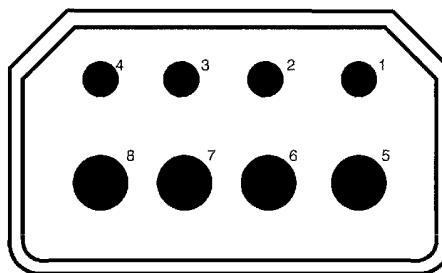


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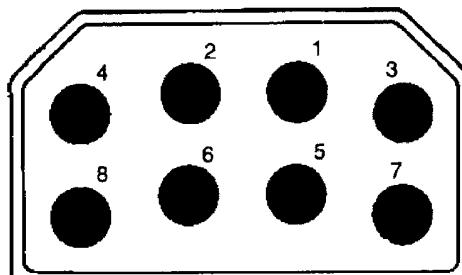
2446552 S00061547322_V1

DPX INSERT 8
Figure 30



2448065 S00061547323_V1

DPX INSERT D8
Figure 31



2446563 S00061547324_V1

DPX INSERT W8
Figure 32

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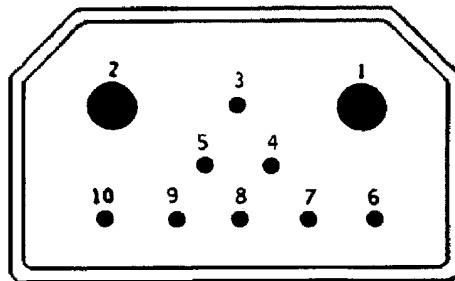
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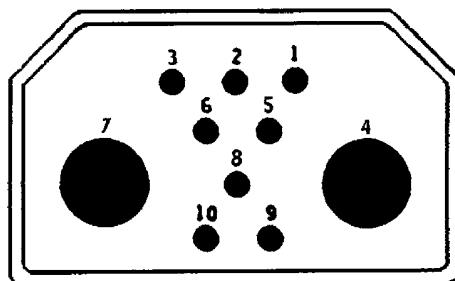


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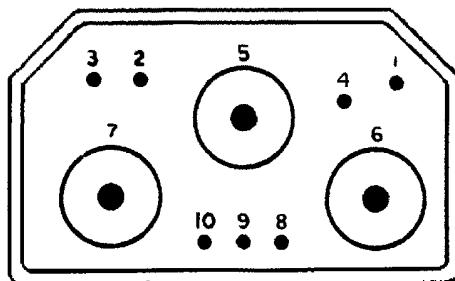
2448058 S00061547325_V1

DPX INSERT 10
Figure 33



2448059 S00061547326_V1

DPX INSERT A10
Figure 34



2448060 S00061547327_V1

DPX INSERT 10W3
Figure 35

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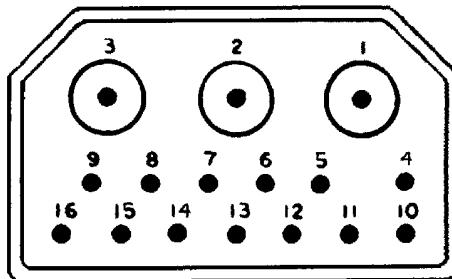
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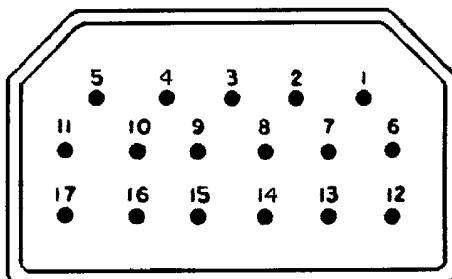


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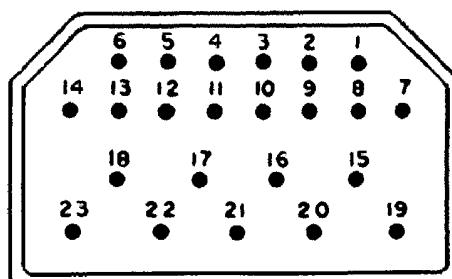
2448061 S00061547328_V1

DPX INSERT B16C3
Figure 36



2448062 S00061547329_V1

DPX INSERT 17
Figure 37



2448078 S00061547330_V1

DPX INSERT 23
Figure 38

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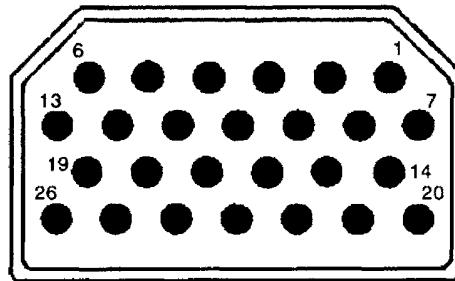
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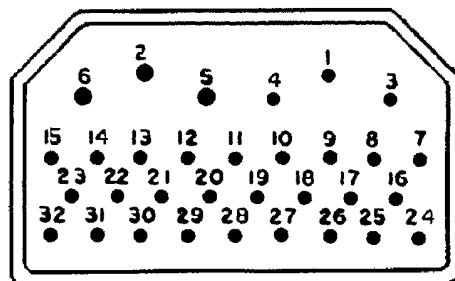
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2446553 S00061547331_V1

DPX INSERT 26

Figure 39



2448063 S00061547332_V1

DPX INSERT 32

Figure 40

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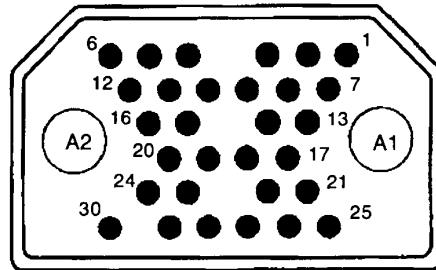
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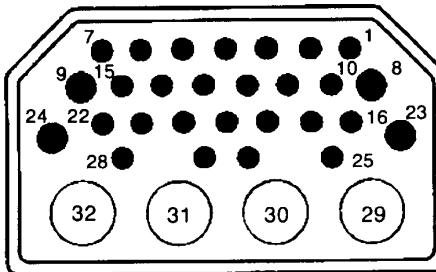
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2446558 S00061547333_V1

DPX INSERT 32W2

Figure 41



2446559 S00061547334_V1

DPX INSERT 32W4

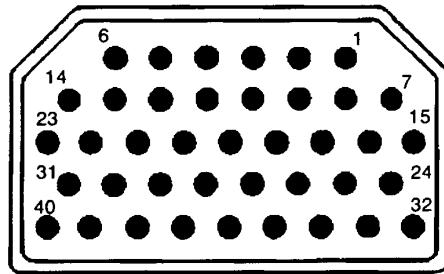
Figure 42

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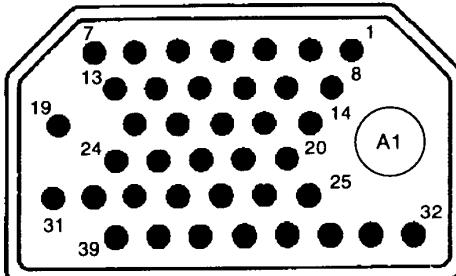


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2446554 S00061547335_V1

DPX INSERT 40
Figure 43



2446560 S00061547336_V1

DPX INSERT 40W1
Figure 44

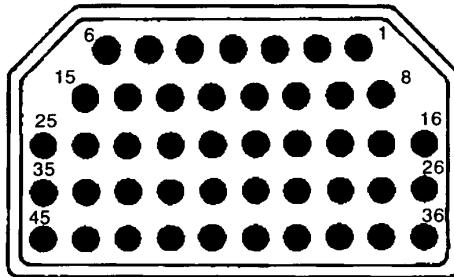
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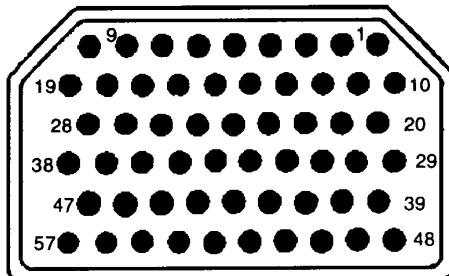


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2446555 S00061547337_V1

DPX INSERT 45
Figure 45



2446556 S00061547338_V1

DPX INSERT 57
Figure 46

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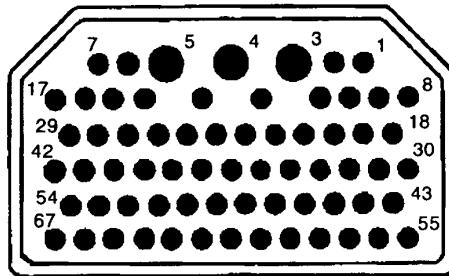
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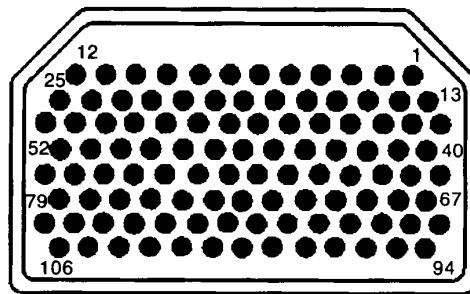


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2446557 S00061547339_V1

DPX INSERT 67
Figure 47



2446561 S00061547340_V1

DPX INSERT 106
Figure 48

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4. CONNECTOR DISASSEMBLY

A. Contact Removal

**Table 24
CONTACT REMOVAL TOOLS**

Contact Size	Removal Tool		
	Part Number	Size	Type
2222	282880	22	Rear Release
	282890		
	8660-162		
	91066-1		
	ATBO2054		
	ATC1054		
	CET-DPXMA-22		
	CIET-22		
	CIET-22DPXMA		
	DRK2663		
	DRK266J		
	M81969/1-01		
2020HD	MS3156-22	20HD	Rear Release
	282881		
	282891		
	91066-4		
	ATC2073		
	CET-20D-1		
	CIET		
	CIET-20 HDL		
	DRK145		
	M81969/1-02		
	M81969/14-10		
	MS3156-20		
	ST2220-3-33		

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Table 24 CONTACT REMOVAL TOOLS (Continued)

Contact Size	Removal Tool		
	Part Number	Size	Type
2020	282943	20	Rear Release
	91066-2		
	ATR1080		
	ATR2080		
	CET-20		
	CET-20-8		
	CIET-20		
	M81969/14-11		
	ST2220-3-6		
1616	282892	16	Rear Release
	282929		
	91066-3		
	CET-16-15		
	CET-16-9		
	DRK83-16		
	M81969/1-03		
	MS3156-16		
	ST2220-3-7		
1212	282945	12	Rear Release
	91078-1		
	CE912-4		
	CET-12-4		
	CIET-12		
	M81969/28-02		
	MS3178-002		
0808	CET-8-2	8	Rear Release
0406	CET-4-8	4	Rear Release

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Table 25
COAX CONTACT REMOVAL TOOLS

Coax Contact			Removal Tool	
Part Number	Size	Type	Part Number	Type
249-0268-000	-	Non-removable	-	-
249-0366-000	-	Non-removable	-	-
249-0398-000	-	Non-removable	-	-
249-0750-000	-	Non-removable	-	-
249-1390-000	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1398-000	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1400-000	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1400-003	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1404-003	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1521-000	1	Mechanical Assembly	-	-
249-1522-000	1	Mechanical Assembly	-	-
249-1598-000	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1608-000	5	Ring-Loc Front Release	CET-C4	Front Release Impact Extraction
249-1632-000	9	Rear Release	CET-C8	Rear Release
249-1634-000	9	Rear Release	CET-C8	Rear Release
249-1830-000	7	Mechanical Assembly	-	-
249-1858-000	11	Rear Release	CET-4-8	Rear Release
249-1959-000	9	Rear Release	CET-C8	Rear Release
249-1982-000	9	Rear Release	CET-C8	Rear Release
249-1983-000	9	Rear Release	CET-C8	Rear Release
249-2020-001	9	Rear Release	CET-C8	Rear Release
249-5008-000	-	Snap-In, Non-removable	-	-
249-5027-004	3	Mechanical Assembly	-	-
249-9104-000	-	-	CET-C11	-

NOTE: Some coax contacts, and contacts in solder type connectors are not removable from some connectors. Refer to:

- Table 1 for the connector part number
- Table 12 for the coax contact part number
- Table 19 for the DPA insert configuration
- Table 21 for the DPD insert configuration
- Table 23 for the DPX insert configuration.

- (1) If the contact is in a DPX AC3 insert, refer to Paragraph 4.C. for the procedure to remove the contacts from the insert.

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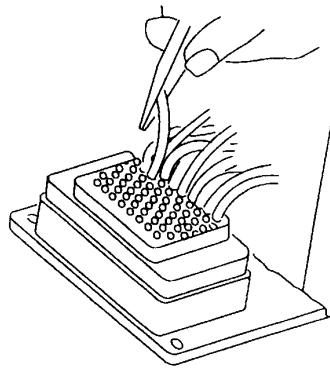
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- (2) If the contact is a snap-in, non-removable contact, refer to Paragraph 4.D. for the procedure to replace the contact.
- (3) If a contact removal tool is specified, make a selection of a removal tool from:
 - Table 24 for the removal of standard contacts
 - Table 25 for the removal of coax contacts.
- (4) If the contact removal tool specified in Table 25 is the CET-C4 front release, impact extraction tool, refer to Paragraph 4.B. for the procedure to remove a Ring-Loc contact.
- (5) At the rear of the connector, put tip of the rear release removal tool on the wire. Refer to Figure 49.

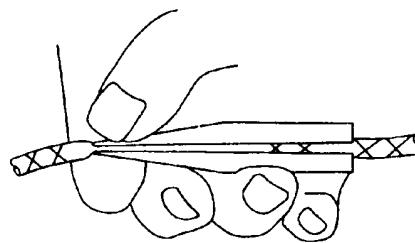


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POSITION OF THE WIRE IN THE REMOVAL TOOL

Figure 49

- (6) Put the wire through the forward part of the tool. Refer to Figure 50.



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POSITION OF THE WIRE IN THE FORWARD PART OF THE REMOVAL TOOL

Figure 50

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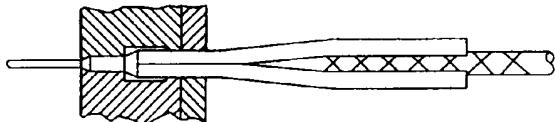
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- (7) Align the removal tool and the contact cavity.
- (8) Push the tool into the contact cavity until it stops. Refer to Figure 51.
Make sure to keep the tool aligned with the contact cavity.



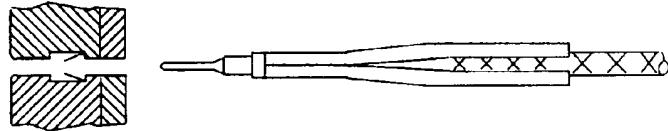
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REMOVAL TOOL FULLY INSERTED IN THE CONTACT CAVITY

Figure 51

CAUTION: DO NOT TURN THE TOOL CLOCKWISE OR COUNTERCLOCKWISE WHEN THE TOOL IS IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.

- (9) Carefully pull the wire and the tool from the contact cavity at the same time. Refer to Figure 52.
Make sure to keep the tool aligned with the contact cavity.



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TOOL AND CONTACT REMOVED FROM THE CONTACT CAVITY

Figure 52

- (10) If the contact is not released:
 - (a) Carefully remove the tool.
 - (b) Turn the tool approximately 90 degrees on its axis.
 - (c) Do Step 4.A.(6) through Step 4.A.(9) again.

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B. Removal of Front Release Ring-Loc Coax Contacts

NOTE: This procedure is applicable for the removal of size 5 Ring-Loc coax contacts in the 32W2 or the 40W1 contact configurations in DPX connectors. Refer to:

- Table 12 for the coax contact
- Table 23 for the DPX insert configuration.

Table 26
NECESSARY TOOLS

Description	Supplier
CET-C4 Impact Extraction Tool	ITT Cannon
Hammer or Mallet	an available source

- (1) Push the seal sleeve and the support bushing back on the cable away from the connector.
- (2) At the front face of the connector, put the CET-C4 contact removal tool on the engaging end of the contact.
- (3) Push the tool into the connector until it stops.
- (4) Tap the end of the tool with a hammer until the contact is released.

CAUTION: APPLY ONLY THE SUFFICIENT AMOUNT OF FORCE NECESSARY TO RELEASE THE CONTACT.

- (5) Carefully pull the contact assembly from the rear of the connector.

C. Removal of Coax Contacts from the DPX AC3 Insert

Table 27
NECESSARY TOOLS

Description	Supplier
Snap Ring Pliers	An available source
Screwdriver	An available source

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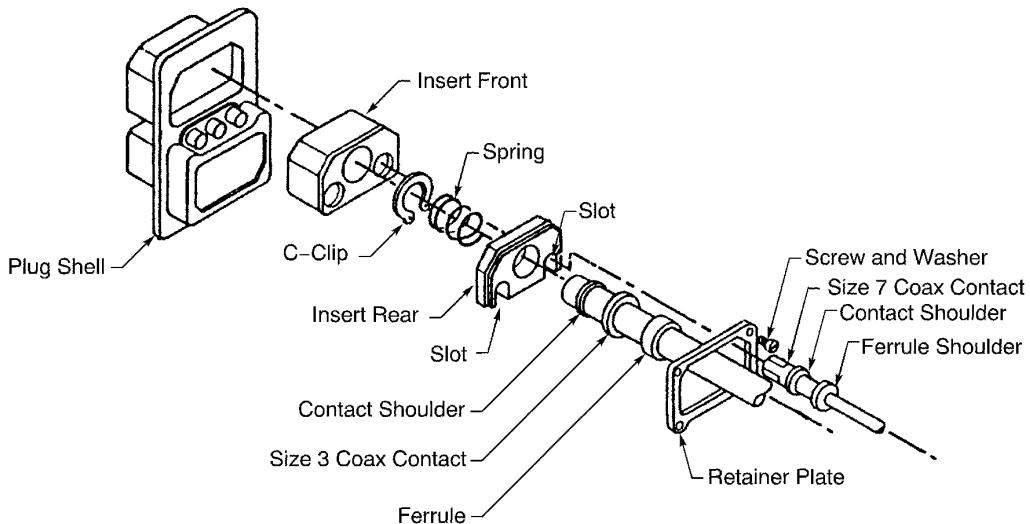
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CONTACT REMOVAL FROM THE DPX AC3 INSERT

Figure 53

Refer to Figure 53:

- (1) Remove the retainer plate screws and washers.
Make sure to keep the screws and washers for the reassembly of the connector.
- (2) Move the retainer plate away from the connector and rearward on the cables.
- (3) Push on the engaging end of the contacts to move the contacts rearward in the connector.
- (4) Pull the insert rear and the three coax contacts rearward from the connector.
- (5) Remove the small coax contacts from the slots in the insert rear.
- (6) Remove the small coax contacts from the retainer plate.
- (7) Make a selection of a snap-ring pliers from Table 27.
- (8) Use the snap-ring pliers to remove the C-clip from the large coax contact.
- (9) Remove the spring from the front of the large coax contact.
- (10) Push the large coax contact rearward through the insert rear.
- (11) Remove the large coax contact from the retainer plate.

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D. Replacement of Snap-In, Non-Removable Contacts

NOTE: Some contacts are identified as snap-in, non-removable. Refer to:

- Table 12 for the coax contact part number
- Table 19 for the DPA insert configuration
- Table 21 for the DPD insert configuration
- Table 23 for the DPX insert configuration.

- (1) If a snap-in, non-removable contact has damage, the connector must be replaced:
 - (a) Cut the cable at the rear of the connector as close to the non-removable contact as possible.
 - (b) Assemble a new contact on the end of the cable.
 - (c) Install the new contact assembly in the correct cavity of the new connector.
 - (d) Do Step (a) through Step (c) for the remainder of the snap-in, non-removable contacts in the connector.
 - (e) Remove a removable contact from the old connector.
 - (f) Install the contact in the correct cavity in the new connector.
 - (g) Do Step (e) and Step (f) for the remainder of the removable contacts in the old connector.

5. CONTACT ASSEMBLY

A. Contact Assembly

This paragraph gives the procedures to assemble crimp type contacts to stranded wire. Refer to:

- Paragraph 5.B. for the procedures to assemble crimp contacts to solid conductor wire
- Subject 20-40-00 for the procedures to assemble connectors that have non-removable solder type contacts.

Table 28
NECESSARY MATERIALS

Material	Part Number	Description	Supplier
Sleeve, Heat Shrinkable	TFE 4X	3/16 inch diameter	Chemplast
		1/4 inch diameter	Zeus Industrial Products
		3/16 inch diameter	Chemplast
		1/4 inch diameter	Zeus Industrial Products

NOTE: For alternative heat shrinkable sleeves, refer to Subject 20-00-11.

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Table 29
INSULATION REMOVAL LENGTH

Number of Wires in the Crimp Barrel	Wire Size (AWG)	Crimp Barrel Size	Removal Length L (inch)		Special Instructions
			Target	Tolerance	
1	26	22	0.19	± 0.03	-
		20	0.38	± 0.03	Fold the conductor back
1	24	22	0.19	± 0.03	-
		20	0.19	± 0.03	-
		16	0.56	± 0.03	Fold the conductor back
2	24	20	0.25	± 0.03	-
1	22	22	0.19	± 0.03	-
		20	0.19	± 0.03	-
		16	0.56	± 0.03	Fold the conductor back
2	22	20	0.25	± 0.03	-
		16	0.28	± 0.03	-
1	20	20	0.19	± 0.03	-
		16	0.28	± 0.03	-
1	18	16	0.28	± 0.03	-
1	16	16	0.28	± 0.03	-
		12	0.28	± 0.03	-
1	14	12	0.28	± 0.03	-
1	12	12	0.28	± 0.03	-
		8	0.38	± 0.03	One 10 AWG filler wire and one 14 AWG filler wire are necessary.
1	10	8	0.38	± 0.03	One 10 AWG filler wire is necessary.
1	8	8	0.38	± 0.03	-
		6	0.50	± 0.03	One 10 AWG filler wire is necessary.
1	6	6	0.50	± 0.03	-

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Table 30
INDENTER TYPE CONTACT CRIMP TOOLS FOR A CONTACT THAT HAS ONE WIRE

Number of Wires	Contact Size	Wire Size (AWG)	Basic Unit		Locator		Die Part Number
			Part Number	Setting	Part Number	Color	
1	2222	26	612916	Blue	-	Red	-
			M22520/2-01	3	M22520/2-23	-	-
			WA22	3	M22520/2-23	-	-
		24	612916	Blue	-	Red	-
			M22520/2-01	3	M22520/2-23	-	-
			WA22	3	M22520/2-23	-	-
		22	612916	Blue	-	Blue	-
			M22520/2-01	4	M22520/2-23	-	-
			WA22	4	M22520/2-23	-	-
1	2020HD	26	11148	Red	-	Red	-
			M22520/2-01	4	M22520/2-08	-	-
			MS3191-1	-	P20-3191-1	-	-
		24	11148	Red	-	Red	-
			M22520/2-01	5	M22520/2-08	-	-
			WA22	5	M22520/2-08	-	-
		22	11148	Red	-	Red	-
			M22520/2-01	6	M22520/2-08	-	-
			WA22	6	M22520/2-08	-	-
		20	11148	Red	-	Red	-
			M22520/2-01	7	M22520/2-08	-	-
			MS3191-1	-	11637-1	-	-
			MS3191-1	-	P20-3191-1	-	-
			MS3191-1	-	P20-3191-2	-	-
			WA22	7	M22520/2-08	-	-

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Table 30 INDENTER TYPE CONTACT CRIMP TOOLS FOR A CONTACT THAT HAS ONE WIRE
(Continued)

Number of Wires	Contact Size	Wire Size (AWG)	Basic Unit		Locator		Die Part Number
			Part Number	Setting	Part Number	Color	
1	2020	26	11148	Red	-	Red	-
			614019	Red	-	Red	-
			M22520/2-01	5	M22520/2-02	-	-
			MS3191-1	-	MS3191-20	Red	-
		24	11148	Red	-	Red	-
			612916	Blue	-	Yellow	-
			614019	Red	-	Red	-
			M22520/2-01	5	M22520/2-02	-	-
			M22520/1-01	2	M22520/1-02	Red	-
			MS3191-1	-	MS3191-20	Red	-
			WA22	5	M22520/2-02	-	-
			WA27F	2	M22520/1-02	Red	-
		22	11148	Red	-	Red	-
			612916	Red	-	Yellow	-
			614019	Red	-	Red	-
			M22520/1-01	3	M22520/1-02	Red	-
			M22520/2-01	6	M22520/2-02	-	-
			MS3191-1	-	MS3191-20	Red	-
			WA22	6	M22520/2-02	-	-
			WA27F	3	M22520/1-02	Red	-
		20	11148	Red	-	Red	-
			612916	Blue	-	Yellow	-
			614019	Red	-	Red	-
			M22520/1-01	4	M22520/1-02	Red	-
			M22520/2-01	7	M22520/2-02	-	-
			MS3191-1	-	MS3191-20	Red	-
			WA22	7	M22520/2-02	-	-
			WA27F	4	M22520/1-02	Red	-

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Table 30 INDENTER TYPE CONTACT CRIMP TOOLS FOR A CONTACT THAT HAS ONE WIRE
(Continued)

Number of Wires	Contact Size	Wire Size (AWG)	Basic Unit		Locator		Die Part Number
			Part Number	Setting	Part Number	Color	
1	1616	24	11148	Red	-	Blue	-
			614019	Red	-	Blue	-
			M22520/1-01	2	M22520/1-02	Blue	-
			MS3191-1	-	MS3191-16	Blue	-
		22	11148	Red	-	Blue	-
			614019	Red	-	Blue	-
			M22520/1-01	3	M22520/1-02	Blue	-
			MS3191-1	-	MS3191-16	Blue	-
		20	11148	Red	-	Blue	-
			614019	Red	-	Blue	-
			M22520/1-01	4	M22520/1-02	Blue	-
			MS3191-1	-	MS3191-16	-	-
			WA27F	4	M22520/1-02	Blue	-
		18	11148	Red	-	Blue	-
			614019	Red	-	Blue	-
			M22520/1-01	5	M22520/1-02	Blue	-
			MS3191-1	-	MS3191-16	-	-
			WA27F	5	M22520/1-02	Blue	-
		16	11148	Red	-	Blue	-
			614019	Red	-	Blue	-
			M22520/1-01	6	M22520/1-02	Blue	-
			MS3191-1	-	MS3191-16	-	-
			WA27F	6	M22520/1-02	Blue	-

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Table 30 INDENTER TYPE CONTACT CRIMP TOOLS FOR A CONTACT THAT HAS ONE WIRE
(Continued)

Number of Wires	Contact Size	Wire Size (AWG)	Basic Unit		Locator		Die Part Number
			Part Number	Setting	Part Number	Color	
1	1212	24	M22520/1-01	7	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
			WA27F	7	M22520/1-02	Yellow	-
		22	M22520/1-01	7	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
			WA27F	7	M22520/1-02	Yellow	-
		20	M22520/1-01	7	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
			WA27F	7	M22520/1-02	Yellow	-
		16	M22520/1-01	6	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
		14	M22520/1-01	7	M22520/1-11	Yellow	-
			M22520/1-01	7	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
			WA27F	7	M22520/1-11	Yellow	-
			WA27F	7	M22520/1-02	Yellow	-
		12	M22520/1-01	8	M22520/1-11	Yellow	-
			M22520/1-01	8	M22520/1-02	Yellow	-
			MS3191-1	-	MS3191-12	-	-
			WA27F	8	M22520/1-11	Yellow	-
			WA27F	8	M22520/1-02	Yellow	-
1	0808	10	CBT-600B	-	CCHP-8-6	-	-
		8	400B	-	4046A	-	414DA-8N
			AMT23B	-	AMT23009L	-	AMT23002DA
			CBT-600B	-	CCHP-8-6	-	-
			M22520/23-01	-	M22520/23-09	-	M22520/23-02
			WA23	-	WA23-9	-	WA23-2
1	0406	8	AMT23B	-	AMT23011L	-	AMT23004DA
			M22520/23-01	-	M22520/23-11	-	M22520/23-04
			WA23	-	WA23-11	-	WA23-4
		6	AMT23B	-	AMT23011L	-	AMT23004DA
			M22520/23-01	-	M22520/23-11	-	M22520/23-04
			WA23	-	WA23-11	-	WA23-4

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Table 31
INDENTER TYPE CONTACT CRIMP TOOLS FOR A CONTACT THAT HAS TWO WIRES

Number of Wires	Contact Size	Wire Size (AWG)	Basic Unit		Locator	
			Part Number	Setting	Part Number	Color
2	2020	24	11148	Red	-	Red
			612916	Blue	-	Yellow
			614019	Red	-	Red
			M22520/1-01	3	M22520/1-02	Red
			M22520/2-01	8	M22520/2-02	-
			MS3191-1	-	MS3191-20	Red
			WA22	7	M22520/2-02	-
			WA27F	4	M22520/1-02	Red
2	2020	22	11148	Red	-	Red
			612916	Blue	-	Yellow
			614019	Red	-	Red
			M22520/1-01	4	M22520/1-02	Red
			M22520/2-01	7	M22520/2-02	-
			MS3191-1	-	MS3191-20	Red
			WA22	7	M22520/2-02	Red
			WA27F	4	M22520/1-02	Red
2	1616	22	11148	Red	-	Blue
			614019	Red	-	Blue
			M22520/1-01	4	M22520/1-02	Blue
			MS3191-1	-	MS3191-16	-
			WA27F	4	M22520/1-02	Blue

Table 32
CONTACT CRIMP TOOLS FOR A DPA() 031-9174-003 CONTACT THAT HAS TWO AWG 24 WIRES

Applicable Connector	Contact Part Number	Number of Wires	Wire Size (AWG)	Basic Unit		Locator	
				Part Number	Setting	Part Number	Color
DPA()	031-9174-003	2	24	M22520/2-01	6	M22520/2-02	-
				WA22	6	M22520/2-02	-

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Table 33
HEX TYPE CONTACT CRIMP TOOLS

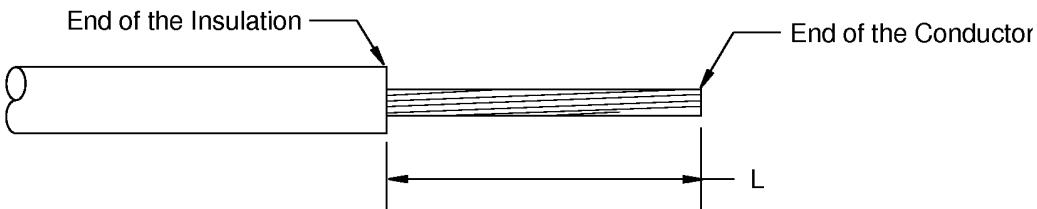
Wire Size (AWG)	Crimp Barrel Size	Crimp Tool		
		Basic Unit	Primary Die	Secondary Die
8	8	13642	ST2354-5	11732

- (1) Remove the necessary length of insulation from the end of the wire or wires.

Refer to:

- Figure 54
- Table 29 for the insulation removal length
- Subject 20-00-15 for the insulation removal procedures.

NOTE: If the wire size and a larger crimp barrel are not given in Table 29, refer to Subject 20-60-00.

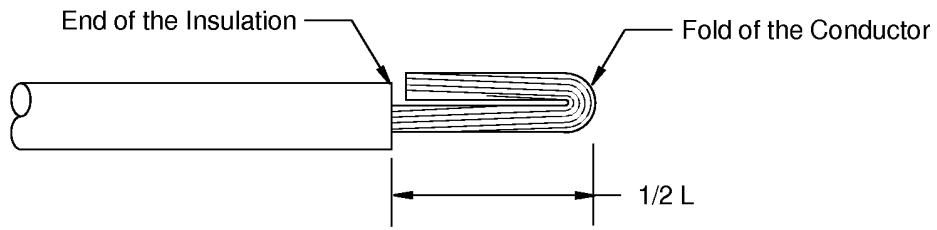


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INSULATION REMOVAL LENGTH

Figure 54

- (2) If it is specified, fold the conductor back. Refer to Figure 55.



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CONDUCTOR FOLDED BACK

Figure 55

- (3) Make a selection of the applicable contact from Table 7 or Table 8.
- (4) If filler wire is specified, put the conductor of the filler wire in the crimp barrel of the contact.
- (5) Make a selection of a crimp tool from:
 - Table 33 for DPA 031-9174-003 contacts that have two wires in the crimp barrel

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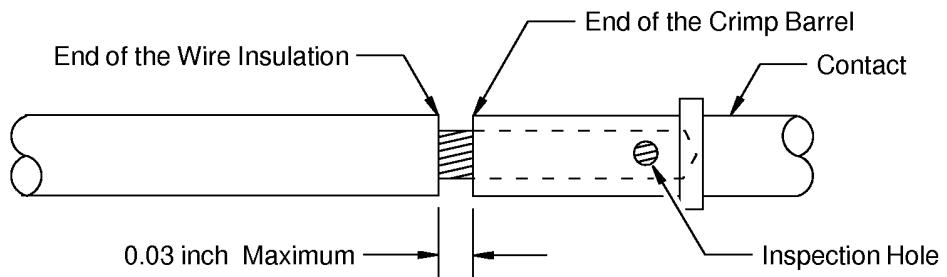
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- Table 31 for DPD and DPX contacts that have two wires in the crimp barrel
 - Table 30 or Table 33 for size 0808 contacts
 - Table 30 for contacts that have one wire in the crimp barrel.
- (6) Put the end of the wire or wires in the crimp barrel of the contact. Refer to Figure 56.
- Make sure that:
- All of the strands of the conductor are in the crimp barrel
 - If two wires are to be terminated in the same contact, all of the strands of the conductors from both wires are in the crimp barrel
 - The conductor can be seen in the inspection hole
 - The distance from the end of the insulation to the crimp barrel is not more than 0.03 inch.



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POSITION OF THE WIRE IN THE CONTACT
Figure 56

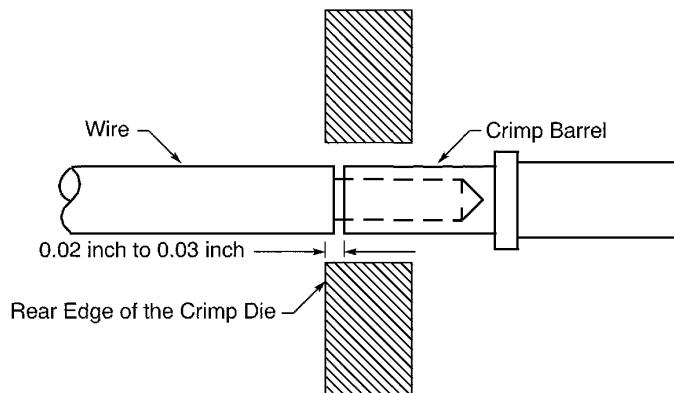
- (7) If the contact size is 0808, and the crimp tool is a hex type crimp tool:
- (a) Put the contact and the wire into the primary die of the crimp tool.
- Make sure that the end of the crimp barrel that is adjacent to the insulation of the wire is 0.02 to 0.03 inch past the edge of the die. Refer to Figure 57.

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POSITION OF THE CONTACT AND WIRE IN THE HEX CRIMP TOOL DIE
Figure 57

- (b) Crimp the contact.
 - (c) Turn the contact approximately 60 degrees.
 - (d) Do Step (a) and Step (b) with the secondary die.
 - (e) Remove the contact assembly from the crimp tool.
 - (f) Turn the contact approximately 60 degrees.
 - (g) Put the contact in the crimp tool.
 - (h) Crimp the contact with the secondary die again to remove the unwanted metal from the outer surface of the crimp barrel of the contact.
- (8) If the crimp tool is an indenter type tool, crimp the contact.
- NOTE:** A pneumatic indenter crimp tool cannot be used to assemble a size 0808 contact that has an adapter sleeve in the crimp barrel.
- (9) If the contact has a filler wire, carefully remove the unwanted length of the filler wire as close as possible to the end of the crimp barrel. Refer to Figure 58.

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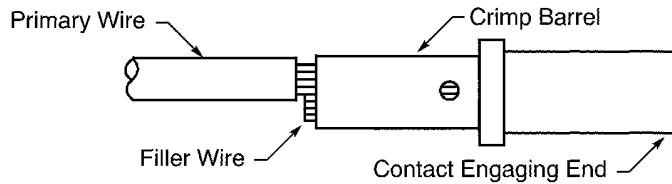
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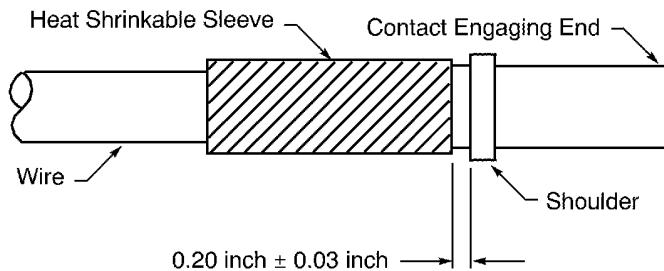
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REMOVAL OF THE UNWANTED LENGTH OF THE FILLER WIRE

Figure 58

CAUTION: DO NOT CAUSE DAMAGE TO THE STRANDS OF THE CONDUCTOR OF THE PRIMARY WIRE. DAMAGE TO THE CONDUCTOR CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (10) If the pin or socket contact is size 0406 or 0808, install the heat shrinkable sleeve:
 - (a) Make a selection of a heat shrinkable sleeve from Table 28.
Make sure that the sleeve has the smallest diameter that will let the sleeve move easily on the cable jacket and on the contact crimp barrel.
 - (b) Put a 1.00 inch ± 0.13 inch length of the sleeve on the wire and on the rear of the contact. Refer to Figure 59.
Make sure that:
 - The sleeve is on the wire insulation and on the crimp barrel of the contact
 - The forward end of the sleeve is 0.20 inch ± 0.03 inch from the rear edge of the shoulder of the contact.



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POSITION OF THE HEAT SHRINKABLE SLEEVE ON THE SIZE 0808 OR SIZE 0406 CONTACT

Figure 59

- (c) Shrink the sleeve into its position. Refer to Subject 20-10-14.

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B. Assembly of a Contact with Solid Conductor Wire

This paragraph gives the procedure to assemble size 2020 and size 2020HD contacts with solid conductor wire and, if necessary, stranded filler wire.

NOTE: Only stranded wire can be used for the filler wire.

Table 34
INSULATION REMOVAL LENGTH

Crimp Barrel Size	Removal Length (inch)	
	Target	Tolerance
20	0.19	±0.03

Table 35
SELECTION OF FILLER WIRE SIZE

Crimp Barrel Size	Solid Conductor Wire		Stranded Filler Wire (AWG)
	First Wire (AWG)	Second Wire (AWG)	
20	28	-	22
	26	-	
	26	26	

Table 36
CRIMP TOOLS FOR CONTACTS WITH SOLID CONDUCTORS

Contact Size	Solid Conductor Wire		Stranded Filler Wire (AWG)	Crimp Tool				
	First Wire (AWG)	Second Wire (AWG)		Basic Unit		Locator		
				Setting	Part Number	Part Number	Color	
2020	28	-	22	3	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		
	26	-	22	4	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		
	26	26	22	4	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		
2020HD	28	-	22	3	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		
	26	-	22	4	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		
	26	26	22	4	AF8	TH1A	Red	
					M22520/1-01	M22520/1-02		

(1) Make a selection of a filler wire size from Table 35.

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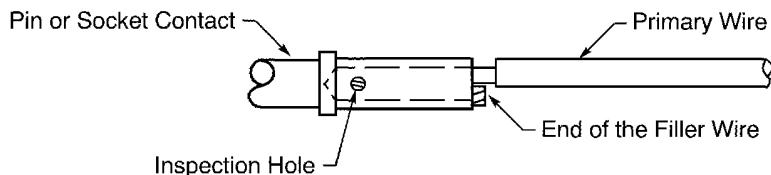
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- (2) Make a selection of a crimp tool from Table 36.
- (3) Remove the necessary length of insulation from the end of the solid conductor wire.
Refer to:
 - Table 34 for the insulation removal length
 - Subject 20-00-15 for the insulation removal procedures.
- (4) If a filler wire is specified, remove 0.5 inch of insulation from the end of the filler wire.
Refer to Subject 20-00-15 for the insulation removal procedures.
- (5) Put the conductor in the crimp barrel of the contact.
 - (a) If filler wire is not specified, put the end of the solid conductor wire in the crimp barrel of the contact.
 - (b) If filler wire is specified, put the end of the solid conductor wire and the filler wire in the crimp barrel of the contact.

Make sure that:

 - All of the strands of the filler wire and the solid conductor are in the crimp barrel of the contact
 - The strands of the conductors are visible in the inspection hole of the contact
 - The distance between the end of the crimp barrel and the insulation of the wire is a maximum of 0.03 inch.
- (6) Crimp the contact.
- (7) If the contact has a filler wire, remove the unwanted length of the filler wire as close as possible to the end of the crimp barrel. Refer to Figure 60.



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REMOVAL OF THE UNWANTED LENGTH OF THE FILLER WIRE
Figure 60

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C. Assembly of an AWG 24 to AWG 18 Wire in a Size 12 or Larger Solder Contact

This paragraph gives the procedure to terminate one AWG 16, 18, 20, 22, or 24 wire in a non-removable, size 12 or larger solder contact.

Table 37
NECESSARY MATERIALS

Material	Temperature Grade	Fluid Class	Supplier
Sleeve, Heat Shrinkable	B	1	Refer to Heat Shrinkable Sleeves in Subject 20-00-11.

Table 38
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Removal Length (L) (inch)		
	Target	Minimum	Maximum
24	0.19	0.16	0.19
22	0.19	0.16	0.19
20	0.19	0.16	0.19
18	0.19	0.16	0.19
16	0.19	0.16	0.19

Table 39
BACC47DE CONTACTS

Wire Size Range (AWG)		Insulation Diameter Range (inch)		Contact		
Minimum	Maximum	Minimum	Maximum	Boeing Standard	Plating	Color Band
20	16	0.080	0.110	BACC47DE1A	Gold	Brown
24	22	0.070	0.080	BACC47DE3A	Gold	None
24	22	0.041	0.065	BACC47DE4A	Gold	Green
20	16	0.063	0.083	BACC47DE5A	Gold	Blue
20	18	0.056	0.069	BACC47DE6A	Gold	Black
22	20	0.047	0.065	BACC47DE7A	Gold	Red
24	24	0.032	0.045	BACC47DE8A	Gold	Violet

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Table 40

SUPPLIER PART NUMBERS FOR BOEING STANDARD BACC47DE CONTACTS

Boeing Standard	Contact	
	Part Number	Supplier
BACC47DE1A	YHMM16-6D28	Burndy
	417-1215-332	Tri-Star
BACC47DE3A	YHMM22-4D28	Burndy
	417-1223-332	Tri-Star
BACC47DE4A	YHMM22-5D28	Burndy
	417-1222-332	Tri-Star
BACC47DE5A	YHMM16-7D28	Burndy
	417-1216-332	Tri-Star
BACC47DE6A	YHMM18-3D28	Burndy
	417-1218-332	Tri-Star
BACC47DE7A	YHMM20-3D28	Burndy
	417-1220-332	Tri-Star
BACC47DE8A	YHMM24-3D28	Burndy
	417-1224-332	Tri-Star

Table 41
CRIMP TOOLS FOR BACC47DE CONTACTS

Contact	Crimp Tool					
	Basic Unit			Locator	Die	Supplier
	Part Number	Setting	Type			
BACC47DE()	AM2-4	-	Power	-	AMK-11	Burndy
	AM4D-1	-	Power	-	AMK-11	Burndy
	LH8	5	Manual	LH281	-	Daniels
	M10S-1	-	Manual	SL-53	S-1	Burndy
	WA22HPB	-	Power	D30	-	Daniels
	WA27FAP	-	Power	AP27SA	-	Daniels
	WA27XF	-	Power	TP904	-	Daniels
	YD2-1	-	Power	-	YDD-1	Burndy
	11210	-	Manual	612245	-	Astro

- (1) Make a selection of a BACC47DE contact from Table 39.
 Use the wire AWG size and the wire insulation diameter to make the selection.
- (2) Make a selection of a crimp tool from Table 41.
- (3) Make a selection of a heat shrinkable sleeve from Table 37.

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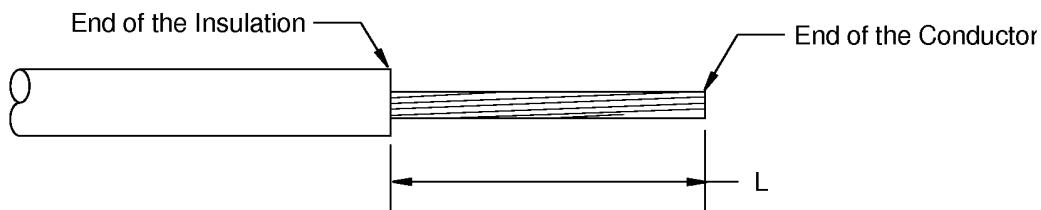
Make sure that the sleeve has the smallest diameter that will let the sleeve move easily on the solder cup of the large gage non-removable contact.

NOTE: For alternative heat shrinkable sleeves, refer to Subject 20-00-11.

- (4) Put a 2.5 inch ± 0.25 inch length of the heat shrinkable sleeve on the wire.
- (5) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 61
- Table 38 for the insulation removal length
- Subject 20-00-15 for the insulation removal procedures.



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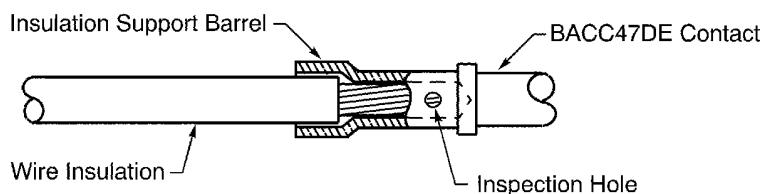
INSULATION REMOVAL LENGTH

Figure 61

- (6) Put the end of the wire into the crimp barrel of the BACC47DE contact.

Make sure that:

- All of the conductor strands are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact
- The wire insulation is in the insulation grip area of the contact.



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POSITION OF THE WIRE IN THE CRIMP BARREL

Figure 62

- (7) Crimp the contact.

Make sure that:

- The contact crimp barrel has four crimp indents

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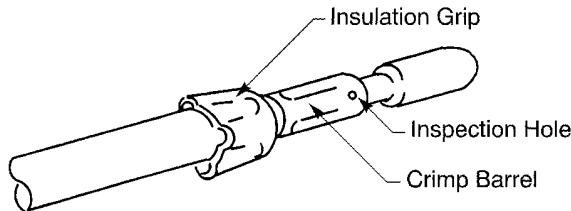
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- The insulation grip has four crimp indents.



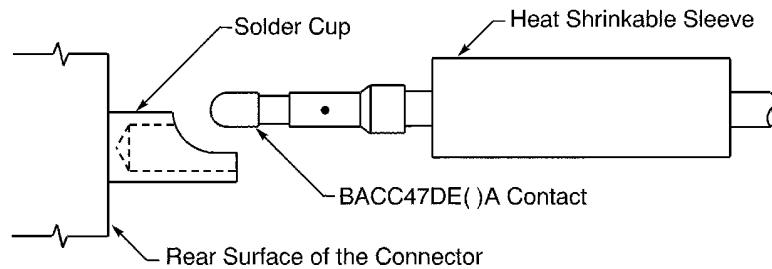
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BACC47DE CONTACT ASSEMBLY

Figure 63

- (8) Solder the engaging end of the BAC47DE contact in the solder cup of the large gage solder contact. Refer to Figure 64 and Figure 65.

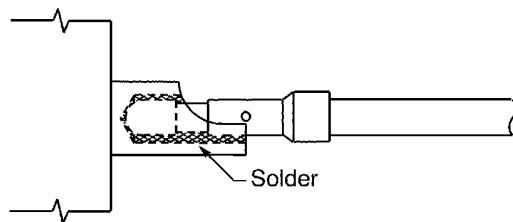
Make sure that a solder fillet is fully around the engaging end of the contact.



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TERMINATION COMPONENTS

Figure 64



2448114 S00061547356_V1

CONFIGURATION OF THE SOLDER TERMINATION

Figure 65

- (9) Push the heat shrinkable sleeve forward on the wire and on the solder cup until the sleeve is against the rear surface of the connector. Refer to Figure 66.

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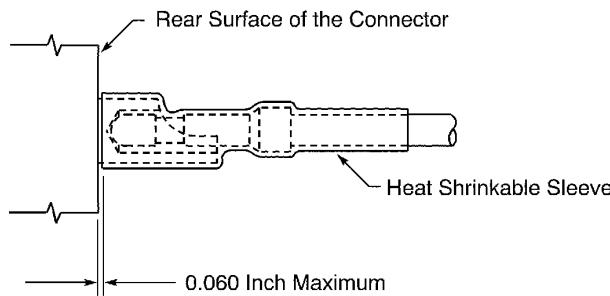
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Make sure that the distance between the forward end of the heat shrinkable sleeve and the rear surface of the connector is 0.06 inch maximum.

- (10) Shrink the sleeve into its position.

Refer to:

- Figure 66.
- Subject 20-10-14.



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POSITION OF THE HEAT SHRINKABLE SLEEVE

Figure 66

D. Coax Contact Assembly

For the procedures to assemble coax contacts refer to Table 42.

Table 42
COAX CONTACT ASSEMBLY PROCEDURES

Coax Contact			Connector		Coax Cable	Assembly Procedure
Part Number	Size	Type	Series	Insert		
249-0268-000	-	Socket	DPX	10C3	09-058	Paragraph 6.A.
					BA-6903	
					RG-142	
					RG-223	
					RG-58	
					BA-5903	

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Table 42 COAX CONTACT ASSEMBLY PROCEDURES (Continued)

Coax Contact			Connector		Coax Cable	Assembly Procedure
Part Number	Size	Type	Series	Insert		
249-0366-000	-	Socket	DPD	32C2	RG-59	Paragraph 6.B.
					RG-62	
					RG-7	
249-0398-000	-	Socket	DPD	U32C2	RG-210	Paragraph 6.B.
					RG-59	
					RG-62	
					RG-7	
249-0750-000	5	Socket	DPX	32W2	09-058	Paragraph 6.A.
					RG-58	
					RG-142	
					RG-223	
					RG-5903	
					BA-6903	
				40W1	09-058	
					RG-58	
					RG-142	
					RG-223	
					RG-5903	
					BA-6903	
249-1390-000	5	Socket	DPX	D32C2	BA-5903	Paragraph 6.C.
					RG-58	
				32W2	BA-5903	
					RG-58	
				F40C1	BA-5903	
					RG-58	
				40W1	BA-5903	
					RG-58	
249-1398-000	5	Socket	DPX	32B2	RG-59	Paragraph 6.D.
					RG-62	
				32W2	RG-59	
					RG-62	
				40W1	RG-59	
					RG-62	

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Table 42 COAX CONTACT ASSEMBLY PROCEDURES (Continued)

Coax Contact			Connector		Coax Cable	Assembly Procedure
Part Number	Size	Type	Series	Insert		
249-1400-000	5	Socket	DPX	32A2	BA-5903	Paragraph 6.E.
					BMS 13-65 Type OF	
					RG-58	
				32W2	BA-5903	
					BMS 13-65 Type OF	
					RG-58	
				40B1	BA-5903	
					BMS 13-65 Type OF	
					RG-58	
				40W1	BA-5903	
					BMS 13-65 Type OF	
					RG-58	
249-1400-003	5	Socket	DPX	32A2	5020G3442	Paragraph 6.E.
				32W2	5020G3442	
				40B1	5020G3442	
				40W1	5020G3442	
249-1404-003	5	Socket	DPX	32C2	RG-316	Paragraph 6.E.
				32W2	RG-316	
				40W1	RG-316	
249-1521-000	1	Pin	DPX	C2	BA-6903	Paragraph 6.F.
					RG-214	
249-1522-000	1	Socket	DPX	C2	BA-6903	Paragraph 6.F.
					RG-214	
249-1598-000	5	Socket	DPX	32W2	RG-142	Paragraph 6.G.
				40W1	RG-142	
249-1608-000	5	Socket	.	.	RG-59	Paragraph 6.D.
249-1632-000	9	Socket	DPX	C8A	BA-5903	Paragraph 6.H.
					RG-58	
				W8	BA-5903	
					RG-58	
				D32C4	BA-5903	
					RG-58	
				32W4	BA-5903	
					RG-58	

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Table 42 COAX CONTACT ASSEMBLY PROCEDURES (Continued)

Coax Contact			Connector		Coax Cable	Assembly Procedure
Part Number	Size	Type	Series	Insert		
249-1634-000	9	Socket	DPX	C8C	10-60875	Paragraph 6.J.
					5024A1314	Paragraph 6.H.
					BMS 13-42	Paragraph 6.K.
					BMS 13-48	
					BMS 13-65 Type OE	Paragraph 6.I.
					RG-174	Paragraph 6.H.
					RG-316	
				W8	10-60875	Paragraph 6.J.
					5024A1314	Paragraph 6.H.
					BMS 13-42	Paragraph 6.K.
					BMS 13-48	
					BMS 13-65 Type OE	Paragraph 6.I.
					RG-174	Paragraph 6.H.
					RG-316	
				B32C4	10-60875	Paragraph 6.J.
					5024A1314	Paragraph 6.H.
					BMS 13-42	Paragraph 6.K.
					BMS 13-48	
					BMS 13-65 Type OE	Paragraph 6.I.
					RG-174	Paragraph 6.H.
					RG-316	
				32W4	10-60875	Paragraph 6.J.
					5024A1314	Paragraph 6.H.
					BMS 13-42	Paragraph 6.K.
					BMS 13-48	
					BMS 13-65 Type OE	Paragraph 6.I.
					RG-174	Paragraph 6.H.
					RG-316	
249-1830-000	7	Socket	DPX	AC3	BA-5903	Paragraph 6.L.
					RG-58	
249-1858-000	-	Pin	-	-	RG-115	Paragraph 6.M.
249-1959-000	9	Socket	DPX	W8	RG-223	Paragraph 6.N.
				32C4	RG-223	
				32W4	RG-223	

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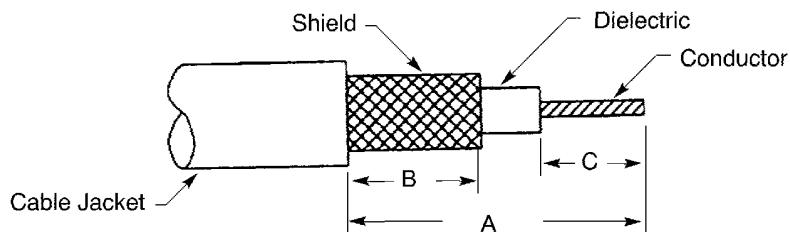


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Table 42 COAX CONTACT ASSEMBLY PROCEDURES (Continued)

Coax Contact			Connector		Coax Cable	Assembly Procedure
Part Number	Size	Type	Series	Insert		
249-1982-000	9	Pin	DPX	W8	BMS 13-65 Type OF	Paragraph 6.O.
				32W4	BMS 13-65 Type OF	
249-1983-000	9	Socket	DPX	W8	BMS 13-65 Type OF	Paragraph 6.O.
				32W4	BMS 13-65 Type OF	
249-2020-001	9	Socket	DPX	W8	BMS 13-65 Type OF	Paragraph 6.O.
				32W4	BMS 13-65 Type OF	
249-5008-000	-	Socket	DPA	L24C2	BA-5903	Paragraph 6.P.
					Unshielded Wire	Paragraph 6.Q.
249-5027-004	3	Socket	DPX	AC3	BA-6903	Paragraph 6.R.
					RG-214	
249-9104-000	-	-	-	-	BA-5903	Paragraph 6.C.
					RG-233	Paragraph 6.S.



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COAX CABLE TRIM DIMENSIONS

Figure 67

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Table 43
COAX CABLE TRIM DIMENSIONS

Contact	Coax Cable	Cable Trim		
		Dimension	Target (inch)	Tolerance (inch)
249-0268-000	BA6903	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	RG-142	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	RG-223	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
249-0366-000	RG-59	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	RG-62	A	1.00	±0.03
		B	0.38	±0.03
		C	0.16	±0.03
	RG-71	A	1.00	±0.03
		B	0.38	±0.03
		C	0.16	±0.03
249-0398-000	RG-59	A	1.00	±0.03
		B	0.38	±0.03
		C	0.16	±0.03
	RG-62	A	1.00	±0.03
		B	0.38	±0.03
		C	0.16	±0.03
	RG-71	A	1.00	±0.03
		B	0.38	±0.03
		C	0.16	±0.03

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Table 43 COAX CABLE TRIM DIMENSIONS (Continued)

Contact	Coax Cable	Cable Trim		
		Dimension	Target (inch)	Tolerance (inch)
249-0750-000	BA6903	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	RG-142	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	RG-223	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
249-1390-000	RG-5903	A	0.88	±0.03
		B	0.30	±0.02
		C	0.16	±0.03
	BA5903	A	0.75	±0.06
		B	-	-
		C	0.09	±0.03
249-1398-000	RG-59	A	0.75	±0.06
		B	-	-
		C	0.09	±0.03
	RG-62	A	0.69	±0.03
		B	-	-
		C	0.16	±0.03
249-1400-000	BA5903	A	1.06	±0.02
		B	-	-
		C	0.38	±0.03
	RG-58	A	1.06	±0.02
		B	-	-
		C	0.38	±0.03

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Table 43 COAX CABLE TRIM DIMENSIONS (Continued)

Contact	Coax Cable	Cable Trim		
		Dimension	Target (inch)	Tolerance (inch)
249-1521-000	BA6903	A	0.59	±0.02
		B	-	-
		C	0.13	±0.02
	RG-214	A	0.59	±0.02
		B	-	-
		C	0.13	±0.02
249-1522-000	BA6903	A	0.59	±0.02
		B	-	-
		C	0.13	±0.02
	RG-214	A	0.59	±0.02
		B	-	-
		C	0.13	±0.02
249-1598-000	RG-142	A	0.63	±0.02
		B	-	-
		C	0.09	±0.03
249-1608-000	RG-59	A	0.69	±0.02
		B	-	-
		C	0.16	±0.03
249-1632-000	BA5903	A	0.63	±0.02
		B	0.25	±0.02
		C	0.14	±0.03
	RG-58	A	0.63	±0.02
		B	0.25	±0.02
		C	0.14	±0.03

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Table 43 COAX CABLE TRIM DIMENSIONS (Continued)

Contact	Coax Cable	Cable Trim		
		Dimension	Target (inch)	Tolerance (inch)
249-1634-000	10-60875	A	1.13	±0.06
		B	1.13	±0.06
		C	0.16	±0.03
	5024A1314	A	0.72	±0.03
		B	0.34	±0.03
		C	0.14	±0.03
249-1830-000	RG-174	A	0.72	±0.03
		B	0.34	±0.03
		C	0.14	±0.02
	S280W503-1	A	0.72	±0.02
		C	0.14	±0.03
249-1858-000	BA5903	A	0.69	±0.03
		B	0.28	±0.03
		C	0.25	±0.03
	RG-58	A	0.69	±0.03
		B	0.28	±0.03
		C	0.25	±0.03
249-1959-000	RG-115	A	1.00	±0.06
		B	-	-
		C	0.19	±0.03
249-5008-000	RG-223	A	0.66	±0.03
		B	0.41	±0.03
		C	0.14	±0.03
249-5027-004	BA5903	A	0.75	±0.06
		B	-	-
		C	0.09	±0.03
	BA6903	A	0.81	±0.03
		B	0.31	±0.03
		C	0.38	±0.03
	RG-214	A	0.81	±0.03
		B	0.31	±0.03
		C	0.38	±0.03

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Table 43 COAX CABLE TRIM DIMENSIONS (Continued)

Contact	Coax Cable	Cable Trim		
		Dimension	Target (inch)	Tolerance (inch)
249-9104-000	BA5903	A	0.75	±0.06
		B	-	-
		C	0.09	±0.03
	RG-233	A	1.16	±0.03
		B	-	-
		C	0.09	±0.03

Table 44
FERRULE CRIMP TOOLS

Contact	Wire or Coax Cable	Crimp Tool		
		Basic Unit	Die	
			Part Number	Cavity
249-0268-000	BA6903	WT-206	-	-
	RG-142	WT-208	-	-
	RG-223	WT-208	-	-
	RG-5903	WT-206	-	-
249-0366-000	RG-59	WT-214	-	-
	RG-62	WT-214	-	-
	RG-71	ST965-1	ST965-06	-
249-0398-000	RG-62	WT-214	-	-
	RG-71	ST965-1	ST965-06	-
249-0750-000	BA6903	WT-206	-	-
	RG-142	WT-208	-	-
	RG-223	WT-208	-	-
	RG-5903	WT-206	-	-
249-1398-000	RG-59	WT-214	-	-
	RG-62	WT-214	-	-
249-1400-000	BA5903	WT-210	-	-
		M22520/5-01	Y823	180
	RG-58	WT-210	-	-
		M22520/5-01	Y823	180
249-1598-000	RG-142	WT-214	-	-
249-1608-000	RG-59	WT-214	-	-

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Table 44 FERRULE CRIMP TOOLS (Continued)

Contact	Wire or Coax Cable	Crimp Tool		
		Basic Unit	Die	
			Part Number	Cavity
249-1632-000	BA5903	CCT408M	-	-
	RG-58	CCT408M	-	-
249-1634-000	10-60875	WT202-06-08	-	-
	5024A1314	CCTDM	-	-
	BMS13-42	ST965-1	WT-206	-
	BMS13-48	ST965-1	WT-206	-
	RG-174	CCTDM	-	-
	SW280W503-1	CCTDM	-	-
		M22520/5-01	Y322	-
249-1830-000	BA5903	KTH-2233	-	-
		ST965	WT-206	-
		ST965-1	-	-
		ST965A-6	-	-
		ST965B-6	-	-
		WT202-06-08	-	-
	RG-58	KTH-2233	-	-
		ST965	WT-206	-
		ST965-1	-	-
		ST965A-6	-	-
		ST965B-6	-	-
		WT202-06-08	-	-
249-1858-000	RG-115	WT-218	-	-

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Table 44 FERRULE CRIMP TOOLS (Continued)

Contact	Wire or Coax Cable	Crimp Tool		
		Basic Unit	Die	
			Part Number	Cavity
249-5027-004	BA6903	612648	612807	B
		KTH-1000	KTH-2004	A
			KTH-2235	A
		M22520/5-01	M22520/5-25	A
		ST2352-5-2	-	A
			-	B
		ST2352-5-Y	ST2352-5-2	-
	RG-214	ST2966M	ST2966M-16	-
		612648	612807	B
		KTH-1000	KTH-2004	A
			KTH-2235	A
		M22520/5-01	M22520/5-25	A
		ST2352-5-2	-	A
			-	B
		ST2352-5-Y	ST2352-5-2	-
		ST2966M	ST2966M-16	-

6. ASSEMBLY OF COAX CONTACTS

A. Assembly of 249-0268-000 and 249-0750-000 Contacts for DPX Connectors

- (1) Make a selection of the inner and outer ferrules from Table 14.
- (2) Remove the identification color dye from the outer ferrule.
- (3) Tin the external surface of the outer ferrule.

Make sure that the solder:

- Is applied to 1/3 the length of the ferrule from one end
- Extends around the circumference of the ferrule.

- (4) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.

Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.

- (5) Put a 1.13 inch ± 0.05 inch length of the sleeve on the cable jacket.
- (6) Put the outer ferrule on the cable. Refer to Figure 68.

Make sure that the tinned end points to the end of the cable.

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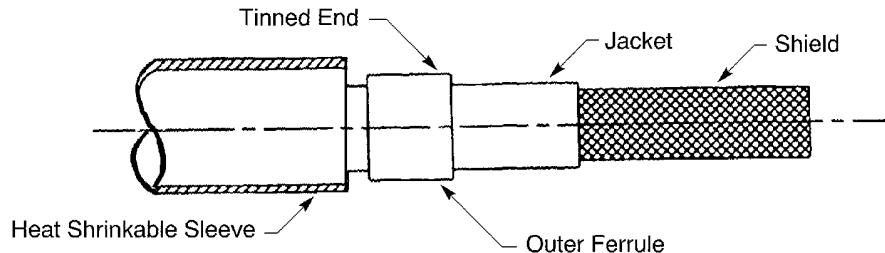
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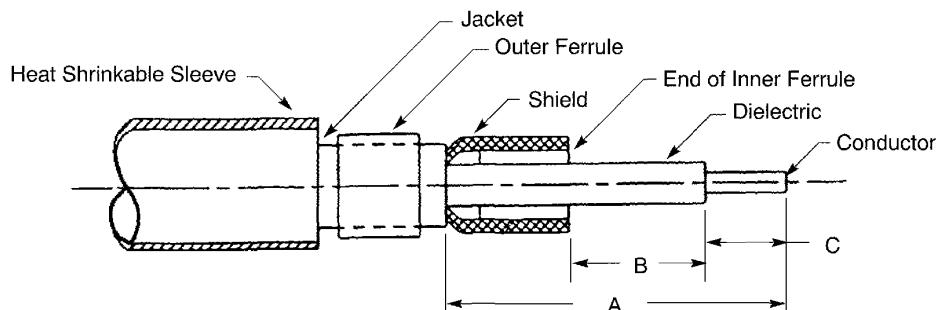
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PREPARATION OF THE FERRULE

Figure 68

- (7) Prepare the cable:

Refer to Figure 69 and Table 43.



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CABLE PREPARATION

Figure 69

- (a) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

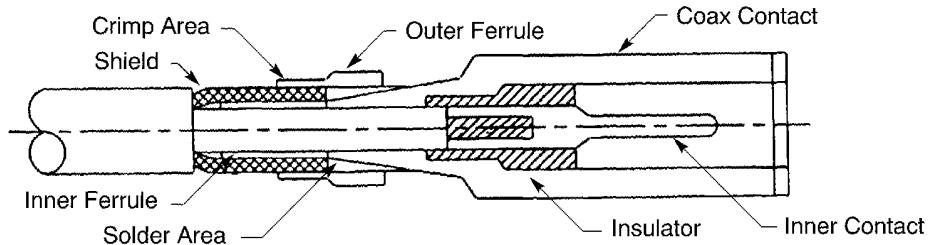
- (b) Push the end of the shield back.

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- (c) Put the inner ferrule on the cable so that the ferrule is:
 - Under the shield
 - Against the end of the jacket.
- (d) Put the shield on the inner ferrule.
 Make sure that the shield strands are even and symmetrical around the ferrule.
- (e) Cut the shield at the end of the ferrule.
- (f) Remove the necessary length of the dielectric to make the distance from the end of the inner ferrule to the end of the dielectric equal to Dimension B.
- (g) Remove the necessary length of the conductor to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (8) Tin the conductor.
- (9) Put the conductor in the solder barrel of the inner contact.
 Make sure the rear end of the contact is against the dielectric.



2446391 S00061547362_V1

COAX CONTACT ASSEMBLY

Figure 70

- (10) Solder the contact.
- CAUTION:** DO NOT PUT MORE THAN THE NECESSARY QUANTITY OF SOLDER ON THE CONTACT AND CONDUCTOR. UNWANTED SOLDER ON THE INNER CONTACT CAN PREVENT THE INSERTION OF THE CONTACT INTO THE INSULATOR.
- (11) Make a selection of a ferrule crimp tool from Table 44.
 - (12) Push the wired inner contact into the coax contact. Refer to Figure 70.
 Make sure that the end of the coax contact is against the inner ferrule.
 - (13) Push the outer ferrule against the shoulder of coax contact.
 - (14) Remove the coax contact from the inner contact.
 Make sure that the position of outer ferrule is not changed.
 - (15) Crimp the outer ferrule.
 - (16) Tin the external surface of the smaller end of the coax contact.
 - (17) Push the inner contact into the coax contact until the areas that have solder touch. Refer to Figure 70.

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- (18) Apply heat to melt the solder.

CAUTION: DO NOT ADD MORE SOLDER.

- (19) Move the heat shrinkable sleeve on the contact assembly.

Make sure that the end of the sleeve is aligned with the engaging end of the coax contact.

- (20) Shrink the sleeve into its position. Refer to Subject 20-10-14.

Make sure that the distance between the end of the sleeve and the end of the coax contact is less than 0.06 inch.

B. Assembly of 249-0366-000 and 249-0398-000 Contacts for DPD Connectors

- (1) Make a selection of Teflon heat shrinkable sleeve. Refer to Subject 20-10-14.

Make sure to use a sleeve that has the smallest diameter that can be moved on the cable jacket and below the inner ferrule.

- (2) Put a $0.56\text{ inch} \pm 0.06\text{ inch}$ length of the sleeve on the cable jacket. Refer to Figure 68.

- (3) Make a selection of the inner and outer ferrules from Table 14.

- (4) Remove the identification color dye from the outer ferrule.

- (5) Tin the external surface to the outer ferrule.

Make sure that the solder:

- Is applied to 1/3 the length of the ferrule from one end
- Extends around the circumference of the ferrule.

- (6) Put the outer ferrule on the cable.

- (7) Prepare the cable.

Refer to Figure 71 and Table 43.

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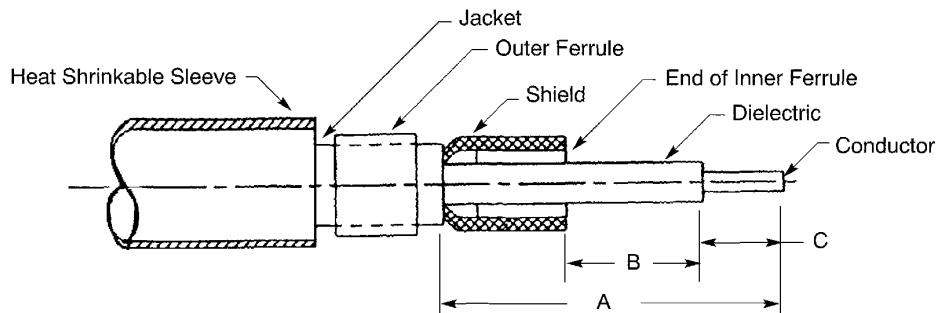
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CABLE PREPARATION

Figure 71

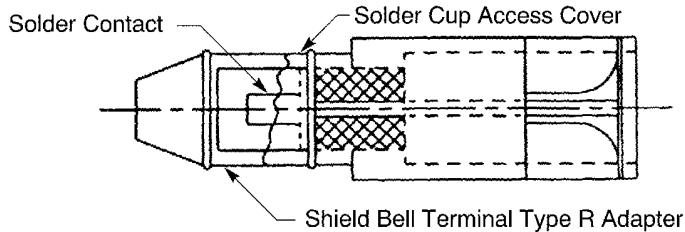
- (a) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
- CAUTION:** MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.
- (b) Push the end of the shield back on the cable.
 - (c) Put the inner ferrule on the cable.
 - (d) Push the inner ferrule on the heat shrinkable sleeve and below the shield until the ferrule is against the cable jacket.
 - (e) Put the shield on the inner ferrule.
Make sure that the shield strands are even and symmetrical around the ferrule.
 - (f) Remove the unwanted length of the shield strands that extend beyond the forward end of the inner ferrule.
 - (g) Remove the necessary length of the dielectric to make the distance from the end of the inner ferrule to the end of the dielectric equal to Dimension B.
 - (h) Remove the necessary length of the conductor to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (8) Tin the center conductor. Refer to Figure 72.

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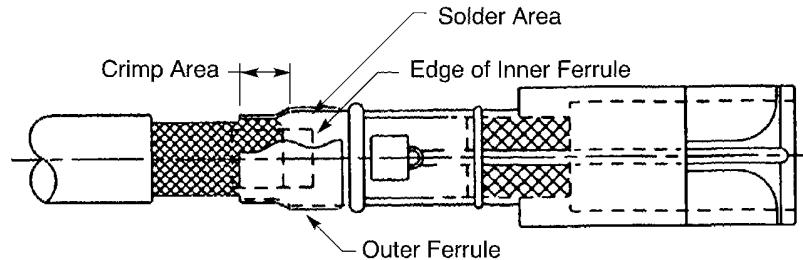


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COAX CONTACT CONFIGURATION

Figure 72

- (9) Make a selection of a ferrule crimp tool from Table 44.
- (10) Remove the solder cup access cover from the coax contact type R adapter.
- (11) Discard the type R adapter.
- (12) Put the contact on the coax cable.
- (13) Push the contact solder cup against the dielectric.
- (14) Push the outer ferrule against the shoulder of the outer coax contact.
- (15) Remove the coax cable and the outer ferrule from the coax contact.
Make sure that the position of outer ferrule does not change.
- (16) Crimp the outer ferrule. Refer to Figure 73.



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POSITION OF THE OUTER FERRULE

Figure 73

- (17) Put the heat shrinkable sleeve on the dielectric and below the inner ferrule.
- (18) Tin the smaller end of the contact.
- (19) Put the cable conductor into the solder barrel of the inner contact.
Make sure that the dielectric is against the inner contact.
- (20) Solder the conductor to the inner contact.
- (21) Put the solder cup access cover on the contact.

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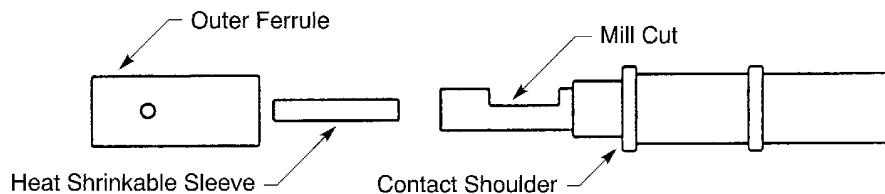
- (22) Push the outer ferrule against the smaller end of coax contact.
- (23) Apply heat and melt the solder.

CAUTION: DO NOT ADD MORE SOLDER. IT IS POSSIBLE THAT THE COMPONENTS WILL NOT FIT TOGETHER.

C. Assembly of 249-1390-000 and 249-9104-000 Contacts with BA-5903 Cable

This paragraph give the procedure to assemble the contacts for these connectors:

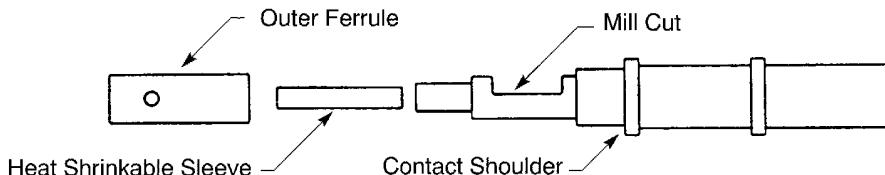
- The DPA() and DPAMA() connectors with the 249-9104-000 contact
- The DPX() and DPXAMA() connectors with the 249-1390-000 contact.



2446395 S00061547368_V1

249-1390-000 CONTACT CONFIGURATION

Figure 74



2446396 S00061547369_V1

249-9104-000 CONTACT CONFIGURATION

Figure 75

- (1) Put the outer ferrule on the cable. Refer to Figure 74 and Figure 75.
Make sure that the end without the hole points forward to the end of the cable.
- (2) Prepare the cable:
Refer to Figure 67 and Table 43.
 - (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

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CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Push the end of the shield back on the cable.
- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (3) Tin the conductor.
- (4) Put a 0.50 inch ± 0.03 inch length of 1/8 inch diameter TFE-R heat shrinkable sleeve on the cable. Make sure that the sleeve is on the dielectric and below the shield.

CAUTION: DO NOT USE THE SLEEVE THAT IS SUPPLIED WITH THE CONTACT.

- (5) Put the conductor in the solder cup of the contact. Make sure that the mill cut area on the solder cup is adjacent to the open side of the contact.
- (6) Solder the conductor to the solder cup.
- (7) Push the heat shrinkable sleeve on the contact until the end of the sleeve is against the shoulder of the contact.
- (8) Put the shield on the contact. Make sure that the shield strands are even and symmetrical around the contact.
- (9) Push the outer ferrule forward on the shield until the ferrule is against the contact shoulder.
- (10) Remove the unwanted length of the shield strands that extend beyond the contact shoulder.
- (11) Solder the outer ferrule to contact through the hole in the ferrule.
- (12) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14. Make sure to use a sleeve that has the smallest diameter that can be moved on the cable jacket.
- (13) Put a sufficient length of the heat shrinkable sleeve on the cable. Make sure that:
 - The forward end of the heat shrinkable sleeve is against the shoulder of the contact
 - The distance from the rear end of the heat shrinkable sleeve to the rear end of the outer ferrule is 0.50 inch minimum.
- (14) Shrink the sleeve into its position. Refer to Subject 20-10-14.

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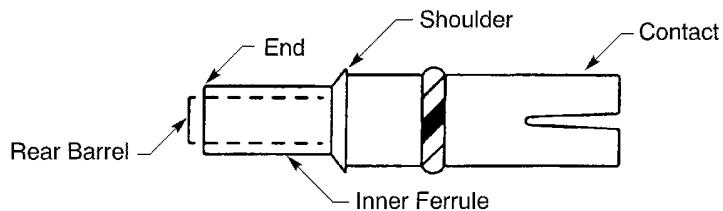
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D. Assembly of 249-1398-000 and 249-1608-000 Contacts for DPX Connectors



2446397 S00061547371_V1

COAX CONTACT CONFIGURATION
Figure 76

- (1) Tin the external surface of the rear barrel of the contact from the end of the contact to the shoulder.
- (2) Make a selection of the inner and outer ferrules from Table 14.
- (3) Remove the identification color dye from the inner ferrule.
- (4) Put the inner ferrule on the rear barrel of the coax contact.
- (5) Push the inner ferrule forward until it is against the contact shoulder.
- (6) Apply heat to the inner ferrule to melt the solder.

CAUTION: DO NOT ADD MORE SOLDER. IT IS POSSIBLE THAT THE COMPONENTS WILL NOT HAVE THE CORRECT FIT.

- (7) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.
- (8) Put a 1.13 inch minimum length of the heat shrinkable sleeve on the cable jacket.
- (9) Put the outer ferrule on the cable.
- (10) Prepare the cable:

Refer to Figure 67 and Table 43.

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
- (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Push the end of the shield back on the cable.
- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.

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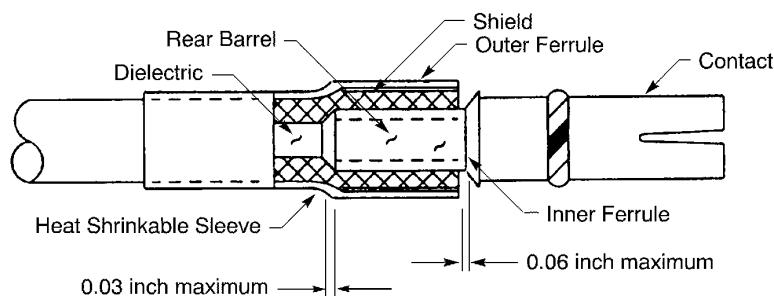
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- (11) Tin the center conductor of the cable.
- (12) Put the conductor in the solder barrel of center contact.
 Make sure that the distance between the rear end of the contact and the dielectric is 0.03 inch maximum.
- (13) Solder the contact and the conductor.

CAUTION: DO NOT LET THE END OF THE CONTACT TO TOUCH THE DIELECTRIC AT THE SAME TIME THAT THE SOLDER IS APPLIED.

- (14) Make a selection of a ferrule crimp tool from Table 44.
- (15) Push the conductor and center contact into the outer contact until the end of the conductor is against the contact.
- (16) Put the shield on the inner ferrule.
 Make sure that the shield strands are even and symmetrical around the inner ferrule.
- (17) Push the outer ferrule forward on the shield. Refer to Figure 77.
 Make sure that distance from the forward end of the inner ferrule to the forward edge of the outer ferrule is 0.06 inch maximum.



2446398 S00061547374_V1

COAX CONTACT ASSEMBLY

Figure 77

- (18) Crimp the outer ferrule.
- (19) Remove the unwanted length of the shield strands that extend beyond the forward end of the outer ferrule.
- (20) Push the heat shrinkable sleeve on the contact until the forward end of the sleeve is aligned with the forward end of the outer ferrule.

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- (21) Shrink the sleeve into its position.

Refer to Figure 77 and Subject 20-10-14.

E. Assembly of 249-1400-000 and 249-1400-003 Contacts for DPX Connectors

- (1) Make a selection of inner and outer ferrules from Table 14.

- (2) Remove the identification color dye from the ferrules.

- (3) Tin the external surface of the inner ferrule.

Make sure that the solder:

- Is applied to 1/3 of the length of the ferrule from one end
- Extends around the circumference of the ferrule.

- (4) Tin the external surface of the larger end of the outer ferrule.

Make sure that the solder:

- Is applied to 1/3 of the length of the ferrule from the larger end
- Extends around the circumference of the ferrule.

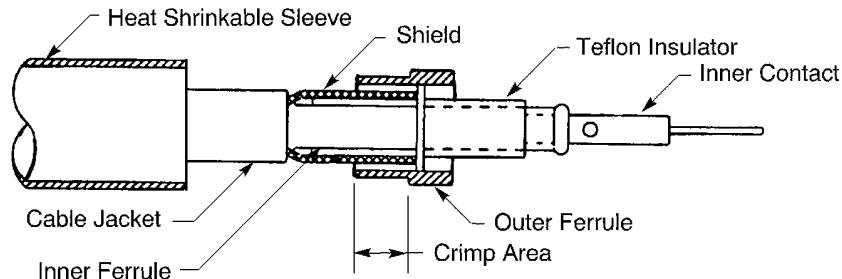
- (5) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.

Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.

- (6) Put a 1.13 inch minimum length of heat shrinkable sleeve on the cable.

- (7) Put the outer ferrule on the cable Refer to Figure 78.

Make sure that the end of the ferrule that has the solder points forward to the end of the cable.



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CENTER CONTACT ASSEMBLY
Figure 78

- (8) Make a selection of a ferrule crimp tool from Table 44.

- (9) Prepare the cable:

Refer to Figure 67 and Table 43.

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.

- (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

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CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (10) Push the end of the shield away from the end of the cable.
- (11) Put the inner ferrule on the cable.
Make sure that end of the ferrule that has solder points forward to the end of the cable.
- (12) Push the inner ferrule under the shield until the inner ferrule is against the end of the cable jacket.
- (13) Remove the unwanted length of the shield strands that extend beyond the forward end of the inner ferrule.
- (14) Move the outer ferrule on the shield and the inner ferrule until 1/2 the length of the outer ferrule extends beyond the edge of the inner ferrule.
- (15) Crimp the 0.5 inch of the outer ferrule in the area that is on the inner ferrule.
- (16) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
Refer to Figure 67 and Table 43.
- (17) Push the Teflon insulator on the dielectric and the conductor until the end of the insulator is against the end of the ferrules.
Make sure that the end that has the larger diameter points to the ferrules.
- (18) Tin the center conductor.
- (19) Push the conductor into the solder barrel of the inner contact until the contact is against the Teflon insulator.
Make sure that the conductor can be seen in the contact inspection hole.
- (20) Solder the contact to the conductor. Refer to Figure 78.

CAUTION: DO NOT APPLY MORE THAN THE NECESSARY QUANTITY OF SOLDER. THE INNER CONTACT CANNOT BE INSTALLED IN THE OUTER CONTACT IF THERE IS TOO MUCH SOLDER ON THE INNER CONTACT.

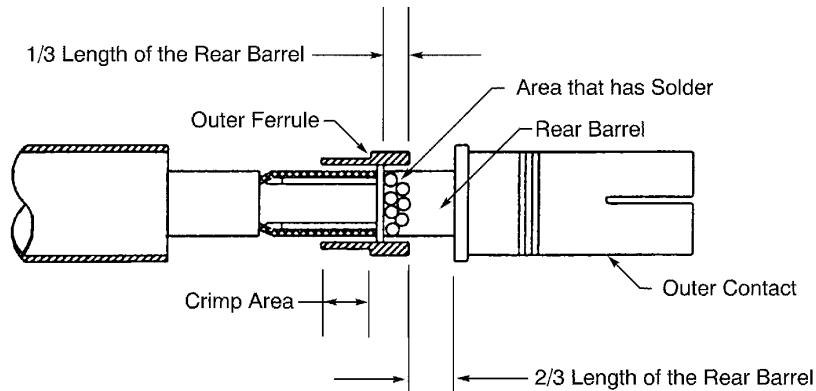
- (21) Tin the rear surface of the rear barrel of the contact. Refer to Figure 79.
Make sure that the solder:
 - Is applied to one third of the length of the rear barrel at the rear
 - Extends around the circumference of the rear barrel.

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2446400 S00061547377_V1

SOLDER AREA OF THE CONTACT

Figure 79

- (22) Put the inner contact into the outer contact.

Make sure that the forward area of the outer ferrule that has solder is on the area of the rear barrel that has solder.

- (23) Apply heat and melt the solder. Refer to Figure 79.

CAUTION: DO NOT ADD MORE SOLDER. IT IS POSSIBLE THAT THE COMPONENTS WILL NOT HAVE THE CORRECT FIT.

- (24) Push the heat shrinkable sleeve on the rear barrel of the contact until the end of the sleeve is against the shoulder of the contact.

- (25) Shrink the sleeve into its position. Refer to Subject 20-10-14.

Make sure that the distance between the forward end of the sleeve and the shoulder of the contact is 0.06 inch maximum.

F. Assembly of 249-1521-000 and 249-1522-000 Contacts

Table 45
SEAL RING PART NUMBERS

Coax Contact	Seal Ring	
	Part Number	Supplier
249-1521-000	075-90001-000	ITT Cannon
249-1522-000	075-90001-000	ITT Cannon

- (1) In this sequence, put these components on the cable:

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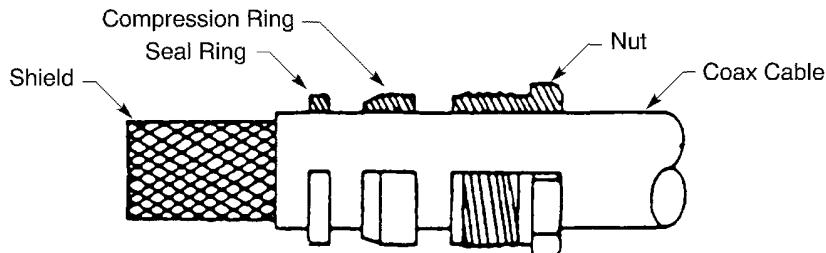
ITT CANNON DPX, DPD, AND DPA CONNECTORS

- The nut
- The compression ring
- The seal ring.

CAUTION: THE SEAL RING MUST BE REPLACED EACH TIME THE CONTACT IS ASSEMBLED; IT IS PERMANENTLY CHANGED WHEN THE COAX BODY AND NUT ARE TIGHTENED.

NOTE: If is necessary to replace a seal ring, make a selection from Table 45.

Refer to Figure 80.



2446401 S00061547379_V1

POSITION OF THE COMPRESSION RING IN RELATION TO THE SEAL RING AND THE NUT

Figure 80

- (2) Prepare the cable:

Refer to Figure 67 and Table 43.

- Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
- Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (3) Put the braid ring on the cable. Refer to Figure 81.

Make sure that the end that has the smaller diameter points forward to the end of the cable.

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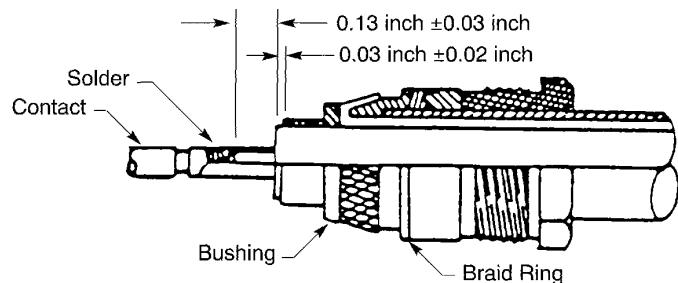
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2446402 S00061547380_V1

LENGTH OF THE DIELECTRIC AND THE CONDUCTOR
Figure 81

- (4) Push the braid ring on the shield until it is against the cable jacket.
- (5) Move the strands of the shield apart.
- (6) Fold the strands shield back on the braid ring.
Make sure that the shield strands are even and symmetrical around the ring.
- (7) Remove the unwanted length of the shield strands that extend beyond the end of the braid ring.
Refer to Figure 81.
- (8) Move the bushing on the dielectric until the bushing is against the shield.
- (9) Remove the necessary length of the dielectric to make the distance from the end of the bushing to the end of the dielectric equal to $0.03 \text{ inch} \pm 0.02 \text{ inch}$.

CAUTION: MAKE SURE THAT NO DAMAGE OCCURS TO THE CONDUCTOR WHEN THE DIELECTRIC IS REMOVED. DAMAGE TO THE CONDUCTOR CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE CABLE.

- (10) Remove the necessary length of conductor to make the distance from the end of the conductor to the end of the dielectric equal to $0.13 \text{ inch} \pm 0.03 \text{ inch}$. Refer to Figure 81.
- (11) Remove the retention washer from the center contact.
- (12) Push the center conductor into the solder barrel of the center contact until the end of the contact is against the dielectric.
Make sure that all of the strands of the center conductor:
 - Are in the solder barrel of the contact

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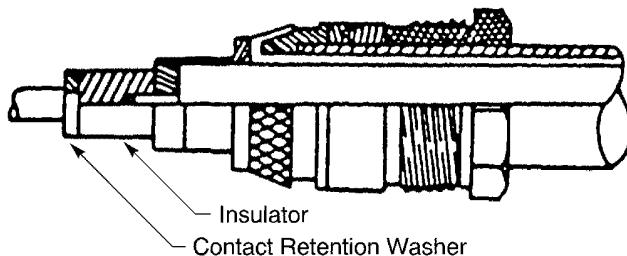
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- Can be seen in the inspection hole.
- (13) Solder the center conductor to the center contact through the inspection hole.
 Make sure that the solder is even.
- CAUTION:** DAMAGE OCCURS WHEN THE BUSHING OR THE DIELECTRIC BECOME TOO HOT. DAMAGE CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE CABLE.
- (14) Push the insulator on the center contact until the insulator is against the bushing. Refer to Figure 82.

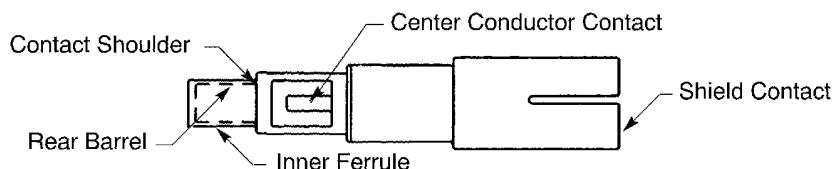


2446403 S00061547383_V1

POSITION OF THE INSULATOR AND THE CONTACT RETENTION WASHER
Figure 82

- (15) Push the contact retention washer on the center contact until the washer moves into the groove on the center contact.
 Make sure that the end of the seal ring is flat against the sharp edge of the compression ring.

G. Assembly of 249-1598-000 Contacts for DPX Connectors



2446404 S00061547384_V1

249-1598-000 CONTACT CONFIGURATION
Figure 83

- (1) Make a selection of the inner and outer ferrules from Table 14.
- (2) Remove the identification color dye from the inner ferrule.
- (3) Tin the contact from the end of the rear barrel of the contact to the shoulder. Refer to Figure 83.
- (4) Put the inner ferrule on the rear barrel.
 Make sure that the ferrule is against the shoulder.

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- (5) Apply heat and melt the solder.

CAUTION: DO NOT ADD MORE SOLDER. IT IS POSSIBLE THAT THE COMPONENTS WILL NOT HAVE THE CORRECT FIT.

- (6) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.

Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.

- (7) Put a 1.13 inch minimum length of a heat shrinkable sleeve on the cable.

- (8) Put the outer ferrule on the cable.

- (9) Prepare the cable:

Refer to Figure 67 and Table 43.

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.

- (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Push the end of the shield back on the cable.

- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.

- (10) Solder the contact to the conductor:

- (a) Apply heat to the solder cup to melt solder in the solder cup.

- (b) Put the conductor into the solder cup.

- (c) Remove the source of the heat to let the solder cup become solid.

- (11) Make a selection of a ferrule crimp tool from Table 44.

- (12) Put the shield on the inner ferrule.

Make sure that the shield strands are even and symmetrical around the ferrule.

- (13) Move the outer ferrule on the shield to make the distance from the forward edge of the outer ferrule to the forward edge of the inner ferrule equal to 0.06 inch maximum. Refer to Figure 84.

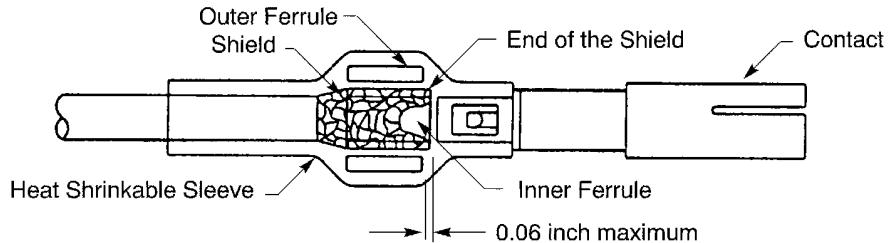
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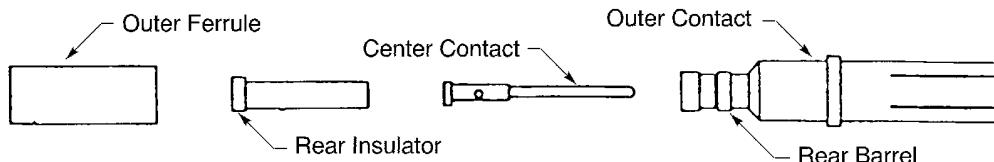
2446405 S00061547385_V1

POSITION OF THE OUTER FERRULE ON THE INNER FERRULE

Figure 84

- (14) Crimp the outer ferrule.
- (15) Remove the unwanted length of the shield strands that extend beyond the forward edge of the outer ferrule.
- (16) Put the heat shrinkable sleeve on the ferrule and the center contact. Refer to Figure 84.
Make sure that the end of the sleeve extends rearward farther than the contact.
- (17) Shrink the sleeve into its position. Refer to Subject 20-10-14.

H. Assembly of 249-1632-000 and 249-1634-000 Shielded Contacts



2446406 S00061547386_V1

249-1634-000 CONTACT CONFIGURATION

Figure 85

- (1) Put the crimp ring on the cable. Refer to Figure 85.
- (2) Prepare the cable:
Refer to Figure 67 and Table 43.
 - (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

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CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.
- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.

CAUTION: MAKE SURE THAT DAMAGE TO THE CONDUCTOR DOES NOT OCCUR. IF THE CONDUCTOR IS CUT SO THAT THE BASE METAL CAN BE SEEN, THE CONDUCTOR CAN GIVE UNSATISFACTORY PERFORMANCE.

- (3) Tin the conductor.
- (4) Fold the shield back on the cable jacket.
- (5) Push the rear insulator on the dielectric until the end of the insulator is against the shield.
- (6) Put the conductor in the solder barrel of the center contact.
Make sure that contact is against the dielectric.
- (7) Solder the center contact to the conductor through the inspection hole. Refer to Subject 20-40-00.

CAUTION: DO NOT APPLY MORE THAN THE NECESSARY AMOUNT OF HEAT FOR LONGER THAN THE NECESSARY AMOUNT OF TIME TO MELT THE SOLDER.

- (8) Make a selection of a crimp tool from Table 44.
- (9) Push the center contact assembly into the outer contact.
- (10) Fold the shield forward on the rear insulator.
Make sure that the shield is even and symmetrical around the contact.
- (11) Push the crimp ring on the shield until the ring is against the contact.
- (12) Crimp the crimp ring.

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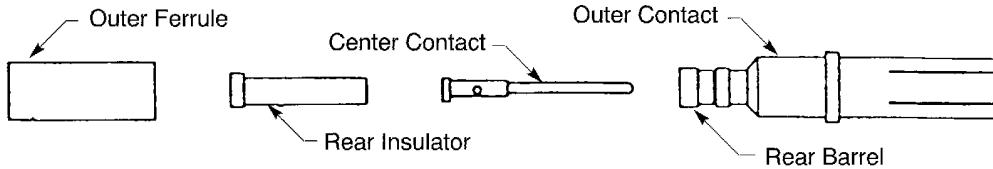
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I. Assembly of 249-1634-000 Contacts with BMS 13-65 Type OE or S280W503-1 Cable



2446407 S00061547388_V1

249-1634-000 CONTACT CONFIGURATION
Figure 86

- (1) Put the outer ferrule on the cable. Refer to Figure 86.

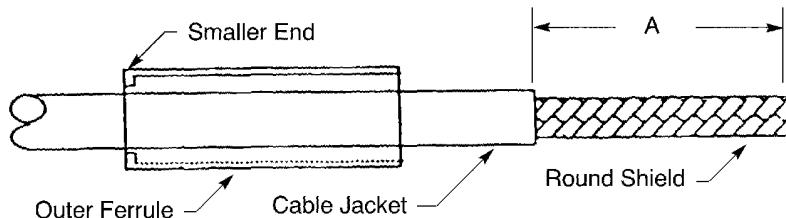
Make sure that the end of the ferrule that has the larger hole points forward to the end of the cable.

- (2) Prepare the cable:

Refer to Table 43 for the trim dimensions.

- (a) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.



2446408 S00061547389_V1

JACKET REMOVAL LENGTH
Figure 87

- (b) Open the end of each shield.
- (c) Move the strands of the flat shield apart.
- (d) Make the strands of the flat shield straight.
- (e) Fold each shield away from the end of the cable jacket.

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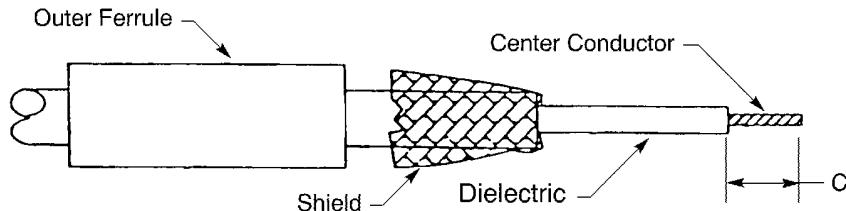
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- (f) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.



2446409 S00061547390_V1

DIELECTRIC REMOVAL LENGTH

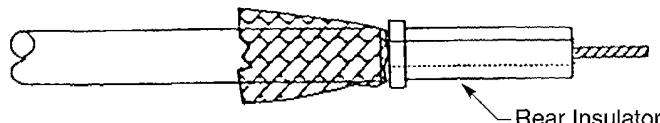
Figure 88

- (3) Put the rear insulator on the cable.

Make sure that:

- The smaller end of the insulator points to the end of the cable
- The larger end is against the shield.

Refer to Figure 89.



2446410 S00061547391_V1

POSITION OF THE REAR INSULATOR AGAINST THE SHIELD

Figure 89

- (4) Put the conductor in the solder barrel of the center contact so that the conductor touches the bottom of the solder barrel.

Make sure that all of the strands of the conductor:

- Are in the contact solder barrel
- Can be seen in the inspection hole of the contact.

- (5) Push the center contact until it is against the rear insulator.

- (6) Solder the center contact to the conductor through the inspection hole. Refer to Subject 20-40-00.

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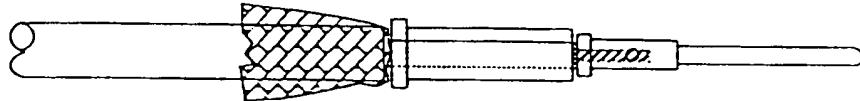
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2446411 S00061547392_V1

CENTER CONTACT SOLDERED TO THE CONDUCTOR

Figure 90

- (7) Make a selection of a ferrule crimp tool from Table 44.
- (8) Find the crimp tool settings in Table 46.

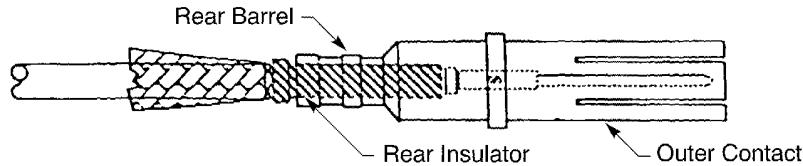
Make sure that the die opening is 0.202 inch between the flat sides of the closed hex crimp die.

Table 46
CRIMP TOOL SETTINGS

Crimp Tool	Setting
CCTDM	C
M22520/5-01	A

- (9) Put the center contact assembly into the outer contact. Refer to Figure 91.

Make sure that the rear insulator is against the outer contact.



2446412 S00061547393_V1

POSITION OF THE OUTER CONTACT

Figure 91

- (10) Put the flat shield on the round shield.
Make sure that the shield is even and symmetrical around the rear barrel of the outer contact.
- (11) Put the round shield on the rear barrel of the outer contact.
Make sure that the shield is even and symmetrical around the rear barrel of the outer contact.
- (12) Cut the strands of the shield to make the distance from the end of the shield strands to the rear end of the outer contact equal to 0.03 inch maximum. Refer to Figure 92.

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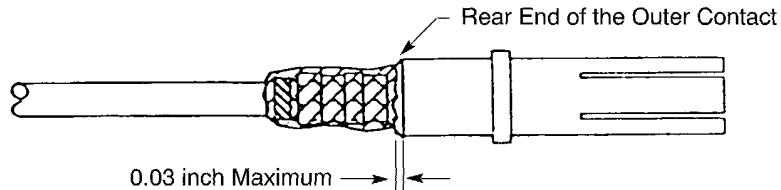
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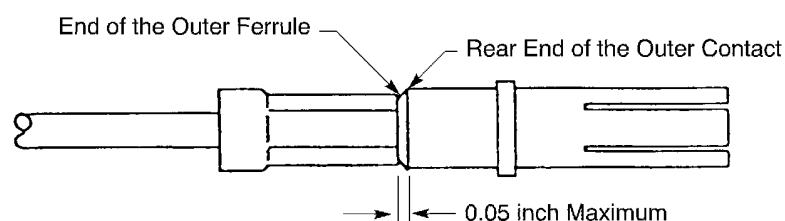
2446413 S00061547394_V1

LENGTH OF SHIELD

Figure 92

- (13) Push the outer ferrule on the shield and the rear barrel of the outer contact until it is against the body of the outer contact.
- (14) Crimp the outer ferrule. Refer to Figure 93.

Make sure that the distance between the forward end of the ferrule and the outer contact is 0.05 inch maximum.



2446414 S00061547395_V1

POSITION OF THE OUTER FERRULE

Figure 93

- (15) Remove the unwanted length of the shield strands that can be seen.

J. Assembly of 249-1634-000 Contacts with 10-60875-() AWG 20 Shielded Cable

This paragraph give the procedure to assemble the contact for:

- The DPXM() connectors
- The DPX2M() connectors.

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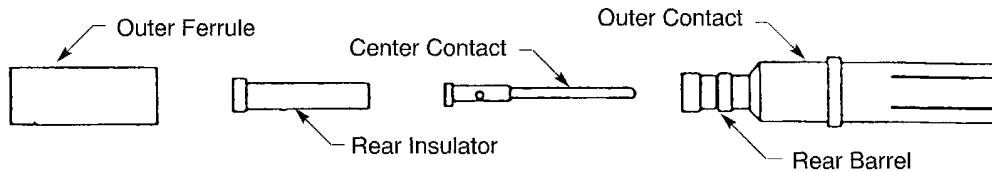
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2446415 S00061547396_V1

249-1634-000 CONTACT CONFIGURATION

Figure 94

- (1) Put the outer ferrule on the cable. Refer to Figure 94.
Make sure that the end of the ferrule that has the larger hole points to the end of the cable.
- (2) Prepare the cable:
Refer to Figure 67 and Table 43.
 - (a) Remove the necessary length of the cable jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.
 - (b) Push the end of the shield back on the cable.
 - (c) Remove a 0.38 inch ± 0.06 inch length from the end of the cable.
 - (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (3) Tin the conductor.
- (4) Make a selection of a crimp tool from Table 44.
- (5) Move the strands of the shield apart.
- (6) Put the rear insulator on the dielectric. Refer to Figure 95.
Make sure that:
 - The smaller end of the insulator points forward to the end of the cable
 - The shield is on the rear insulator.

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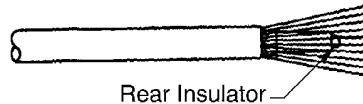
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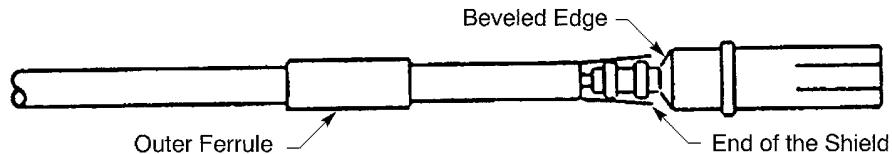


2446416 S00061547397_V1

POSITION OF THE REAR INSULATOR

Figure 95

- (7) Put the conductor in the solder barrel of the center contact.
- (8) Solder the center contact to the conductor.
- (9) Push the center contact assembly into the outer contact until it stops.
Make sure that the end of the insulator is against the contact.
- (10) Put the shield on the rear barrel of the outer contact.
Make sure that the shield is even and symmetrical around the rear barrel.
- (11) Cut the ends of the shield strands to make the distance from the end of the shield strands to the beveled edge of the outer contact equal to or less than 0.03 inch. Refer to Figure 96.



2446417 S00061547398_V1

LOCATION OF THE END OF THE SHIELD

Figure 96

- (12) Push the outer ferrule on the shield.
Make sure that the ferrule is against the beveled edge of the outer contact.
- (13) Crimp the outer ferrule.
- (14) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.
Make that the sleeve has the smallest diameter that can be moved on the cable jacket.
- (15) Put a 1.50 inch ± 0.25 inch length of heat shrinkable sleeve on the assembly. Refer to Figure 97.

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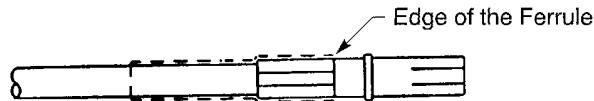
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POSITION OF THE HEAT SHRINKABLE SLEEVE

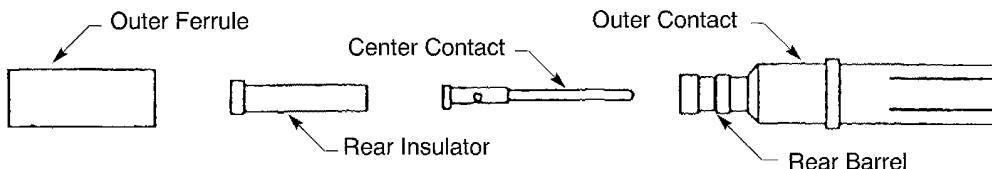
Figure 97

- (16) Shrink the sleeve into its position. Refer to Subject 20-10-14.

Make sure that the distance from the forward end of the sleeve to the forward edge of the ferrule is 0.06 inch maximum.

K. Assembly of 249-1634-000 Contacts with BMS 13-42 and BMS 13-48 Wire

This paragraph gives the procedure to assemble the contacts with AWG 20 wire.



2446419 S00061547400_V1

249-1634-000 CONTACT CONFIGURATION

Figure 98

Table 47
INSULATION REMOVAL LENGTH

Contact	Wire	Length L (inch)	
		Target	Tolerance
249-1634-000	BMS 13-42	0.16	±0.03
	BMS 13-48	0.16	±0.03

- (1) Put the outer ferrule on the wire.

Make sure that the end of the ferrule that has the larger hole points forward to the end of the wire.

- (2) Put the rear insulator on the wire.

Make sure that the end of the insulator that has the smaller hole points forward to the end of the wire.

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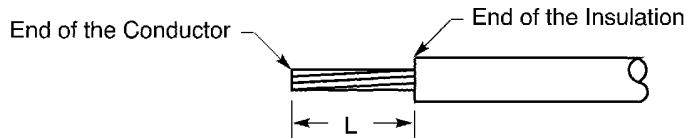
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- (3) Remove the necessary length of the insulation.

Make sure that the distance from the end of the insulation to the end of the wire is Length L.

Refer to Figure 99 and Table 47.



2446420 S00061547401_V1

INSULATION REMOVAL LENGTH

Figure 99

- (4) Put the conductor of the wire into the solder barrel of the center contact.
- (5) Solder the center contact to the wire.
- (6) Make a selection of a crimp tool from Table 44.
- (7) Put the center contact into the outer contact.
- (8) Push the rear insulator into the outer contact until the insulator is against the center contact.
- (9) Put the outer ferrule on the outer contact.
Make sure that the end of the ferrule is against the shoulder of the contact.
- (10) Crimp the outer ferrule.

L. Assembly of 249-1830-000 Size 7 Coax Contacts for the DPX AC3 Insert

Table 48
NECESSARY MATERIALS

Description	Part Number	Supplier
Thread Lock Compound	222	Loctite

Table 49
NECESSARY TOOLS

Description	Supplier
Torque tool	An available source

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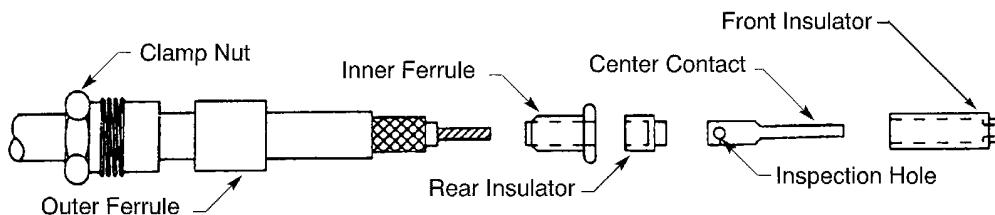
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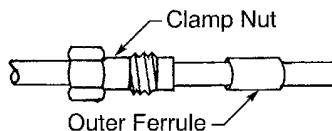


2446421 S00061547402_V1

249-1830-000 CONTACT CONFIGURATION
Figure 100

- (1) Make a selection of a ferrule crimp tool from Table 44.
- (2) Put these components on the cable in this sequence:
 - The clamp nut
 - The outer ferrule.

Refer to Figure 100.



2448104 S00061547403_V1

COMPONENTS ON THE CABLE
Figure 101

- (3) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
Keep the discarded end of the cable for Step 6.L.(4).
- (4) If the fit between the outside of the cable and the inside of the clamp nut can be improved with a layer of heat shrinkable sleeve on the cable:

NOTE: The clamp nut must be able to move and turn easily on a cable that has an increased diameter. It can be necessary to determine the fit between the clamp nut and a cable with an increased diameter on a short length of discarded cable.

 - (a) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be moved on the cable.
 - (b) Put a 2.00 inch ± 0.13 inch length of the heat shrinkable sleeve on the cable.
- (5) Prepare the cable.
Refer to:

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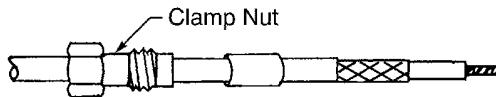
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ITT CANNON DPX, DPD, AND DPA CONNECTORS

- Figure 67
- Table 43
- Figure 102.



2448105 S00061547404_V1

CABLE PREPARATION

Figure 102

- Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
- CAUTION:** MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.
- Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.
 - Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (6) Put the inner ferrule on the cable. Refer to Figure 103.

Make sure that no strands of the shield are between the dielectric and the inner ferrule.

Make sure that the inner ferrule is:

- On the dielectric
- Under the shield
- Against the end of the cable jacket.

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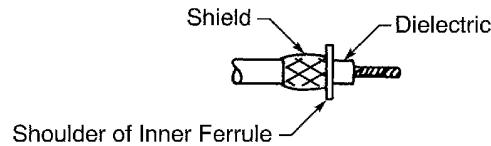
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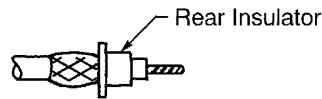


2448106 S00061547405_V1

INNER FERRULE ON THE CABLE

Figure 103

- (7) Put the strands of the shield on the inner ferrule.
- (8) Remove the unwanted length of the shield strands that extend beyond the rear edge of the shoulder of the inner ferrule.
- (9) Put the rear insulator on the cable. Refer to Figure 104.
Make sure that the rear insulator is against the cable dielectric.



2448107 S00061547406_V1

REAR INSULATOR ON THE CABLE

Figure 104

- (10) Tin the conductor.
- (11) Put the conductor into the solder barrel of the center contact. Refer to Figure 105.
Make sure that the conductor can be seen in the inspection hole of the contact.

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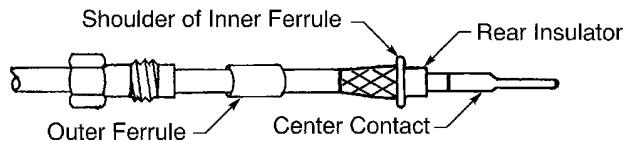
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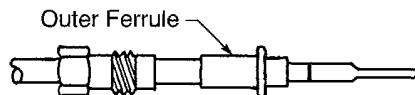


2448108 S00061547407_V1

POSITION OF THE CENTER CONTACT

Figure 105

- (12) Solder the contact to the conductor.
- (13) Push the outer ferrule forward on the shield and the inner ferrule until it is against the forward shoulder of the inner ferrule. Refer to Figure 106.



2448109 S00061547408_V1

OUTER FERRULE AGAINST THE SHOULDER OF THE INNER FERRULE

Figure 106

- (14) Crimp the outer ferrule.
Make sure that 0.13 inch of the jacket is below the outer ferrule.
- (15) If the heat shrinkable sleeve is on the cable:
 - (a) Move the sleeve forward until the forward end of the heat shrinkable sleeve is against the rear end of the outer ferrule.
 - (b) Shrink the sleeve into its position. Refer to Subject 20-10-14.
- (16) Put the front insulator on the front of the center contact. Refer to Figure 107.
Make sure that the front insulator is against the rear insulator.

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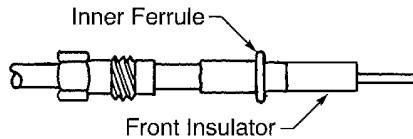
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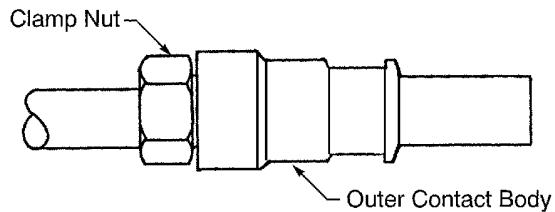


2448110 S00061547409_V1

FRONT INSULATOR ON THE CENTER CONTACT

Figure 107

- (17) Make a selection of a thread lock compound from Table 48.
- (18) Apply a drop of thread lock compound to the threads of the clamp nut.
- (19) Engage the threads of the contact body and the clamp nut. Refer to Figure 108.



2448111 S00061547410_V1

POSITION OF THE CLAMP NUT IN THE COMPLETED CONTACT ASSEMBLY

Figure 108

- (20) Hold the body of the contact and torque the clamp nut to 45 inch-pounds ± 5 inch-pounds.

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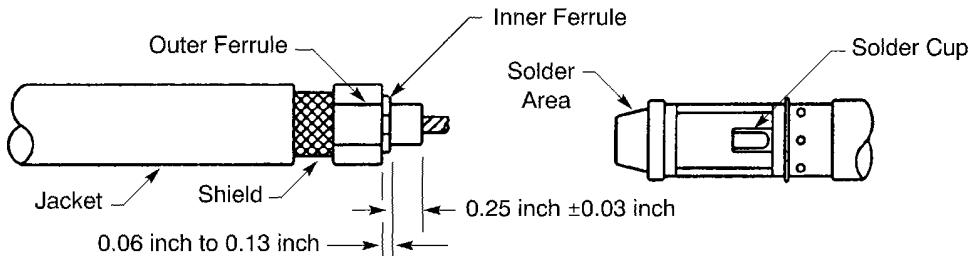
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M. Assembly of 249-1858-000 Contacts with RG-115 Cable



2446422 S00061547411_V1

249-1858-000 CONTACT CONFIGURATION
Figure 109

- (1) Remove the solder cup access cover from contact. Refer to Figure 109.
- (2) Put solder into the solder cup.
- (3) Tin the contact from the small end of the contact to the shoulder.
- (4) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.
 Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.
- (5) Put a $2.00 \text{ inch } \pm 0.06 \text{ inch}$ length of heat shrinkable sleeve on the cable.
- (6) Make a selection of the inner and outer ferrules from Table 14.
- (7) Put the outer ferrule on the cable.
- (8) Prepare the cable.
 Refer to Figure 67 and Table 43.
 - (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.
- (c) Push the end of the shield back on the cable.
- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (9) Remove the identification color dye from the inner ferrule.
- (10) Tin one end and the internal surface of the inner ferrule.
- (11) Make a selection of a ferrule crimp tool from Table 44.
- (12) Push the inner ferrule on the dielectric and below the shield braid.
 Make sure that:

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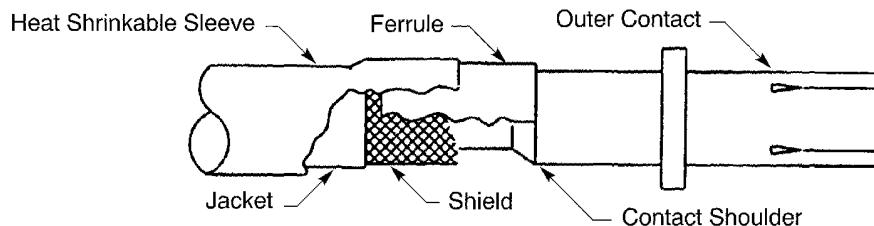


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- The tinned end is pointed forward to the end of the cable
 - The dielectric extends 0.25 inch ± 0.03 inch farther than the end of the ferrule.
- (13) Push the outer ferrule on the shield and the inner ferrule.
Make sure that 0.06 inch to 0.13 inch of the inner ferrule extends farther than the outer ferrule.
Refer to Figure 109.
- (14) Crimp the outer ferrule.
- (15) Remove the unwanted length of the shield strands that extend beyond the end of the outer ferrule.
- (16) Solder the center contact:
 - Hold the conductor on the solder cup of the contact.
 - Apply heat to the inner contact and push the conductor into the contact at the same time.
 - Remove the heat and hold the conductor in the contact until the solder becomes solid.
Make sure that the distance between the end of the dielectric and solder cup is less than 0.06 inch.
- (17) At the same time, apply heat to the inner ferrule and push the smaller end of the contact into the inner ferrule.
- (18) Remove the heat and hold the inner ferrule and the contact until solder becomes solid.
- (19) Put the solder cup access cover on the contact.
- (20) Push the sleeve on the ferrule and contact.
Make sure that the distance between the forward end of the sleeve and the surface of the connector insert is 0.06 inch maximum.
- (21) Shrink the sleeve into its position. Refer to Subject 20-10-14.

N. Assembly of 249-1959-000 Contacts with RG-223 Cable



2446423 S00061547412_V1

249-1959-000 CONTACT CONFIGURATION
Figure 110

- (1) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be moved on the cable jacket.
- (2) Put a 1.13 inch ± 0.06 inch length of the heat shrinkable sleeve on the cable.

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- (3) Prepare the cable.

Refer to Figure 67 and Table 43.

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
- (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.
- (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.

- (4) Tin the center conductor.

- (5) Put the conductor in the solder barrel of the inner contact.

Make sure that the conductor is against the bottom of the solder barrel.

- (6) Solder the conductor to the inner contact.

CAUTION: DO NOT PUT MORE THAN THE NECESSARY QUANTITY OF SOLDER ON THE CONTACT AND CONDUCTOR. UNWANTED SOLDER ON THE INNER CONTACT CAN PREVENT THE INSERTION OF THE CONTACT INTO THE FERRULE.

- (7) Tin the inner wall of the ferrule.

- (8) Put the ferrule on the cable.

- (9) Tin the outer contact from the back edge to the shoulder.

- (10) Move the shield away from the dielectric.

- (11) Push inner contact assembly into the outer contact until it stops. Refer to Figure 110.

- (12) Put the shield strands on the outer contact.

Make sure that the shield strands are even and symmetrical around the outer contact.

- (13) Push the ferrule forward on the shield until the forward end of the ferrule is against the shoulder of the outer contact. Refer to Figure 110.

- (14) Solder the ferrule.

CAUTION: DAMAGE TO THE CABLE CAN OCCUR WHEN HEAT IS APPLIED TO THE FERRULE FOR A LONGER TIME THAN NECESSARY TO MELT THE SOLDER.

- (15) Push the heat shrinkable sleeve on the ferrule until the end of the sleeve is aligned with the center of the ferrule. Refer to Figure 110.

- (16) Shrink the sleeve into its position. Refer to Subject 20-10-14.

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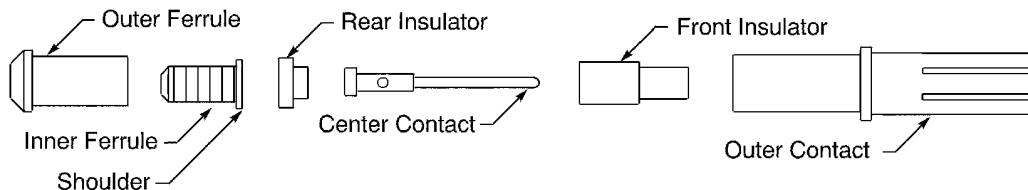
O. Assembly of 249-1982-000, 249-1983-000 and 249-2020-001 Coax Contacts

Table 50
COAX CENTER CONTACT CRIMP TOOLS

Coax Contact Part Number	Center Contact Attachment Procedure	Crimp Tool		
		Basic Unit	Locator	
			Part Number	Setting
249-1982-000	Solder	-	-	-
249-1983-000	Crimp	M22520/2-01	M22520/2-23	6
		M22520/2-01	K267-1	6
249-2020-001	Solder	-	-	-

Table 51
COAX OUTER CONTACT CRIMP TOOLS

Coax Contact	Crimp Tool		
	Basic Unit	Die	
		Part Number	Cavity
249-1982-000	M22520/5-01	M22520/5-45	A
		M22520/5-19	B
		KTH-2001	A
249-1983-000	M22520/5-01	M22520/5-45	A
		M22520/5-19	B
		KTH-2001	A
249-2020-001	M22520/5-01	M22520/5-45	A
		M22520/5-19	B
		KTH-2001	A



2448088 S00061547415_V1

ITT CANNON 249-1982-000, 249-1983-000 AND 249-2020-001 COAX CONTACT COMPONENTS
Figure 111

- (1) Put the outer ferrule on the cable.

Make sure that the larger end of the ferrule points rearward, away from the end of the cable.

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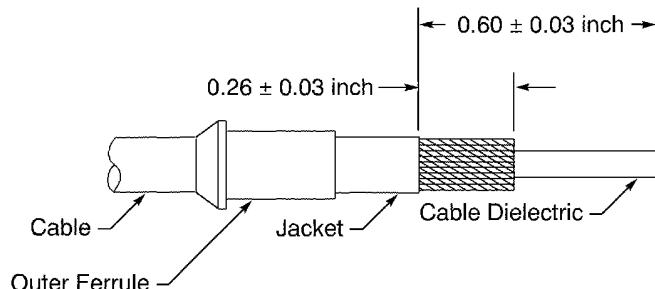
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- (2) Prepare the cable. Refer to Figure 112.



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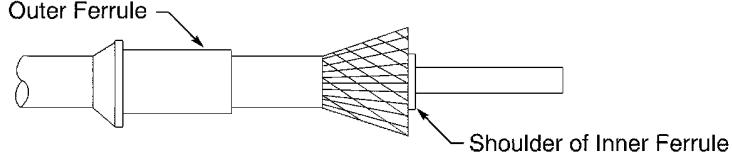
COAX CABLE TRIM DIMENSIONS

Figure 112

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to 0.60 inch ± 0.03 inch.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.
 - (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to 0.26 inch ± 0.03 inch.
- (3) Push the inner ferrule on the cable between the dielectric and the shield strands. Refer to Figure 113.

Make sure that the inner ferrule is under the shield.



2448090 S00061547417_V1

POSITION OF THE INNER FERRULE AND THE LENGTH OF THE SHIELD

Figure 113

- (4) Remove the strands of the flat shield from the end of the jacket forward to the end of the cable.
- (5) Remove the unwanted length of the shield strands that extend forward beyond the rear edge of the shoulder of the inner ferrule. Refer to Figure 113.
- (6) Put the strands of the shield against the inner ferrule. Refer to Figure 114.

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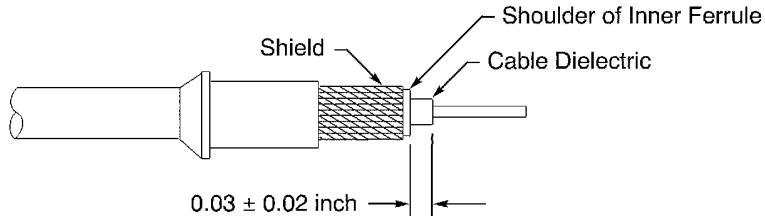
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Make sure that the shield strand ends are aligned with the rear edge of the shoulder of the inner ferrule.

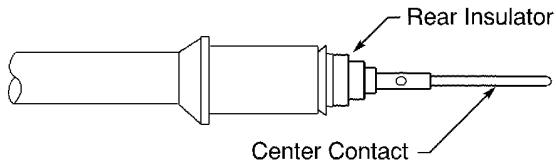


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POSITION OF THE SHIELD STRANDS REARWARD OF THE INNER FERRULE SHOULDER

Figure 114

- (7) Hold the inner ferrule in its location and, at the same time, push the outer ferrule forward until it is against the shoulder of the inner ferrule.
- (8) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the forward end of the inner ferrule equal to $0.03 \text{ inch} \pm 0.02 \text{ inch}$. Refer to Figure 114.
- (9) Put the rear insulator on the center conductor. Refer to Figure 115.
Make sure that the smaller end of the insulator points forward.



2448092 S00061547419_V1

POSITION OF THE REAR INSULATOR AND THE CENTER CONTACT

Figure 115

- (10) Put the center conductor into the wire barrel of the center contact. Refer to Figure 115.
- (11) Attach the center contact to the center conductor.
Refer to:
 - Table 50 for the attachment procedure and tools
 - Figure 115 for the position of the center contact
 - Subject 20-40-00 for the solder procedures, if solder is specified.
- (12) Put the front insulator on the center contact. Refer to Figure 116.
Make sure that the smaller end of the insulator points forward.

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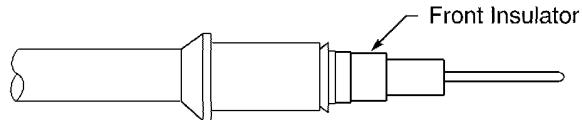
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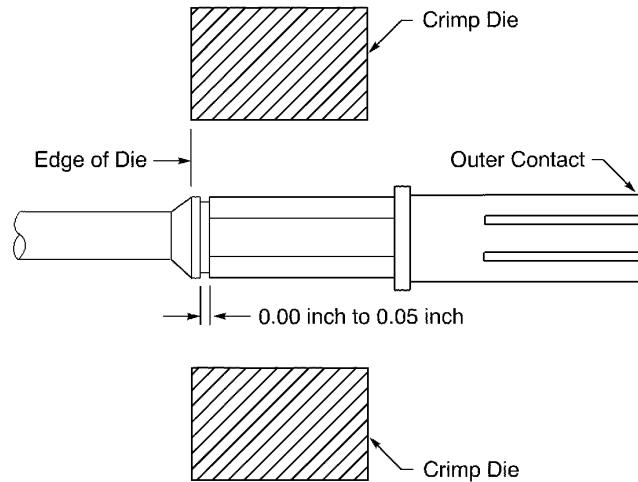
POSITION OF THE FRONT INSULATOR

Figure 116

- (13) Push the center contact assembly into the outer contact.
- (14) Make a selection of an outer contact crimp tool from Table 51.
- (15) Crimp the outer contact. Refer to Figure 117.

Make sure that:

- The edge of the crimp die is aligned with the rear end of the outer ferrule
- The distance between the shoulder of the outer ferrule and the rear edge of the outer contact is not more than 0.05 inch.



2448094 S00061547421_V1

CONFIGURATION OF THE COMPLETED COAX CONTACT ASSEMBLY

Figure 117

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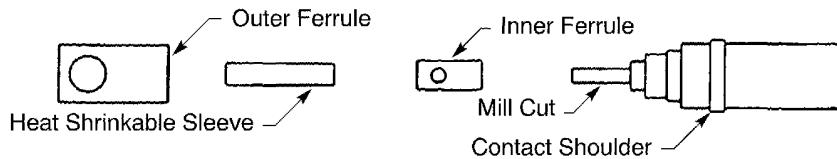
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P. Assembly of 249-5008-000 Contacts with BA-5903 Cable



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249-5008-000 CONTACT CONFIGURATION
Figure 118

- (1) Put the outer ferrule on the cable. Refer to Figure 118.
Make sure that the end of the ferrule that has the hole points rearward, away from the end of the cable.
 - (2) Prepare the cable.
Refer to Figure 67 and Table 43.
 - (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
 - (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

 - (c) Push the end of the shield back on the cable.
 - (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
 - (3) Tin the conductor.
 - (4) Put a 0.50 inch ± 0.03 inch length of 1/8 inch diameter TFE-R heat shrinkable sleeve on the cable.
Make sure that the sleeve is on the dielectric and below the shield.
- CAUTION:** DO NOT USE THE SLEEVE THAT IS SUPPLIED WITH THE CONTACT.
- (5) Push the inner ferrule on the heat shrinkable sleeve and below the shield strands.
Make sure that:
 - The end of the inner ferrule that has the hole points rearward, away from the end of the cable
 - The inner ferrule is between the heat shrinkable sleeve and the shield strands.
 - (6) Put the conductor in the solder cup of the contact.

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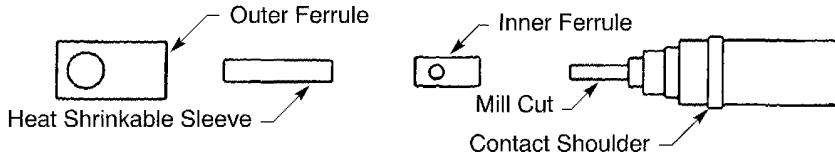


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- (7) Solder the conductor to the contact.
- (8) Push the heat shrinkable sleeve on the soldered contact until end of the sleeve is against the dielectric.
- (9) Put the inner ferrule on the contact.
Make sure that the hole in the ferrule is aligned with the mill cut side of the contact.
- (10) Solder the inner ferrule to the contact through the hole.
- (11) Put the shield strands on the inner sleeve.
Make sure that the shield strands are even and symmetrical around the sleeve.
- (12) Push the outer ferrule forward on the shield and the contact until the forward edge of the outer ferrule is against the shoulder of the contact.
- (13) Solder the outer ferrule to the contact through the hole in the outer ferrule.
- (14) Make a selection of heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the heat shrinkable sleeve has the smallest diameter that can be moved on the cable jacket.
- (15) Put the necessary length of heat shrinkable sleeve on the cable.
Make sure that:
 - The forward end of the sleeve is aligned with the rear edge of the shoulder of the contact
 - The distance from the rear end of the sleeve to the rear of the end of the outer ferrule is 0.50 inch minimum.
- (16) Shrink the sleeve into its position. Refer to Subject 20-10-14.

Q. Assembly of 249-5008-000 Contacts with Unshielded Wire



2446424 S00061547422_V1

249-5008-000 CONTACT CONFIGURATION
Figure 119

- (1) Discard the inner ferrule and the outer ferrule. Refer to Figure 119.
- (2) Remove the necessary length of the wire insulation to make the distance from the end of the insulation to the end of the conductor equal to Dimension C.
- (3) Tin the conductor.
- (4) Put the wire into the solder cup of the contact.
- (5) Solder the wire to the contact.

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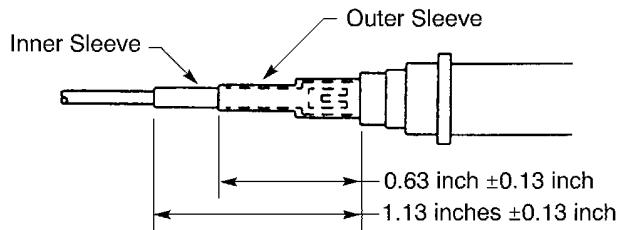
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- (6) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
- (7) Install the heat shrinkable sleeves. Refer to Figure 120.



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POSITION OF THE HEAT SHRINKABLE SLEEVES

Figure 120

- (a) Put a 1.13 inch ± 0.13 inch length of heat shrinkable sleeve on the solder cup and the wire.
- (b) Shrink the sleeve in position. Refer to Subject 20-10-14.
- (c) Put a 0.63 inch ± 0.06 inch length of heat shrinkable sleeve on the assembly.
- (d) Shrink the sleeve in position. Refer to Subject 20-10-14.

R. Assembly of 249-5027-004 Size 3 Coax Contacts for the DPX AC3 Insert

Table 52
NECESSARY MATERIALS

Description	Part Number	Supplier
Thread Lock Compound	222	Loctite

Table 53
NECESSARY TOOLS

Description	Supplier
Torque tool	An available source

- (1) Make a selection of a ferrule crimp tool from Table 44.
- (2) In sequence, put these components on the cable:
 - The clamp nut
 - The outer ferrule.

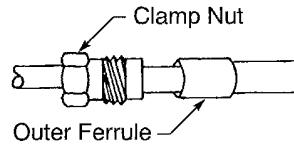
Refer to Figure 121.

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2448097 S00061547424_V1

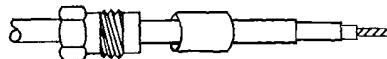
COMPONENTS ON THE CABLE

Figure 121

- (3) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
Keep the discarded end of the cable for Step 6.R.(4).
- (4) If the fit between the outside of the cable and the inside of the clamp nut can be improved with a layer of heat shrinkable sleeve on the cable:

NOTE: The clamp nut must be able to move and turn easily on a cable that has an increased diameter. It can be necessary to determine the fit between the clamp nut and a cable with an increased diameter on a short length of discarded cable.

 - (a) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be moved on the cable.
 - (b) Put a 2.00 inch ± 0.13 inch length of the heat shrinkable sleeve on the cable.
- (5) Prepare the cable.
Refer to:
 - Figure 67
 - Table 43
 - Figure 122.



2448098 S00061547425_V1

COMPONENTS ON THE PREPARED CABLE

Figure 122

- (a) Remove the necessary length of the cable jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

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CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (b) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.

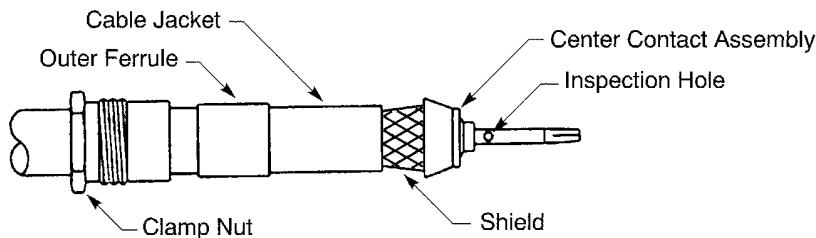
CAUTION: MAKE SURE THAT DAMAGE TO THE DIELECTRIC DOES NOT OCCUR. IF THE DIELECTRIC HAS DAMAGE, THE DIELECTRIC CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (6) Tin the center conductor.
- (7) Put the center contact assembly on the cable:

Refer to Figure 123.

Make sure that:

- All of the strands of the conductor are in the solder barrel of the center contact
- The inner ferrule is on the dielectric and below the shield
- The rear end of the inner ferrule is against the cable jacket
- The strands of the conductor can be seen in the inspection hole of the center contact
- No strands of the shield are between the dielectric and the center contact.



2446426 S00061547427_V1

CENTER CONTACT ASSEMBLY ON THE CABLE
Figure 123

- (8) Solder the center contact through the inspection hole.
- (9) Push the outer ferrule forward on the shield and the inner ferrule until it stops. Refer to Figure 124.

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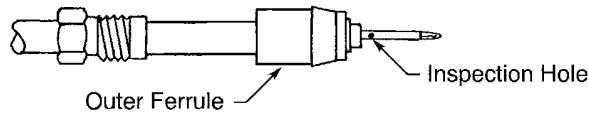
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2448099 S00061547428_V1

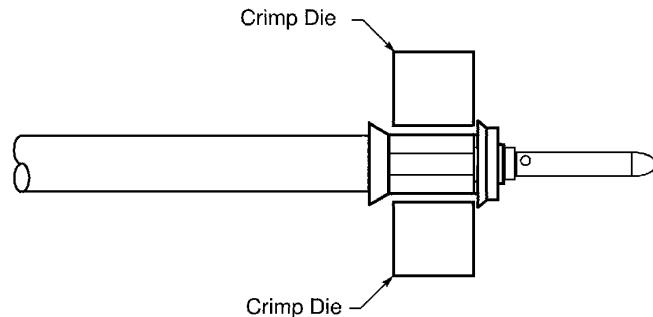
OUTER FERRULE AGAINST THE CENTER CONTACT

Figure 124

- (10) If necessary, remove the unwanted length of the shield strands that extend beyond the forward end of the outer ferrule.
- (11) Crimp the outer ferrule. Refer to Figure 125.

Make sure that:

- The gap between the forward end of the outer ferrule and the center contact is less than or equal to 0.07 inch
- The edge of the dies of the crimp tool are aligned with the forward edge of the outer ferrule



2448100 S00061547429_V1

POSITION OF THE CRIMP DIES FOR THE FIRST OUTER FERRULE CRIMP

Figure 125

- (12) Crimp the outer ferrule again. Refer to Figure 126.

Make sure that:

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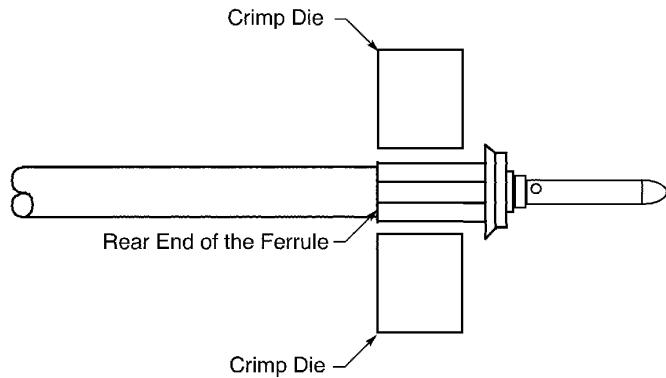
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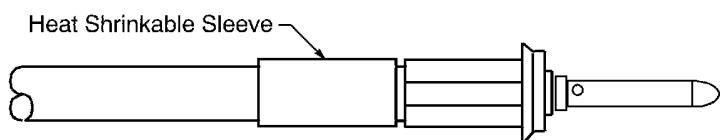
- The edge of the dies of the crimp tool are aligned with the rear edge of the outer ferrule.
- The dies of the crimp tool will crimp the bend in the outer ferrule made by the first crimp.



2448101 S00061547430_V1

POSITION OF THE CRIMP DIES FOR THE SECOND OUTER FERRULE CRIMP
Figure 126

- (13) If the heat shrinkable sleeve is on the cable:
Refer to Figure 127.



2448102 S00061547431_V1

POSITION OF THE HEAT SHRINKABLE SLEEVE
Figure 127

- Move the sleeve forward until the forward end of the heat shrinkable sleeve is against the rear end of the outer ferrule.
 - Shrink the sleeve into its position. Refer to Subject 20-10-14.
- (14) Push the center contact assembly into the outer contact body.
(15) Make a selection of a thread lock compound from Table 52.

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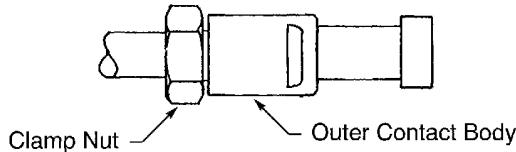
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- (16) Apply a drop of thread lock compound to the threads of the clamp nut.
- (17) Engage the threads of the outer contact body and the clamp nut. Refer to Figure 128.



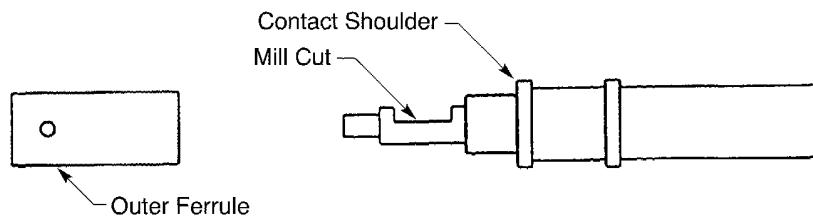
2448103 S00061547432_V1

POSITION OF THE CLAMP NUT IN THE COMPLETED CONTACT ASSEMBLY
Figure 128

- (18) Hold the body of the contact and torque the clamp nut to 95 inch-pounds ± 5 inch-pounds.

S. Assembly of 249-9104-000 Contacts with RG-223 Cable

This paragraph gives the procedure to assemble the contacts for the DPAMA() connectors.



2446427 S00061547433_V1

249-9104-000 CONTACT CONFIGURATION
Figure 129

- (1) Prepare the cable.

Refer to Figure 67 and Table 43.

- (a) Cut the cable to make the end of the cable perpendicular to the longitudinal axis of the cable.
- (b) Remove the necessary length of the outer jacket to make the distance from the end of the jacket to the end of the cable equal to Dimension A.

CAUTION: MAKE SURE THAT DAMAGE TO THE SHIELD DOES NOT OCCUR. IF THE SHIELD IS CUT TO MAKE IT POSSIBLE TO SEE THE BASE METAL OF THE SHIELD STRANDS, THE SHIELD CAN GIVE UNSATISFACTORY PERFORMANCE.

- (c) Put the outer ferrule on the cable. Refer to Figure 129.

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Make sure that the end of the ferrule that has the hole points away from the end of the cable.

- (d) Push the end of the shield back on the cable.
- (e) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (2) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be moved on the outer ferrule.
- (3) Put a 2.00 inch ± 0.13 inch length of 1/4 inch diameter heat shrinkable sleeve on the cable.
- (4) Tin the conductor.
- (5) Put the cable in the contact. Refer to Figure 129.
Make sure that the mill end of the solder cup points to the end of the cable.
- (6) Solder the conductor to the contact.
- (7) Move the strands of the shield apart.
- (8) Put the shield on the contact.
Make sure that the shield is even and symmetrical around the contact.
- (9) Push the outer ferrule forward on the shield until the end of the outer ferrule is against the shoulder of the contact.
- (10) Solder the outer ferrule to the contact through the hole in the outer ferrule.
- (11) Put the 2.00 inch ± 0.13 inch length of 1/4 inch diameter heat shrinkable sleeve on the outer ferrule.
Make sure that the end of the heat shrinkable sleeve is against the contact shoulder.
- (12) Shrink the sleeve into its position. Refer to Subject 20-10-14.

7. CONNECTOR ASSEMBLY

A. Contact Insertion

NOTE: If a backshell is specified, the necessary backshell components must be installed on the wire harness before the insertion of the contacts into the connector.

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Table 54
CONTACT INSERTION TOOLS

Contact Size	Insertion Tool	
	Part Number	Size
2222	282880	22
	8660-162	
	ATBO1054	
	CIET-22	
	CIET-22DPXMA	
	CIT-DPXMA-22-1	
	DAK266	
	DAK266J	
	M81969/1-01	
	MS3156-22	
2020HD	282881	20HD
	91066-4	
	ATC2073	
	CIET	
	CIET-20 HDL	
	DAK145J	
	M81969/1-02	
2020	MS3156-20	20
	CIET-20	
1616	282892	16
	282929	
	91066-3	
	DAK55-16	
	M81969/1-03	
	MS3156-16	
	CIET-12	
1212	M81969/28-02	12
	MS3178-002	
0808	-	-
0406	-	-

- (1) Make a selection of an insertion tool from Table 54.

It is not necessary to use a tool to insert contacts that are larger than size 20.

- (2) Put the contact assembly in the insert tool.

Make sure that the end of the tool is against the rear shoulder of the contact.

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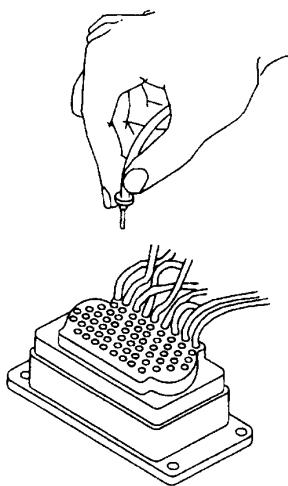


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- (3) Axially align the insertion tool, the contact, and the contact cavity at the rear of the connector.
- (4) Carefully push the contact into the contact cavity until it stops. Refer to Figure 130.
Make sure that the contact and the insertion tool stay axially aligned with contact cavity.

CAUTION: DO NOT TURN THE INSERT TOOL IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.



2446388 S00061547435_V1

MANUAL CONTACT INSERTION
Figure 130

- (5) Carefully pull the tool out of the contact cavity.
- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:
 - (a) Pull the contact assembly out of the contact cavity.
 - (b) Do Step 7.A.(2) through Step 7.A.(6) again.

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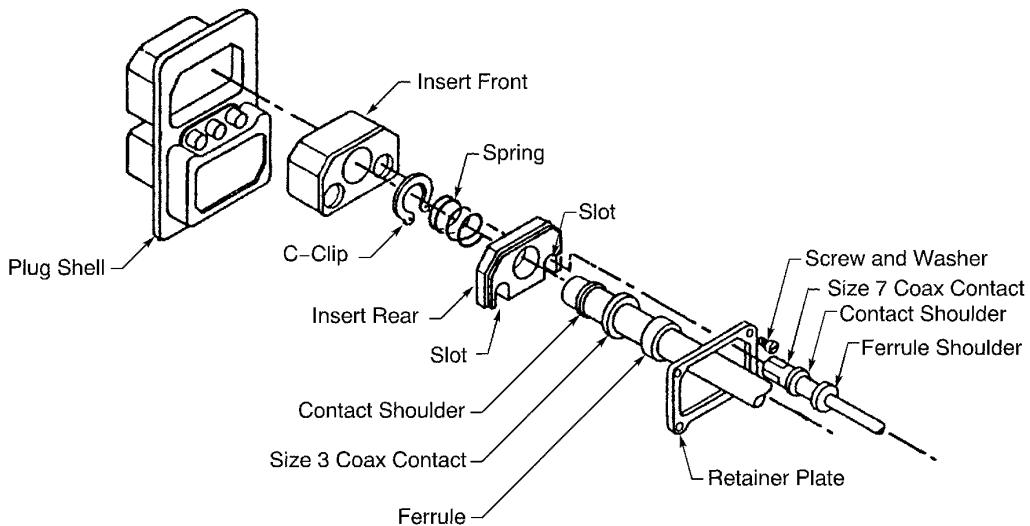
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B. Installation of Coax Contacts in the DPX AC3 Insert

Table 55
NECESSARY TOOLS

Description	Supplier
Snap Ring Pliers	An available source
Screwdriver	An available source



2448096 S00061547347_V1

DPX AC3 INSERT ASSEMBLY

Figure 131

Refer to Figure 131:

- (1) Put the large coax contact through the retainer plate.
- (2) Push the large coax contact into the large cavity in the insert rear.
Make sure that the side of the insert rear that has the contact identification numbers points rearward.
- (3) Put the spring on the front of the large coax contact forward of the insert rear.
- (4) Make a selection of a snap-ring pliers from Table 55.
- (5) Use the snap-ring pliers to put the C-clip on the large coax contact rearward of the contact shoulder and forward of the spring.

Make sure that:

- The C-clip is located between the spring and the rear edge of the contact shoulder.
- The ground face side of the C-clip that has the sharp corners points forward against the rear edge of the contact shoulder.

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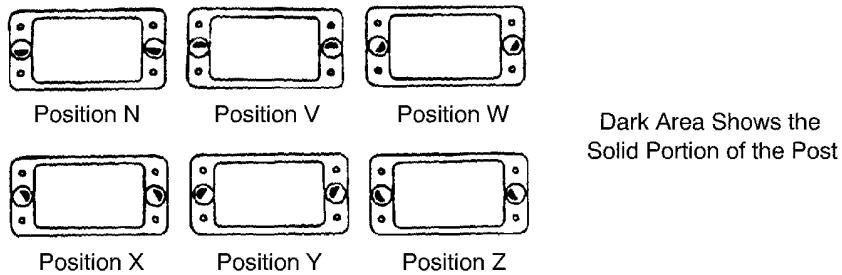
- (6) Release the C-clip from the pliers.
Make sure that the C-clip is in its correct position on the contact.
- (7) Put the small coax contacts through the retainer plate.
- (8) Put the small coax contacts into the slots in the insert rear.
Make sure that the insert rear is on the small coax contacts between the ferrule shoulder and the contact shoulder.
- (9) At the rear of the connector, hold the insert rear assembly with the hand and align the ends of the contacts with the holes in the insert front.
- (10) Push the insert rear assembly forward into the connector until the insert rear is against the insert front.
- (11) Move the retainer plate forward on the cables and into its position on the rear of the connector.
Make sure that the retainer plate is flat against the connector shell.
- (12) Attach the retainer plate to the connector shell with the four screws and washers that are supplied with the connector.
- (13) Tighten the retainer plate screws.

C. Seal Plug or Spare Contact Installation

- (1) Install a spare contact or a seal plug into each contact cavity that does not have a wired contact.
Refer to Subject 20-60-08.

8. CONNECTOR POLARIZATION AND THE CONNECTOR PART NUMBER

A. DPD Connectors



2446383 S00061547436_V1

POLARIZATION OF A SINGLE GANG DPD PLUG CONNECTOR
Figure 132

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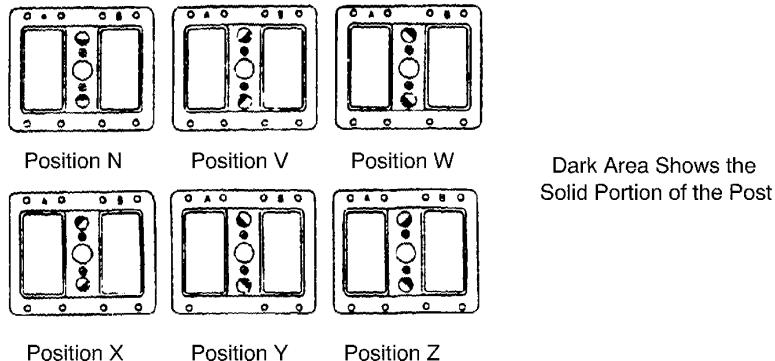
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2446384 S00061547437_V1

POLARIZATION OF A TWO GANG DPD PLUG CONNECTOR

Figure 133

B. DPX Connectors



2446385 S00061547438_V1

POLARIZATION POST POSITIONS

Figure 134

NOTE: For the plug, the dark area shows the polarization post. For the receptacle, the dark area shows the solid part of the polarization key.

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Table 56
CONNECTOR POLARIZATION - POST AND KEY POSITIONS

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
01	4	4	4	1	1	1
02	4	4	3	2	1	1
03	4	4	2	3	1	1
04	4	4	1	4	1	1
05	4	4	6	5	1	1
06	4	4	5	6	1	1
07	5	4	4	1	1	6
08	5	4	3	2	1	6
09	5	4	2	3	1	6
10	5	4	1	4	1	6
11	5	4	6	5	1	6
12	5	4	5	6	1	6
13	6	4	4	1	1	5
14	6	4	3	2	1	5
15	6	4	2	3	1	5
16	6	4	1	4	1	5
17	6	4	6	5	1	5
18	6	4	5	6	1	5
19	1	4	4	1	1	4
20	1	4	3	2	1	4
21	1	4	2	3	1	4
22	1	4	1	4	1	4
23	1	4	6	5	1	4
24	1	4	5	6	1	4
25	2	4	4	1	1	3
26	2	4	3	2	1	3
27	2	4	2	3	1	3
28	2	4	1	4	1	3
29	2	4	6	5	1	3
30	2	4	5	6	1	3
31	3	4	4	1	1	2
32	3	4	3	2	1	2
33	3	4	2	3	1	2
34	3	4	1	4	1	2

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Table 56 CONNECTOR POLARIZATION - POST AND KEY POSITIONS (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
35	3	4	6	5	1	2
36	3	4	5	6	1	2
37	4	3	4	1	2	1
38	4	3	3	2	2	1
39	4	3	2	3	2	1
40	4	3	1	4	2	1
41	4	3	6	5	2	1
42	4	3	5	6	2	1
43	5	3	4	1	2	6
44	5	3	3	2	2	6
45	5	3	2	3	2	6
46	5	3	1	4	2	6
47	5	3	6	5	2	6
48	5	3	5	6	2	6
49	6	3	4	1	2	5
50	6	3	3	2	2	5
51	6	3	2	3	2	5
52	6	3	1	4	2	5
53	6	3	6	5	2	5
54	6	3	5	6	2	5
55	1	3	4	1	2	4
56	1	3	3	2	2	4
57	1	3	2	3	2	4
58	1	3	1	4	2	4
59	1	3	6	5	2	4
60	1	3	5	6	2	4
61	2	3	4	1	2	3
62	2	3	3	2	2	3
63	2	3	2	3	2	3
64	2	3	1	4	2	3
65	2	3	6	5	2	3
66	2	3	5	6	2	3
67	3	3	4	1	2	2
68	3	3	3	2	2	2

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Table 56 CONNECTOR POLARIZATION - POST AND KEY POSITIONS (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
69	3	3	2	3	2	2
70	3	3	1	4	2	2
71	3	3	6	5	2	2
72	3	3	5	6	2	2
73	4	2	4	1	3	1
74	4	2	3	2	3	1
75	4	2	2	3	3	1
76	4	2	1	4	3	1
77	4	2	6	5	3	1
78	4	2	5	6	3	1
79	5	2	4	1	3	6
80	5	2	3	2	3	6
81	5	2	2	3	3	6
82	5	2	1	4	3	6
83	5	2	6	5	3	6
84	5	2	5	6	3	6
85	6	2	4	1	3	5
86	6	2	3	2	3	5
87	6	2	2	3	3	5
88	6	2	1	4	3	5
89	6	2	6	5	3	5
90	6	2	5	6	3	5
91	1	2	4	1	3	4
92	1	2	3	2	3	4
93	1	2	2	3	3	4
94	1	2	1	4	3	4
95	1	2	6	5	3	4
96	1	2	5	6	3	4
97	2	2	4	1	3	3
98	2	2	3	2	3	3
99	2	2	2	3	3	3

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C. Change of the Polarization Posts and Keys

(1) Posts:

- (a) Remove the nut and washer from the threaded end of the post.
- (b) Remove the post from the hexagonal hole in the connector shell.
- (c) Align the post with the correct position.
- (d) Put the post back into the hexagonal hole.
Make sure that the post is in the correct position.
- (e) Put the washer and nut on the threaded end of the post.
- (f) Tighten the nut.

(2) Keys:

- (a) Remove the screws from the retainer plate.
- (b) Remove the retainer plate from the connector shell.
- (c) Remove the key from the hexagonal hole.
- (d) Align the key with the correct position.
- (e) Put the key back into the hexagonal hole.
Make sure that the post or key is in the correct position.
- (f) Put the retainer plate over the keys.
- (g) Install and tighten the screws.

D. Change of the Polarization Code, Any Part of the Connector Part Number, or the Complete Part Number on the Connector Shell

**Table 57
NECESSARY MATERIALS**

Material	Part Number	Supplier
Ink	No. 68 Fast Dry	Independent
	No. 73X NW Opaque	Independent
	No. 73X Opaque	Independent
Paint, Clear	683-3-2	Akzo
	Clear Lacquer	Tartan
	EC-776	3M
	EC-776SR	3M
Pen	Permanent Ink Pen, Ultra Fine Point	Sanford Sharpie

(1) Make a selection of these necessary materials from Table 57:

- An ink or a permanent ink pen
- A clear paint.

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- (2) If the connector does not have a part number or a polarization code, write the part number and the polarization code in the correct position on the connector shell.
Refer to Paragraph 1.C. for the details of the applicable connector part number.
- (3) If the part number or the polarization code on the connector is incorrect:
 - (a) Apply a layer of ink on the incorrect part number and polarization code on the connector shell.
Make sure that the incorrect part number and polarization code cannot be read.
 - (b) Write the new part number or polarization code on the connector shell:
 - Adjacent to the location of the incorrect part number and polarization code
 - In the correct position on the connector shell.Refer to Paragraph 1.C. for the details of the applicable connector part number.
- (4) Let the ink dry for a minimum of 10 minutes.
- (5) Apply a layer of clear paint on the part number on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

- (6) Let the paint dry before the connector shell is touched or moved.

9. APPROVED TOOL SUPPLIERS

A. Insertion and Removal Tools

Table 58
INSERTION AND REMOVAL TOOL SUPPLIERS

Tool	Supplier
282880	Radiall
282881	Radiall
282890	Radiall
282891	Radiall
282892	Radiall
282929	Radiall
282943	Radiall
282945	Radiall
8660-162	Souriau
91066-1	AMP
91066-2	AMP
91066-3	AMP
91066-4	AMP
91078-1	AMP

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Table 58 INSERTION AND REMOVAL TOOL SUPPLIERS (Continued)

Tool	Supplier
ATBO1054	Astro
ATBO2054	Astro
ATC1054	Astro
ATC2073	Astro
ATR1080	Astro
ATR2080	Astro
CE912-4	ITT Cannon
CET-DPXMA-22	ITT Cannon
CET-12-4	ITT Cannon
CET-4-8	ITT Cannon
CET-C4	ITT Cannon
CET-C8	ITT Cannon
CET-C11	ITT Cannon
CET-16-15	ITT Cannon
CET-16-9	ITT Cannon
CET-20	ITT Cannon
CET-20-8	ITT Cannon
CET-20D-1	ITT Cannon
CET-8-2	ITT Cannon
CIET	ITT Cannon
CIET-12	ITT Cannon
CIET-20	ITT Cannon
CIET-20 HDL	ITT Cannon
CIET-22	ITT Cannon
CIET-22DPXMA	ITT Cannon
CIT-DPXMA-22-1	ITT Cannon
DAK145J	Daniels
DAK266	Daniels
DAK266J	Daniels
DAK55-16	Daniels
DRK145	Daniels
DRK2663	Daniels
DRK266J	Daniels
DRK83-16	Daniels
M81969/1-01	QPL

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Table 58 INSERTION AND REMOVAL TOOL SUPPLIERS (Continued)

Tool	Supplier
M81969/1-02	QPL
M81969/1-03	QPL
M81969/14-10	QPL
M81969/14-11	QPL
M81969/28-02	QPL
MS3156-16	QPL
MS3156-20	QPL
MS3156-22	QPL
MS3178-002	QPL
ST2220-3-33	Boeing
ST2220-3-6	Boeing
ST2220-3-7	Boeing

B. Crimp Tool Suppliers

**Table 59
CRIMP TOOL SUPPLIERS**

Crimp Tool	Supplier
11148	Buchanan
11637-1	Buchanan
11732	Thomas & Betts
13642	Thomas & Betts
400B	Pico
4046A	Pico
414DA-8N	Pico
612648	Buchanan
612807	Buchanan
612916	Buchanan
614019	Buchanan
AF8	Daniels
AMT23B	Astro
AMT23002DA	Astro
AMT23004DA	Astro
AMT23009L	Astro
AMT23011L	Astro
CBT-600B	ITT Cannon
CCHP-8-6	ITT Cannon

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Table 59 CRIMP TOOL SUPPLIERS (Continued)

Crimp Tool	Supplier
CCT408M	ITT Cannon
CCTDM	ITT Cannon
KTH-1000	Kings
KTH-2004	Kings
KTH-2233	Kings
KTH-2235	Kings
M22520/1-01	QPL
M22520/1-02	QPL
M22520/1-11	QPL
M22520/2-01	QPL
M22520/2-02	QPL
M22520/2-08	QPL
M22520/2-23	QPL
M22520/5-01	QPL
M22520/5-25	QPL
M22520/23-01	QPL
M22520/23-02	QPL
M22520/23-04	QPL
M22520/23-09	QPL
M22520/23-11	QPL
MS3191-1	QPL
MS3191-12	QPL
MS3191-16	QPL
MS3191-20	QPL
P20-3191-1	ITT Cannon
P20-3191-2	ITT Cannon
ST2352-5-2	Boeing
ST2352-5-Y	Boeing
ST2354-5	Boeing
ST2966M	Boeing
ST2966M-16	Boeing
ST965	Boeing
ST965-06	Boeing
ST965-1	Boeing
ST965A-6	Boeing

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Table 59 CRIMP TOOL SUPPLIERS (Continued)

Crimp Tool	Supplier
ST965B-6	Boeing
TH1A	Daniels
WA22	Daniels
WA23	Daniels
WA23-11	Daniels
WA23-2	Daniels
WA23-4	Daniels
WA23-9	Daniels
WA27F	Daniels
WT-206	Thomas & Betts
WT-208	Thomas & Betts
WT-210	Thomas & Betts
WT-214	Thomas & Betts
WT-218	Thomas & Betts
WT202-06-08	Thomas & Betts
Y322	Daniels
Y823	Daniels

**Table 60
SUPPLIERS FOR CRIMP TOOLS FOR BACC47DE CONTACTS**

Part Number	Supplier
AMK-11	Burndy
AM2-4	Burndy
AP27SA	Daniels
AM4D-1	Burndy
D30	Daniels
M10S-1	Burndy
S-1	Burndy
SL-53	Burndy
TP904	Daniels
WA22HPB	Daniels
WA27FAP	Daniels
WA27XF	Daniels
YDD-1	Burndy
YD2-1	Burndy

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1. PART NUMBERS AND DESCRIPTION

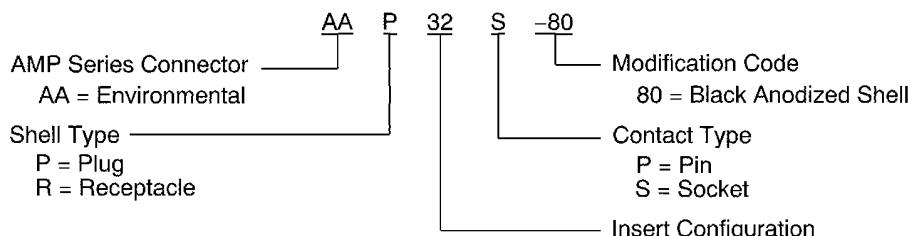
A. Connector Part Numbers

Table 1
CONNECTOR PART NUMBERS

Part Number	Supplier	Reference
10-61430-222-()	Boeing	Table 2
10-61430-411-()	Boeing	Table 2
213()	Amphenol	Figure 3
AA()	AMP	Figure 1
AD()	AMP	Figure 2
AM()	AMP	Figure 2
AMS()	AMP	Figure 2
BD()	AMP	Figure 2

Table 2
10-61430-() CONNECTOR PART NUMBERS

Boeing Standard	Part Number	Supplier	Reference
10-61430-222-()	213-2P57S57S-02()	Amphenol	Figure 3
10-61430-222-()	AM2P57S57S-00()	AMP	Figure 2
10-61430-411-()	213-2R57P57P-02()	Amphenol	Figure 3
10-61430-411-()	AM2R57P57P-00()	AMP	Figure 2



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AMP AA SERIES CONNECTOR PART NUMBER STRUCTURE

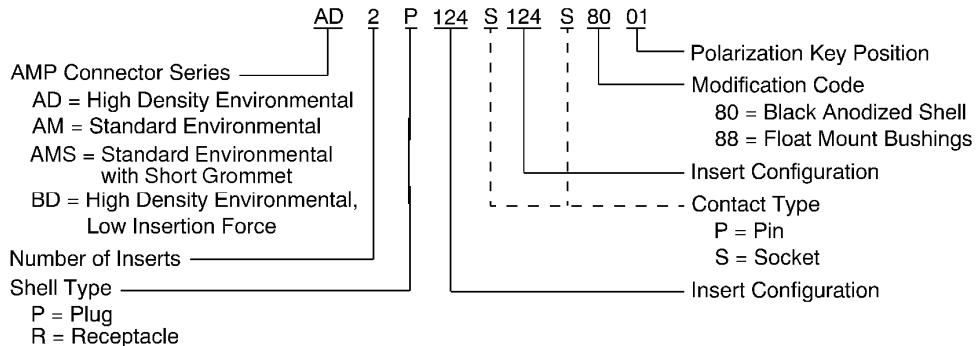
Figure 1

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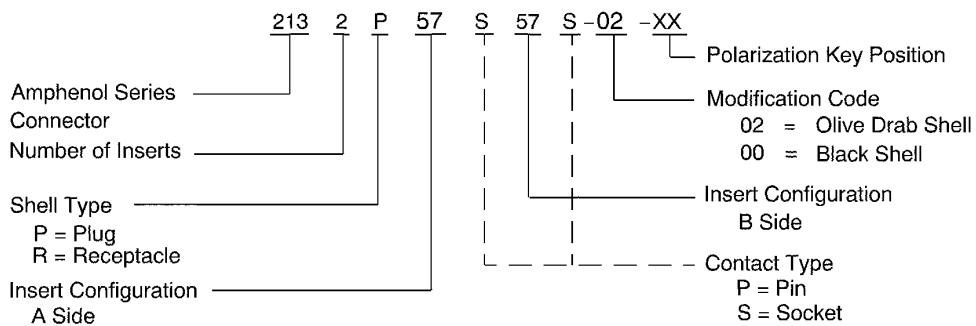
ASSEMBLY OF AMP (TYCO) AA, AD, AM, AND BD CONNECTORS AND AMPHENOL 213 CONNECTORS



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AMP AD, AM, AND BD SERIES CONNECTOR PART NUMBER STRUCTURE

Figure 2



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AMPHENOL 213 SERIES CONNECTOR PART NUMBER STRUCTURE

Figure 3

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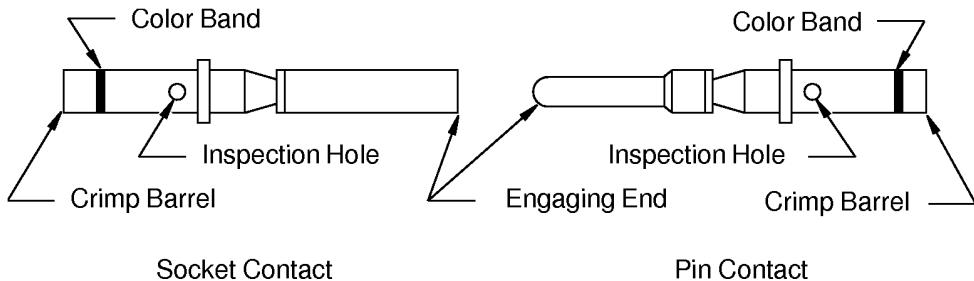
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B. Contact Part Numbers



2449041 S00061546617_V1

FRONT RELEASE CONTACTS

Figure 4

20 20
Engaging End Size Crimp Barrel Size

2446651 S00061545900_V1

EXAMPLE OF A CONTACT SIZE

Figure 5

NOTE: The size Sub-20 high density contact has a size 20 engaging end and a size 20 crimp barrel.

Table 3
CONTACT SELECTION

Connector	Contact Type	Reference
10-61430-222-()	Standard	Table 4
10-61430-411-()	Coax	Table 6
213()	Standard	Table 4
AA()	Standard	Table 4
AD()	Standard	Table 4
	Coax	Table 6
AM()	Standard	Table 4
	Coax	Table 6
BD()	Low Insertion Force	Table 5

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Table 4
STANDARD FRONT RELEASE CONTACT PART NUMBERS

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
2020	20	20	Pin	203768-2	AMP
				213-36001-03	Amphenol
			Socket	203767-1	AMP
				213-36000-03	Amphenol
Sub-20	20	20	Pin	203840-2	AMP
				213-36017-03	Amphenol
			Socket	203841-1	AMP
				213-36009-03	Amphenol
1616	16	16	Pin	203884-2	AMP
				213-36018-03	Amphenol
			Socket	203885-1	AMP
				213-36012-03	Amphenol

Table 5
LOW INSERTION FORCE CONTACT PART NUMBERS

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
Sub-20	20	20	Socket	445591-1	AMP

Table 6
COAX CONTACT PART NUMBERS

Contact Size	Contact Type	Part Number	Supplier
1	Socket	51781-1	AMP

C. Key Post Screw Part Numbers

Table 7
REPLACEMENT KEY POST SCREW PART NUMBERS

Connector Series	Part Number	Supplier
AMP AD	MS35190-212	QPL
AMP AM	MS35190-212	QPL
AMP BD	MS35190-212	QPL

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2. INSERT CONFIGURATIONS

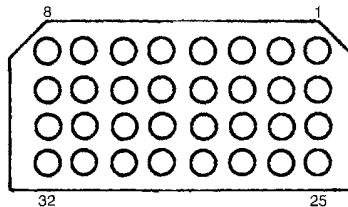
A. AMP AA Series Connectors

NOTE: The contact cavity size that is specified in Table 8 is equivalent to the size of the engaging end of the contact.

Table 8
AMP AA SERIES INSERT CONFIGURATIONS

Insert Configuration	Contact Cavity		Reference
	Count	Size	
32	32	Sub-20	Figure 6

NOTE: Figure 6 shows the rear face of an insert that has sockets. The view of the rear face of an insert that has pins is the mirror image of this view.



2446923 S00061547444_V1

INSERT CONFIGURATION 32

Figure 6

B. AMP AD and AM Series Connectors

NOTE: The contact cavity size that is specified in Table 9 is equivalent to the size of the engaging end of the contact.

Table 9
AMP AD AND AM SERIES INSERT CONFIGURATIONS

Insert Configurations	Contact Cavity		Connector Part Number Modification Code	Reference
	Count	Size		
44	44	20	00, 03, 13, 25, 98, 99	Figure 7
		Sub-20	All other codes	
57	57	20	00, 03, 13, 25, 98, 99	Figure 8
		Sub-20	All other codes	
67	64	20	00, 03, 13, 25, 98, 99	Figure 9
		Sub-20	All other codes	
	3	16	-	

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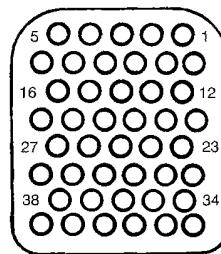
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ASSEMBLY OF AMP (TYCO) AA, AD, AM, AND BD CONNECTORS AND AMPHENOL 213 CONNECTORS

Table 9 AMP AD AND AM SERIES INSERT CONFIGURATIONS (Continued)

Insert Configurations	Contact Cavity		Connector Part Number Modification Code	Reference
	Count	Size		
124	124	20	00, 03, 13, 25, 98, 99	Figure 10
		Sub-20	All other codes	
C2	2	1	-	Figure 11

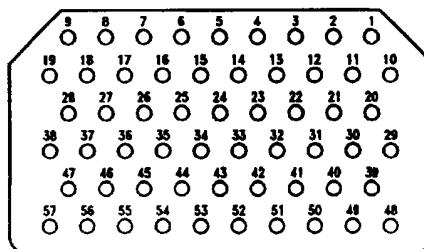
NOTE: Figure 7 through Figure 11 show the rear face of an insert that has sockets. The view of the rear face of an insert that has pins is the mirror image of this view.



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INSERT CONFIGURATION 44

Figure 7



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INSERT CONFIGURATION 57

Figure 8

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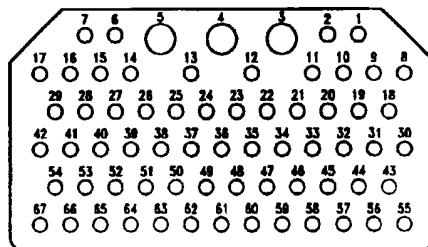
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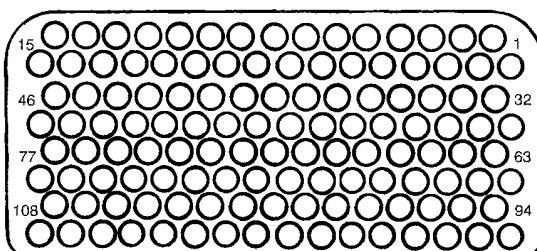
**ASSEMBLY OF AMP (TYCO) AA, AD, AM, AND BD CONNECTORS AND AMPHENOL 213
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INSERT CONFIGURATION 67

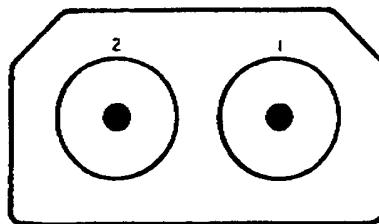
Figure 9



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INSERT CONFIGURATION 124

Figure 10



2447592 S00061547449_V1

INSERT CONFIGURATION C2

Figure 11

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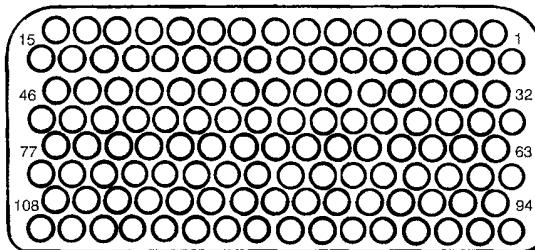
C. AMP BD Series Connectors

NOTE: The contact cavity size that is specified in Table 10 is equivalent to the size of the engaging end of the contact.

Table 10
AMP BD SERIES INSERT CONFIGURATIONS

Insert Configuration	Contact Cavity		Reference
	Count	Size	
124	124	20	Figure 12

NOTE: Figure 12 shows the rear face of an insert that has sockets. The view of the rear face of an insert that has pins is the mirror image of this view.



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INSERT CONFIGURATION 124
Figure 12

D. Amphenol 213 Series Connectors

NOTE: The contact cavity size that is specified in Table 11 is equivalent to the size of the engaging end of the contact.

Table 11
AMPHENOL 213 SERIES INSERT CONFIGURATIONS

Insert Configuration	Contact Cavity		Reference
	Count	Size	
57	57	20	Figure 13
67	64	Sub-20	Figure 14
	3	16	

NOTE: Figure 13 through Figure 14 show the rear face of an insert that has sockets. The view of the rear face of an insert that has pins is the mirror image of this view.

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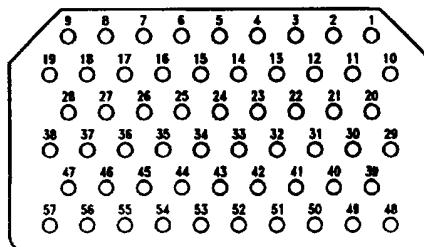
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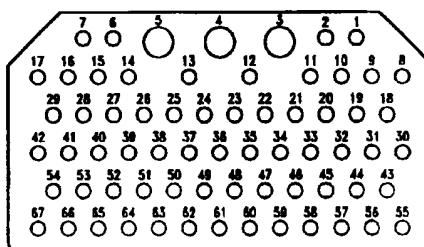
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INSERT CONFIGURATION 57

Figure 13



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INSERT CONFIGURATION 67

Figure 14

3. CONNECTOR DISASSEMBLY

A. Seal Plug and Seal Rod Removal

Table 12
NECESSARY TOOLS

Tool	Type
Pliers	Needle Nose

- (1) Make a selection of a pliers from Table 12.

CAUTION: MAKE SURE THE PLIERS HAVE SMOOTH SURFACES AND NO SHARP EDGES. PLIERS WITH A ROUGH SURFACE OR A SHARP EDGE CAN CAUSE DAMAGE TO THE REAR GROMMET.

- (2) If it is necessary, remove a plastic tie strap or a wire harness tie that is less than 6 inches from the connector.
- (3) Hold the end of the seal plug or the seal rod tightly in the jaws of the pliers.
- (4) Pull the seal plug or the seal rod from the contact cavity.

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B. Contact Removal

This Paragraph gives the procedure to remove standard contacts. For the procedure to remove coax contacts, refer to Paragraph 3.C.

Table 13
CONTACT REMOVAL TOOLS

Engaging End Size	Removal Tool		
	Basic Unit	Tip	Color
20	ATA2079	-	-
	ATSE2070	-	-
	294-280	-	Red
	91040-2	126118-2	Red
Sub-20	DRK56-22A	-	-
	M81969/34-01	-	-
	91040-1	126118-1	Green
16	ATF2115	-	-
	DRK56-16	-	-
	294-219	-	Blue
	91040-3	126118-3	Blue

- (1) Make a selection of a contact removal tool from Table 13.
- (2) Axially align the tool and the contact cavity at the front face of the connector. Refer to Figure 15.
Make sure that the plunger of the removal tool is fully retracted.

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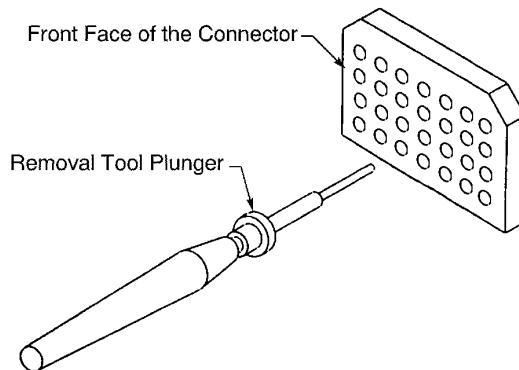
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2447598 S00061547450_V1

ALIGNMENT OF THE CONTACT REMOVAL TOOL AND THE CONTACT CAVITY

Figure 15

- (3) Push the tool into the contact cavity until it stops. Refer to Figure 16.

CAUTION: DO NOT USE MORE FORCE THAN THE FORCE THAT IS NECESSARY TO PUSH THE REMOVAL TOOL INTO THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.

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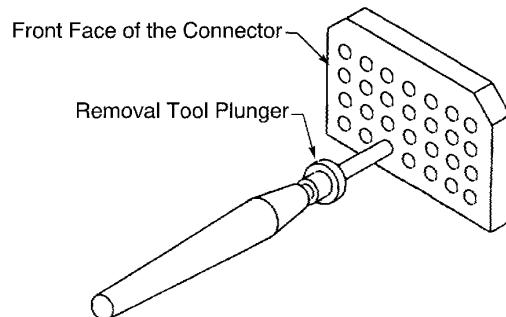
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POSITION OF THE CONTACT REMOVAL TOOL IN THE CONTACT CAVITY

Figure 16

- (4) Push the plunger of the tool until the contact starts to come out of the contact cavity. Refer to Figure 17.

Make sure that the removal tool stays in the contact cavity until the contact starts to come out of the cavity.

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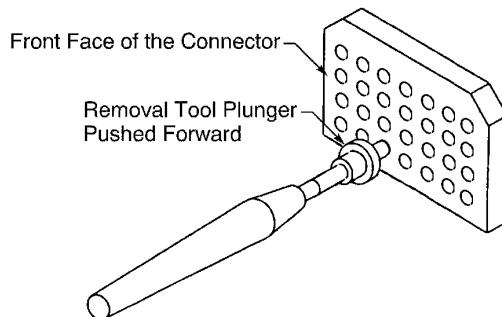
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2447600 S00061547452_V1

POSITION OF THE CONTACT REMOVAL TOOL

Figure 17

- (5) Carefully pull the tool out from the contact cavity.
Make sure that the removal tool stays axially aligned with the contact cavity.
- (6) Pull the contact out of the contact cavity from the rear of the connector.

C. Coax Contact Removal

This Paragraph gives the procedure to remove coax contacts. For the procedure to remove standard contacts, refer to Paragraph 3.B.

Table 14
COAX CONTACT REMOVAL TOOLS

Engaging End Size	Removal Tool	
	Basic Unit	Tip
1	91040-7	126118-7

- (1) Make a selection of a contact removal tool from Table 14.
- (2) Axially align the tool and the contact cavity at the front face of the connector. Refer to Figure 18.
Make sure that the plunger of the removal tool is fully retracted.

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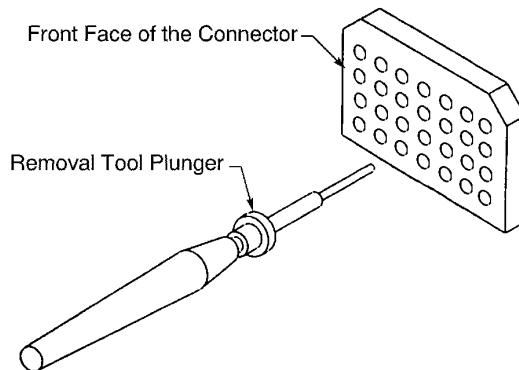
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2447598 S00061547450_V1

ALIGNMENT OF THE CONTACT REMOVAL TOOL AND THE CONTACT CAVITY

Figure 18

- (3) Push the tool into the contact cavity until it stops. Refer to Figure 19.

CAUTION: DO NOT USE MORE FORCE THAN THE FORCE THAT IS NECESSARY TO PUSH THE REMOVAL TOOL INTO THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.

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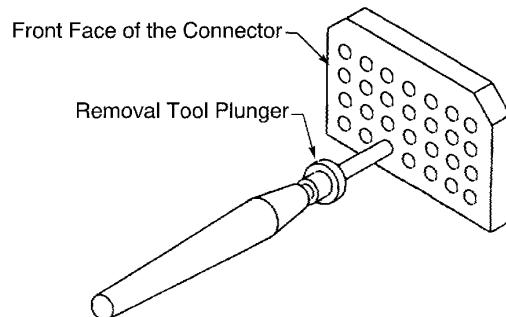
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POSITION OF THE CONTACT REMOVAL TOOL IN THE CONTACT CAVITY

Figure 19

- (4) Push the plunger of the tool until the contact starts to come out of the contact cavity. Refer to Figure 20.

Make sure that the removal tool stays in the contact cavity until the contact starts to come out of the cavity.

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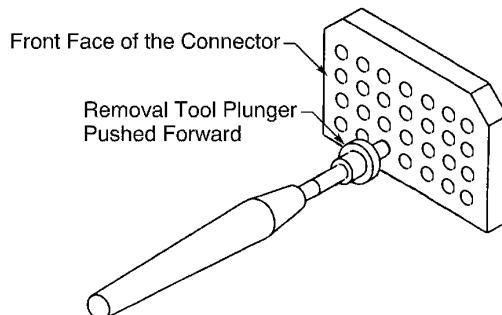
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2447600 S00061547452_V1

POSITION OF THE CONTACT REMOVAL TOOL

Figure 20

- (5) Carefully pull the tool out from the contact cavity.
Make sure that the removal tool stays axially aligned with the contact cavity.
- (6) Pull the contact out of the contact cavity from the rear of the connector.

4. CONNECTOR ASSEMBLY

A. Contact Assembly

Table 15
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Contact Size		Removal Length L (inch)		Special Instructions
	Engaging End	Crimp Barrel	Target	Tolerance	
24	20	20	0.43	± 0.03	Fold the conductor back
	Sub-20	20	0.43	± 0.03	Fold the conductor back
	16	16	0.56	± 0.03	Fold the conductor back
22	20	20	0.18	± 0.03	-
	Sub-20	20	0.18	± 0.03	-
	16	16	0.56	± 0.03	Fold the conductor back

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Table 15 INSULATION REMOVAL LENGTH (Continued)

Wire Size (AWG)	Contact Size		Removal Length L (inch)		Special Instructions
	Engaging End	Crimp Barrel	Target	Tolerance	
20	20	20	0.18	±0.03	-
	Sub-20	20	0.18	±0.03	-
	16	16	0.28	±0.03	-
18	16	16	0.28	±0.03	-
16	16	16	0.28	±0.03	-

Table 16
CONTACT CRIMP TOOLS

Wire Size (AWG)	Contact Size		Crimp Tool			
	Engaging End	Crimp Barrel	Basic Unit		Locator	
			Part Number	Setting	Part Number	Color
24	Sub-20	20	M22520/1-01	2	M22520/1-02	Red
			M22520/2-01	5	M22520/2-02	-
	20	20	M22520/1-01	2	M22520/1-02	Red
			M22520/2-01	5	M22520/2-02	-
			MS3191-1	-	MS3191-20A	-
	16	16	M22520/1-01	4	M22520/1-02	Blue
			MS3191-1	-	MS3191-16A	-
22	Sub-20	20	M22520/1-01	3	M22520/1-02	Red
			M22520/2-01	6	M22520/2-02	-
	20	20	M22520/1-01	3	M22520/1-02	Red
			M22520/2-01	6	M22520/2-02	-
			MS3191-1	-	MS3191-20A	-
	16	16	M22520/1-01	5	M22520/1-02	Blue
			MS3191-1	-	MS3191-16A	-
20	Sub-20	20	M22520/1-01	4	M22520/1-02	Red
			M22520/2-01	7	M22520/2-02	-
	20	20	M22520/1-01	4	M22520/1-02	Red
			M22520/2-01	7	M22520/2-02	-
			MS3191-1	-	MS3191-20A	-
	16	16	M22520/1-01	4	M22520/1-02	Blue
			MS3191-1	-	MS3191-16A	-
18	16	16	M22520/1-01	5	M22520/1-02	Blue
			MS3191-1	-	MS3191-16A	-

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Table 16 CONTACT CRIMP TOOLS (Continued)

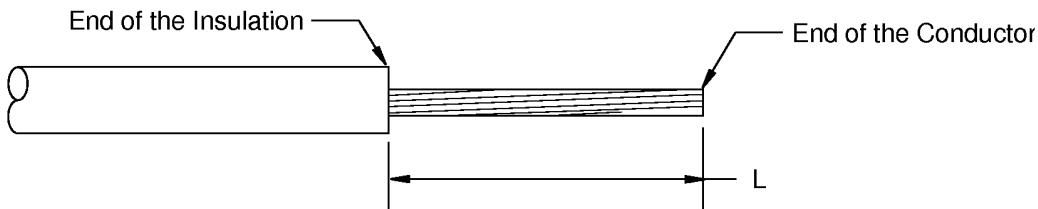
Wire Size (AWG)	Contact Size		Crimp Tool			
	Engaging End	Crimp Barrel	Basic Unit		Locator	
			Part Number	Setting	Part Number	Color
16	16	16	M22520/1-01	6	M22520/1-02	Blue
			MS3191-1	-	MS3191-16A	-

- (1) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 21
- Table 15 for the insulation removal length
- Subject 20-00-15 for the insulation removal procedures.

NOTE: If the wire size and a larger crimp barrel size are not given in Table 16, refer to Subject 20-60-00.



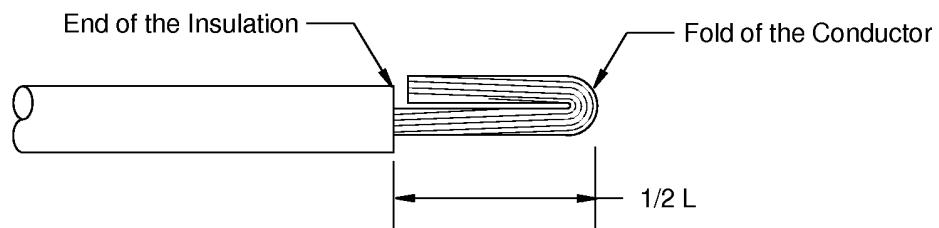
2446140 S00061544325_V1

INSULATION REMOVAL LENGTH

Figure 21

- (2) If necessary, fold the conductor back.

Refer to Figure 22.



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CONDUCTOR FOLDED BACK

Figure 22

- (3) Make a selection of a crimp tool from Table 16.

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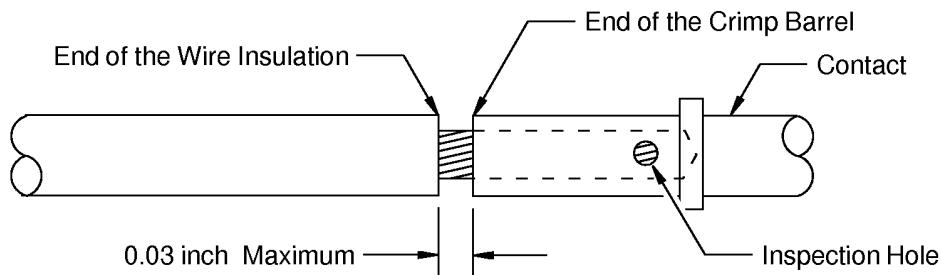
- (4) Put the contact in the locator and the crimp tool.

NOTE: As an alternative procedure, the wire can be put in the contact crimp barrel before the contact is inserted in the locator.

- (5) Put end of the wire in the crimp barrel. Refer to Figure 23.

Make sure that:

- All of the conductor strands are in the crimp barrel
- The conductor is seen in the inspection hole
- The distance from the end of the insulation to the crimp barrel is not more than 0.03 inch.



2446968 S00061546268_V1

POSITION OF THE WIRE IN THE CONTACT
Figure 23

- (6) Crimp the contact.

B. Coax Contact Assembly

Table 17
COAX CONTACT CENTER CONTACT CRIMP TOOLS

Basic Unit	Die
69646	Cavity B

Table 18
COAX CONTACT FERRULE CRIMP TOOLS

Basic Unit	Die
69646	Cavity A

- (1) Put the ferrule on the cable.

Make sure that the end of the ferrule that has a gasket points rearward.

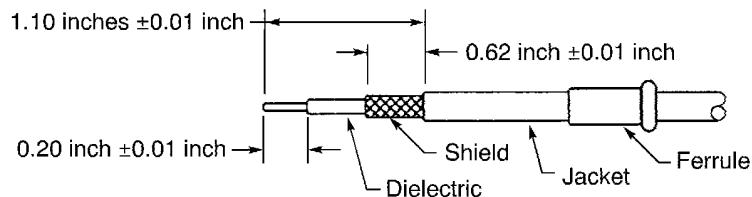
- (2) Prepare the cable. Refer to Figure 24.

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2446431 S00061547453_V1

CABLE PREPARATION

Figure 24

- (a) Remove 1.10 inches ± 0.01 inch of the jacket from the end of the cable.
- (b) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the jacket equal to 0.62 inch ± 0.01 inch.
- (c) Remove 0.20 inches ± 0.01 inch of the dielectric from the end of the cable.
- (3) Make a selection of a center contact crimp tool from Table 17.
- (4) Put the center conductor into the crimp barrel of the contact.
Make sure that all of the strands of the conductor are in the crimp barrel of the contact.
Make sure that the distance between the dielectric and the end of the crimp barrel is not more than 0.03 inch.
- (5) Crimp the center contact.
Make sure that the contact is against the rear surface of the tool.
- (6) Make a selection of a ferrule crimp tool from Table 18.
- (7) Push the contact body onto the center contact until it stops.
Make sure that:
 - The small end of the contact body is between the shield and the dielectric
 - The dielectric is against the contact body.
- (8) Push the ferrule forward over the shield until the ferrule is against the contact body.
- (9) Put the assembly in the crimp tool. Refer to Figure 25.

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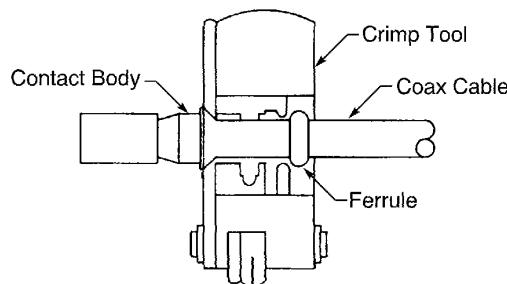
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POSITION OF THE CONTACT IN THE FERRULE CRIMP TOOL

Figure 25

- (10) Crimp the ferrule.

C. Contact Insertion

This Paragraph gives the procedure to insert standard contacts. For the procedure to insert coax contacts, refer to Paragraph 4.D.

Table 19
CONTACT INSERTION TOOLS

Engaging End Size	Insertion Tool		
	Handle	Tip	Color
20	294-279	-	Red
	91039-1	126117-1	Green
Sub-20	91039-1	126117-1	Green
16	294-192	-	Blue
	91039-3	126117-3	Blue

- (1) Make a selection of an insertion tool from Table 19.
- (2) Put the contact assembly in the insertion tool. Refer to Figure 26.
Make sure that the end of the tool is against the rear edge of the shoulder of the contact.

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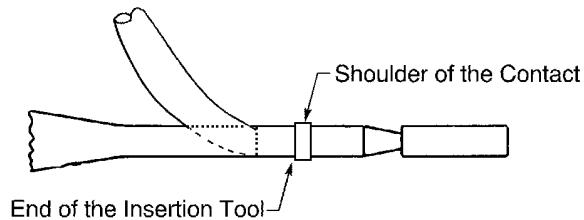
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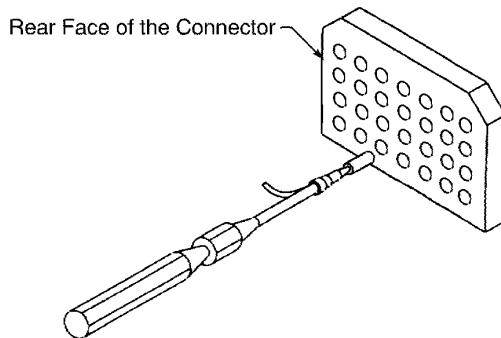


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POSITION OF THE CONTACT IN THE INSERTION TOOL

Figure 26

- (3) Axially align the insertion tool and the contact cavity at the rear of the connector.



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ALIGNMENT OF THE CONTACT AND THE CAVITY

Figure 27

- (4) Carefully push the insertion tool and the contact assembly into the contact cavity until it stops. Make sure that the insertion tool stays axially aligned with the contact cavity.

CAUTION: DO NOT TURN THE INSERTION TOOL IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.

- (5) Carefully pull the tool out of the contact cavity.
- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

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CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:
 - (a) Pull the contact assembly out of the contact cavity.
 - (b) Do Step 4.C.(3) through Step 4.C.(6) again.

D. Coax Contact Insertion

This Paragraph gives the procedure to insert coax contacts. For the procedure to insert standard contacts, refer to Paragraph 4.C.

NOTE: A tool is not necessary for the insertion of a coax contact assembly.

- (1) Axially align the coax contact assembly and the contact cavity at the rear of the connector.
- (2) Carefully push the coax contact assembly into the contact cavity until it stops.
- (3) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (4) If the contact is not locked in the contact cavity:
 - (a) Pull the contact assembly out of the contact cavity.
 - (b) Do Step 4.D.(1) through Step 4.D.(3) again.

E. Seal of an Empty Contact Cavity

All empty contact cavities must be sealed. Refer to Subject 20-60-08.

5. CONNECTOR POLARIZATION AND CONNECTOR PART NUMBER

A. Connector Polarization and the Connector Part Number

NOTE: The polarization code in the connector part number identifies the polarization position of the posts and keys.

- (1) Find the polarization code in the connector part number from the equipment list.
- (2) For that code, find the correct connector polarization for the:
 - Post positions on the plug
 - Key positions on the receptacle.

Refer to Figure 28 and Table 20.

- (3) If the polarization position of the posts and keys on the connector do not agree with the polarization code, put the posts and the keys in the correct position.

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Refer to Paragraph 5.C.

- (4) If the polarization code in the part number on the connector does not agree with the polarization positions, change the part number on the connector.

Refer to Paragraph 5.D.

B. Polarization Post and Key Positions



For the Plug, the Dark Area Shows the Polarization Post

For the Receptacle, the Dark Area Shows the Solid Part of the Polarization Key

2446430 S00061547457_V1

POLARIZATION POSITIONS

Figure 28

Table 20
CONNECTOR POLARIZATION - POST AND KEY POSITION

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
01	4	4	4	1	1	1
02	4	4	3	2	1	1
03	4	4	2	3	1	1
04	4	4	1	4	1	1
05	4	4	6	5	1	1
06	4	4	5	6	1	1
07	5	4	4	1	1	6
08	5	4	3	2	1	6
09	5	4	2	3	1	6
10	5	4	1	4	1	6
11	5	4	6	5	1	6
12	5	4	5	6	1	6
13	6	4	4	1	1	5
14	6	4	3	2	1	5
15	6	4	2	3	1	5
16	6	4	1	4	1	5
17	6	4	6	5	1	5
18	6	4	5	6	1	5

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Table 20 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
19	1	4	4	1	1	4
20	1	4	3	2	1	4
21	1	4	2	3	1	4
22	1	4	1	4	1	4
23	1	4	6	5	1	4
24	1	4	5	6	1	4
25	2	4	4	1	1	3
26	2	4	3	2	1	3
27	2	4	2	3	1	3
28	2	4	1	4	1	3
29	2	4	6	5	1	3
30	2	4	5	6	1	3
31	3	4	4	1	1	2
32	3	4	3	2	1	2
33	3	4	2	3	1	2
34	3	4	1	4	1	2
35	3	4	6	5	1	2
36	3	4	5	6	1	2
37	4	3	4	1	2	1
38	4	3	3	2	2	1
39	4	3	2	3	2	1
40	4	3	1	4	2	1
41	4	3	6	5	2	1
42	4	3	5	6	2	1
43	5	3	4	1	2	6
44	5	3	3	2	2	6
45	5	3	2	3	2	6
46	5	3	1	4	2	6
47	5	3	6	5	2	6
48	5	3	5	6	2	6
49	6	3	4	1	2	5
50	6	3	3	2	2	5
51	6	3	2	3	2	5
52	6	3	1	4	2	5

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Table 20 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
53	6	3	6	5	2	5
54	6	3	5	6	2	5
55	1	3	4	1	2	4
56	1	3	3	2	2	4
57	1	3	2	3	2	4
58	1	3	1	4	2	4
59	1	3	6	5	2	4
60	1	3	5	6	2	4
61	2	3	4	1	2	3
62	2	3	3	2	2	3
63	2	3	2	3	2	3
64	2	3	1	4	2	3
65	2	3	6	5	2	3
66	2	3	5	6	2	3
67	3	3	4	1	2	2
68	3	3	3	2	2	2
69	3	3	2	3	2	2
70	3	3	1	4	2	2
71	3	3	6	5	2	2
72	3	3	5	6	2	2
73	4	2	4	1	3	1
74	4	2	3	2	3	1
75	4	2	2	3	3	1
76	4	2	1	4	3	1
77	4	2	6	5	3	1
78	4	2	5	6	3	1
79	5	2	4	2	3	6
80	5	2	3	2	3	6
81	5	2	2	3	3	6
82	5	2	1	4	3	6
83	5	2	6	5	3	6
84	5	2	5	6	3	6
85	6	2	4	1	3	5
86	6	2	3	2	3	5

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Table 20 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
87	6	2	2	3	3	5
88	6	2	1	4	3	5
89	6	2	6	5	3	5
90	6	2	5	6	3	5
91	1	2	4	1	3	4
92	1	2	3	2	3	4
93	1	2	2	3	3	4
94	1	2	1	4	3	4
95	1	2	6	5	3	4
96	1	2	5	6	3	4
97	2	2	4	1	3	3
98	2	2	3	2	3	3
99	2	2	2	3	3	3
100	5	1	2	3	4	6

C. Change of the Polarization Posts and Keys

- (1) To change the polarization of a post:
 - (a) Remove the nut and washer from the threaded end of the post.
 - (b) Remove the post from the hexagonal hole in the connector shell.
 - (c) Align the post with the correct position.
 - (d) Put the post back into the hexagonal hole.
Make sure that the post is in the correct position.
 - (e) Put the washer and the nut on the threaded end of the post.
 - (f) Tighten the nut.
- (2) To change the polarization of a key:
 - (a) Remove the necessary screws from the connector shell.
 - (b) Remove the key from the hexagonal hole.
 - (c) Align the key with the correct position.
 - (d) Put the key back into the hexagonal hole.
Make sure the key is in the correct position.
 - (e) Install and tighten the screws.

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D. Change of the Polarization Code, Any Part of the Connector Part Number, or the Complete Part Number, on the Connector Shell

Table 21
NECESSARY MATERIALS

Material	Part Number	Supplier
Ink	No. 68 Fast Dry	Independent
	No. 73X NW Opaque	
	No. 73X Opaque	
Paint, Clear	683-3-2	Akzo
	Clear Lacquer	Tartan
	EC-776	3M
	EC-776SR	
Pen	Permanent Ink Pen, Ultra Fine Point	Sanford Sharpie

- (1) Make a selection of these materials from Table 21.
 - An ink or a permanent ink pen
 - A clear paint.
- (2) If the connector does not have a part number or a polarization code, write the part number and polarization code in the correct position on the connector shell.

Refer to the details of the applicable connector part number:

 - Figure 1 for the Amp AA series
 - Figure 2 for the Amp AD, AM, and BD series
 - Figure 3 for the Amphenol 213 series.
- (3) If the connector has an incorrect part number or polarization code:
 - (a) Apply a layer of ink on the incorrect part number or polarization code.

Make sure that the incorrect part number or code cannot be read.
 - (b) Write the new part number or polarization code on the connector shell:
 - Adjacent to the location of the incorrect code
 - In the correct position in the part number.

Refer to the details of the applicable connector part number:

 - Figure 1 for the Amp AA series
 - Figure 2 for the Amp AD, AM, and BD series
 - Figure 3 for the Amphenol 213 series.
- (4) Let the ink dry for a minimum of 10 minutes.
- (5) Apply a layer of the clear paint on the part number on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

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(6) Let the paint dry before the connector shell is touched or moved.

6. APPROVED TOOL SUPPLIERS

A. Crimp Tools

**Table 22
CRIMP TOOL SUPPLIERS**

Crimp Tools	Supplier
69646	AMP
M22520/1-01	QPL
M22520/1-02	QPL
M22520/2-01	QPL
M22520/2-02	QPL
MS3191-1	QPL
MS3191-16A	QPL
MS3191-20A	QPL

B. Removal Tools

**Table 23
REMOVAL TOOL SUPPLIERS**

Removal Tools	Supplier
126118-1	AMP
126118-2	AMP
126118-3	AMP
126118-7	AMP
294-219	Amphenol
294-280	Amphenol
91040-1	AMP
91040-2	AMP
91040-3	AMP
91040-7	AMP
ATA2079	Astro
ATF2115	Astro
ATSE2070	Astro
DRK56-16	Daniels
DRK56-22A	Daniels
M81969/34-01	QPL

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C. Insertion Tools

Table 24
INSERTION TOOL SUPPLIERS

Insertion Tools	Supplier
126117-1	AMP
126117-3	AMP
294-192	Amphenol
294-279	Amphenol
91039-1	AMP
91039-3	AMP

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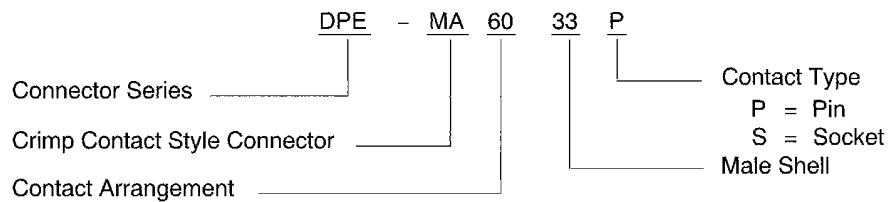
ASSEMBLY OF ITT CANNON DPE-MA SERIES CONNECTORS

1. PART NUMBERS AND DESCRIPTION

A. Connector Part Numbers

Table 1
CONNECTOR PART NUMBERS

Part Number	Supplier
DPE-MA()	ITT Cannon



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ITT CANNON DPE-MA SERIES CONNECTOR PART NUMBER STRUCTURE
Figure 1

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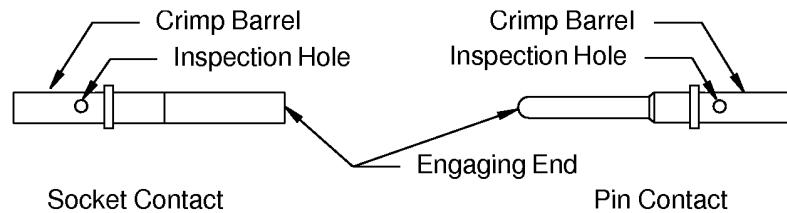
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B. Contact Part Numbers



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REAR RELEASE CONTACTS

Figure 2

Engaging End Size 20 20 Crimp Barrel Size

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EXAMPLE OF A CONTACT SIZE

Figure 3

Table 2
CONTACT PART NUMBERS

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
2020	20	20	Pin	030-2040-000	ITT Cannon
			Socket	031-1046-002	ITT Cannon
1616	16	16	Pin	030-1895-002	ITT Cannon
			Socket	031-9206-021	ITT Cannon
1212	12	12	Pin	030-2045-000	ITT Cannon
			Socket	031-1059-002	ITT Cannon

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2. CONNECTOR DISASSEMBLY

A. Contact Removal

Table 3
CONTACT REMOVAL TOOLS

Crimp Barrel Size	Removal Tool
20	CIET-20
16	CIET-16
12	CIET-12

- (1) Make a selection of a contact removal tool from Table 3.
- (2) Put the white tip of the tool on the wire near the contact cavity.
- (3) Carefully push the tool tip into the contact cavity until it stops.
- (4) Pull the wire and the tool out of the contact cavity at the same time.

3. CONTACT ASSEMBLY

A. Contact Assembly

Table 4
INSULATION REMOVAL LENGTH

Crimp Barrel Size	Removal Length (inch)	
	Target	Tolerance
20	3/16	±1/32
16	9/32	±1/32
12	9/32	±1/32

Table 5
CONTACT CRIMP TOOLS

Crimp Barrel Size	Crimp Tool		
	Basic Unit	Locator	
		Part Number	Color
20	MS3191-1	MS3191-20	Red
	CCT-2016-20	-	-
16	MS3191-1	MS3191-16	Blue
	CCT-2016-16	-	-
	CCT-1612	L-1612-17	-
12	MS3191-1	MS3191-12	Yellow
	CCT-1612	L-1612-18	-

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- (1) Remove the necessary length of insulation from the end of the wire. Refer to Table 4.
- (2) Make a selection of a contact crimp tool from Table 5.
- (3) Put the conductor in the crimp barrel of the contact so that the end of the conductor is against the bottom of the crimp barrel.
Make sure that all of the strands of the conductor are in the crimp barrel.
- (4) Crimp the contact.

B. Contact Insertion

Table 6
CONTACT INSERTION TOOLS

Crimp Barrel Size	Insertion Tool
20	CIET-20
16	CIET-16
12	CIET-12

- (1) Make a selection of a contact insertion tool from Table 6.
- (2) Put the wired contact into the colored end of the insertion tool.
- (3) From the rear of the connector, axially align the contact and the tool with the contact cavity.
- (4) Push the tool straight in the contact cavity until the tool stops.
- (5) Carefully remove the tool from the contact cavity.
- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:
 - (a) Pull the wired contact out of the cavity.
 - (b) Do Step 3.B.(2) through Step 3.B.(6) again.

4. APPROVED SUPPLIERS

A. Contact Removal Tools

Table 7
REMOVAL TOOL SUPPLIERS

Removal Tool	Supplier
CIET-12	ITT Cannon
CIET-16	ITT Cannon

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Table 7 REMOVAL TOOL SUPPLIERS (Continued)

Removal Tool	Supplier
CIET-20	ITT Cannon

B. Contact Crimp Tools

Table 8
CRIMP TOOL SUPPLIERS

Crimp Tool	Supplier
CCT-1612	ITT Cannon
CCT-2016-16	ITT Cannon
CCT-2016-20	ITT Cannon
L-1612-17	ITT Cannon
L-1612-18	ITT Cannon
MS3191-1	ITT Cannon
MS3191-12	ITT Cannon
MS3191-16	ITT Cannon
MS3191-20	ITT Cannon

C. Contact Insertion Tools

Table 9
INSERTION TOOL SUPPLIERS

Insertion Tool	Supplier
CIET-12	ITT Cannon
CIET-16	ITT Cannon
CIET-20	ITT Cannon

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ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS

This Subject gives the disassembly and assembly procedures for:

- The Boeing BACC66F, BACC66H, and BACC66K ARINC 600 plug connectors
- The Boeing S280W551 rack and panel connectors.

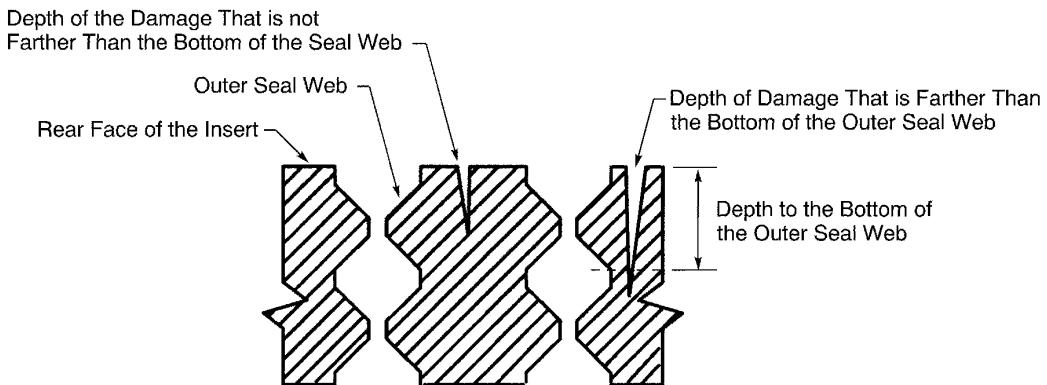
Usually, BACC66F, BACC66H, and BACC66K ARINC 600 plug connectors are mounted on the airplane E/E equipment racks.

1. GENERAL DATA

A. Damage Conditions - Rear Face of the Insert

The insert must be replaced when one or more of these conditions occur that make the cable assembly unserviceable:

- The depth of the damage extends farther than the bottom of the outer seal web; refer to Figure 1
- The damage extends from one contact cavity to a different contact cavity; refer to Figure 2
- The damage extends from one contact terminus cavity to a different contact terminus cavity; refer to Figure 3.



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REAR FACE OF THE INSERT - DEPTH OF DAMAGE

Figure 1

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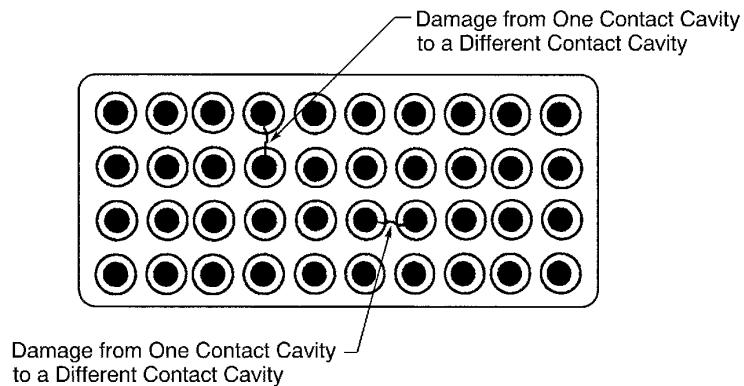
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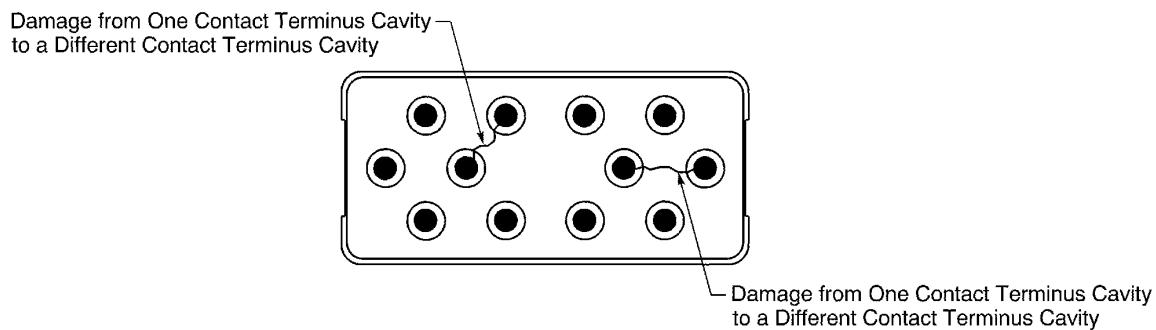
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



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REAR FACE OF THE INSERT - LENGTH OF DAMAGE

Figure 2



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REAR FACE OF THE CONTACT TERMINUS INSERT - LENGTH OF DAMAGE

Figure 3

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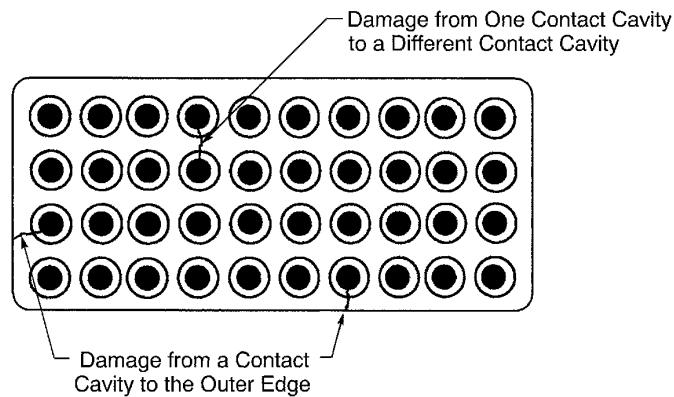
B. Damage Conditions - Front Face of the Insert

The insert for electrical contacts must be replaced when one or more of these conditions occur:

- The damage extends from one contact cavity to a different contact cavity; refer to Figure 4
- The damage extends from one contact cavity to the outer edge of the insert; refer to Figure 4.

The insert for fiber optic contact termini must be replaced when one or more of these conditions occur that make the cable assembly unserviceable:

- The damage extends from one contact terminus cavity to a different contact terminus cavity; refer to Figure 5
- The damage extends from one contact terminus cavity to the outer edge of the insert; refer to Figure 5.



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FRONT FACE OF THE CONTACT INSERT - LENGTH OF DAMAGE

Figure 4

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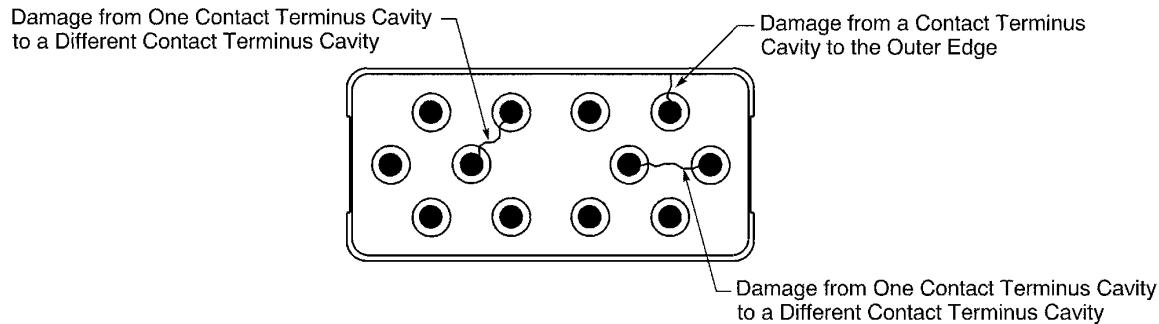
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FRONT FACE OF THE CONTACT TERMINUS INSERT - LENGTH OF DAMAGE

Figure 5

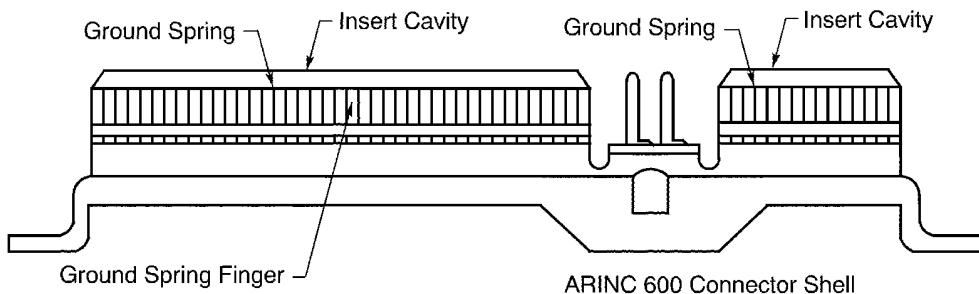
C. Damage Conditions - EMI/RFI Ground Spring

From the ground spring of any one insert cavity of the connector shell:

- As many as 5 adjacent ground spring fingers can be missing
- More than one group of a maximum of 5 adjacent ground spring fingers can be missing as long as a group of a minimum of 5 adjacent fingers is between the groups of missing fingers.

The connector, or the connector shell must be replaced if any of the ground springs are in an unserviceable condition. Refer to:

- Figure 6 for the initial configuration of the ground springs
- Figure 7 for the serviceable conditions of damage to the ground spring
- Figure 8 for the unserviceable conditions of damage to the ground spring.



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ARINC 600 CONNECTOR GROUND SPRINGS

Figure 6

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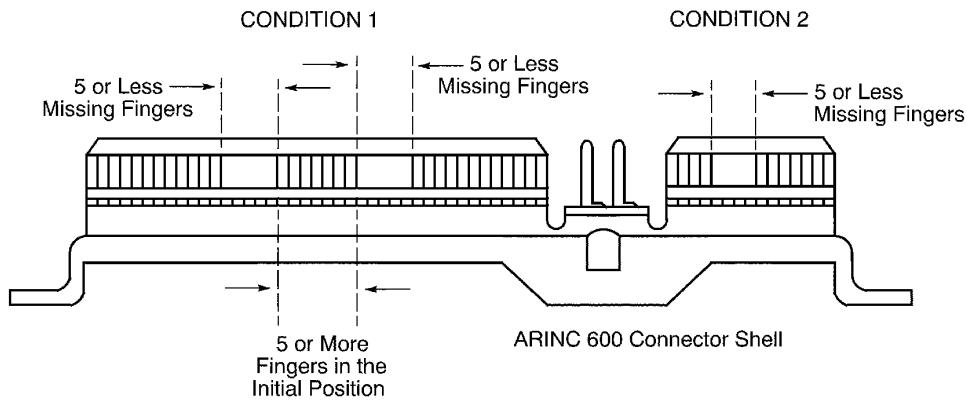
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GROUND SPRING DAMAGE - SERVICEABLE CONDITIONS

Figure 7

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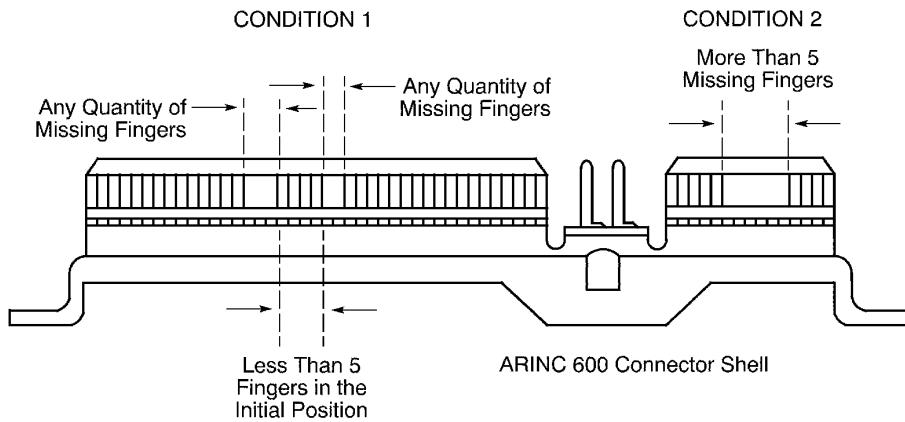
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GROUND SPRING DAMAGE - UNSERVICEABLE CONDITIONS

Figure 8

NOTE: The ground springs are not removable from the connector shell. As an alternative to replacing the connector, a new empty connector shell that has new ground springs can be procured from the supplier. The existing inserts that have wired contacts can then be installed into the new connector shell.

If the connector shell is replaced, these general conditions are applicable:

- The new connector shell must be of the same Class as the initial connector shell
- The part number of the initial connector must be marked on the new connector shell
- The connector polarizing posts of the new connector shell must be changed to the polarizing position of the initial connector.

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM A DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

NOTE: For the S280W551 connectors, the inserts from one supplier can be installed in a connector shell from another supplier.

NOTE: Connector shell part numbers are not specified. Refer to the connector supplier for replacement connector shells.

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D. Damage Conditions - Connector Shell

If the connector shell has a bend, the connector shell must be replaced.

If the connector shell is replaced, these general conditions are applicable:

- The connector part number must be marked on the shell
- The replacement shell must be of the same Class as the initial connector shell.

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

NOTE: Connector shell part numbers are not specified. Refer to the connector supplier for replacement connector shells.

E. Damage Conditions - BACC69A Fiber Optic Cable Assembly

The cable assembly must be replaced when one of these conditions occur:

- The fiber optic cable has damage that makes the cable assembly unserviceable; refer to Subject 20-12-20
- The fiber optic terminus has damage; refer to Subject 20-12-20.

F. Minimum Wire O.D. for an Environmentally Sealed Connector

Refer to:

- Subject 20-60-08 for the identification of an environmentally sealed connector
- Table 1 for the minimum wire O.D. for the satisfactory seal in the grommet hole
- Subject 20-60-08 for the procedure to increase the diameter of the wire.

Table 1
MINIMUM WIRE O.D. FOR A SATISFACTORY SEAL

Contact Cavity Size	Minimum Wire O.D. (inch)
22	0.026
20	0.040
16	0.068
12	0.097
8	0.183

2. CONNECTOR PART NUMBERS AND DESCRIPTION

A. Connector Description

The ARINC 600 and S280W551 connectors are the interface between avionics equipment boxes and the airplane wiring and have these features:

- Rectangular metal shells
- Size 22, 20, 16, 12, 8, and 5 rear release, rear removable contacts
- ARINC 600 connectors have 3 or 6 inserts
- S280W551 connectors have 2, 4, or 5 inserts
- Receptacle connectors are mounted on the avionics equipment boxes

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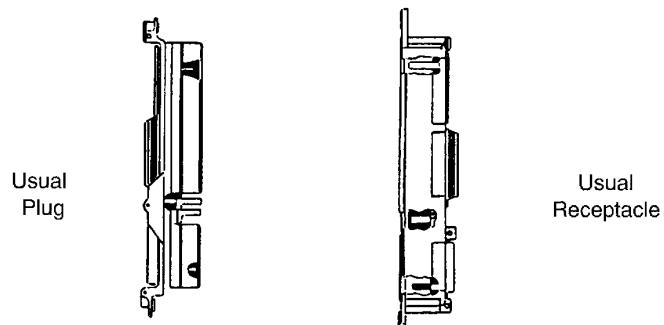
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- Plug connectors are mounted on the rack or the tray backplates
- Plug connectors are assembled to the airplane wiring.



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ARINC 600 CONNECTOR PROFILES
Figure 9

CAUTION: PROTECTIVE CAPS ARE RECOMMENDED FOR CONNECTORS WITH GROUND SPRINGS WHEN THEY ARE REMOVED FROM THE RACK. IF GROUND SPRINGS DO NOT HAVE PROTECTION, DAMAGE TO THE GROUND SPRINGS CAN OCCUR.

B. Connector Part Numbers

The details for the:

- Boeing ARINC 600 connector part numbers are given in Paragraph 2.C.
- ITT Cannon ARINC 600 connector part numbers are given in Paragraph 2.D.
- Souriau ARINC 600 connector part numbers are given in Paragraph 2.E.
- AMP ARINC 600 connector part numbers are given in Paragraph 2.F.
- Radiall ARINC 600 connector part numbers are given in Paragraph 2.G.
- Tri-Star ARINC 600 connector part numbers are given in Paragraph 2.H.
- Boeing S280W551 connector part numbers are given in Paragraph 2.I.

Table 2
ARINC 600 CONNECTOR PART NUMBERS

Boeing Standard	Part Number	Supplier
-	620410207	Radiall
-	620600694	Radiall
-	BKA()1-120-3	ITT Cannon

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
-	BKA()2-105-3	ITT Cannon
-	BKA()2-158-3	ITT Cannon
-	BKA()2-158M-3	ITT Cannon
-	BKA()2-167-3	ITT Cannon
-	BKA()2-187-3	ITT Cannon
-	BKA()2-244-322130	ITT Cannon
-	BKA()2-67402-203	ITT Cannon
-	BKA()2-67402-229	ITT Cannon
-	BKA()2-67402-316	ITT Cannon
-	BKA()2-67403-22-51	ITT Cannon
-	BKA()2-67403-22-56	ITT Cannon
-	BKA()2-68134-101	ITT Cannon
-	BKA()2-B234M-3	ITT Cannon
-	BKA()2-BW234-3	ITT Cannon
-	BKA()3-067404-0080	ITT Cannon
-	BKA()3-271C-3	ITT Cannon
-	BKA()3-494-3	ITT Cannon
-	BKA()3-537-3	ITT Cannon
-	BKA()3-67404-62	ITT Cannon
-	BKA()3-67404-80	ITT Cannon
-	BKA()3-67404-91	ITT Cannon
-	BKA()3-67405-54	ITT Cannon
-	BKA()3-67405-54-40	ITT Cannon
-	BKA()3-68135-21	ITT Cannon
-	BKA()3-68135-25	ITT Cannon
-	BKA()3-68135-95	ITT Cannon
-	BKA()3-770-3	ITT Cannon
-	C-06A3-B305-1100	Tri-Star
-	C-06A5-9940-1100	Tri-Star
BACC66F11	BKA()1-125-3	ITT Cannon
	NIC66F11()AA	AMP
	208598-3	AMP
	NSX()1P101()00	Radiall
	S6()1MG-05W2P00	Souriau

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
BACC66F12	BKA()1-100-3	ITT Cannon
	NSX()1P107()00	Radiall
BACC66F13	BKA()1-124-3	ITT Cannon
	NSX()1P110X00	Radiall
BACC66F14	BKA()1-160-3	ITT Cannon
	NSX()1P108X00	Radiall
	S6()1MG-0538P00	Souriau
BACC66H21	BKA()2-313-3	ITT Cannon
	NIC66H21()AA	AMP
	208972-3	AMP
	3-208972-3	AMP
	NSX()2P201()00	Radiall
	SB6()2-MG-13W2P00	Souriau
BACC66H22	BKA()1-A234-3	ITT Cannon
BACC66H122	BKA()2-A234M-3	ITT Cannon
	NIC66H22()AA	AMP
	NSX()2P202()00	Radiall
	SB6()2-MG-13W2PA3	Souriau
BACC66H23	BKA()1-155-3	ITT Cannon
BACC66H123	BKA()2-155M-3	ITT Cannon
	NIC66H23()AA	AMP
	208973-5	AMP
	208973-6	AMP
	NSX()2P203()00	Radiall
	SB6()2-MG-13W2P01	Souriau
BACC66H24	BKA()2-A164-3	ITT Cannon
	SB6()2-MG-13W2PF3	Souriau
	NSX()2P204X00S	Radiall
BACC66H25	BKA()1-234-3	ITT Cannon
BACC66H125	BKA()2-234M-3	ITT Cannon
	NIC66H25()AA	AMP
	208973-8	AMP
	NSX()2P205()00	Radiall
	SB6()2-MG-13W2P02	Souriau

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
BACC66H26	BKA()2-400-3	ITT Cannon
	NIC66H26()AA	AMP
	NSX()2P206()00	Radiall
	SB6()2-MG-13K5P00	Souriau
BACC66H27	BKA()2-V155M-3	ITT Cannon
	NIC66H20()AA	AMP
	NSX()2P221()00	Radiall
	SB6()2-MG-13W2P12	Souriau
BACC66H28	BKA()2-A158M-3	ITT Cannon
	NIC66H28()AA	AMP
	NSX()2P216()00	Radiall
	SB6()2-MG-13A1PE6	Souriau
BACC66H29	BKA()2-340-3	ITT Cannon
	NSX()2P229()00	Radiall
	SB6()2-MG-13K5PQJ	Souriau
BACC66H30	BKA()2-248-3	ITT Cannon
	NSX()2P230()00	Radiall
	SB6()2-MG-13Q6PB2	Souriau
BACC66H31	BKA()2-137-3	ITT Cannon
BACC66H32	BKA()2-066-3	ITT Cannon
BACC66H33	BKA()2-385-3	ITT Cannon
	NSX()2P226()00	Radiall
	SB6()2-MG-13A1P00	Souriau
BACC66H34	BKA()2-370-3	ITT Cannon
	NSX()2P233()00	Radiall
BACC66H35	BKA()2-246-3	ITT Cannon
	SB6()2-MG-13Q6PQJ	Souriau
BACC66H36	BKA()2-167T-3	ITT Cannon
	SB6()2-MG-13W2PT4	Souriau
BACC66H37	BKA()2-324-3	ITT Cannon
	NSX()2P272()00	Radiall
	SB6()2-MG-13T8P00	Souriau
BACC66H38	BKA()2-165M-3	ITT Cannon
	NSX()2P219()00	Radiall

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
BACC66H39	BKA()2-359-3	ITT Cannon
	NSX()2P270()00	Radiall
BACC66H40	BKA()2-A137-3	ITT Cannon
	NSX()2P271()00	Radiall
	SB6()2-MG-13W2PT8	Souriau
BACC66H41	BKA()2-188-3	ITT Cannon
	NSX()2P235()00	Radiall
	SB6()2-MG-1334PT5	Souriau
BACC66H42	BKA()2-042-3	ITT Cannon
	NSX()2P236()00	Radiall
	SB6()2-MG-1334PT3	Souriau
BACC66H43	BKA()2-133-3	ITT Cannon
	NSX()2P234()00	Radiall
	SB6()2-MG-13W2PT1	Souriau
BACC66H44	BKA()2-215-3	ITT Cannon
	NSX()2P275()00	Radiall
BACC66H45	BKA()2-B234-3	ITT Cannon
	NSX()2P277X00	Radiall
BACC66H46	BKA()2-154-3	ITT Cannon
	NXS()2P286()00	Radiall
	SB6()2-MG-1334PT1	Souriau
BACC66H47	NSX()2P522()00	Radiall
BACC66H48	BKA()2-253-3	ITT Cannon
	NSX()2P284()00	Radiall
	SB6()2-MG-13W2PQJ	Souriau
BACC66H49	BKA()2-105-3	ITT Cannon
BACC66H50	NSX()2P522()00	Radiall
BACC66H51	BKA()2-244-322130	ITT Cannon
	NSX()2P262()00	Radiall
BACC66H52	NSX()2P509X00	Radiall
	SB6()2-MG-13W2PQB	Souriau
BACC66H53	BKA()2-283-3	ITT Cannon
	NSX()2P814()00	Radiall
BACC66H54	BKA()2-128-3	ITT Cannon
	NSX()2P599X00	Radiall

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
BACC66H55	NSX()2P577X00	Radiall
BACC66H56	BKA()2-344-3	ITT Cannon
	NSX()2P227()00	Radiall
	SB6()2-MG-1334P00	Souriau
BACC66H57	NSX()2P820()00	Radiall
BACC66H58	NSX()2P554X00	Radiall
BACC66H59	NSX()2P859X00	Radiall
BACC66H60	NSX()2P864()00	Radiall
BACC66H61	NSX()2P858()00	Radiall
	SB6()2-MG-13Q3PQJ	Souriau
BACC66H62	NSX()2P295X00	Radiall
	SB6()2-MG-13A1PQA	Souriau
BACC66H63	-	-
BACC66H64	-	-
BACC66H65	-	-
BACC66H66	-	-
BACC66H67	NSX()2P801X00	Radiall
BACC66H68	NSX()2P586X00	Radiall
	SB6()2-MG-1334PQB	Souriau
BACC66K31	BKA()3-626-3	ITT Cannon
	NIC66K31()AA	AMP
	208977-5	AMP
	NSX()3P()301()00	Radiall
	SB6()3-M()-13W2P00	Souriau
BACC66K32	BKA()3-713-3	ITT Cannon
	NIC66K32()AA	AMP
	NSX()3P()302()00	Radiall
	SB6()3-M()-13K3P00	Souriau
BACC66K33	BKA()3-A713-3	ITT Cannon
	NIC66K33()AA	AMP
	208977-4	AMP
	NSX()3P()303()00	Radiall
	SB6()3-M()-13K2P00	Souriau

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Table 2 ARINC 600 CONNECTOR PART NUMBERS (Continued)

Boeing Standard	Part Number	Supplier
BACC66K34	BKA()3-800-3	ITT Cannon
	NIC66K34()AA	AMP
	208977-7	AMP
	NSX()3P()304()00	Radiall
	SB6()3-M()-13K1P00	Souriau
BACC66K35	BKA()3-271T-3	ITT Cannon
	C-06()5-99	Tri-Star
	NIC66K36()AA	AMP
	NSX()3P()310()00	Radiall
	SB6()3-M()-13K2PE901	Souriau
BACC66K36	BKA()3-608-3	ITT Cannon
	NSX()3P317()00	Radiall
BACC66K37	BKA()3-496-3	ITT Cannon
BACC66K38	BKA()3-784-3	ITT Cannon
	NSX()3P366X00	Radiall
BACC66K39	BKA()3-718-3	ITT Cannon
	NSX()3P353()00	Radiall
BACC66K40	BKA()3-A759-3	ITT Cannon
	NSX()3P369()00	Radiall
BACC66K41	NSX()3P()629()00	Radiall
BACC66K42	NSX()3P()389()00	Radiall
BACC66K43	-	-
BACC66K44	-	-
BACC66K45	BKA()3-664-3	ITT Cannon
	SB6()3-M()-1334P00	Souriau
	NSX()3P()351()00	Radiall
BACC66K46	-	-
BACC66K47	BKA()3-308-3	ITT Cannon
BACC66K48	-	-
BACC66K49	BKA()3-421-3	ITT Cannon
	NSX()3P357()00	Radiall
BACC66K50	-	-
BACC66K51	-	-
BACC66K52	-	-

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Table 3
ALTERNATIVE BOEING ARINC 600 CONNECTORS

Category	Specified Connector	Alternative Connector
Alternative Boeing Insert Configuration Codes Refer to Paragraph 2.C.	BACC66H22()	BACC66H122()
	BACC66H23()	BACC66H123()
	BACC66H25()	BACC66H125()
Alternative Boeing Connector Classes Refer to Paragraph 2.C.	BACC66()()D()	BACC66()()G()
	BACC66()()E()	BACC66()()F()

Table 4
S280W551 CONNECTOR PART NUMBERS

Boeing Specification	Description	Part Number	Supplier
S280W551-209A	Size 1 Plug	BGG1P-044D1001	ITT Cannon
S280W551-211A	Size 1 Plug	BGG1P-069D1201	ITT Cannon
S280W551-213A	Size 1 Plug	BGG1P-134A1301	ITT Cannon
S280W551-401A	Size 2 Plug	BGG2P-406D1101	ITT Cannon
S280W551-405A	Size 2 Plug	BGG2P-272D1101	ITT Cannon
S280W551-407A	Size 2 Plug	BGG2P-220D1101	ITT Cannon
S280W551-413A	Size 2 Plug	BGG2P-254D1101	ITT Cannon
S280W551-503A	Size 3 Plug	BGG3P-084D1101	ITT Cannon

Table 5
ALTERNATIVE S280W551 CONNECTOR PART NUMBERS

Boeing Specification	Specified Connector		Alternative Connector	
	Part Number	Supplier	Part Number	Supplier
S280W551-209	BGG1P-044D0001	ITT Cannon	S280W551-209A	Boeing
S280W551-211	BGG1P-069D0201	ITT Cannon	S280W551-211A	Boeing
S280W551-401	BGG2P-406D0101	ITT Cannon	S280W551-401A	Boeing
S280W551-405	BGG2P-272D0101	ITT Cannon	S280W551-405A	Boeing
S280W551-407	BGG2P-220D0101	ITT Cannon	S280W551-407A	Boeing
S280W551-413	BGG2P-254D0101	ITT Cannon	S280W551-413A	Boeing
S280W551-503	BGG3P-084D0101	ITT Cannon	S280W551-503A	Boeing

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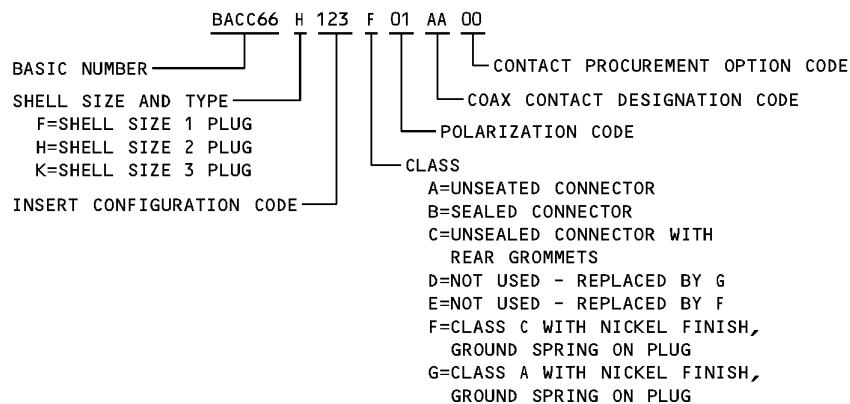
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C. Boeing BACC66() ARINC 600 Connectors



2446436 S00061547471_V2

BOEING BACC66() SERIES CONNECTOR PART NUMBER STRUCTURE
Figure 10

For the Boeing connector part number:

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- Insert configuration codes, refer to Table 6
- Polarization codes and positions, refer to Table 153 and Figure 243
- The coax contact designation codes for BACC66F connectors, refer to Table 9
- The coax contact designation codes for BACC66H connectors, refer to Table 10
- The coax contact designation codes for BACC66K connectors, refer to Table 11
- The contact procurement option codes, refer to Table 12.

NOTE: The coax contact designation code is used on purchase orders and does not appear on connectors as part of the connector part number.

NOTE: The contact procurement option code is used on purchase orders and does not appear on connectors as part of the connector part number.

Table 6
BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66F00	00	A	-	Part number BACC66F00C00AA00 is a chemical conversion finish connector shell without inserts. Part number BACC66F00F00AA00 is an electroless nickel finish connector shell without inserts.
		B	-	
		C	-	
BACC66F11	11	A	BACI10AH01	-
		B	BACI10AH01	-
		C	BACI10AH03	-
BACC66F12	12	A	BACI10AH20	-
		B	BACI10AH20	-
		C	BACI10AH19	-
BACC66F13	13	A	BACI10AH01	-
		B	BACI10AH01	-
		C	BACI10AH21	-
BACC66F14	14	A	BACI10AH01	-
		B	BACI10AH01	-
		C	BACI10AH19	-
BACC66H00	00	A	-	Part number BACC66H00C00AA00 is a chemical conversion finish connector shell without inserts. Part number BACC66H00F00AA00 is an electroless nickel finish connector shell without inserts.
		B	-	
		C	-	
BACC66H21	21	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH04	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H22	22	A	BACI10AH05	For size 1 coax contact with special mounting block hole spacing
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H122	122	A	BACI10AH05	For size 1 coax contact with standard mounting block
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H23	23	A	BACI10AH05	For size 1 coax contact with special mounting block hole spacing
		B	BACI10AH05	For size 1 coax contact with special mounting block hole spacing
		C	BACI10AH04	-
BACC66H123	123	A	BACI10AH05	For size 1 coax contact with standard mounting block
		B	BACI10AH05	For size 1 coax contact with standard mounting block
		C	BACI10AH04	-
BACC66H24	24	A	BACI10AH06	-
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H25	25	A	BACI10AH02	-
		B	BACI10AH05	For size 1 coax contact with special mounting block hole spacing
		C	BACI10AH04	-
BACC66H125	125	A	BACI10AH02	-
		B	BACI10AH05	For size 1 coax contact with standard mounting block
		C	BACI10AH04	-
BACC66H26	26	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH07	-
BACC66H27	27	A	BACI10AH08	-
		B	BACI10AH05	For size 1 coax contact with standard mounting block
		C	BACI10AH04	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H28	28	A	BACI10AH09	For size 1 coax contacts with standard mounting blocks
		B	BACI10AH08	For size 1 coax contact with standard mounting block
		C	BACI10AH10	-
BACC66H29	29	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH07	-
BACC66H30	30	A	BACI10AH15	-
		B	BACI10AH15	-
		C	BACI10AH13	-
BACC66H31	31	A	BACI10AH15	-
		B	BACI10AH12	-
		C	BACI10AH13	-
BACC66H32	32	A	BLANK	-
		B	BACI10AH17	-
		C	BACI10AH18	-
BACC66H33	33	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH10	-
BACC66H34	34	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH02	-
		C	BACI10AH07	-
BACC66H35	35	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH13	-
BACC66H36	36	A	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H37	37	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH24	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H38	38	A	BACI10AH02	-
		B	BACI10AH25	For size 1 coax contacts with standard mounting blocks
		C	BACI10AH04	-
BACC66H39	39	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH22	-
BACC66H40	40	A	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH04	-
BACC66H41	41	A	BACI10AH02	-
		B	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		C	BACI10AH16	-
BACC66H42	42	A	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		B	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		C	BACI10AH16	-
BACC66H43	43	A	BACI10AH17	-
		B	BACI10AH17	-
		C	BACI10AH04	-
BACC66H44	44	A	BACI10AH15	-
		B	BACI10AH17	-
		C	BACI10AH16	-
BACC66H45	45	A	BACI10AH08	For size 1 coax contact with standard mounting block
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H46	46	A	BACI10AH17	-
		B	BACI10AH17	-
		C	BACI10AH16	-
BACC66H47	47	A	BACI10AH30	Fiber optic cable and termini are not supplied with the connector.
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH04	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H48	48	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH04	-
BACC66H49	49	A	BACI10AH12	-
		B	BACI10AH12	-
		C	BACI10AH10	-
BACC66H50	50	A	BACI10AH31	Fiber optic cable and termini are not supplied with the connector.
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH04	-
BACC66H51	51	A	BACI10AH02	-
		B	BACI10AH17	-
		C	BACI10AH16	-
BACC66H52	52	A	BACI10AH02	-
		B	BACI10AH32	-
		C	BACI10AH04	-
BACC66H53	53	A	BACI10AH14	-
		B	BACI10AH02	-
		C	BACI10AH04	-
BACC66H54	54	A	BACI10AH11	-
		B	BACI10AH29	-
		C	BACI10AH07	-
BACC66H55	55	A	BACI10AH08	-
		B	BACI10AH36	-
		C	BACI10AH35	Fiber optic cable and termini are not supplied with the connector.
BACC66H56	56	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH16	-
BACC66H57	57	A	BACI10AH32	-
		B	BACI10AH15	-
		C	-	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H58	58	A	-	-
		B	BACI10AH36	-
		C	BACI10AH04	-
BACC66H59	59	A	BACI10AH02	-
		B	BACI10AH38	Fiber optic cable and termini are not supplied with the connector.
		C	BACI10AH04	-
BACC66H60	60	A	BACI10AH02	-
		B	BACI10AH32	-
		C	BACI10AH40	-
BACC66H61	61	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH36	-
		C	BACI10AH34	-
BACC66H62	62	A	BACI10AH32	-
		B	BACI10AH32	-
		C	BACI10AH10	-
BACC66H63	63	A	BACI10AH02	-
		B	BACI10AH32	-
		C	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.
BACC66H64	64	A	BACI10AH38	Fiber optic cable and termini are not supplied with the connector.
		B	-	-
		C	BACI10AH22	-
BACC66H65	65	A	BACI10AH39	-
		B	BACI10AH32	-
		C	BACI10AH10	-
BACC66H66	66	A	BACI10AH32	-
		B	BACI10AH36	-
		C	BACI10AH42	-
BACC66H67	67	A	BACI10AH11	-
		B	BACI10AH32	-
		C	BACI10AH22	-

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CONNECTORS

Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66H68	68	A	BACI10AH02	-
		B	BACI10AH32	-
		C	BACI10AH16	-
BACC66K00	00	A	-	Part number BACC66K00C00AA00 is a chemical conversion finish connector shell without inserts. Part number BACC66K00F00AA00 is an electroless nickel finish connector shell without inserts.
		B	-	
		C	-	
		D	-	
		E	-	
		F	-	
BACC66K31	31	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH04	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH04	-
BACC66K32	32	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH07	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH04	-
BACC66K33	33	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH04	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH07	-
BACC66K34	34	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH07	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH07	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66K35	35	A	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		B	BACI10AH11	This insert has 4 BACA19BK1 TNC adapters
		C	BACI10AH04	-
		D	BLANK	-
		E	BACI10AH02	-
		F	BACI10AH07	-
BACC66K36	36	A	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		B	BACI10AH02	-
		C	BACI10AH16	-
		D	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		E	BACI10AH02	-
		F	BACI10AH16	-
BACC66K37	37	A	BACI10AH15	-
		B	BACI10AH15	-
		C	BACI10AH13	-
		D	BACI10AH15	-
		E	BACI10AH15	-
		F	BACI10AH13	-
BACC66K38	38	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH26	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH07	-
BACC66K39	39	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH22	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH22	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66K40	40	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH22	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH07	-
BACC66K41	41	A	BACI10AH11	-
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.
		D	BACI10AH11	-
		E	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		F	BACI10AH34	-
BACC66K42	42	A	BACI10AH32	-
		B	BACI10AH02	-
		C	BACI10AH34	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH37	-
BACC66K43	43	A	BACI10AH39	-
		B	BACI10AH02	-
		C	BACI10AH10	-
		D	BACI10AH36	-
		E	BACI10AH02	-
		F	BACI10AH07	-
BACC66K44	44	A	BACI10AH36	-
		B	BACI10AH36	-
		C	BACI10AH10	-
		D	BACI10AH36	-
		E	BACI10AH02	-
		F	BACI10AH07	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66K45	45	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH16	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH16	-
BACC66K46	46	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH16	-
		D	BACI10AH02	-
		E	BACI10AH36	-
		F	BACI10AH16	-
BACC66K47	47	A	BACI10AH17	-
		B	BACI10AH17	-
		C	BACI10AH16	-
		D	BACI10AH17	-
		E	BACI10AH17	-
		F	BACI10AH16	-
BACC66K48	48	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH22	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH41	-
BACC66K49	49	A	BACI10AH11	-
		B	BACI10AH11	-
		C	BACI10AH04	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH07	-

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Table 6 BOEING ARINC 600 CONNECTOR INSERT CONFIGURATION CODES (Continued)

Connector	Insert Configuration Code	Insert Cavity	BACI10AH Insert	Notes
BACC66K50	50	A	BACI10AH02	-
		B	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		C	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.
		D	BACI10AH02	-
		E	BACI10AH14	BACI10AH36 is a satisfactory alternative to BACI10AH14, for size 8 twinax contacts.
		F	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.
BACC66K51	51	A	BACI10AH02	-
		B	BACI10AH02	-
		C	BACI10AH04	-
		D	BACI10AH02	-
		E	BACI10AH02	-
		F	BACI10AH37	-
BACC66K52	52	A	BACI10AH02	-
		B	BACI10AH36	-
		C	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.
		D	BACI10AH02	-
		E	BACI10AH36	-
		F	BACI10AH33	Fiber optic cable and termini are not supplied with the connector.

Table 7
ALTERNATIVE BOEING INSERT CONFIGURATION CODES

Specified Code	Alternative Code
22	122
23	123
25	125

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Table 8
ALTERNATIVE BOEING CONNECTOR CLASSES

Specified Class	Alternative Class
D	G
E	F

Table 9
COAX CONTACT DESIGNATION CODES FOR BACC66F CONNECTORS

Code	Cable	Contact		
		Socket	Size	Type
AA	-	-	-	-
AB	RG-58	BACC47EU1	5	Coax
	BA-5903			
AC	5021K1011	BACC47EU2	5	Coax
AD	BMS 13-65 Type 0E, S280W503-1, BMS13-65T0E	BACC47EU3	5	Coax
AE	BMS 13-65 Type 0F, S280W503-2, BMS13-65T0F	BACC47EU4	5	Coax
AF	S280W502-1	S280W552-205	8	Concentric Twinax

Table 10
COAX CONTACT DESIGNATION CODES FOR BACC66H CONNECTORS

Code	Cable	Contact			
		Socket	Style	Size	Type
AA	-	-	-	-	-
AB	BA-5903	BACC47EU1	-	5	Coax
	RG-58				
	RG-142B				
AC	5021K1011	BACC47EU2	-	5	Coax
AD	BA-5903	BACC47EU1	-	5	Coax
	RG-58				
	BA-6903	BACC47EN1	-	1	Coax
	RG-214				
	RG-393				
AE	5012H3012	BACC47EN3	-	1	Coax
	5021K1011	BACC47EU2	-	5	Coax
AF	5021K1011	BACC47EU2	-	5	Coax
	RG-393	BACC47EN2	-	1	Coax

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CONNECTORS**

Table 10 COAX CONTACT DESIGNATION CODES FOR BACC66H CONNECTORS (Continued)

Code	Cable	Contact			
		Socket	Style	Size	Type
AG	-	BACC47EN4	TNC Adapter	1	Coax
	BA-5903	BACC47EU1	-	5	Coax
	RG-58				
AH	-	BACC47EN4	TNC Adapter	1	Coax
	5021K1011	BACC47EU2	-	5	Coax
AJ	-	BACC47EN4	TNC Adapter	1	Coax
	BMS 13-65 Type OE, S280W503-1	BACC47EU3	-	5	Coax
AK	-	BACC47EN4	TNC Adapter	1	Coax
	S280W503-2	BACC47EU4	-	5	Coax
AL	BMS 13-65 Type OE, S280W503-1	S280W554-111	-	8	Coax
AM	S280W503-2	S280W554-113	-	8	Coax
AN	S280W502-1	S280W552-205	-	8	Concentric Twinax
AP	BACC69AAA()	-	-	16	Fiber Optic
AR	BACC69AAC()	-	-	16	Fiber Optic
	BACC69ACC()				
AT	BMS13-72T03C04G024	BACC47GB1	-	8	Quadrax
BD	RG-214	BACC47EN1	-	1	Coax
	BA-6903				
BE	5012H3012	BACC47EN3	-	1	Coax
BF	RG-393	BACC47EN2	-	1	Coax
BG	-	BACC47EN4	TNC Adapter	1	Coax
BH	BA-5903	BACC47EU1	-	5	Coax
	RG-58				
	RG-393	BACC47EN2	-	1	Coax
BJ	BMS 13-65 Type OF, S280W503-2	BACC47EU4	-	5	Coax
BK	-	BACA19BK1	TNC Adapter	1	Coax
BL	BMS 13-65 Type OF, S280W503-2	BACC47EU4	-	5	Coax
	-	BACA19BK1	TNC Adapter	1	Coax

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Table 11
COAX CONTACT DESIGNATION CODES FOR BACC66K CONNECTORS

Code	Cable	Contact			
		Socket	Style	Size	Type
AA	-	-	-	-	-
AB	RG-58	BACC47EU1	-	5	Coax
	BA-5903		-		
AC	5021K1011	BACC47EU2	-	5	Coax
AD	-	BACA19BK1	TNC Adapter for BACI10AH11 Insert	1	Coax
AE	RG-58	BACC47EU1	-	5	Coax
	BA-5903		-		
	-	BACA19BK1	TNC Adapter for BACI10AH11 Insert	1	Coax
AF	5021K1011	BACC47EU2	-	5	Coax
	-	BACA19BK1	TNC Adapter for BACI10AH11 Insert	1	Coax
AG	BMS 13-65 Type OE, S280W503-1	BACC47EU3	-	5	Coax
AH	BMS 13-65 Type OF, S280W503-2	BACC47EU4	-	5	Coax
AJ	BMS 13-65 Type OE, S280W503-1	BACC47EU3	-	5	Coax
	-	BACA19BK1	TNC Adapter for BACI10AH11 Insert	1	Coax
AK	BMS 13-65 Type OF, S280W503-2	BACC47EU4	-	5	Coax
	-	BACA19BK1	TNC Adapter for BACI10AH11 Insert	1	Coax
AL	BMS 13-65 Type OE, S280W503-1	S280W554-111	-	8	Coax
AM	BMS 13-65 Type OF, S280W503-2	S280W554-113	-		
AN	S280W502-1	S280W552-205	-	8	Concentric Twinax
AP	BACC69AAA()	-	-	16	Fiber Optic
AR	BACC69AAC()	-	-	16	Fiber Optic
	BACC69ACC()				
AT	BMS13-72T03C04G024	BACC47GB1	-	8	Quadrax

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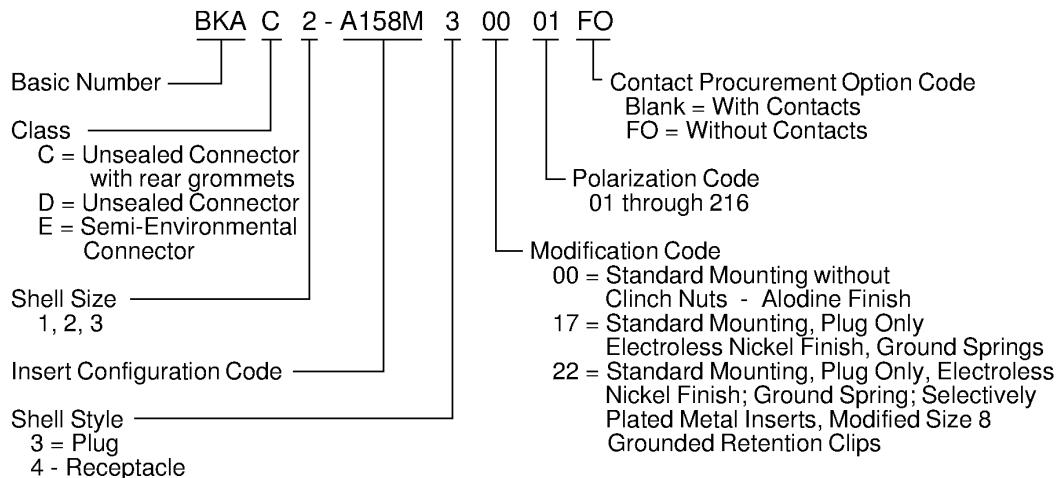
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Table 12
CONTACT PROCUREMENT OPTION CODES

Contact Procurement Option Code	Contact Procurement Option
00	Connector is supplied without contacts.
01	Connector is supplied with all contacts.
02	Connector is supplied with coax contacts and/or twinax contacts only.
03	Connector is supplied with BACC47EF and BACC47EG contacts only.
04	Connector is supplied with BACC47EF1 contacts only.
05	Connector is supplied with all contacts except coax and twinax contacts.

D. ITT Cannon BKA() ARINC 600 Connectors



2446437 S00061547472_V1

ITT CANNON BKA() SERIES CONNECTOR PART NUMBER STRUCTURE

Figure 11

NOTE: If an ITT Cannon BACI10AH11 (4W4) insert does not have TNC adapters or outer coax contact bodies in the size 1 contact cavities, it is recommended that four BACA19BK1 TNC adapters be installed in the insert. Refer to Paragraph 16.K..

NOTE: If the insert is not supplied, as shown in Table 13, the connector is not supplied by ITT Cannon.

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Table 13
RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66F11	1	125	A	BACI10AH01	60	-
			B	BACI10AH01	60	-
			C	BACI10AH03	5W2	-
BACC66F12	1	100	A	BACI10AH20	30T2	-
			B	BACI10AH20	30T2	-
			C	BACI10AH19	40	-
BACC66F13	1	124	A	BACI10AH01	60	-
			B	BACI10AH01	60	-
			C	BACI10AH21	4	-
BACC66F14	1	160	A	BACI10AH01	60	-
			B	BACI10AH01	60	-
			C	BACI10AH19	40	-
BACC66H21	2	313	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H22	2	A234	A	BACI10AH05	71W1	For size 1 coax contact with special mounting block hole spacing
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H122	2	A234M	A	BACI10AH05	71W1	For size 1 coax contact with standard mounting block
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H23	2	155	A	BACI10AH05	71W1	For size 1 coax contact with special mounting block hole spacing
			B	BACI10AH05	71W1	For size 1 coax contact with special mounting block hole spacing
			C	BACI10AH04	13W2	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC
600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H123	2	155M	A	BACI10AH05	71C1	For size 1 coax contact with standard mounting block
			B	BACI10AH05	71W1	For size 1 coax contact with standard mounting block
			C	BACI10AH04	13W2	-
BACC66H24	2	A164	A	BACI10AH06	Wave Guide	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H25	2	234	A	BACI10AH02	150	-
			B	BACI10AH05	71W1	For size 1 coax contact with special mounting block hole spacing
			C	BACI10AH04	13W2	-
BACC66H125	2	234M	A	BACI10AH02	150	-
			B	BACI10AH05	71W1	For size 1 coax contact with standard mounting block
			C	BACI10AH04	13W2	-
BACC66H26	2	400	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH07	100	-
BACC66H27	2	V155M	A	BACI10AH08	71W1B	For size 1 coax contact with standard mounting block
			B	BACI10AH05	71W1	For size 1 coax contact with standard mounting block
			C	BACI10AH04	13W2	-
BACC66H28	2	A158M	A	BACI10AH09	2W2	For size 1 coax contacts with standard mounting blocks
			B	BACI10AH08	71W1B	For size 1 coax contact with standard mounting block
			C	BACI10AH10	85	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC
600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H29	2	340	A	BACI10AH14	120T2	-
			B	BACI10AH14	120T2	-
			C	BACI10AH07	100	-
BACC66H30	2	248	A	BACI10AH15	121	-
			B	BACI10AH15	121	-
			C	BACI10AH13	6T6	-
BACC66H31	2	137	A	BACI10AH15	121	-
			B	BACI10AH12	10T10	-
			C	BACI10AH13	6T6	-
BACC66H32	2	066	A	Blank	Blank	This insert cavity has a blank insert
			B	BACI10AH17	60	-
			C	BACI10AH18	6	-
BACC66H33	2	385	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH10	85	-
BACC66H34	2	370	A	BACI10AH14	120T2	-
			B	BACI10AH02	150	-
			C	BACI10AH07	100	-
BACC66H35	2	246	A	BACI10AH14	120T2	-
			B	BACI10AH14	120T2	-
			C	BACI10AH13	6T6	-
BACC66H36	2	167T	A	BACI10AH11	4W4	This insert has 4 BACA19BK1 TNC adapters
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H37	2	324	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH24	24T4	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC
600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H38	2	165M	A	BACI10AH02	150	-
			B	BACI10AH25	2W2B	For size 1 coax contacts with standard mounting blocks
			C	BACI10AH04	13W2	-
BACC66H39	2	359	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH22	59	-
BACC66H40	2	A137	A	BACI10AH11	4W4	This insert has 4 BACA19BK1 TNC adapters
			B	BACI10AH14	120T2	-
			C	BACI10AH04	13W2	-
BACC66H41	2	188	A	BACI10AH02	150	-
			B	BACI10AH11	4W4	In early connectors, This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
			C	BACI10AH16	34	In later connectors, this insert has 4 BACA19BK1 TNC adapters
BACC66H42	2	042	A	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
			B	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
			C	BACI10AH16	34	-
BACC66H43	2	133	A	BACI10AH17	60	-
			B	BACI10AH17	60	-
			C	BACI10AH04	13W2	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H44	2	215	A	BACI10AH15	121	-
			B	BACI10AH17	60	-
			C	BACI10AH16	34	-
BACC66H45	2	B234	A	BACI10AH08	71W1B	For size 1 coax contact with standard mounting block
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
BACC66H46	2	154	A	BACI10AH17	60	-
			B	BACI10AH17	60	-
			C	BACI10AH16	34	-
BACC66H47	2	Code not assigned	A	BACI10AH30	-	20F12T8 Insert not supplied
			B	BACI10AH14	120T2	-
			C	BACI10AH04	13W2	-
BACC66H48	2	253	A	BACI10AH14	120T2	-
			B	BACI10AH14	120T2	-
			C	BACI10AH04	13W2	-
BACC66H49	2	105	A	BACI10AH12	10T10	-
			B	BACI10AH12	10T10	-
			C	BACI10AH10	85	-
BACC66H50	2	Code not assigned	A	BACI10AH31	-	20F12T8 Insert not supplied
			B	BACI10AH14	120T2	-
			C	BACI10AH04	13W2	-
BACC66H51	2	244-322130	A	BACI10AH02	150	-
			B	BACI10AH17	60	-
			C	BACI10AH16	34	-
BACC66H52	2	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH04	13W2	-
BACC66H53	2	283	A	BACI10AH14	120T2	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H54	2	128	A	BACI10AH11	4W4	-
			B	BACI10AH29	24	-
			C	BACI10AH07	100	-
BACC66H55	2	Code not assigned	A	BACI10AH08	71W1B	-
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH35	-	12F5C2 Insert not supplied
BACC66H56	2	334	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH16	34	-
BACC66H57	2	Code not assigned	A	BACI10AH32	-	Q11 Insert not supplied
			B	BACI10AH15	121	-
			C	Blank	Blank	-
BACC66H58	2	Code not assigned	A	Blank	Blank	-
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH04	13W2	-
BACC66H59	2	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH38	-	36F36 Insert not supplied
			C	BACI10AH04	13W2	-
BACC66H60	2	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH40	-	46Q2 Insert not supplied
BACC66H61	2	Code not assigned	A	BACI10AH14	-	120Q2 Insert not supplied
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH34	-	13Q2 Insert not supplied
BACC66H62	2	Code not assigned	A	BACI10AH32	-	Q11 Insert not supplied
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH10	85	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66H63	2	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH33	-	17F12Q2 Insert not supplied
BACC66H64	2	Code not assigned	A	BACI10AH38	-	36F36 Insert not supplied
			B	Blank	Blank	-
			C	BACI10AH22	59	-
BACC66H65	2	Code not assigned	A	BACI10AH39	-	20F12Q8 Insert not supplied
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH10	85	-
BACC66H66	2	Code not assigned	A	BACI10AH32	-	Q11 Insert not supplied
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH42	-	25 Insert not supplied
BACC66H67	2	Code not assigned	A	BACI10AH11	4W4	-
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH22	59	--
BACC66H68	2	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH32	-	Q11 Insert not supplied
			C	BACI10AH16	34	-
BACC66K31	3	626	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH04	13W2	-
BACC66K32	3	713	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH07	100	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH04	13W2	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC
600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66K33	3	A713	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K34	3	800	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH07	100	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K35	3	271T	A	BACI10AH11	4W4	This insert has 4 BACA19BK1 TNC adapters
			B	BACI10AH11	4W4	This insert has 4 BACA19BK1 TNC adapters
			C	BACI10AH04	13W2	-
			D	Blank	Blank	This insert cavity has a blank insert
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K36	3	608	A	BACI10AH14	120T2	-
			B	BACI10AH02	150	-
			C	BACI10AH16	34	-
			D	BACI10AH14	120T2	-
			E	BACI10AH02	150	-
			F	BACI10AH16	34	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC
600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66K37	3	496	A	BACI10AH15	121	-
			B	BACI10AH15	121	-
			C	BACI10AH13	6T6	-
			D	BACI10AH15	121	-
			E	BACI10AH15	121	-
			F	BACI10AH13	6T6	-
BACC66K38	3	784	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH26	84	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K39	3	718	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH22	59	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH22	59	-
BACC66K40	3	A759	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH22	59	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K41	3	Code not assigned	A	BACI10AH11	4W4	-
			B	BACI10AH14	120T2	-
			C	BACI10AH33	-	17F12Q2 Insert not supplied
			D	BACI10AH11	TCAS	-
			E	BACI10AH14	120T2	-
			F	BACI10AH34	-	13Q2 Insert not supplied

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66K42	3	Code not assigned	A	BACI10AH32	-	Q11 Insert not supplied
			B	BACI10AH02	150	-
			C	BACI10AH34	-	13Q2 Insert not supplied
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH37	-	68Q2 Insert not supplied
BACC66K43	3	Code not assigned	A	BACI10AH39	-	20F12Q8 Insert not supplied
			B	BACI10AH02	150	-
			C	BACI10AH10	85	-
			D	BACI10AH36	-	120Q2 Insert not supplied
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K44	3	Code not assigned	A	BACI10AH36	-	120Q2 Insert not supplied
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH10	85	-
			D	BACI10AH36	-	120Q2 Insert not supplied
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K45	3	664	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH16	34	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH16	34	-

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66K46	3	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH16	34	-
			D	BACI10AH02	150	-
			E	BACI10AH36	-	120Q2 Insert not supplied
			F	BACI10AH02	150	-
BACC66K47	3	308	A	BACI10AH17	60	-
			B	BACI10AH17	60	-
			C	BACI10AH16	34	-
			D	BACI10AH17	60	-
			E	BACI10AH17	60	-
			F	BACI10AH16	34	-
BACC66K48	3	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH22	59	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH41	-	Q6 Insert not supplied
BACC66K49	3	421	A	BACI10AH11	4W4	-
			B	BACI10AH11	4W4	-
			C	BACI10AH04	13W2	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH07	100	-
BACC66K50	3	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH14	120T2	-
			C	BACI10AH33	-	17F12Q2 Insert not supplied
			D	BACI10AH02	150	-
			E	BACI10AH14	120T2	-
			F	BACI10AH33	-	17F12Q2 Insert not supplied

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Table 13 RELATION BETWEEN ITT CANNON INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	ITT Cannon Insert Configuration Code	Insert			Notes
			Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
BACC66K51	3	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH02	150	-
			C	BACI10AH04	13W2	-
			D	BACI10AH02	150	-
			E	BACI10AH02	150	-
			F	BACI10AH37	-	68Q2 Insert not supplied
BACC66K52	3	Code not assigned	A	BACI10AH02	150	-
			B	BACI10AH36	-	120Q2 Insert not supplied
			C	BACI10AH33	-	17F12Q2 Insert not supplied
			D	BACI10AH02	150	-
			E	BACI10AH36	-	120Q2 Insert not supplied
			F	BACI10AH33	-	17F12Q2 Insert not supplied

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

Table 14
ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
120	1	A	BACI10AH01	60	-
		B	BACI10AH01	60	-
		C	Blank	Blank	This insert cavity is empty
124	2	A	Blank	Blank	This insert cavity has a blank insert
		B	BACI10AH29	24	-
		C	BACI10AH07	100	-

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
158	2	A	BACI10AH15	121	-
		B	BACI10AH29	24	-
		C	BACI10AH04	13W2	-
158M	2	A	BACI10AH09	2W2	For size 1 coax contacts with standard mounting blocks
		B	BACI10AH05	71W1	For size 1 coax contact with standard mounting block
		C	BACI10AH10	85	-
167	2	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
187	2	A	BACI10AH29	24	-
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
67402-203	2	A	BACI10AH15	121	This connector is supplied without contacts
		B	BACI10AH15	121	
		C	BACI10AH18	6	
67402-229	2	A	BACI10AH02	150	Connector does not have the grounding spring
		B	BACI10AH02	150	
		C	BACI10AH04	13W2	
67402-316	2	A	BACI10AH11	4W4	This insert has 4 BACA19BK1 TNC adapters
		B	BACI10AH14	120T2	
		C	BACI10AH04	13W2	
67403-22-51	2	A	BACI10AH02	150	-
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
67403-22-56	2	A	BACI10AH02	150	-
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
68134-101	2	A	BACI10AH15	121	Connector is supplied without contacts
		B	BACI10AH15	121	
		C	BACI10AH13	6T6	

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
A164	2	A	-	Blank	This insert cavity is empty
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
A238	2	A	BACI10AH15	121	-
		B	BACI10AH15	121	-
		C	BACI10AH18	6	-
B234M	2	A	BACI10AH08	71W1B	For size 1 coax contact with standard mounting block
		B	BACI10AH02	150	-
		C	BACI10AH04	13W2	-
BW234	2	A	BACI10AH02	150	-
		B	BACI10AH05	71W1	For size 1 coax contact with special mounting block hole spacing
		C	BACI10AH04	13W2	-
067404-0080	3	A	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
		B	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-
271C	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
494	3	A	BACI10AH15	121	-
		B	BACI10AH14	120T2	-
		C	BACI10AH13	6T6	-
		D	BACI10AH15	121	-
		E	BACI10AH14	120T2	-
		F	BACI10AH13	6T6	-
537	3	A	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
		B	BACI10AH14	120T2	-
		C	BACI10AH07	100	-
		D	BACI10AH02	150	-
		E	BACI10AH02	150	-
		F	BACI10AH04	13W2	-
67404-62	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-
67404-80	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
67404-91	3	A	BACI10AH15	121	-
		B	BACI10AH14	120T2	-
		C	BACI10AH13	6T6	-
		D	BACI10AH15	121	-
		E	BACI10AH14	120T2	-
		F	BACI10AH13	6T6	-
67405-54	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-
67405-54-40	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
68135-21	3	A	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		B	BACI10AH11	4W4	This insert has 4 size 1 outer contact bodies for ITT Cannon termination kits
		C	BACI10AH04	13W2	-
		D	Blank	Blank	This insert cavity has a blank insert
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-
68135-25	3	A	BACI10AH15	121	-
		B	BACI10AH14	120T2	-
		C	BACI10AH13	6T6	-
		D	BACI10AH15	121	-
		E	BACI10AH14	120T2	-
		F	BACI10AH13	6T6	-
68135-25-103	3	A	BACI10AH15	121	-
		B	BACI10AH14	120T2	-
		C	BACI10AH13	6T6	-
		D	BACI10AH15	121	-
		E	BACI10AH14	120T2	-
		F	BACI10AH13	6T6	-
68135-95	3	A	BACI10AH11	4W4	This insert does not have size 1 coax outer bodies or TNC adapters
		B	BACI10AH14	120T2	-
		C	BACI10AH07	100	-
		D	BACI10AH02	150	-
		E	BACI10AH02	150	-
		F	BACI10AH04	13W2	-

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Table 14 ADDITIONAL ITT CANNON CONNECTOR INSERT CONFIGURATION CODES (Continued)

ITT Cannon Insert Configuration Code	Connector Shell Size	Insert			Notes
		Insert Cavity	BACI10AH Insert	ITT Cannon Designation	
770	3	A	BACI10AH02	150	-
		B	BACI10AH02	150	-
		C	BACI10AH10	85	-
		D	BACI10AH02	150	-
		E	BACI10AH02	150	-
		F	BACI10AH10	85	-
A759	3	A	BACI10AH02	150	-
		B	BACI10AH02	150	-
		C	BACI10AH22	59	-
		D	BACI10AH02	150	-
		E	BACI10AH02	150	-
		F	BACI10AH07	100	-

Table 15
ITT CANNON INSERT PART NUMBERS

ITT Cannon Insert	ITT Cannon Code	Part Number	Description	Supplier
BACI10AH01	60#22	143-1910-001	With rear grommet	ITT Cannon
		143-1910-000	Without rear grommet	
BACI10AH02	150	143-1906-001	With rear grommet	ITT Cannon
		143-1906-000	Without rear grommet	
BACI10AH03	5W2	143-1913-001	With rear grommet	ITT Cannon
		143-1913-000	Without rear grommet	
BACI10AH04	13W2	143-1909-001	With rear grommet	ITT Cannon
		143-1909-000	Without rear grommet	
BACI10AH05	71W1A	143-2085-000	For size 1 coax contact with standard mounting block, and with rear grommet - Supplied with 1 C-Bracket Spacer	ITT Cannon
		143-2085-001	For size 1 coax contact with standard mounting block, and without rear grommet - Supplied with 1 C-Bracket Spacer	ITT Cannon
	71W1	143-1958-002	For size 1 coax contact with special mounting block hole spacing, and with rear grommet	ITT Cannon
		143-1958-000	For size 1 coax contact with special mounting block hole spacing, and without rear grommet	ITT Cannon
BACI10AH06	-	317-1641-000	Wave Guide	ITT Cannon

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Table 15 ITT CANNON INSERT PART NUMBERS (Continued)

BACI10AH() Insert	ITT Cannon Code	Part Number	Description	Supplier
BACI10AH07	100	143-2015-001	With rear grommet	ITT Cannon
		143-2015-000	Without rear grommet	
BACI10AH08	71W1B	143-1114-000	For size 1 coax contact with standard mounting block, and with rear grommet - Supplied with 1 C-Bracket Spacer	ITT Cannon
		143-1113-000	For size 1 coax contact with standard mounting block, and without rear grommet - Supplied with 1 C-Bracket Spacer	ITT Cannon
BACI10AH09	2W2	144-2944-000	For 2 size 1 coax contacts with standard mounting blocks, no grommet - Supplied with 2 C-Bracket Spacers	ITT Cannon
BACI10AH10	85	143-3879-000	With rear grommet	ITT Cannon
		143-3877-000	Without rear grommet	
BACI10AH11	4W4	177-1000-000	With 4 size 1 outer contact bodies for ITT Cannon coax termination kits	ITT Cannon
		177-1000-003	With 4 BACA19BK1 TNC adapters	ITT Cannon
BACI10AH12	10T10	228-1027-001	With rear grommet	ITT Cannon
		228-1027-002	Without rear grommet	
BACI10AH13	6T6	228-1012-001	With rear grommet	ITT Cannon
		228-1012-003	Without rear grommet	
BACI10AH14	120T2	143-1165-003	With rear grommet	ITT Cannon
BACI10AH15	121	143-1150-001	With rear grommet	ITT Cannon
		143-1150-002	Without rear grommet	
BACI10AH16	34	143-1098-005	With rear grommet	ITT Cannon
BACI10AH17	60#20	143-3715-003	With rear grommet	ITT Cannon
BACI10AH18	6	143-1155-001	With rear grommet	ITT Cannon
BACI10AH19	40	143-1171-001	With rear grommet	ITT Cannon
BACI10AH20	30T2	143-1173-001	With rear grommet	ITT Cannon
		143-1173-000	Without rear grommet	
BACI10AH21	4#12	143-1157-001	With rear grommet	ITT Cannon
BACI10AH22	59	143-1167-001	With rear grommet	ITT Cannon
BACI10AH23	110	143-1182-000	With rear grommet	ITT Cannon
BACI10AH24	24T4	143-1096-004	With rear grommet	ITT Cannon
BACI10AH25	2W2 SPCL	144-2944-004	For 2 size 1 coax contacts with standard mounting blocks, no grommet - Supplied with 2 C-Bracket Spacers	ITT Cannon
BACI10AH26	84	143-1195-001	With rear grommet	ITT Cannon

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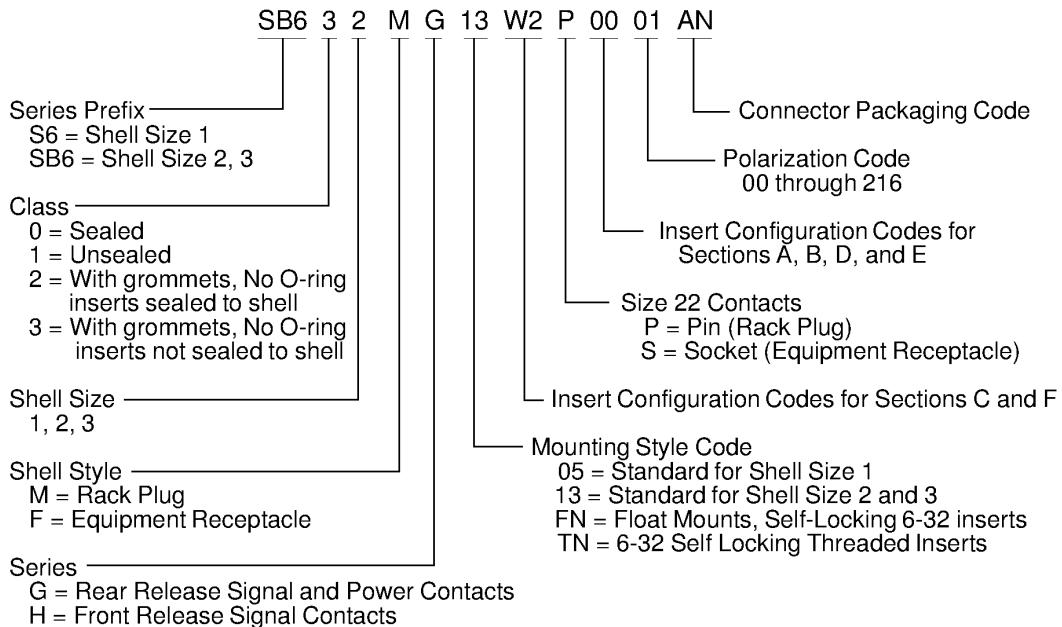
Table 15 ITT CANNON INSERT PART NUMBERS (Continued)

BACI10AH() Insert	ITT Cannon Code	Part Number	Description	Supplier
BACI10AH29	24	143-1102-005	With rear grommet	ITT Cannon

Table 16
ALTERNATIVE WAVE GUIDE PART NUMBERS

Specified Wave Guide		Alternative Wave Guide	
Part Number	Supplier	Part Number	Supplier
317-1641-000	ITT Cannon	CO600-R967W001	Tri-Star / Cory
		3602982-0501	Honeywell

E. Souriau S6() and SB6() ARINC 600 Connectors



2446438 S00061547473_V1

SOURIAU S6() AND SB6() ARINC 600 CONNECTOR PART NUMBER STRUCTURE

Figure 12

NOTE: If the insert is not supplied as shown in Table 17, the connector is not supplied by Souriau.

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Table 17
RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66F11	1	00	A	BACI10AH01	60 pts
			B	BACI10AH01	60 pts
		W2	C	BACI10AH03	5W2
BACC66F12	1	Code not assigned	A	BACI10AH20	30T2 Insert not supplied
			B	BACI10AH20	30T2 Insert not supplied
		38	C	BACI10AH19	40 pts
BACC66F13	1	00	A	BACI10AH01	60 pts
			B	BACI10AH01	60 pts
		Code not assigned	C	BACI10AH21	4 Insert not supplied
BACC66F14	1	00	A	BACI10AH01	60 pts
			B	BACI10AH01	60 pts
		38	C	BACI10AH19	40 pts
BACC66H21	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
BACC66H122	2	A3	A	BACI10AH05	71 pts
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
BACC66H123	2	01	A	BACI10AH05	71 pts
			B	BACI10AH05	71 pts
		W2	C	BACI10AH04	11C2
BACC66H24	2	F3	A	BACI10AH06	Wave Guide
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
BACC66H125	2	02	A	BACI10AH02	150 pts
			B	BACI10AH05	71 pts
		W2	C	BACI10AH04	11C2
BACC66H26	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		K5	C	BACI10AH07	100 pts

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66H27	2	12	A	BACI10AH08	71 pts rev
			B	BACI10AH05	71 pts
		W2	C	BACI10AH04	11C2
BACC66H28	2	E6	A	BACI10AH09	C2
			B	BACI10AH08	71 pts rev
		A1	C	BACI10AH10	85 pts
BACC66H29	2	QJ	A	BACI10AH14	118Q2
			B	BACI10AH14	118Q2
		K5	C	BACI10AH07	100 pts
BACC66H30	2	B2	A	BACI10AH15	121 pts
			B	BACI10AH15	121 pts
		Q6	C	BACI10AH13	Q6
BACC66H31	2	Code not assigned	A	BACI10AH15	121 pts
			B	BACI10AH12	Q10
		Q6	C	BACI10AH13	Q6
BACC66H32	2	Code not assigned	A	Blank	Blank
			B	BACI10AH17	60 pts
		Code not assigned	C	BACI10AH18	6 insert not supplied
BACC66H33	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		A1	C	BACI10AH10	85 pts
BACC66H34	2	Code not assigned	A	BACI10AH14	118Q2
			B	BACI10AH02	150 pts
		K5	C	BACI10AH07	100 pts
BACC66H35	2	QJ	A	BACI10AH14	118Q2
			B	BACI10AH14	118Q2
		Q6	C	BACI10AH13	Q6
BACC66H36	2	T4	A	BACI10AH11	TCAS
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66H37	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		T8	C	BACI10AH24	20T4
BACC66H38	2	Code not assigned	A	BACI10AH02	150 pts
			B	BACI10AH25	C2 rev
		W2	C	BACI10AH04	11C2
BACC66H39	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH22	59 Insert not supplied
BACC66H40	2	T8	A	BACI10AH11	TCAS
			B	BACI10AH14	118Q2
		W2	C	BACI10AH04	11C2
BACC66H41	2	T5	A	BACI10AH02	150 pts
			B	BACI10AH11	TCAS
		34	C	BACI10AH16	34 pts
BACC66H42	2	T3	A	BACI10AH11	TCAS
			B	BACI10AH11	TCAS
		34	C	BACI10AH16	34 pts
BACC66H43	2	T1	A	BACI10AH17	60 pts
			B	BACI10AH17	60 pts
		W2	C	BACI10AH04	11C2
BACC66H44	2	Code not assigned	A	BACI10AH15	121 pts
			B	BACI10AH17	60 pts
		34	C	BACI10AH16	34 pts
BACC66H45	2	Code not assigned	A	BACI10AH08	71 pts rev
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
BACC66H46	2	T1	A	BACI10AH17	60 pts
			B	BACI10AH17	60 pts
		34	C	BACI10AH16	34 pts

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66H47	2	Code not assigned	A	BACI10AH30	20F12T8 Insert not supplied
			B	BACI10AH14	118Q2
		W2	C	BACI10AH04	11C2
BACC66H48	2	QJ	A	BACI10AH14	118Q2
			B	BACI10AH14	118Q2
		W2	C	BACI10AH04	11C2
BACC66H49	2	Code not assigned	A	BACI10AH12	Q10
			B	BACI10AH12	Q10
		A1	C	BACI10AH10	85 pts
BACC66H50	2	Code not assigned	A	BACI10AH31	20F12T8 Insert not supplied
			B	BACI10AH14	118Q2
		W2	C	BACI10AH04	11C2
BACC66H51	2	Code not assigned	A	BACI10AH02	150 pts
			B	BACI10AH17	60 pts
		34	C	BACI10AH16	34 pts
BACC66H52	2	QB	A	BACI10AH02	150 pts
			B	BACI10AH32	Q11
		W2	C	BACI10AH04	11C2
BACC66H53	2	Code not assigned	A	BACI10AH14	118Q2
			B	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
BACC66H54	2	Code not assigned	A	BACI10AH11	TCAS
			B	BACI10AH29	24 pts
		K5	C	BACI10AH07	100 pts
BACC66H55	2	Code not assigned	A	BACI10AH08	71 pts rev
			B	BACI10AH36	118Q2
		Code not assigned	C	BACI10AH35	12F5C2 Insert not supplied
BACC66H56	2	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
		34	C	BACI10AH16	34 pts

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66H57	2	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH15	121 pts
		00	C	Blank	Blank
BACC66H58	2	Code not assigned	A	Blank	Blank
			B	BACI10AH36	118Q2
		W2	C	BACI10AH04	11C2
BACC66H59	2	Code not assigned	A	BACI10AH02	150 pts
			B	BACI10AH38	36F36 Insert not supplied
		W2	C	BACI10AH04	11C2
BACC66H60	2	QB	A	BACI10AH02	150 pts
			B	BACI10AH32	Q11
		Code not assigned	C	BACI10AH40	46Q2 Insert not supplied
BACC66H61	2	QJ	A	BACI10AH14	118Q2
			B	BACI10AH36	118Q2
		Q3	C	BACI10AH34	11Q2
BACC66H62	2	QA	A	BACI10AH32	Q11
			B	BACI10AH32	Q11
		A1	C	BACI10AH10	85 pts
BACC66H63	2	QB	A	BACI10AH02	150 pts
			B	BACI10AH32	Q11
		Code not assigned	C	BACI10AH33	17F12Q2 Insert not supplied
BACC66H64	2	Code not assigned	A	BACI10AH38	36F36 Insert not supplied
			B	Blank	Blank
		Code not assigned	C	BACI10AH22	59 Insert not supplied
BACC66H65	2	Code not assigned	A	BACI10AH39	Fiber Optic Insert not supplied
			B	BACI10AH32	Q11
		A1	C	BACI10AH10	85 pts
BACC66H66	2	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH36	118Q2
		Code not assigned	C	BACI10AH42	25 Insert not supplied

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**Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)**

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66H67	2	Code not assigned	A	BACI10AH11	TCAS
			B	BACI10AH32	Q11
		Code not assigned	C	BACI10AH22	59 Insert not supplied
BACC66H68	2	QB	A	BACI10AH02	150 pts
			B	BACI10AH32	Q11
		34	C	BACI10AH16	34 pts
BACC66K31	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		W2	C	BACI10AH04	11C2
			F	BACI10AH04	11C2
		00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		K3	C	BACI10AH07	100 pts
			F	BACI10AH04	11C2
BACC66K32	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		K2	C	BACI10AH04	11C2
			F	BACI10AH07	100 pts
		00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		K1	C	BACI10AH07	100 pts
			F	BACI10AH07	100 pts

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66K35	3	E9	A	BACI10AH11	TCAS
			B	BACI10AH11	TCAS
			D	Blank	Blank
			E	BACI10AH02	150 pts
		K2	C	BACI10AH04	11C2
			F	BACI10AH07	100 pts
BACC66K36	3	Code not assigned	A	BACI10AH14	118Q2
			B	BACI10AH02	150 pts
			D	BACI10AH14	118Q2
			E	BACI10AH02	150 pts
		34	C	BACI10AH16	34 pts
			F	BACI10AH16	34 pts
BACC66K37	3	Code not assigned	A	BACI10AH15	121 pts
			B	BACI10AH15	121 pts
			D	BACI10AH15	121 pts
			E	BACI10AH15	121 pts
		Q6	C	BACI10AH13	Q6
			F	BACI10AH13	Q6
BACC66K38	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH26	84 Insert not supplied
			F	BACI10AH07	100 pts
BACC66K39	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH22	59 Insert not supplied
			F	BACI10AH22	59 Insert not supplied

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66K40	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH22	59 Insert not supplied
			F	BACI10AH07	100 pts
BACC66K41	3	Code not assigned	A	BACI10AH11	TCAS
			B	BACI10AH14	118Q2
			D	BACI10AH11	TCAS
			E	BACI10AH14	118Q2
		Code not assigned	C	BACI10AH33	17F12Q2 Insert not supplied
			F	BACI10AH34	11Q2
BACC66K42	3	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		R1	C	BACI10AH34	11Q2
			F	BACI10AH37	68Q2
BACC66K43	3	Code not assigned	A	BACI10AH39	20F12Q8 Insert not supplied
			B	BACI10AH02	150 pts
			D	BACI10AH36	118Q2
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH10	85 pts
			F	BACI10AH07	100 pts
BACC66K44	3	Code not assigned	A	BACI10AH36	118Q2
			B	BACI10AH36	118Q2
			D	BACI10AH36	118Q2
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH10	85 pts
			F	BACI10AH07	100 pts

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**Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)**

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66K45	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		34	C	BACI10AH16	34 pts
			F	BACI10AH16	34 pts
BACC66K46	3	Code not assigned	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH36	118Q2
		34	C	BACI10AH16	34 pts
			F	BACI10AH16	34 pts
BACC66K47	3	Code not assigned	A	BACI10AH17	60 pts
			B	BACI10AH17	60 pts
			D	BACI10AH17	60 pts
			E	BACI10AH17	60 pts
		34	C	BACI10AH16	34 pts
			F	BACI10AH16	34 pts
BACC66K48	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH04	11C2
			F	BACI10AH41	Q6
BACC66K49	3	T6	A	BACI10AH11	TCAS
			B	BACI10AH11	TCAS
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH33	17F12Q2 Insert not supplied
			F	BACI10AH33	17F12Q2 Insert not supplied

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Table 17 RELATION BETWEEN SOURIAU INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Souriau Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Souriau Insert Designation
BACC66K50	3	QR	A	BACI10AH02	150 pts
			B	BACI10AH14	118Q2
			D	BACI10AH02	150 pts
			E	BACI10AH14	118Q2
		Code not assigned	C	BACI10AH33	17F12Q2 Insert not supplied
			F	BACI10AH33	17F12Q2 Insert not supplied
BACC66K51	3	00	A	BACI10AH02	150 pts
			B	BACI10AH02	150 pts
			D	BACI10AH02	150 pts
			E	BACI10AH02	150 pts
		Code not assigned	C	BACI10AH04	11C2
			F	BACI10AH37	68Q2
BACC66K52	3	QR	A	BACI10AH02	150 pts
			B	BACI10AH36	118Q2
			D	BACI10AH02	150 pts
			E	BACI10AH36	118Q2
		Code not assigned	C	BACI10AH33	17F12Q2 Insert not supplied
			F	BACI10AH33	17F12Q2 Insert not supplied

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

Table 18
ADDITIONAL SOURIAU INSERT ARRANGEMENT CODES FOR INSERTS A, B, D and E

Connector Shell Size	Souriau Insert Configuration Code	Insert		
		Insert Cavity	BACI10AH Insert	Souriau Designation
1	00	A	BACI10AH01	60 pts
		B	BACI10AH01	60 pts
2	00	A	BACI10AH02	150 pts
		B	BACI10AH02	150 pts
2	01	A	BACI10AH05	71 pts
		B	BACI10AH05	71 pts

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**Table 18 ADDITIONAL SOURIAU INSERT ARRANGEMENT CODES FOR INSERTS A, B, D and E
(Continued)**

Connector Shell Size	Souriau Insert Configuration Code	Insert		
		Insert Cavity	BACI10AH Insert	Souriau Designation
2	02	A	BACI10AH02	150 pts
		B	BACI10AH05	150 pts
2	03	A	BACI10AH05	71 pts
		B	BACI10AH02	150 pts
2	04	A	Blank	Blank
		B	BACI10AH05	71 pts
2	F3	A	BACI10AH06	Wave Guide
		B	BACI10AH02	150 pts
3	00	A	BACI10AH02	150 pts
		B	BACI10AH02	150 pts
		D	BACI10AH02	150 pts
		E	BACI10AH02	150 pts
3	E9	A	BACI10AH11	TCAS
		B	BACI10AH11	TCAS
		D	Blank	Blank
		E	BACI10AH02	150 pts

**Table 19
ADDITIONAL SOURIAU INSERT ARRANGEMENT CODES FOR INSERTS C and F**

Connector Shell Size	Souriau Insert Configuration Code	Insert		
		Insert Cavity	BACI10AH Insert	Souriau Designation
1	W2	C	BACI10AH03	60 pts
2	K5	C	BACI10AH07	100 pts
2	W2	C	BACI10AH04	11C2
3	K1	C	BACI10AH07	100 pts
		F	BACI10AH07	100 pts
3	K2	C	BACI10AH04	11C2
		F	BACI10AH07	11C2
3	K3	C	BACI10AH07	100 pts
		F	BACI10AH04	11C2
3	W2	C	BACI10AH04	11C2
		F	BACI10AH04	11C2

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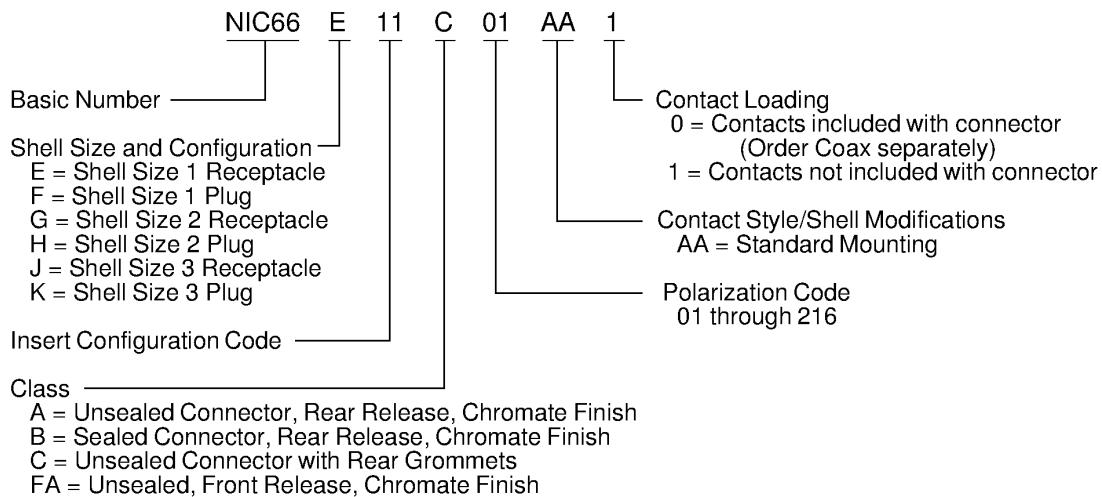
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Table 20
SOURIAU ARINC 600 CONNECTOR INSERT PART NUMBERS

BACI10AH() Insert	Description	Part Number	Supplier
01	With rear grommet	8660-J30-100-17A/00	Souriau
	Without rear grommet	8660-J30-100-07A/00	Souriau
02	With rear grommet	8660-J30-200-11A/00	Souriau
	Without rear grommet	8660-J30-200-01A/00	Souriau
03	With rear grommet	8660-J31-100-62A/00	Souriau
	Without rear grommet	8660-J31-100-52A/00	Souriau
04	With rear grommet	8660-J31-200-63A/00	Souriau
	Without rear grommet	8660-J31-200-53A/00	Souriau
05	With rear grommet	8660-J30-200-19A/00	Souriau
	Without rear grommet	8660-J30-200-09A/00	Souriau
06	Wave Guide	Wave Guide	Souriau
07	With rear grommet	8660-J30-200-60A/00	Souriau
	Without rear grommet	8660-J30-200-50A/00	Souriau

F. Tyco/AMP NIC66() ARINC 600 Connectors



2446439 S00061547474_V1

TYCO/AMP NIC66() SERIES CONNECTOR PART NUMBER STRUCTURE

Figure 13

NOTE: If the insert is not supplied, as shown in Table 21, the connector is not supplied by Tyco/AMP.

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Table 21
RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66F11	1	11	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH03	5C2
BACC66F12	1	107	A	BACI10AH20	30T2
			B	BACI10AH20	30T2
			C	BACI10AH19	40
BACC66F13	1	110	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH21	4
BACC66F14	1	15	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH19	40
BACC66H21	2	21	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H122	2	22	A	BACI10AH05	71C1
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H123	2	23	A	BACI10AH05	71C1
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2
BACC66H24	2	51	A	empty	A wave guide insert must be procured independently and installed in this empty cavity to make BACC66H24.
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H125	2	25	A	BACI10AH02	150
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66H26	2	26	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
BACC66H27	2	20	A	BACI10AH08	71C1A
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2
BACC66H28	2	28	A	BACI10AH09	C2A
			B	BACI10AH08	71C1A
			C	BACI10AH10	85
BACC66H29	2	72	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH07	100
BACC66H30	2	74	A	BACI10AH15	121
			B	BACI10AH15	121
			C	BACI10AH13	6T6
BACC66H31	2	75	A	BACI10AH15	121
			B	BACI10AH12	10T10
			C	BACI10AH13	6T6
BACC66H32	2	Code not assigned	A	Blank	Blank
			B	BACI10AH17	60
			C	BACI10AH18	6 insert not supplied
BACC66H33	2	52	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH10	85
BACC66H34	2	80	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH07	100
BACC66H35	2	81	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH13	6T6
BACC66H36	2	53	A	BACI10AH11	C4
			B	BACI10AH02	150
			C	BACI10AH04	13C2

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**Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)**

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66H37	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH24	24T4
BACC66H38	2	56	A	BACI10AH02	150
			B	BACI10AH25	C2
			C	BACI10AH04	13C2
BACC66H39	2	270	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
BACC66H40	2	271	A	BACI10AH11	C4
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H41	2	83	A	BACI10AH02	150
			B	BACI10AH11	C4
			C	BACI10AH16	34
BACC66H42	2	84	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH16	34
BACC66H43	2	234	A	BACI10AH17	60
			B	BACI10AH17	60
			C	BACI10AH04	13C2
BACC66H44	2	Code not assigned	A	BACI10AH15	121
			B	BACI10AH17	60
			C	BACI10AH16	34
BACC66H45	2	82	A	BACI10AH08	71C1A
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H46	2	Code not assigned	A	BACI10AH17	60
			B	BACI10AH17	60
			C	BACI10AH16	34

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66H47	2	Code not assigned	A	BACI10AH30	20F12T8 Insert not supplied
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H48	2	Code not assigned	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H49	2	272	A	BACI10AH12	10T10
			B	BACI10AH12	10T10
			C	BACI10AH10	85
BACC66H50	2	Code not assigned	A	BACI10AH31	20F12T8 Insert not supplied
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H51	2	262	A	BACI10AH02	150
			B	BACI10AH17	60
			C	BACI10AH16	34
BACC66H52	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH04	13C2
BACC66H53	2	Code not assigned	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H54	2	Code not assigned	A	BACI10AH11	C4
			B	BACI10AH29	24
			C	BACI10AH07	100
BACC66H55	2	Code not assigned	A	BACI10AH08	71C1A
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH35	12F5C2 Insert not supplied
BACC66H56	2	85	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66H57	2	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH15	121
			C	Blank	Blank
BACC66H58	2	Code not assigned	A	Blank	Blank
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH04	13C2
BACC66H59	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH38	36F36 Insert not supplied
			C	BACI10AH04	13C2
BACC66H60	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH40	46Q2 Insert not supplied
BACC66H61	2	Code not assigned	A	BACI10AH14	120Q2 Insert not supplied
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH34	11Q2
BACC66H62	2	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH32	Q11
			C	BACI10AH10	85
BACC66H63	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH33	17F12Q2 Insert not supplied
BACC66H64	2	Code not assigned	A	BACI10AH38	36F36 Insert not supplied
			B	Blank	Blank
			C	BACI10AH22	59
BACC66H65	2	Code not assigned	A	BACI10AH39	20F12Q8 Insert not supplied
			B	BACI10AH32	Q11
			C	BACI10AH10	85

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66H66	2	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH42	25 Insert not supplied
BACC66H67	2	Code not assigned	A	BACI10AH11	4W4
			B	BACI10AH32	Q11
			C	BACI10AH22	59
BACC66H68	2	Code not assigned	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH16	34
BACC66K31	3	31	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH04	13C2
BACC66K32	3	32	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH04	13C2
BACC66K33	3	33	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66K34	3	34	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K35	3	36	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH04	13C2
			D	Blank	Blank
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K36	3	76	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH14	120T2
			E	BACI10AH02	150
			F	BACI10AH16	34
BACC66K37	3	77	A	BACI10AH15	121
			B	BACI10AH15	121
			C	BACI10AH13	6T6
			D	BACI10AH15	121
			E	BACI10AH15	121
			F	BACI10AH13	6T6
BACC66K38	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH26	84 insert not supplied
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66K39	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH22	59
BACC66K40	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K41	3	Code not assigned	A	BACI10AH11	4W4
			B	BACI10AH14	120T2
			C	BACI10AH33	17F12Q2 Insert not supplied
			D	BACI10AH11	TCAS
			E	BACI10AH14	120T2
			F	BACI10AH34	11Q2
BACC66K42	3	Code not assigned	A	BACI10AH32	Q11
			B	BACI10AH02	150
			C	BACI10AH34	11Q2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH37	68Q2
BACC66K43	3	Code not assigned	A	BACI10AH39	20F12Q8 Insert not supplied
			B	BACI10AH02	150
			C	BACI10AH10	85
			D	BACI10AH36	120Q2 Insert not supplied
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66K44	3	Code not assigned	A	BACI10AH36	120Q2 Insert not supplied
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH10	85
			D	BACI10AH36	120Q2 Insert not supplied
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K45	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH16	34
BACC66K46	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH02	150
			E	BACI10AH36	120Q2 Insert not supplied
			F	BACI10AH02	150
BACC66K47	3	Code not assigned	A	BACI10AH17	60
			B	BACI10AH17	60
			C	BACI10AH16	34
			D	BACI10AH17	60
			E	BACI10AH17	60
			F	BACI10AH16	34
BACC66K48	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH41	Q6

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66K49	3	421	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K49	3	Code not assigned	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K50	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH14	120T2
			C	BACI10AH33	17F12Q2 Insert not supplied
			D	BACI10AH02	150
			E	BACI10AH14	120T2
			F	BACI10AH33	17F12Q2 Insert not supplied
BACC66K51	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH37	68Q2

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Table 21 RELATION BETWEEN TYCO/AMP INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Tyco/AMP Insert Configuration Code	Insert		
			Insert Cavity	BACI10AH Insert	Tyco/AMP Insert Designation
BACC66K52	3	Code not assigned	A	BACI10AH02	150
			B	BACI10AH36	120Q2 Insert not supplied
			C	BACI10AH33	17F12Q2 Insert not supplied
			D	BACI10AH02	150
			E	BACI10AH36	120Q2 Insert not supplied
			F	BACI10AH33	17F12Q2 Insert not supplied

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

Table 22
AMP ARINC 600 CONNECTOR INSERT PART NUMBERS

BACI10AH() Insert	Description	Part Number	Supplier
01	With rear grommet	208592-3	Tyco/AMP
02	With rear grommet	208906-5	Tyco/AMP
03	With rear grommet	208596-3	Tyco/AMP
04	With rear grommet	208909-5	Tyco/AMP
05	With rear grommet	211222-2	Tyco/AMP
07	With rear grommet	211135-5	Tyco/AMP
08	With rear grommet	211222-6	Tyco/AMP

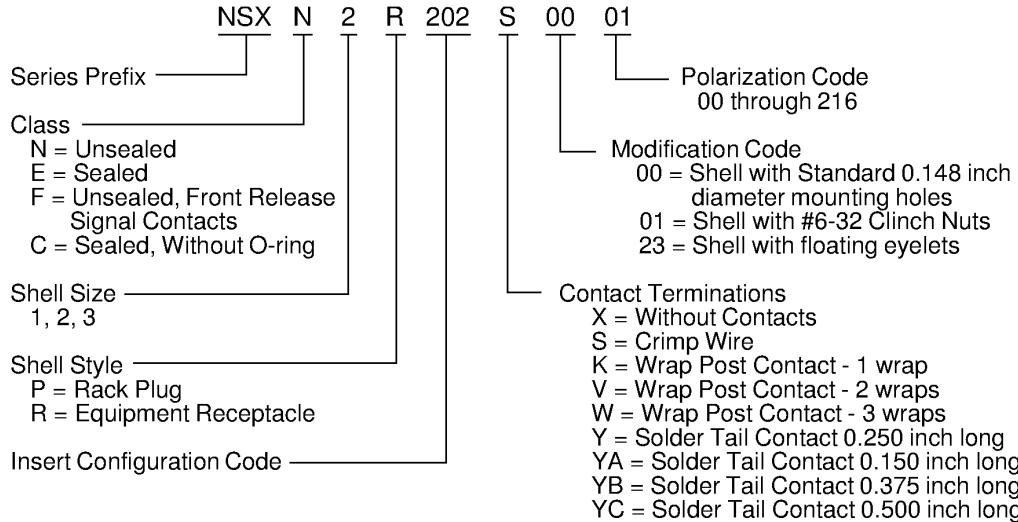
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G. Radiall NSX() ARINC 600 Connectors



2446440 S00061547475_V1

RADIALL NSX() SERIES CONNECTOR PART NUMBER STRUCTURE

Figure 14

Table 23
RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600 STANDARDS

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66F11	1	101	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH03	5C2
BACC66F12	1	107	A	BACI10AH20	30T2
			B	BACI10AH20	30T2
			C	BACI10AH19	40
BACC66F13	1	110	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH21	4
BACC66F14	1	108	A	BACI10AH01	60
			B	BACI10AH01	60
			C	BACI10AH19	40

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**Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)**

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66H21	2	201	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H122	2	202	A	BACI10AH05	71C1
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H123	2	203	A	BACI10AH05	71C1
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2
BACC66H24	2	204	A	BACI10AH06	Wave Guide
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H125	2	205	A	BACI10AH02	150
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2
BACC66H26	2	206	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
BACC66H27	2	221	A	BACI10AH08	1C71
			B	BACI10AH05	71C1
			C	BACI10AH04	13C2
BACC66H28	2	216	A	BACI10AH09	C2
			B	BACI10AH08	1C71
			C	BACI10AH10	85
BACC66H29	2	229	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH07	100
BACC66H30	2	230	A	BACI10AH15	121
			B	BACI10AH15	121
			C	BACI10AH13	6T6
BACC66H31	2	-	A	BACI10AH15	121
			B	BACI10AH12	10T10
			C	BACI10AH13	6T6

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66H32	2	-	A	Blank	Blank
			B	BACI10AH17	60A
			C	BACI10AH18	6P6
BACC66H33	2	226	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH10	85
BACC66H34	2	233	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH07	100
BACC66H35	2	-	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH13	6T6
BACC66H36	2	-	A	BACI10AH11	C4
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H37	2	272	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH24	24T4
BACC66H38	2	219	A	BACI10AH02	150
			B	BACI10AH25	2W2B
			C	BACI10AH04	13C2
BACC66H39	2	270	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
BACC66H40	2	271	A	BACI10AH11	C4
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H41	2	235	A	BACI10AH02	150
			B	BACI10AH11	C4
			C	BACI10AH16	34
BACC66H42	2	236	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH16	34

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66H43	2	234	A	BACI10AH17	60A
			B	BACI10AH17	60A
			C	BACI10AH04	13C2
BACC66H44	2	275	A	BACI10AH15	121
			B	BACI10AH17	60A
			C	BACI10AH16	34
BACC66H45	2	277	A	BACI10AH08	1C71
			B	BACI10AH02	150
			C	BACI10AH04	13C2
BACC66H46	2	286	A	BACI10AH17	60A
			B	BACI10AH17	60A
			C	BACI10AH16	34
BACC66H47	2	522	A	BACI10AH30	20F12T8
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H48	2	284	A	BACI10AH14	120T2
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H49	2	-	A	BACI10AH12	10T10
			B	BACI10AH12	10T10
			C	BACI10AH10	85
BACC66H50	2	522	A	BACI10AH31	20F12T8
			B	BACI10AH14	120T2
			C	BACI10AH04	13C2
BACC66H51	2	262	A	BACI10AH02	150
			B	BACI10AH17	60A
			C	BACI10AH16	34
BACC66H52	2	509	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH04	13C2
BACC66H53	2	814	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH04	13C2

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66H54	2	599	A	BACI10AH11	C4
			B	BACI10AH29	24
			C	BACI10AH07	100
BACC66H55	2	577	A	BACI10AH08	1C71
			B	BACI10AH36	118Q2
			C	BACI10AH35	12F5C2
BACC66H56	2	227	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34
BACC66H57	2	820	A	BACI10AH32	Q11
			B	BACI10AH15	121
			C	Blank	Blank
BACC66H58	2	554	A	Blank	Blank
			B	BACI10AH36	118Q2
			C	BACI10AH04	13C2
BACC66H59	2	859	A	BACI10AH02	150
			B	BACI10AH38	36F36
			C	BACI10AH04	13C2
BACC66H60	2	864	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH40	46Q2
BACC66H61	2	858	A	BACI10AH14	118Q2
			B	BACI10AH36	118Q2
			C	BACI10AH34	11Q2
BACC66H62	2	295	A	BACI10AH32	Q11
			B	BACI10AH32	Q11
			C	BACI10AH10	85
BACC66H63	2	-	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH33	17F12Q2
BACC66H64	2	-	A	BACI10AH38	36F36
			B	Blank	Blank
			C	BACI10AH22	59

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66H65	2	-	A	BACI10AH39	20F12Q8
			B	BACI10AH32	Q11
			C	BACI10AH10	85
BACC66H66	2	-	A	BACI10AH32	Q11
			B	BACI10AH36	118Q2
			C	BACI10AH42	25
BACC66H67	2	801	A	BACI10AH11	C4
			B	BACI10AH32	Q11
			C	BACI10AH22	59
BACC66H68	2	586	A	BACI10AH02	150
			B	BACI10AH32	Q11
			C	BACI10AH16	34
BACC66K31	3	301	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH04	13C2
BACC66K32	3	302	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH04	13C2
BACC66K33	3	303	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66K34	3	304	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH07	100
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K35	3	310	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH04	13C2
			D	BLANK	BLANK
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K36	3	317	A	BACI10AH14	120T2
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH14	120T2
			E	BACI10AH02	150
			F	BACI10AH16	34
BACC66K37	3	-	A	BACI10AH15	121
			B	BACI10AH15	121
			C	BACI10AH13	6T6
			D	BACI10AH15	121
			E	BACI10AH15	121
			F	BACI10AH13	6T6
BACC66K38	3	366	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH26	84
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66K39	3	353	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH22	59
BACC66K40	3	369	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K41	3	629	A	BACI10AH11	C4
			B	BACI10AH14	120T2
			C	BACI10AH33	17F12Q2
			D	BACI10AH11	C4
			E	BACI10AH14	120T2
			F	BACI10AH34	11Q2
BACC66K42	3	389	A	BACI10AH32	Q11
			B	BACI10AH02	150
			C	BACI10AH34	11Q2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH37	68Q2
BACC66K43	3	-	A	BACI10AH39	20F12Q8
			B	BACI10AH02	150
			C	BACI10AH10	85
			D	BACI10AH36	118Q2
			E	BACI10AH02	150
			F	BACI10AH07	100

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66K44	3	-	A	BACI10AH36	118Q2
			B	BACI10AH36	118Q2
			C	BACI10AH10	85
			D	BACI10AH36	118Q2
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K45	3	351	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH16	34
BACC66K46	3	-	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH16	34
			D	BACI10AH02	150
			E	BACI10AH36	118Q2
			F	BACI10AH16	34
BACC66K47	3	-	A	BACI10AH17	60A
			B	BACI10AH17	60A
			C	BACI10AH16	34
			D	BACI10AH17	60A
			E	BACI10AH17	60A
			F	BACI10AH16	34
BACC66K48	3	-	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH22	59
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH41	Q6

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Table 23 RELATION BETWEEN RADIALL INSERT CONFIGURATION CODES AND BOEING ARINC 600
STANDARDS (Continued)

Boeing Standard	Connector Shell Size	Radiall Insert Configuration Code	Insert		
			Cavity	Boeing Designation	Radiall Designation
BACC66K49	3	357	A	BACI10AH11	C4
			B	BACI10AH11	C4
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH07	100
BACC66K50	3	-	A	BACI10AH02	150
			B	BACI10AH14	120T2
			C	BACI10AH33	17F12Q2
			D	BACI10AH02	150
			E	BACI10AH14	120T2
			F	BACI10AH33	17F12Q2
BACC66K51	3	-	A	BACI10AH02	150
			B	BACI10AH02	150
			C	BACI10AH04	13C2
			D	BACI10AH02	150
			E	BACI10AH02	150
			F	BACI10AH37	68Q2
BACC66K52	3	-	A	BACI10AH02	150
			B	BACI10AH36	118Q2
			C	BACI10AH33	17F12Q2
			D	BACI10AH02	150
			E	BACI10AH36	118Q2
			F	BACI10AH33	17F12Q2

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

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Table 24
ADDITIONAL RADIALL CONNECTOR PART NUMBERS

Radiall Connector Part Number	Connector Shell Size	Insert		
		Cavity	Boeing Designation	Radiall Designation
620 410 207	1	A	BACI10AH01	60
		B	BACI10AH01	60
		C	12F12	12F12
620 600 694	2	A	BACI10AH39	20F12Q8
		B	BACI10AH15	121
		C	Blank	Blank

Table 25
RADIALL ARINC 600 CONNECTOR INSERT PART NUMBERS

BACI10AH() Insert	Description	Part Number	Supplier
01	With rear grommet	620501009	Radiall
02	With rear grommet	620503350	Radiall
03	With rear grommet	620503053	Radiall
04	With rear grommet	620502002	Radiall
	Without rear grommet	620502004	Radiall
14	With rear grommet	620503250	Radiall
30	With rear grommet	620503650	Radiall

H. Tri-Star C-06() ARINC 600 Connectors

Table 26
TRI-STAR C-06() ARINC 600 CONNECTOR PART NUMBERS

Connector	Shell Size	Insert Cavity	BACI10AH Insert
C-06A3-B305-1100	2	A	BACI10AH05
		B	BACI10AH05
		C	BACI10AH04
C-06A5-9940-1100	3	A	BACI10AH11
		B	BACI10AH11
		C	BACI10AH04
		D	BLANK
		E	BACI10AH02
		F	BACI10AH07

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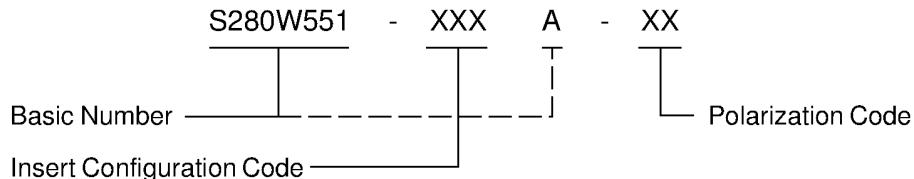
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Table 27
TRI-STAR ARINC 600 CONNECTOR INSERT PART NUMBERS

BACI10AH() Insert	Description	Part Number	Supplier
BACI10AH02	With rear grommet	C-06A3-0150-5201	Tri-Star
	Without rear grommet	C-06B3-0150-5201	Tri-Star
BACI10AH04	With rear grommet	C-06A3-13W2-5301	Tri-Star
	Without rear grommet	C-06B3-13W2-5301	Tri-Star
BACI10AH05	With rear grommet	C-06A3-71W1-5201	Tri-Star
	Without rear grommet	C-06B3-71W1-5201	Tri-Star
BACI10AH06	Wave Guide	C0600-RG67-W001	Tri-Star
BACI10AH07	With rear grommet	C-06A3-0100-5201	Tri-Star
	Without rear grommet	C-06B3-0100-5201	Tri-Star
BACI10AH11	-	C-0600-04W4-G701	Tri-Star

I. Boeing S280W551() Connectors



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BOEING S280W551 CONNECTOR PART NUMBER STRUCTURE
Figure 15

CAUTION: AN INSERT OF AN S280W551 CONNECTOR OR AN ARINC 600 CONNECTOR FROM SUPPLIERS OTHER THAN ITT CANNON OR RADIALL, MUST BE NOT USED IN A S280W551 CONNECTOR. THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

NOTE: An ITT Cannon S280W551 insert can be installed in a Radiall S280W551 connector.

NOTE: A Radiall S280W551 insert can be installed in an ITT Cannon S280W551 connector.

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Table 28
S280W551 PLUG CONNECTOR INSERT CONFIGURATION CODES

Connector Shell Size	Insert Configuration Code	Insert Cavity	BACI10AH Insert
1	209	A	BACI10AH12
		B	BACI10AH16
	211	A	BACI10AH12
		B	BACI10AH22
	213	A	BACI10AH23
		B	BACI10AH24
2	401	A	BACI10AH02
		B	BACI10AH07
		C	BACI10AH02
		D	BACI10AH13
	405	A	BACI10AH23
		B	BACI10AH13
		C	BACI10AH02
		D	BACI10AH13
	407	A	BACI10AH12
		B	BACI10AH07
		C	BACI10AH12
		D	BACI10AH07
	413	A	BACI10AH15
		B	BACI10AH13
		C	BACI10AH15
		D	BACI10AH13
3	503	A	BACI10AH12
		B	BACI10AH21
		C	BACI10AH18
		D	BACI10AH17
		E	BACI10AH21

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Table 29
S280W551 CONNECTOR INSERT PART NUMBERS

BACI10AH()	Boeing Standard
BACI10AH02	S280W551-702
BACI10AH07	S280W551-707
BACI10AH12	S280W551-712
BACI10AH13	S280W551-713
BACI10AH15	S280W551-715
BACI10AH16	S280W551-716
BACI10AH17	S280W551-717
BACI10AH18	S280W551-718
BACI10AH21	S280W551-721
BACI10AH22	S280W551-722
BACI10AH23	S280W551-723
BACI10AH24	S280W551-724

Table 30
APPROVED SUPPLIERS FOR BOEING STANDARD S280W551 INSERTS

Boeing Standard	Supplier
S280W551-702	ITT Cannon
	Radiall
S280W551-707	ITT Cannon
	Radiall
S280W551-712	ITT Cannon
	Radiall
S280W551-713	ITT Cannon
	Radiall
S280W551-715	ITT Cannon
	Radiall
S280W551-716	ITT Cannon
	Radiall
S280W551-717	ITT Cannon
	Radiall
S280W551-718	ITT Cannon
	Radiall
S280W551-721	ITT Cannon
	Radiall

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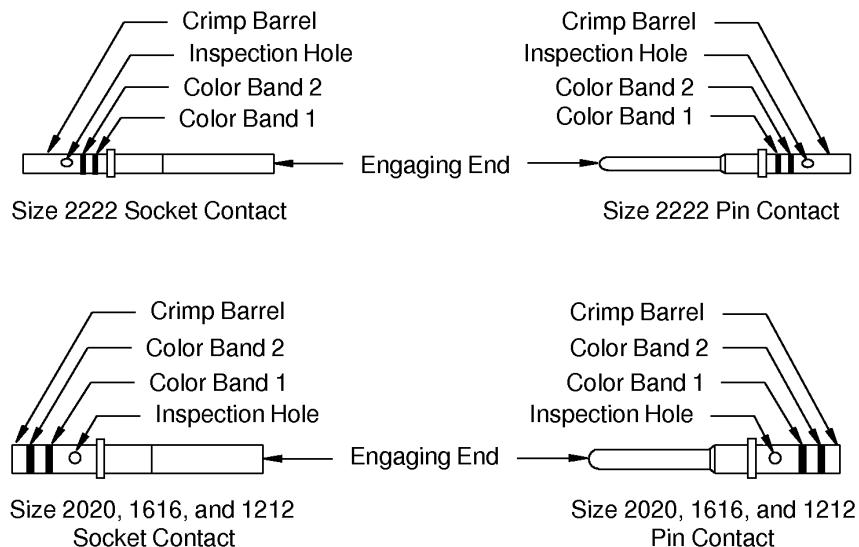
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Table 30 APPROVED SUPPLIERS FOR BOEING STANDARD S280W551 INSERTS (Continued)

Boeing Standard	Supplier
S280W551-722	ITT Cannon
	Radiall
S280W551-723	ITT Cannon
	Radiall
S280W551-724	ITT Cannon
	Radiall

3. CONTACT PART NUMBERS AND DESCRIPTION

A. Standard Contacts



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STANDARD REAR RELEASE CONTACTS

Figure 16

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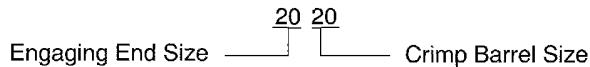
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EXAMPLE OF A CONTACT SIZE

Figure 17

NOTE: The size 2020HD high density contact has a size 20 engaging end and a size 20 crimp barrel.

Table 31
BOEING STANDARD CONTACTS

Contact Size	Contact Type	Boeing Standard	Color Code	
			Band	Color
2222	Pin	BACC47EF1	1	Orange
			2	Green
2020HD	Socket	BACC47EG2	1	Orange
			2	Red
1616	Socket	BACC47EG3	1	Orange
			2	Blue
1212	Socket	BACC47EG4	1	Orange
			2	Yellow
0808	Power Socket	S280W553-2	1	Orange
			2	Brown
0808	Ground Socket	S280W553-4	1	Orange
			2	Black

Table 32
SUPPLIER PART NUMBERS FOR BOEING STANDARD CONTACTS

Boeing Standard	Contact	
	Part Number	Supplier
BACC47EF1	030-2259-000	ITT Cannon
	208262-3	AMP
	317-2222-301	Tri-Star
	620200	Radiall
	8660-202	Souriau

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Table 32 SUPPLIER PART NUMBERS FOR BOEING STANDARD CONTACTS (Continued)

Boeing Standard	Contact	
	Part Number	Supplier
BACC47EG2	031-1302-000	ITT Cannon
	208267-2	AMP
	318-2020-302	Tri-Star
	620310	Radiall
	8660-248	Souriau
BACC47EG3	031-1303-000	ITT Cannon
	208270-2	AMP
	620330	Radiall
	8660-249	Souriau
BACC47EG4	031-1308-000	ITT Cannon
	208273-2	AMP
	620340	Radiall
	8660-250	Souriau
S280W553-2	031-1154-000	ITT Cannon
S280W553-4	031-3300-000	ITT Cannon

NOTE: A size 12 contact can be installed in the cavity of a cavity reducer; refer to Paragraph 3.G.

B. Eyelet Part Numbers

Table 33
EYELET PART NUMBERS

Part Number	Supplier
CE46FC	Circon
CE66FC	Circon
Y-6015-C	International Eyelets Inc.
Y-9015-C	International Eyelets Inc.

Table 34
ALTERNATIVE EYELET PART NUMBERS

Specified Eyelet		Alternative Eyelet	
Part Number	Supplier	Part Number	Supplier
Y-6015-C	International Eyelets Inc.	S-6049CUAU	Global Supply
Y-9015-C	International Eyelets Inc.	S-5934CUAU	Global Supply

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C. Crimp Barrel Adapter Part Numbers

Table 35
CRIMP BARREL ADAPTER PART NUMBERS

Part Number	Supplier
252-1231-000	ITT Cannon

D. Ground Block Contacts

NOTE: S280W601() ground blocks are attached to the rear side of the ARINC connector shell.NOTE: The ground blocks on the Flight Dynamics 6720-0389 backshell are attached to the 6720-0389 backshell .

Refer to Subject 20-25-14 for the assembly of the ground block contacts for the Flight Dynamics 6720-0389 backshell ground block.

Table 36
GROUND BLOCK CONTACTS FOR S280W601() GROUND BLOCKS

Contact Size		Contact Type	Part Number	Supplier	Color Code	
Engaging End	Crimp Barrel				Band	Color
16	20	Pin	M39029/1-101	QPL	1	Brown
					2	Black
					3	Brown
	Pin	S280W555-920	Tri-Star	Tri-Star	1	Red
					2	Red
					3	Red
	18	Pin	S280W555-918	Tri-Star	1	Red
					2	White
					3	Red

Table 37
GROUND BLOCK CONTACTS FOR THE FLIGHT DYNAMICS 6720-0389 BACKSHELL GROUND BLOCKS

Contact Size		Contact Type	Part Number	Supplier	Color Code	
Engaging End	Crimp Barrel				Band	Color
22	22	Socket	M39029/22-191	QPL	1	Brown
					2	White
					3	Brown

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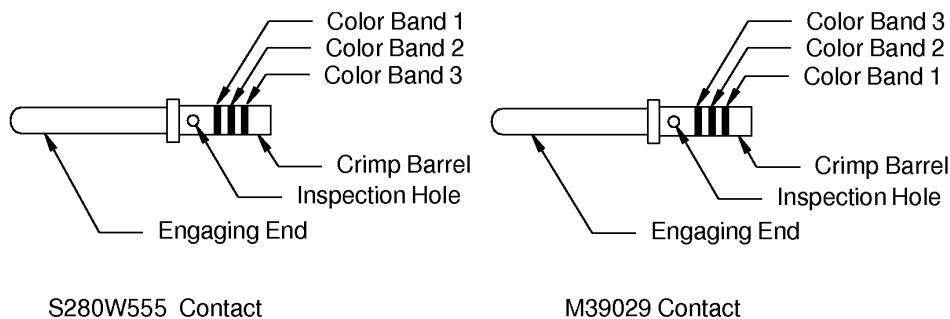
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GROUND BLOCK CONTACTS

Figure 18

E. Size 16 Coax Contacts

NOTE: Use the contact insertion and contact removal procedures for standard size 16 contacts to insert and remove these size 16 coax contacts.

Table 38
SIZE 16 COAX CONTACTS

Contact Size	Contact Type	Part Number	Supplier	Coax Cable
16	Socket	AC-401060-1	Amphenol	RG-316

F. Size 12 Coax and Shielded Contacts

Table 39
SIZE 12 COAX CONTACTS

Contact Size	Contact Type	Part Number	Supplier	Coax Cable
12	Socket	618040	Radiall	RG-316

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Table 40
SIZE 12 SHIELDED CONTACTS

Contact Size	Contact Type	Part Number	Supplier	Shielded Wire or Coax Cable
12	Socket	151700-0688	ITT Cannon	AWG 22 Shielded Wire, 8 mil insulation
		249-1768-000	ITT Cannon	AWG 24 Shielded Wire, RG-174, RG-316
		249-2203-000	ITT Cannon	AWG 24 Shielded Wire

Table 41
ALTERNATIVE SIZE 12 CONTACTS

Specified Contact		Alternative Contact	
Part Number	Supplier	Part Number	Supplier
249-1768-000	ITT Cannon	618040	Radiall

NOTE: A size 12 contact can be installed in the cavity of a cavity reducer; refer to Paragraph 3.G.

G. Size 5 to Size 12 Cavity Reducers and the Related Sealing Boots

For the procedure to install a size 12 contact in a size 5 coax contact cavity, refer to Paragraph 16.D.

NOTE: The Cavity Reducer is not removable from the connector after it is installed.

Table 42
SIZE 5 TO SIZE 12 CAVITY REDUCERS

Contact Cavity		Cavity Reducer	
Size	Reduced Size	Part Number	Supplier
5	12	021-8757-000	ITT Cannon
		8600-344	Souriau

Table 43
SEALING BOOTS FOR AWG 12 WIRE IN A SIZE 5 CAVITY

Contact Cavity		Sealing Boot	
Size	Wire Size (AWG)	Part Number	Supplier
5	12	317-1717-000	ITT Cannon
		8660-2152	Souriau

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H. Size 8 Coax Contacts

Table 44
SIZE 8 COAX CONTACTS

Contact Size	Contact Type	Boeing Standard	Color Band	Coax Cable
8	Socket	S280W554-111	Red	S280W503-1
				BMS13-65 Type OE
8	Socket	S280W554-113	Green	S280W503-2
				BMS13-65 Type OF

NOTE: The size 8 coax socket contact has an outer socket contact and an inner pin contact.

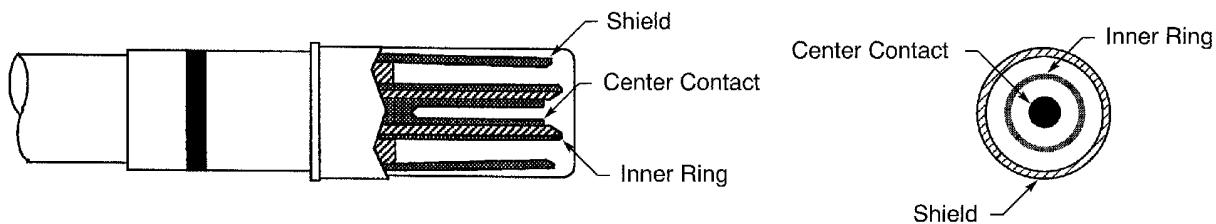
Table 45
ALTERNATIVE PART NUMBERS FOR SIZE 8 COAX CONTACTS

Boeing Standard	Contact	
	Part Number	Supplier
S280W554-111	349-1087-003	ITT Cannon
S280W554-113	349-1087-004	ITT Cannon

I. Size 8 Twinax Contacts

Table 46
BOEING STANDARD SIZE 8 TWINAX CONTACTS

Contact Size	Type	Retention	Boeing Standard	Color Code	
				Band	Color
8	Socket	Rear Release, Rear Removal	S280W552-105	1	Blue
				2	-
			S280W552-205	1	Blue
				2	Blue



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TWINAX CONTACT ELECTRICAL COMPONENTS
Figure 19

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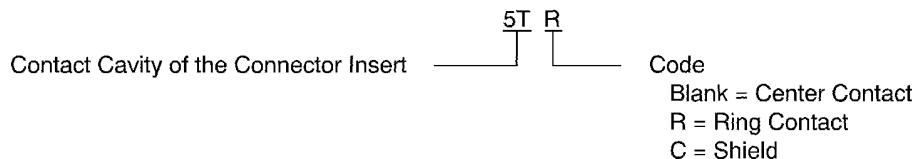
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TWINAX CONTACT TERMINATION IDENTIFICATION

Figure 20

Table 47
SIZE 8 TWINAX CONTACT TERMINATION IDENTIFICATION

Twinax Cable Component	Twinax Contact Termination Component	Code	Reference
Blue Wire	Center Contact	Blank	Figure 19
			Figure 20
White Wire	Inner Ring	R	Figure 19
			Figure 20
Shield	Outer Contact Body	C	Figure 19
			Figure 20

Table 48
ALTERNATIVE PART NUMBERS FOR SIZE 8 TWINAX CONTACTS

Specified Contact	Alternative Contact
S280W552-105	S280W552-205

Table 49
SUPPLIER PART NUMBERS FOR BOEING STANDARD SIZE 8 TWINAX CONTACTS

Boeing Standard	Alternative Contact	
	Part Number	Supplier
S280W552-205	349-1081-001	ITT Cannon
	318-L8T2-614	Tri-Star

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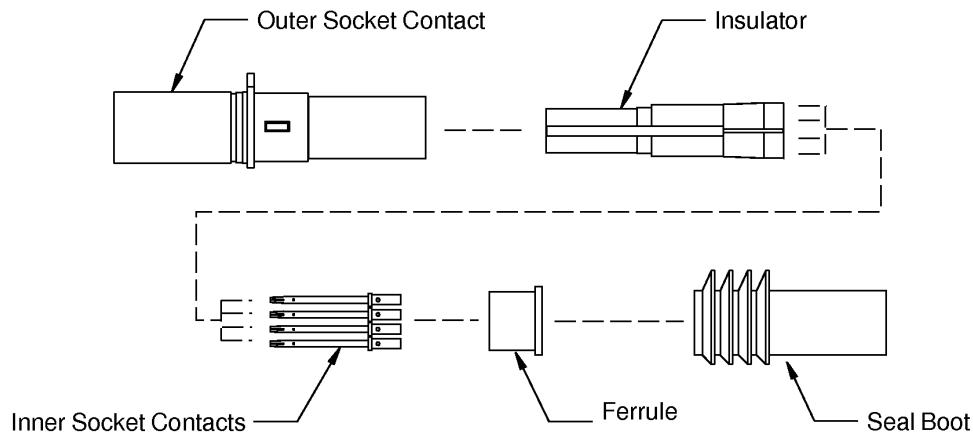
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J. Size 8 Quadrax Contacts

Table 50
BOEING STANDARD SIZE 8 QUADRAX CONTACTS

Contact Size	Type	Boeing Standard	Reference
8	Socket	BACC47GB1	Figure 21
8	Socket	BACC47GB2	Figure 22



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COMPONENTS SUPPLIED WITH THE BACC47GB1 QUADRAX CONTACT
Figure 21

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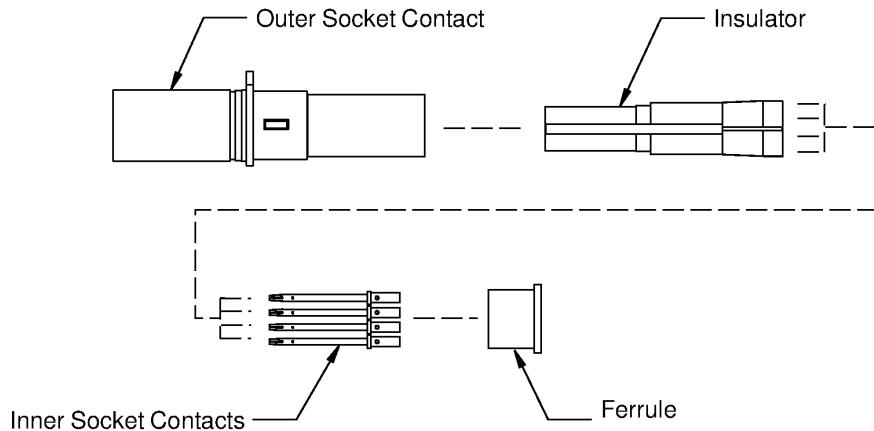
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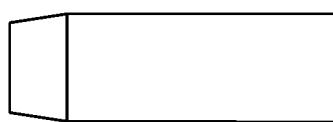
COMPONENTS SUPPLIED WITH THE BACC47GB2 QUADRAx CONTACT

Figure 22

Table 51
QUADRAx CONTACT SEAL BOOT PART NUMBERS

QuadraX Contact	Seal Boot	Supplier	Reference
BACC47GB1	1877626-1	Tyco	Figure 23
	BACS45E2	QPL	Figure 23
BACC47GB2	BACS45E2	QPL	Figure 23

NOTE: The BACS45E2 seal boots are not included with the BACC47GB2 contacts and are ordered separately.



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TYCO 1877626-1 AND BACS45E2 SEAL BOOT

Figure 23

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Table 52
SUPPLIER PART NUMBERS FOR BOEING STANDARD SIZE 8 QUADRAx CONTACTS

Boeing Standard	Alternative Contact	
	Part Number	Supplier
BACC47GB1	1445693-4	Tyco
BACC47GB2	-	QPL

K. Size 5 Coax Contacts

Table 53
SIZE 5 COAX CONTACTS

Contact Size	Contact Type	Seal	Part Number	Supplier	Coax Cable
5	Socket	Sealed	349-0013-000	ITT Cannon	RG-58
					BA-5903
			349-0015-000	ITT Cannon	5021K1011
			BACC47EU1	Boeing	RG-58
					BA-5903
					BA14349
			BACC47EU2	Boeing	5021K1011
		Not sealed	BACC47EU3	Boeing	S280W503-1
					BMS 13-65 Type 0E
			BACC47EU4	Boeing	S280W503-2
					BMS 13-65 Type 0F
			BACC47EU1A	Boeing	RG-58
					BA-5903
					BA14349
			BACC47EU2A	Boeing	5021K1011
			BACC47EU3A	Boeing	S280W503-1
					BMS 13-65 Type 0E
			BACC47EU4A	Boeing	S280W503-2
					BMS 13-65 Type 0F

NOTE: The size 5 coax socket contact has an outer socket contact and an inner pin contact.

NOTE: The size 5 coax contact cavity can accept a cavity reducer; refer to Paragraph 3.G.

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Table 54
SUPPLIER PART NUMBERS FOR BOEING STANDARD SIZE 5 COAX CONTACTS

Boeing Standard	Contact	
	Part Number	Supplier
BACC47EU1	225791-1	AMP
	349-0013-000	ITT Cannon
	620020	Radiall
	8660-2485	Souriau
BACC47EU1A	349-0013-001	ITT Cannon
	620020-001	Radiall
	8660-2285	Souriau
BACC47EU2	349-0015-000	ITT Cannon
	620026	Radiall
	8660-2298D	Souriau
	8660-2298E	Souriau
BACC47EU2A	349-0015-001	ITT Cannon
	620026-001	Radiall
	8660-2498E	Souriau
BACC47EU3	349-1102-000	ITT Cannon
BACC47EU3A	349-1102-003	ITT Cannon
BACC47EU4	349-1102-002	ITT Cannon
BACC47EU4A	349-1102-004	ITT Cannon

Table 55
ALTERNATIVE SIZE 5 COAX CONTACTS

Specified Contact			Alternative Contact		
Part Number	Note	Supplier	Part Number	Note	Supplier
8660-2298	Crimped Center Contact	Souriau	8660-298	Soldered Center Contact	Souriau
8660-2298E	-	Souriau	8660-2298A	-	Souriau
			8660-2298D	-	Souriau

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L. Size 1 Coax Contacts for the BACI10AH05, 08, 09 and 25 Inserts

The size 1 contacts in this paragraph have a mounting block and are applicable for these connector insert configurations:

- BACI10AH05
- BACI10AH08
- BACI10AH09
- BACI10AH25

Refer to Paragraph 3.M. for the size 1 contacts for the BACI10AH11 insert.

NOTE: Refer to Table 76 for the relation between the insert configurations and the applicable contacts.

NOTE: Refer to Table 13 for the relation between the insert configuration code in the ITT Cannon connector part number and the applicable contacts in the inserts of the ITT Cannon connector.

Table 56

CONNECTORS THAT HAVE STANDARD AND SPECIAL SIZE 1 COAX MOUNTING BLOCKS

Connector	Size 1 Coax Socket Contact	
	Description	Reference
BACC66H122()	Connector has a standard mounting block	Table 57
BACC66H123()	Connector has a standard mounting block	Table 57
BACC66H125()	Connector has a standard mounting block	Table 57
BACC66H22()	Connector has special mounting block hole spacing	Table 60
BACC66H23()	Connector has special mounting block hole spacing	Table 60
BACC66H25()	Connector has special mounting block hole spacing	Table 60
BKA()2-155-3()	Connector has special mounting block hole spacing	Table 60
BKA()2-155M-3()	Connector has a standard mounting block	Table 57
BKA()2-158M-3()	Connector has a standard mounting block	Table 57
BKA()2-234-3()	Connector has special mounting block hole spacing	Table 60
BKA()2-234M-3()	Connector has a standard mounting block	Table 57
BKA()2-A234-3()	Connector has special mounting block hole spacing	Table 60
BKA()2-A234M-3()	Connector has a standard mounting block	Table 57
BKA()2-V155M-3()	Connector has a standard mounting block	Table 57

Table 57

SIZE 1 COAX CONTACTS THAT HAVE STANDARD MOUNTING BLOCKS FOR THE BACI10AH05, 08, 09, AND 25 INSERT CONFIGURATIONS

Size 1 Coax Contact					Coax Cable
Part Number	Type	Seal	Supplier	Assembly Procedure	
BACC47EN1	Contact	Sealed	Boeing	Paragraph 15.A.	BA6903
					RG-214

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Table 57 SIZE 1 COAX CONTACTS THAT HAVE STANDARD MOUNTING BLOCKS FOR THE
BACI10AH05, 08, 09, AND 25 INSERT CONFIGURATIONS (Continued)

Size 1 Coax Contact					Coax Cable
Part Number	Type	Seal	Supplier	Assembly Procedure	
BACC47EN1A	Contact	Not sealed	Boeing	Paragraph 15.A.	BA6903
					RG-214
BACC47EN2	Contact	Sealed	Boeing	Paragraph 15.A.	RG-393
BACC47EN2A	Contact	Not sealed	Boeing	Paragraph 15.A.	RG-393
BACC47EN3	Contact	Sealed	Boeing	Paragraph 15.A.	Raychem 5012H3012
BACC47EN3A	Contact	Not sealed	Boeing	Paragraph 15.A.	Raychem 5012H3012
BACC47EN4	TNC Adapter	Sealed	Boeing	Paragraph 15.A.	Refer to Table 58
BACC47EN4A	TNC Adapter	Not sealed	Boeing	Paragraph 15.A.	Refer to Table 58
3011-1-103	Contact	Not sealed	Kings	Paragraph 15.C.	BMS 13-65 Type 0J
					S280W503-5
349-0005-000	Contact	Not sealed	ITT Cannon	Paragraph 15.A.	RG-142
					Thermax 691-295

NOTE: The BACC47EN4 contact has a TNC receptacle at the rear end. The TNC receptacle can connect to a TNC plug connector designed for a specific coax cable. Refer to Table 58.

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Table 58

**TNC PLUG CONNECTOR PART NUMBERS FOR THE BACC47EN4 ADAPTER CONTACT IN THE
BACI10AH05, 08, 09, AND 25 INSERT CONFIGURATIONS**

TNC Adapter Contact				Applicable TNC Plug Connector		
Contact Size	Engaging End	Rear End	Boeing Standard	Coax Cable	Part Number	Supplier
1	Socket	TNC Receptacle	BACC47EN4	BA-5903	KA-59-277	Kings
				BA-6903	KA-59-185	Kings
				BMS 13-65 Type 0F, S280W503-2	125-94-9	Kings
				BMS 13-65 Type 0G, S280W503-3	125-96-9	Kings
				BMS 13-65 Type 0H, S280W503-4	125-101-9	Kings
				BMS 13-65 Type 0J, S280W503-5	125-92-9	Kings
				BMS 13-65 Type 0K, S280W503-6	125-105-9	Kings
				Raychem 5012H3012	KA-59-391-M06	Kings
				Raychem 5021K1011	KA-59-392-M06	Kings
				RG-58	KA-59-277	Kings
				RG-142	125-98-9	Kings
				RG-174	KA-59-260	Kings
				RG-214	KA-59-185	Kings
				RG-316	KA-59-260	Kings
				RG-393	KA-59-353-M06	Kings

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Table 58 TNC PLUG CONNECTOR PART NUMBERS FOR THE BACC47EN4 ADAPTER CONTACT IN THE BACI10AH05, 08, 09, AND 25 INSERT CONFIGURATIONS (Continued)

TNC Adapter Contact				Applicable TNC Plug Connector		
Contact Size	Engaging End	Rear End	Boeing Standard	Coax Cable	Part Number	Supplier
1	Socket	TNC Receptacle	BACC47EN4A	BA-5903	KA-59-277	Kings
				BA-6903	KA-59-185	Kings
				BMS 13-65 Type 0F, S280W503-2	125-94-9	Kings
				BMS 13-65 Type 0G, S280W503-3	125-96-9	Kings
				BMS 13-65 Type 0H, S280W503-4	125-91-9	Kings
					125-101-9	Kings
				BMS 13-65 Type 0J, S280W503-5	125-92-9	Kings
				BMS 13-65 Type 0K, S280W503-6	125-105-9	Kings
				Raychem 5012H3012	KA-59-391-M06	Kings
				Raychem 5021K1011	KA-59-392-M06	Kings
				RG-58	KA-59-277	Kings
				RG-142	125-98-9	Kings
				RG-174	KA-59-260	Kings
				RG-214	KA-59-185	Kings
				RG-316	KA-59-260	Kings
				RG-393	KA-59-353-M06	Kings

Refer to Subject 20-51-15 for the procedures to assemble the TNC plug connectors.

Table 59
ALTERNATIVE SIZE 1 COAX CONTACTS THAT HAVE STANDARD MOUNTING BLOCKS

Specified Contact		Alternative Contact		Coax Cable
Part Number	Supplier	Part Number	Supplier	
8660-2295A	Souriau	8660-2295	Souriau	RG-214
				BA6903
BACC47EN1	Boeing	349-0017-000	ITT Cannon	RG-214
				BA6903
		620101	Radiall	RG-214
				BA6903
		8660-2295	Souriau	RG-214
				BA6903

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Table 59 ALTERNATIVE SIZE 1 COAX CONTACTS THAT HAVE STANDARD MOUNTING BLOCKS
(Continued)

Specified Contact		Alternative Contact		Coax Cable
Part Number	Supplier	Part Number	Supplier	
BACC47EN1A	Boeing	BACC47EN1	Boeing	RG-214
		349-0017-001	ITT Cannon	RG-214
				BA6903
		620101-001	Radiall	RG-214
				BA6903
BACC47EN2	Boeing	8660-2260	Souriau	RG-214
		349-0017-000	ITT Cannon	RG-393
			Radiall	
BACC47EN2A	Boeing	8660-2299	Souriau	
		BACC47EN2	Boeing	RG-393
		349-0017-001	ITT Cannon	
		620101-001	Radiall	
BACC47EN3	Boeing	8660-2263	Souriau	5012H3012
		349-0018-000	ITT Cannon	
		620102	Radiall	
BACC47EN3A	Boeing	8660-2297	Souriau	5012H3012
		BACC47EN3	Boeing	
		349-0018-001	ITT Cannon	
		620102-001	Radiall	
BACC47EN4	Boeing	8660-2262	Souriau	TNC Adapter
		349-1112-000	ITT Cannon	
BACC47EN4A	Boeing	620101-003	Radiall	TNC Adapter
		BACC47EN4	Boeing	
		349-1112-001	ITT Cannon	
		620101-004	Radiall	

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Table 60

ITT CANNON SIZE 1 COAX CONTACTS THAT HAVE SPECIAL MOUNTING BLOCK HOLE SPACING

Coax Cable	Size 1 Coax Contact			Applicable Connector
	Part Number	Supplier	Assembly Procedure	
RG-142	249-1882-000	ITT Cannon	Paragraph 15.A.	BACC66H22()
				BACC66H23()
				BACC66H25()
RG-214	249-5123-000	ITT Cannon	Paragraph 15.A.	BACC66H22()
				BACC66H23()
				BACC66H25()
RG-58	249-1882-000	ITT Cannon	Paragraph 15.A.	BACC66H22()
				BACC66H23()
				BACC66H25()

NOTE: The contacts in Table 60 have special mounting block hole spacing and can only be installed in BACC66H22, BACC66H23, and BACC66H25 connectors supplied by ITT Cannon.

NOTE: An ITT Cannon size 1 coax contact that has a mounting block with special hole spacing can be modified to have a standard mounting block. Refer to Table 61.

Table 61
ITT CANNON SIZE 1 COAX CONTACT MOUNTING BLOCK CONVERSION KIT

Description	Part Number	Supplier	Assembly Procedure
Size 1 Coax Mounting Block Conversion Kit	320-0091-000	ITT Cannon	Paragraph 15.B.

Refer to:

- Paragraph 7.E. for the procedure to remove a size 1 coax contact that has a mounting block from the insert
- Paragraph 16.I. for the procedure to install a size 1 coax contact that has a mounting block in the insert.

M. Size 1 Coax Contacts for the BACI10AH11 Insert

NOTE: Refer to Table 76 for the relation between the insert configurations and the applicable contacts.

NOTE: Refer to Table 13 for the relation between the insert configuration code in the ITT Cannon connector part number and the applicable contacts in the inserts of the ITT Cannon connector.

Table 62
COAX CONTACTS FOR THE BACI10AH11 INSERT

Part Number	Applicable Coax Cable	Description	Supplier	Assembly Procedure
320-1066-006	RG-142	Coax Termination Kit	ITT Cannon	Paragraph 15.D.
320-1066-015	RG-142	Coax Termination Kit	ITT Cannon	Paragraph 15.E.
BACA19BK1	Refer to Table 65	TNC Adapter Contact	Refer to Table 66.	Paragraph 16.K.

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NOTE: The BACA19BK1 adapter contact has a TNC receptacle at the rear end. The TNC receptacle can connect to a TNC plug connector designed for a specific coax cable. Refer to Table 65 for the part numbers of the special reduced diameter TNC plug connectors for the BACI10AH11 insert configuration.

Table 63
SIZE 1 COAX CONTACTS FOR SOME CONNECTOR PART NUMBERS

Connector	Size 1 Coax Socket Contact	
	Description	Reference
BKA(2-167-3()	ITT Cannon Coax Termination Kit	Table 62
BKA(3-271C-3()	ITT Cannon Coax Termination Kit	Table 62
BKA(3-67404-62()	ITT Cannon Coax Termination Kit	Table 62
BKA(3-67404-80()	ITT Cannon Coax Termination Kit	Table 62
BKA(3-67405-54()	ITT Cannon Coax Termination Kit	Table 62
BKA(3-68135-21()	ITT Cannon Coax Termination Kit	Table 62

Table 64
EQUIVALENT COAX TERMINATION KIT CONTACTS

Specified Contact		Equivalent Contact	
Part Number	Supplier	Part Number	Supplier
320-1066-006	ITT Cannon	320-1066-015	ITT Cannon
320-1066-015	ITT Cannon	320-1066-006	ITT Cannon

Table 65
BACA19BK1 TNC ADAPTER CONTACT AND THE RELATED TNC PLUG CONNECTORS

Contact Size	Engaging End	TNC Adapter Contact		Applicable Insert Configuration	Applicable Special TNC Plug Connector		
		Rear End	Boeing Standard		Coax Cable	Part Number	Supplier
1	Socket	TNC Receptacle	BACA19BK1	BACI10AH11	BMS 13-65 Type 0F, S280W503-2	125-94-9	Kings
					BMS 13-65 Type 0G, S280W503-3	125-96-9	Kings
					BMS 13-65 Type 0H, S280W503-4	125-101-9	Kings
					RG-142	125-98-9	Kings

Refer to Subject 20-51-15 for the procedures to assemble the TNC plug connectors.

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Table 66
ALTERNATIVE PART NUMBERS FOR BOEING STANDARD TNC ADAPTER CONTACTS

Boeing Standard	Part Number	Supplier
BACA19BK1	447346-1	AMP
	349-1047-001	ITT Cannon
	3019-1-101	Kings
	620116	Radiall
	500-00054	Souriau
	C-600-TNCS-E201	Tri-Star

For the procedure to remove:

- A termination kit contact from the outer contact body in the BACI10AH11 insert, refer to Paragraph 7.F.
- The outer contact body that holds a termination kit contact from a BACI10AH11 insert, refer to Paragraph 7.G.
- A BACA19BK1 TNC adapter from a BACI10AH11 insert, refer to Paragraph 7.G.

For the procedure to install:

- A termination kit contact in the outer contact body in the BACI10AH11 insert, refer to Paragraph 16.J.
- The outer contact body that holds a termination kit contact in a BACI10AH11 insert, refer to Paragraph 16.K.
- A BACA19BK1 TNC adapter in a BACI10AH11 insert, refer to Paragraph 16.K.

N. Fiber Optic Contact Terminus Part Numbers

NOTE: The BACT64A() fiber optic terminus is part of the fiber optic cable assembly and cannot be removed. If it is necessary to replace a terminus, the fiber optic cable assembly must be replaced.

Refer to Subject 20-12-20 for:

- The inspection and cleaning procedures for fiber optic termini
- The fiber optic cable assembly part numbers.

Table 67
FIBER OPTIC CONTACT TERMINUS PART NUMBERS

Cable Assembly Part Number	Contact Terminus					
	Type		Size	Part Number		Reference
	End 1	End 2		End 1	End 2	
BACC69()AA	Non-keyed	Non-keyed	16	BACT64A1	BACT64A1	Figure 24
BACC69()CC	Keyed	Keyed	16	BACT64A2	BACT64A2	Figure 25
BACC69()AC	Non-keyed	Keyed	16	BACT64A1	BACT64A2	-

NOTE: A contact terminus that has a key can only be installed in a contact terminus cavity that has a keyway.

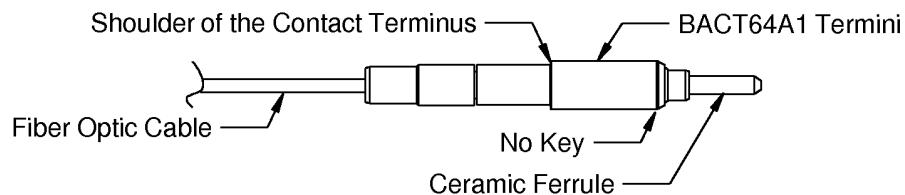
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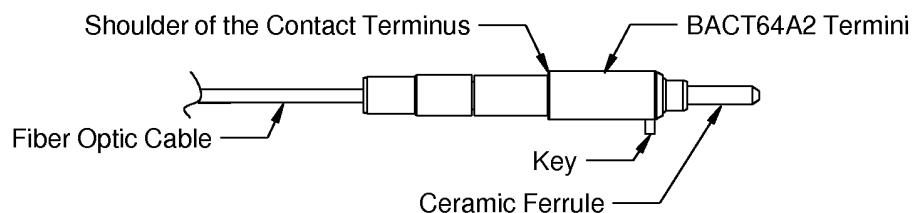
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2447749 S00061544195_V1

NON-KEYED FIBER OPTIC CONTACT TERMINUS

Figure 24



2448201 S00061544196_V1

KEYED FIBER OPTIC CONTACT TERMINUS

Figure 25

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4. CONNECTOR ASSEMBLY COMPONENT PART NUMBERS AND DESCRIPTION

A. **Ground Block Part Numbers**

Table 68
CONNECTOR GROUND BLOCK PART NUMBERS

Connector	Shell Size	Ground Block		
		Contact Cavities	Housing Material	Boeing Standard
BACC66()	1	42	Metal	S280W601-101
		48	Metal	S280W601-106
				S280W601-301
			Plastic	S280W601-116
	2	48	Metal	S280W601-106
				S280W601-301
			Plastic	S280W601-116
		62	Metal	S280W601-104
	3	92	Metal	S280W601-103
				S280W601-105
		48	Metal	S280W601-106
				S280W601-301
S280W551-()	1	16	Metal	S280W601-203
				S280W601-213
		32	Metal	S280W601-201
	2	16	Metal	S280W601-203
				S280W601-213
		32	Metal	S280W601-201
		100	Metal	S280W601-202
	3	16	Metal	S280W601-203
				S280W601-213
		32	Metal	S280W601-201

NOTE: The S280W601-301 ground block has an integral S280W555 track which is used to mount S280W555 terminal blocks. Refer to:

- Figure 31 for the S280W601-301 ground block
- Subject 20-90-15 for the assembly of S280W555 terminal blocks.

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Table 69
APPROVED SUPPLIERS OF BOEING STANDARD CONNECTOR GROUND BLOCKS

Boeing Standard	Approved Supplier
S280W601-101	Souriau
S280W601-103	Souriau
S280W601-104	Souriau
S280W601-105	Souriau
S280W601-106	Souriau
S280W601-116	Souriau
S280W601-201	Tri-Star
S280W601-202	Souriau
	Tri-Star
S280W601-203	Souriau
S280W601-213	Souriau
S280W601-301	Souriau

Table 70
ALTERNATIVE CONNECTOR GROUND BLOCKS

Specified Ground Block		Alternative Ground Block	
Part Number	Supplier	Part Number	Supplier
S280W601-101	Cory Components	S280W601-116	Souriau
	Tri-Star	S280W601-116	Souriau
S280W601-103	Cory Components	S280W601-116	Souriau
	Tri-Star	S280W601-116	Souriau
S280W601-104	Cory Components	S280W601-116	Souriau
	Tri-Star	S280W601-116	Souriau
S280W601-105	Cory Components	S280W601-116	Souriau
	Tri-Star	S280W601-116	Souriau
S280W601-106	Cory Components	S280W601-116	Souriau
	Tri-Star	S280W601-116	Souriau
S280W601-201	Cory Components	S280W601-201	Tri-Star
S280W601-202	Cory Components	S280W601-202	Souriau
			Tri-Star
S280W601-203	Cory Components	S280W601-213	Souriau
	Tri-Star	S280W601-213	Souriau

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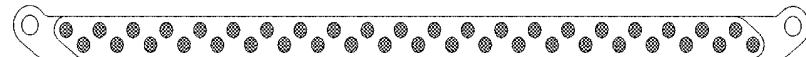


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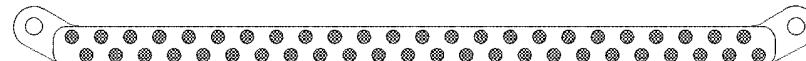
B. Ground Blocks for BACC66() Connectors



42 Contact Cavities

2446476 S00061547485_V1

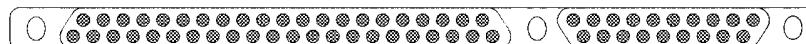
S280W601-101 GROUND BLOCK
Figure 26



48 Contact Cavities

2447921 S00061547486_V1

S280W601-106 AND S280W601-116 GROUND BLOCK
Figure 27



62 Contact Cavities

2447922 S00061547487_V1

S280W601-104 GROUND BLOCK
Figure 28

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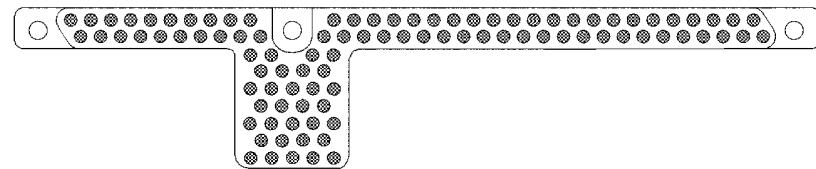
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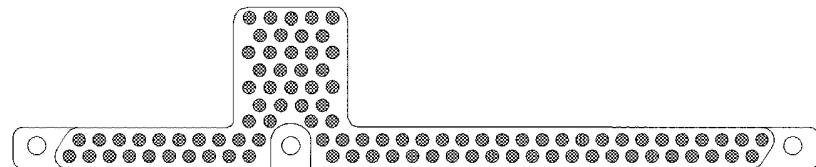


92 Contact Cavities
Left Side

2447923 S00061547488_V1

S280W601-103 LEFT SIDE GROUND BLOCK

Figure 29

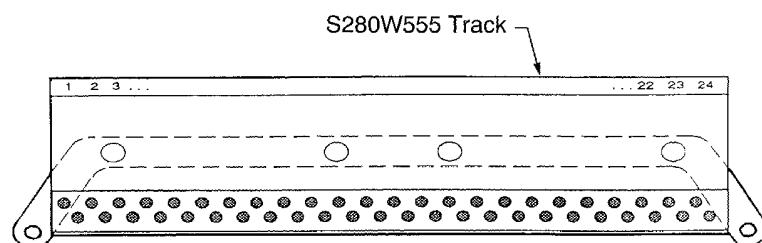


92 Contact Cavities
Right Side

2447924 S00061547489_V1

S280W601-105 RIGHT SIDE GROUND BLOCK

Figure 30



48 Contact Cavities

2447987 S00061547490_V1

S280W601-301 GROUND BLOCK

Figure 31

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C. Ground Blocks for S280W551-() Connectors



16 Contact Cavities

2447925 S00061547491_V1

**S280W601-203 AND S280W601-213 GROUND BLOCK
Figure 32**



32 Contact Cavities

2447926 S00061547492_V1

**S280W601-201 GROUND BLOCK
Figure 33**

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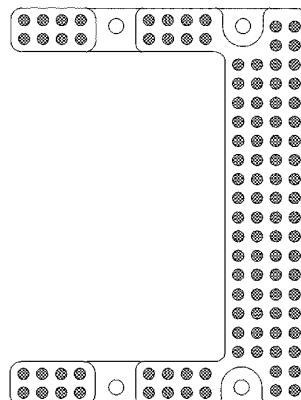
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92 Contact Cavities

2446477 S00061547493_V1

S280W601-202 GROUND BLOCK

Figure 34

D. Backshell Part Numbers

Table 71
BACKSHELL PART NUMBERS

Connector	Backshell		Assembly Procedure
	Part Number	Supplier	
ARINC 600 Plug, Shell Size 1	527-187()	Glenair	Subject 20-25-14
ARINC 600 Plug, Shell Size 2	527-212()	Glenair	Subject 20-25-14
ARINC 600 Plug, Shell Size 3	527-530MP29	Glenair	Subject 20-25-14
ARINC 600 Plug, Shell Size 3	527-108()	Glenair	Subject 20-25-14
ARINC 600 Plug, Shell Size 2	6720-0389	Flight Dynamics	Subject 20-25-14
S280W551-407	046-1000-000	ITT Cannon	Paragraph 18.A.

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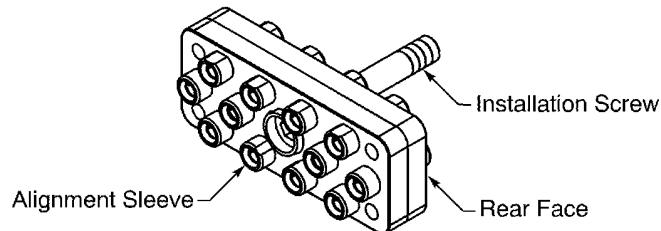
E. Fiber Optic Alignment Sleeve Insert Part Numbers for BACC66E, BACC66G, or BACC66J ARINC 600 Receptacle Connectors

NOTE: Fiber optic alignment sleeve inserts are:

- Not applicable to ARINC 600 plug connectors
- Used in the LRU or box mounted ARINC 600 receptacle connectors
- Can be installed in a receptacle connector before or after the contact termini are installed in the connector. Refer to Paragraph 16.M..

Table 72
ALIGNMENT SLEEVE INSERT PART NUMBERS

Boeing Standard	Configuration	Quantity of Termini	Used With Receptacle Insert	Used with Connectors
BACI10AU12R	Rectangular, Aluminum body	12	BACI10AH30, BACI10AH31, BACI10AH33, BACI10AH38, BACI10AH39 and 12F12	BACC66E, G
BACI10AU12RP	Rectangular, Thermoplastic body			



2447757 S00061547494_V1

ALIGNMENT SLEEVE INSERT

Figure 35

Table 73

APPROVED SUPPLIERS OF BOEING STANDARD ALIGNMENT SLEEVE INSERTS

Boeing Standard	Supplier
BACI10AU12R	Radiall
BACI10AU12RP	Radiall

5. PROTECTIVE CAP PART NUMBERS AND DESCRIPTION

A. General Data

Protective caps are used on ARINC 600 and S280W551 connectors:

- To keep contamination off the contacts
- To prevent damage that can be caused by electrostatic discharge (ESD)
- To prevent mechanical damage.

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B. Protective Caps for ARINC 600 Class A, Class B, and Class C Plug Connectors

Table 74
PROTECTIVE CAP PART NUMBERS

Connector		Protective Cap	
Shell Size	Insert Cavity	Part Number	Supplier
1	A	025-1121-001	ITT Cannon
		211600-1	Tyco/AMP
		240-92-702	Radiall
	B	025-1121-001	ITT Cannon
		211600-1	Tyco/AMP
		240-92-702	Radiall
	C	025-1122-001	ITT Cannon
		211600-1	Tyco/AMP
		240-92-703	Radiall
2	A	025-1123-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-707	Radiall
	B	025-1123-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-707	Radiall
	C	025-1124-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-706	Radiall
3	A	025-1123-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-707	Radiall
	B	025-1123-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-707	Radiall
	C	025-1124-001	ITT Cannon
		211600-2	Tyco/AMP
		240-92-706	Radiall

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C. Protective Caps for ARINC 600 and S280W551 Class D and Class E Plug Connectors

NOTE: These protective caps also give the necessary mechanical protection for the ground springs on the shell.

Table 75
PROTECTIVE CAP PART NUMBERS

Connector	Shell Size	Protective Cap	
		Part Number	Supplier
BACC66()D()	1	025-1218-001	ITT Cannon
	2	025-1218-000	ITT Cannon
	3		
BACC66()E()	1	025-1218-001	ITT Cannon
	2	025-1218-000	ITT Cannon
	3		
S280W551()	1	025-1183-000	ITT Cannon

6. INSERT CONFIGURATIONS

A. ARINC 600 Type Connectors - Insert Configurations

NOTE: The contacts shown in Table 76 are for plug connectors.

Table 76
ARINC 600 CONNECTOR INSERT CONFIGURATIONS

Insert Configuration	Industry Name	Contact Cavity				Reference
		Count	Size	Applicable Contacts	Notes	
BACI10AH01	60 or 60 pts	60	22	BACC47EF1 Pin	For Shell Size 1 inserts A or B	Figure 36
BACI10AH02	150 or 150 pts	150	22	BACC47EF1 Pin	-	Figure 37
BACI10AH03	5W2 or 5C2	1	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	For Shell Size 1 Insert C	Figure 38
		2	16	BACC47EG3 Socket		
		2	5	Coax Socket, or Cavity Reducer		
BACI10AH04	13W2, 13C2, or 11C2	4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 39
		3	16	BACC47EG3 Socket	-	
		4	20HD	BACC47EG2 Socket	-	
		2	5	Coax Socket, or Cavity Reducer	-	

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Table 76 ARINC 600 CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert Configuration	Industry Name	Contact Cavity				Reference
		Count	Size	Applicable Contacts	Notes	
BACI10AH05	71W1, 71C1, or 71 pts	70	22	BACC47EF1 Pin	-	Figure 40
		1	1	BACC47EN4 TNC Adapter with Mounting Block, or Coax Socket Contact with Mounting Block	-	
BACI10AH06	Wave Guide	-	-	-	-	Figure 41
BACI10AH07	100 or 100 pts	100	22	BACC47EF1 Pin	-	Figure 42
BACI10AH08	71W1B, 1C71, or 71 pts rev	1	1	BACC47EN4 TNC Adapter with Mounting Block, or Coax Socket Contact with Mounting Block	-	Figure 43
		70	22	BACC47EF1 Pin	-	
BACI10AH09	2W2 or C2	2	1	BACC47EN4 TNC Adapter with Mounting Block, or Coax Socket Contact with Mounting Block	-	Figure 44
BACI10AH10	85, or 85 pts	1	16	BACC47EG3 Socket	-	Figure 45
		4	20HD	BACC47EG2 Socket	-	
		80	22	BACC47EF1 Pin	-	
BACI10AH11	4W4, C4, or TCAS	4	1	BACA19BK1 TNC Adapter or ITT Cannon Outer Coax Body for ITT Cannon Coax Termination Kit	-	Figure 46
BACI10AH12	10T10	10	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	Figure 47
BACI10AH13	6T6	6	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	Figure 48
BACI10AH14	120T2	2	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	Figure 49
		118	22	BACC47EF1 Pin	-	
BACI10AH15	121	5	16	BACC47EG3 Socket	-	Figure 50
		6	20HD	BACC47EG2 Socket	-	
		110	22	BACC47EF1 Pin	-	
BACI10AH16	34	10	16	BACC47EG3 Socket	-	Figure 51
		24	20HD	BACC47EG2 Socket	-	
BACI10AH17	60 or 60 pts	60	20HD	BACC47EG2 Socket	For Shell Size 2 or 3	Figure 52
BACI10AH18	6 or 6P6	6	8	S280W553-2 Power Socket	-	Figure 53

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Table 76 ARINC 600 CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert Configuration	Industry Name	Contact Cavity				Reference
		Count	Size	Applicable Contacts	Notes	
BACI10AH19	40 or 40 pts	40	22	BACC47EF1 Pin	For Shell Size 1 Insert C	Figure 54
BACI10AH20	30T2	2	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	Figure 55
		28	22	BACC47EF1 Pin	-	
BACI10AH21	4	4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	For Shell Size 1 Insert C	Figure 56
BACI10AH22	59	4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 57
		5	16	BACC47EG3 Socket	-	
		50	22	BACC47EF1 Pin	-	
BACI10AH23	110	5	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 58
		5	20HD	BACC47EG2 Socket	-	
		100	22	BACC47EF1 Pin	-	
BACI10AH24	24T4	4	8	Coax, Twinax, or S280W553-4 Ground Socket	-	Figure 59
		20	20HD	BACC47EG2 Socket	-	
BACI10AH25	2W2B, or C2 rev	2	1	BACC47EN4 TNC Adapter with Mounting Block, or Coax Socket Contact with Mounting Block	-	Figure 60
BACI10AH26	84	4	20HD	BACC47EG2 Socket	-	Figure 61
		80	22	BACC47EF1 Pin	-	
BACI10AH27	4C	4	5	Coax Socket, or Cavity Reducer	Cavities are grounded to the connector shell	Figure 62
BACI10AH28	10	8	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 63
		2	16	BACC47EG3 Socket	-	
BACI10AH29	24 or 24 pts	24	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 64
BACI10AH30	20F12T8 (Not Keyed)	12	16	Fiber Optic Termini - (Not Keyed)	-	Figure 65
		8	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	
BACI10AH31	20F12T8 (Keyed)	12	16	Fiber Optic Termini - (Keyed)	-	Figure 66
		8	8	Coax, Twinax, or S280W553-4 Ground Socket	Cavities are grounded to the connector shell	

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Table 76 ARINC 600 CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert Configuration	Industry Name	Contact Cavity				Reference
		Count	Size	Applicable Contacts	Notes	
BACI10AH32	Q11	11	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	Figure 67
BACI10AH33	17F12Q2	2	8	BACC47GB1 Quadrax Socket	-	Figure 68
		3	16	BACC47EG3 Socket	-	
		12	16	Fiber Optic Termini - (Keyed)	-	
BACI10AH34	11Q2	2	8	BACC47GB1 Quadrax Socket	-	Figure 69
		4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	
		3	16	BACC47EG3 Socket	-	
		4	20HD	BACC47EG2 Socket	-	
BACI10AH35	12F5C2	4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	Figure 70
		1	16	BACC47EG3 Socket	-	
		2	5	Coax Socket, or Cavity Reducer	-	
		5	16	Fiber Optic Termini - (Keyed)	-	
BACI10AH36	118Q2	2	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	Figure 71
		118	22	BACC47EF1 Pin	-	
BACI10AH37	68Q2	2	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	Figure 72
		68	22	BACC47EF1 Pin	-	
BACI10AH38	36F36	36	16	Fiber Optic Termini - (Keyed)	-	Figure 73
BACI10AH39	20F12Q8 (Keyed)	12	16	Fiber Optic Termini - (Keyed)	-	Figure 74
		8	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	
BACI10AH40	46Q2	40	22	BACC47EF1 Pin	-	Figure 75
		2	16	BACC47EG3 Socket	-	
		4	12	BACC47EG4 Socket, Coax Socket, or Shielded Socket	-	
		2	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	
BACI10AH41	Q6	6	8	BACC47GB1 Quadrax Socket	Cavities are grounded to the connector shell	Figure 76

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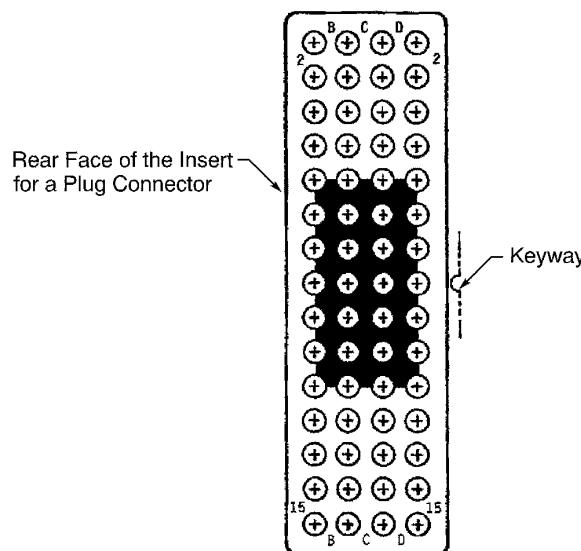
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Table 76 ARINC 600 CONNECTOR INSERT CONFIGURATIONS (Continued)

Insert Configuration	Industry Name	Contact Cavity				Reference
		Count	Size	Applicable Contacts	Notes	
BACI10AH42	25	25	16	BACC47EG3 Socket	-	Figure 77
-	12F12 (Keyed)	12	16	Fiber Optic Termini - (Keyed)	For Shell Size 1 Insert C	Figure 78

NOTE: Figure 36 through Figure 78 show the rear face of an insert in a plug connector.



2446442 S00061547495_V1

BACI10AH01 INSERT - 60 or 60 pts

Figure 36

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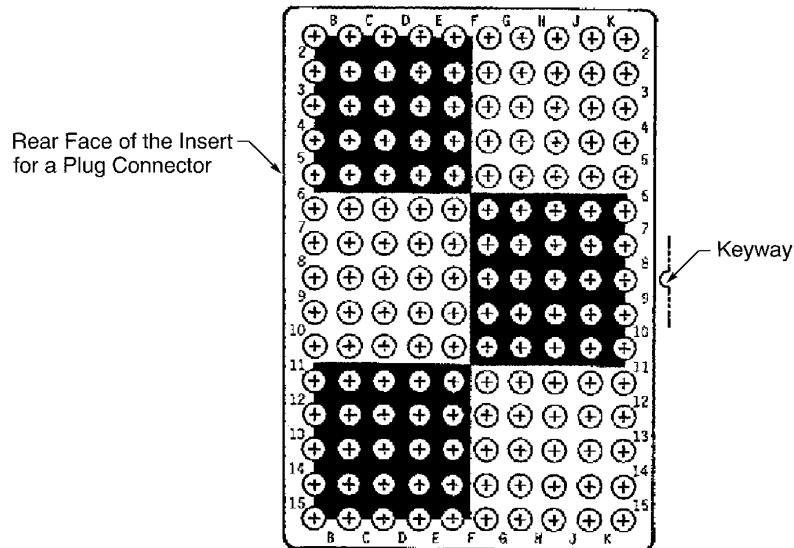
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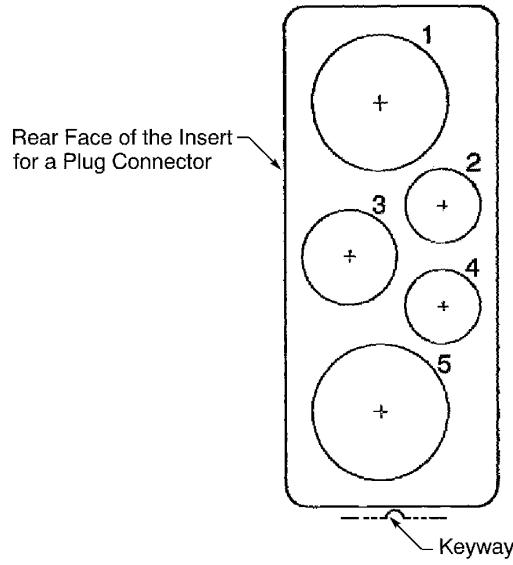
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2446443 S00061547496_V1

BACI10AH02 INSERT - 150 or 150 pts

Figure 37



2446444 S00061547497_V1

BACI10AH03 INSERT - 5W2 or 5C2

Figure 38

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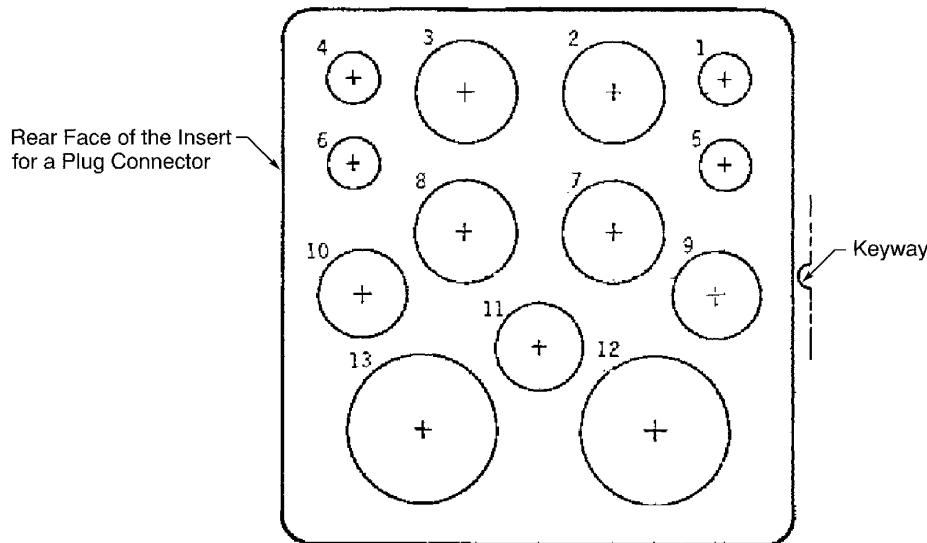
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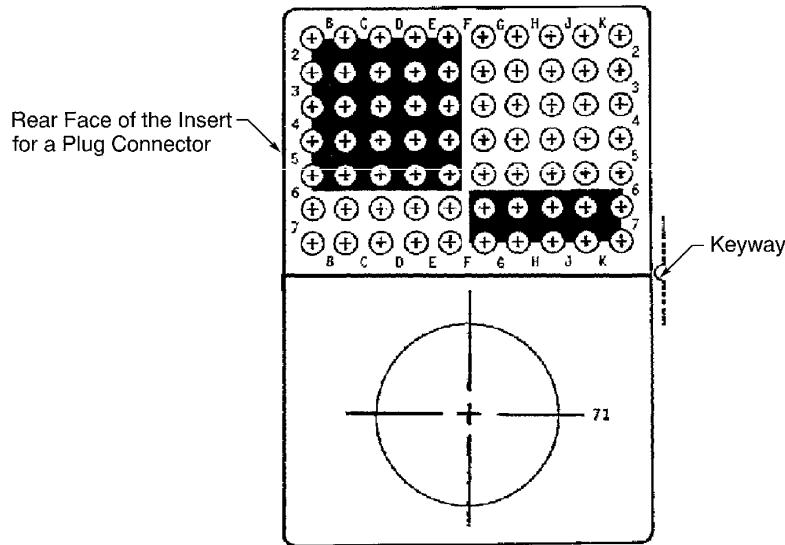
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2450247 S00061547498_V1

BACI10AH04 INSERT - 13W2, 13C2, or 11C2

Figure 39



2450248 S00061547499_V1

BACI10AH05 INSERT - 71W1, 71C1, or 71 pts

Figure 40

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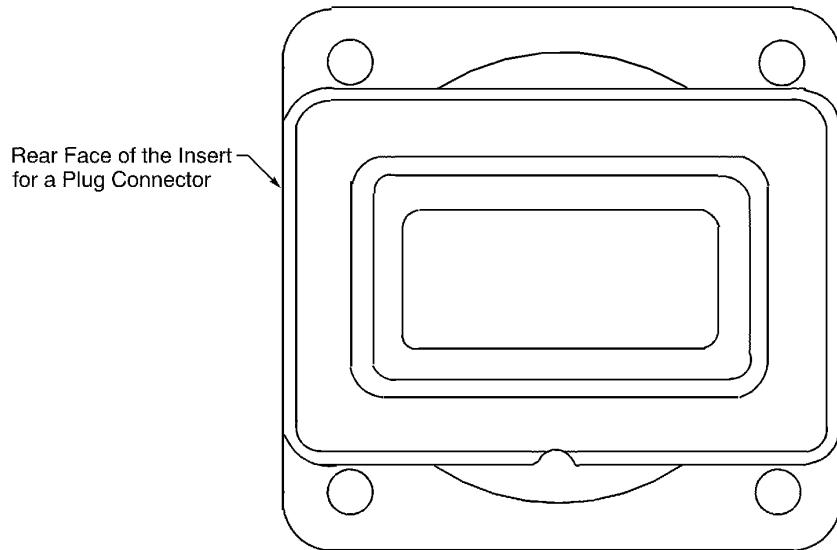
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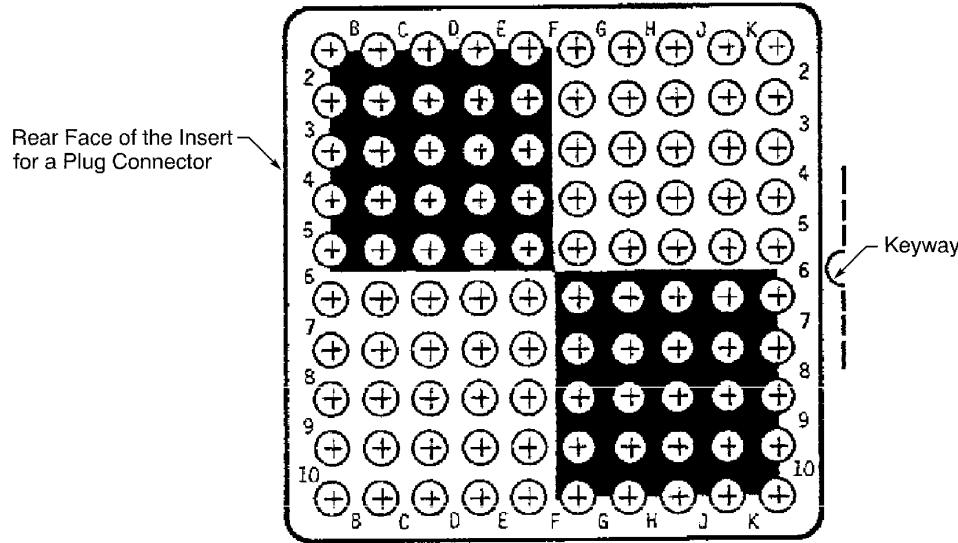


Rear Face of the Insert
for a Plug Connector

2447791 S00061547500_V1

BACI10AH06 INSERT - Wave Guide

Figure 41



Rear Face of the Insert
for a Plug Connector

2446445 S00061547501_V1

BACI10AH07 INSERT - 100 or 100 pts

Figure 42

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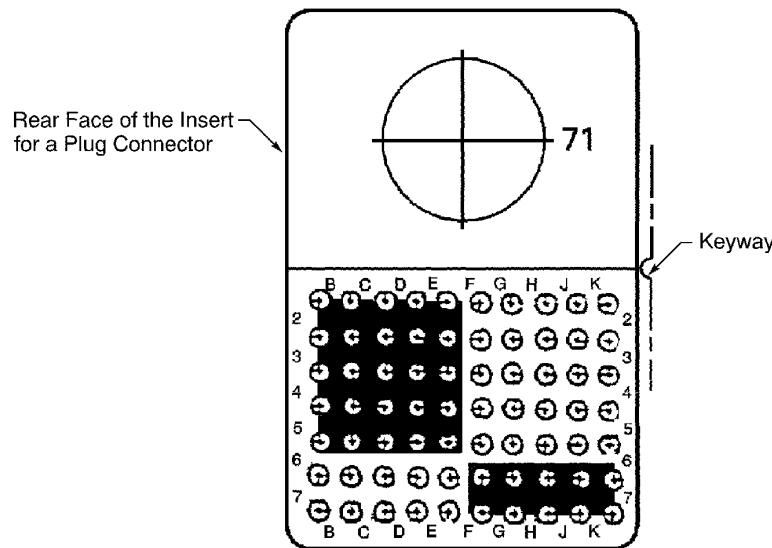
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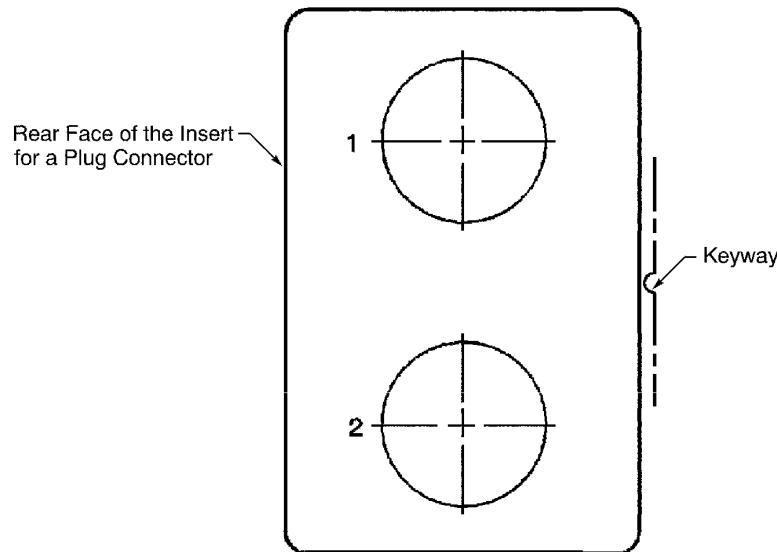
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2450249 S00061547502_V1

BACI10AH08 INSERT - 71W1B, 1C71, or 71 rev

Figure 43



2446446 S00061547503_V1

BACI10AH09 INSERT - 2W2 or C2

Figure 44

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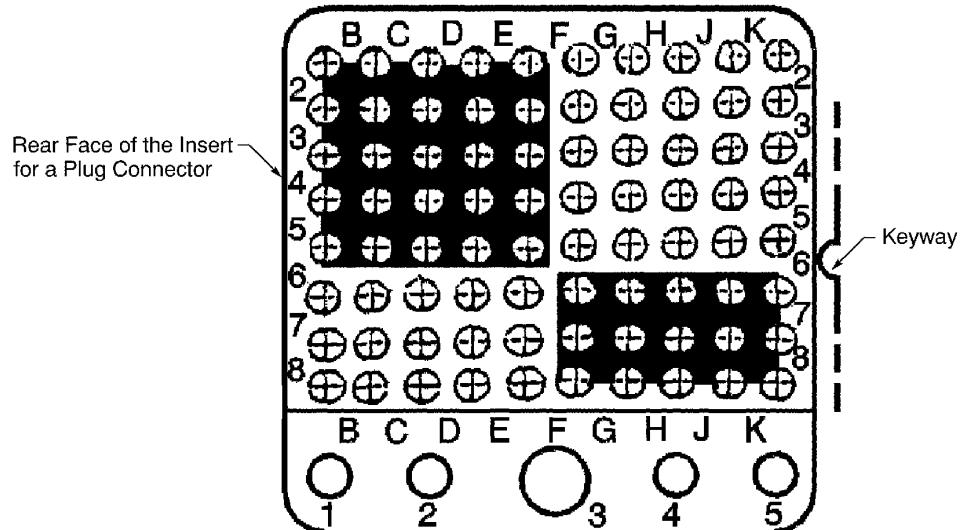
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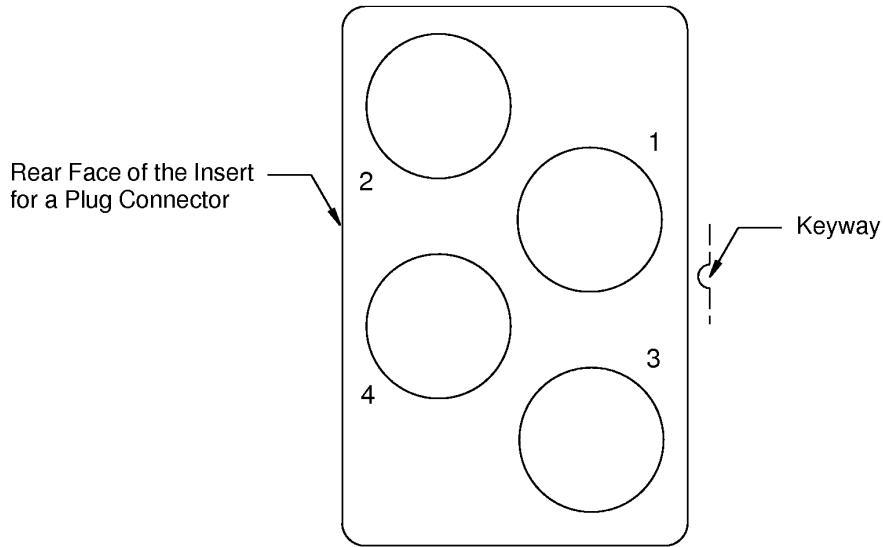
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2446447 S00061547504_V1

BACI10AH10 INSERT - 85 or 85 pts

Figure 45



2450250 S00061547505_V1

BACI10AH11 INSERT - 4W4, C4, or TCAS

Figure 46

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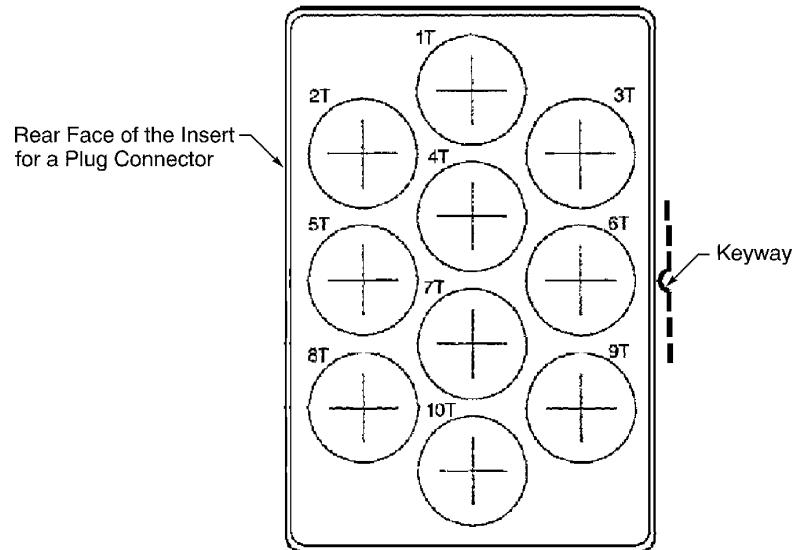
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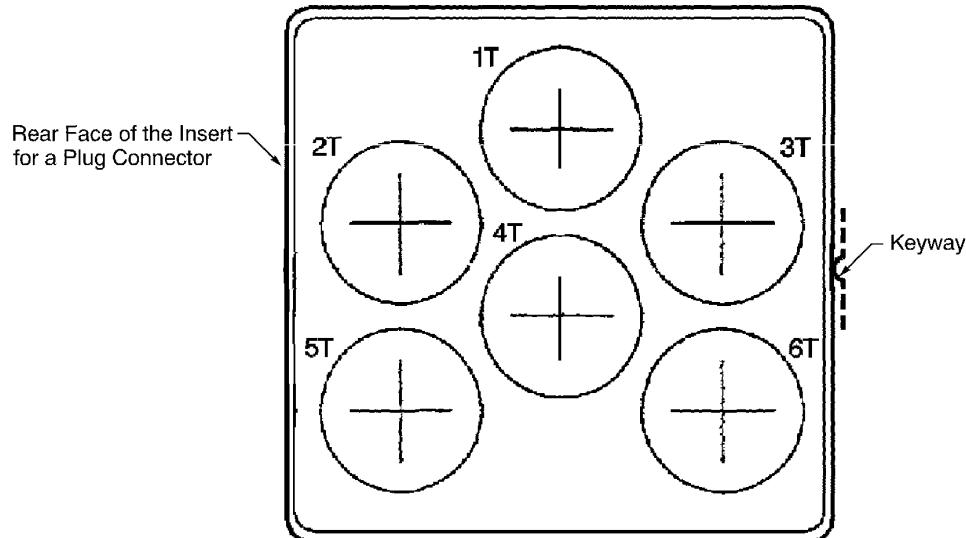
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2446448 S00061547506_V1

BACI10AH12 INSERT - 10T10

Figure 47



2446449 S00061547507_V1

BACI10AH13 INSERT - 6T6

Figure 48

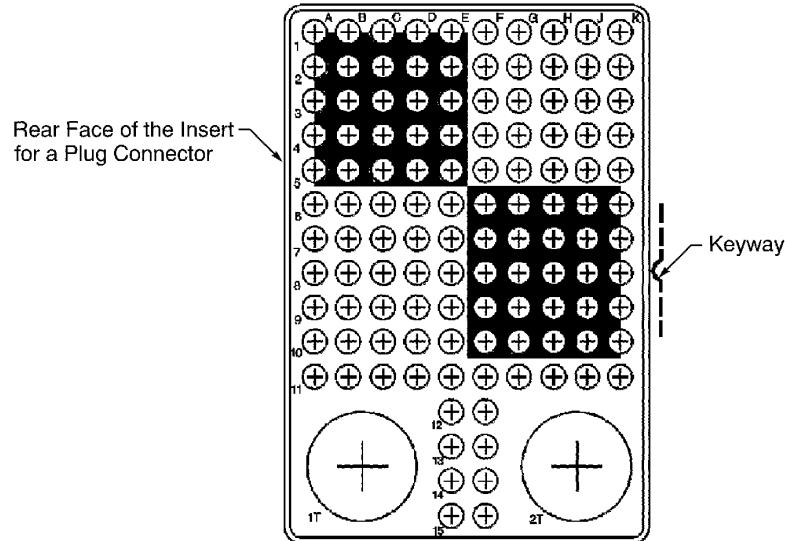
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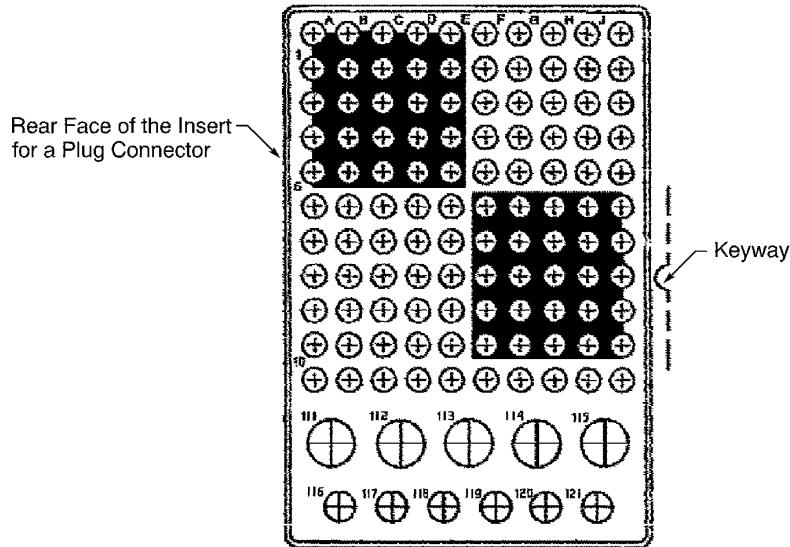
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2446450 S00061547508_V1

BACI10AH14 INSERT - 120T2

Figure 49



2446451 S00061547509_V1

BACI10AH15 INSERT - 121 or 121 pts

Figure 50

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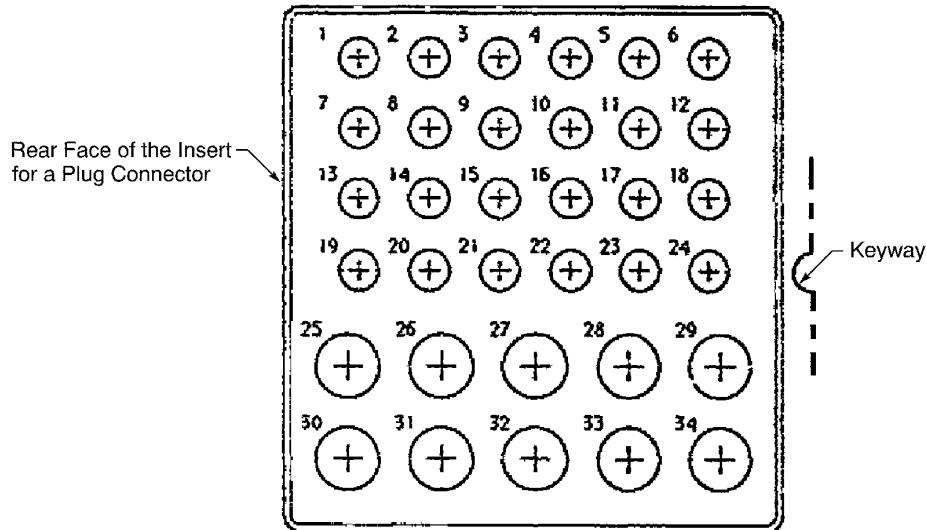
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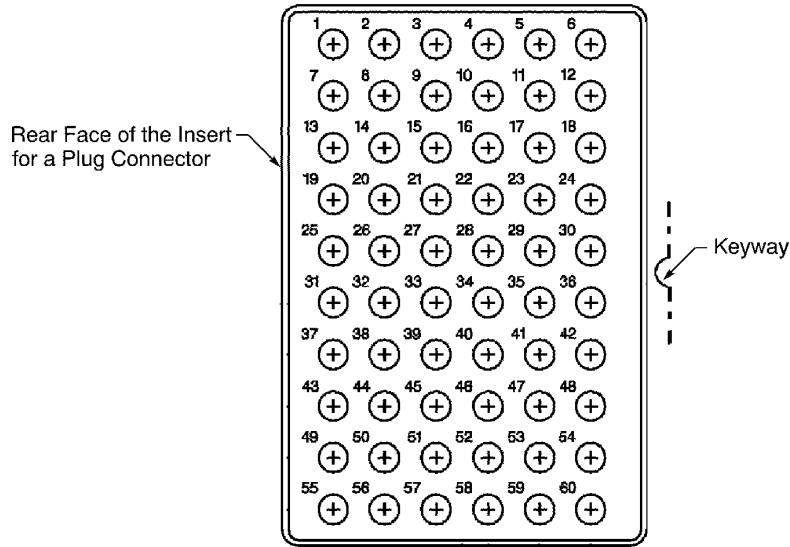
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2446452 S00061547510_V1

BACI10AH16 INSERT - 34 or 34 pts

Figure 51



2446453 S00061547511_V1

BACI10AH17 INSERT - 60 or 60 pts

Figure 52

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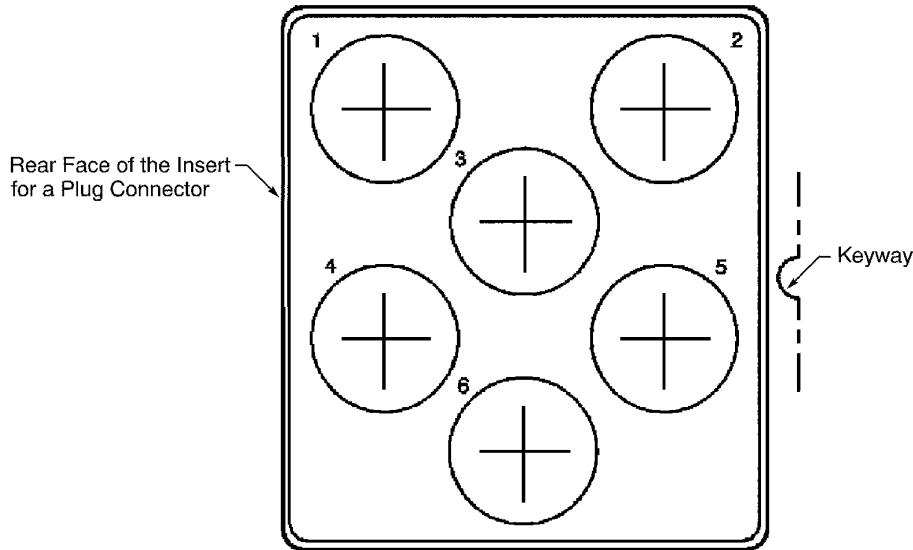
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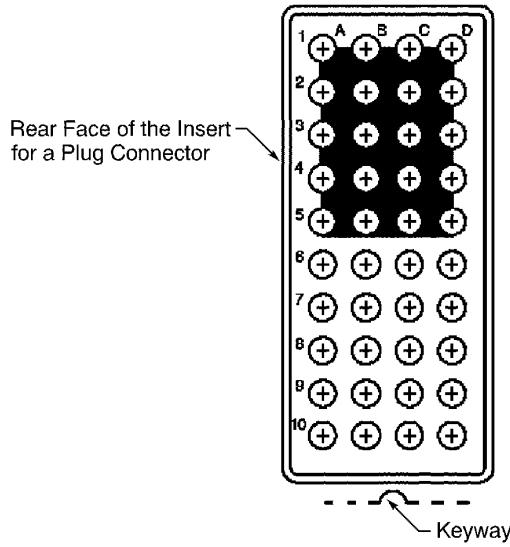
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL
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2446454 S00061547512_V1

BACI10AH18 INSERT - 6 or 6P6

Figure 53



2446455 S00061547513_V1

BACI10AH19 INSERT - 40 or 40 pts

Figure 54

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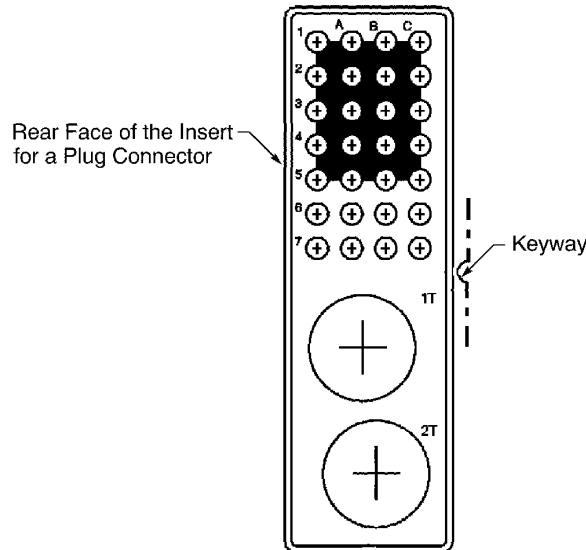
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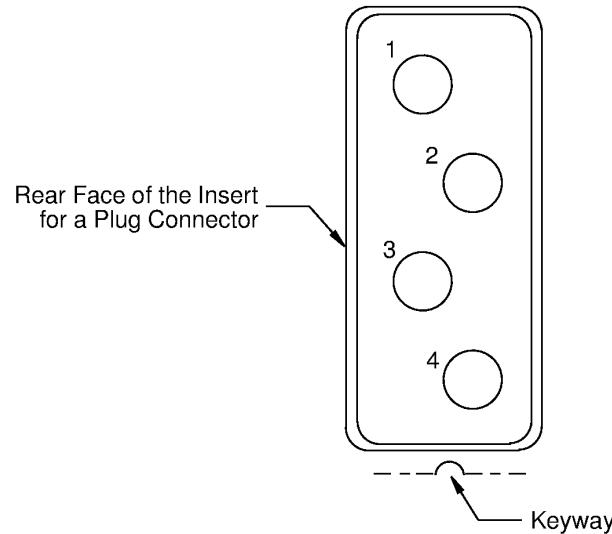
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2446456 S00061547514_V1

BACI10AH20 INSERT - 30T2

Figure 55



2446457 S00061547515_V1

BACI10AH21 INSERT - 4

Figure 56

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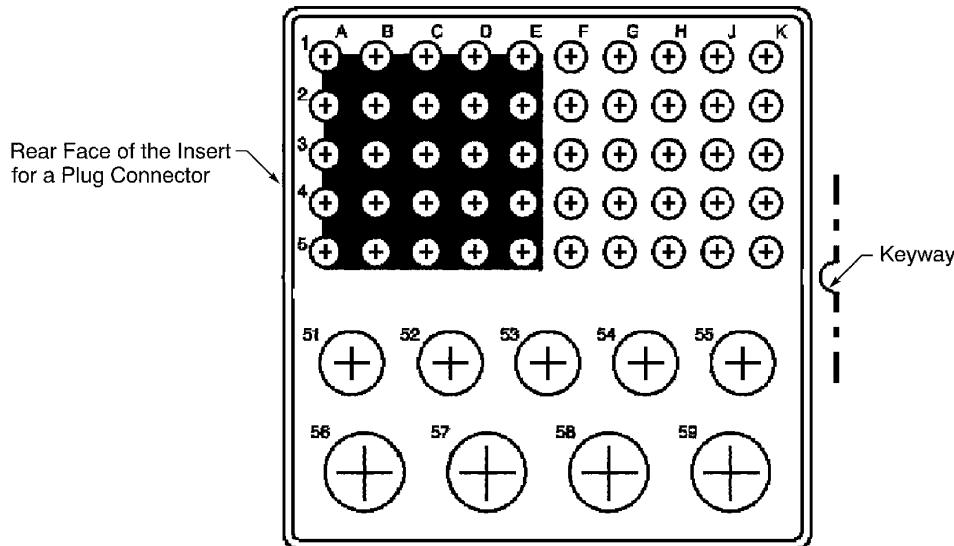
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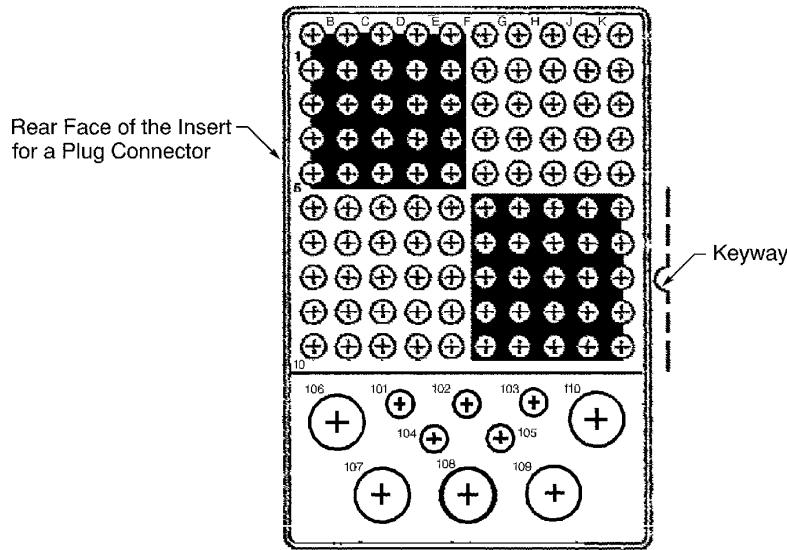
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2446458 S00061547516_V1

BACI10AH22 INSERT - 59

Figure 57



2446459 S00061547517_V1

BACI10AH23 INSERT - 110

Figure 58

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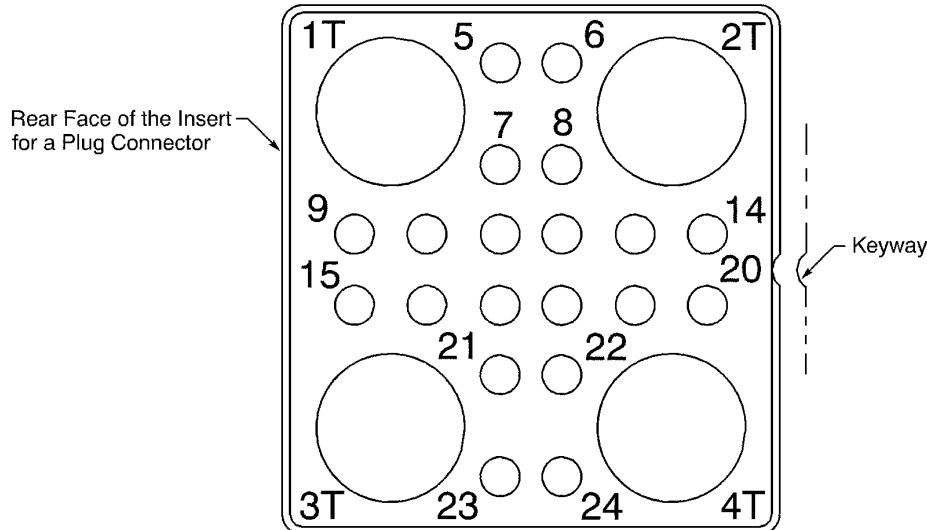
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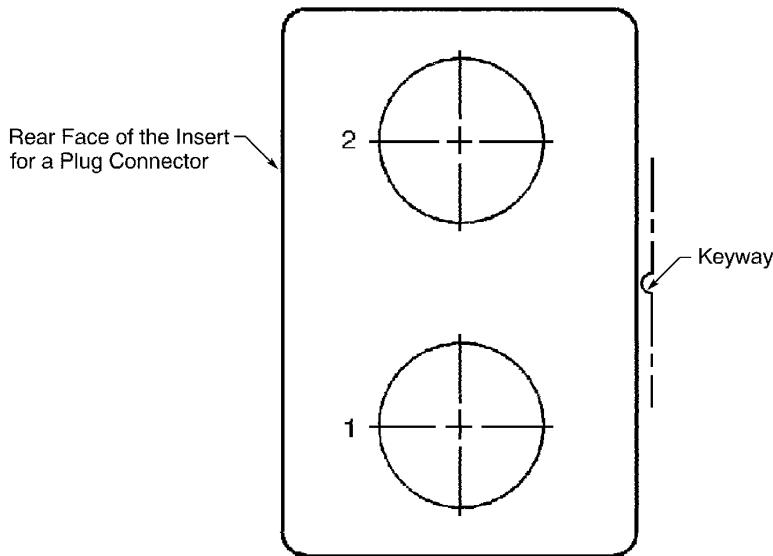
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2447785 S00061547518_V1

BACI10AH24 INSERT - 24T4, or 20T4

Figure 59



2450217 S00061547519_V1

BACI10AH25 INSERT - 2W2B, or C2 rev

Figure 60

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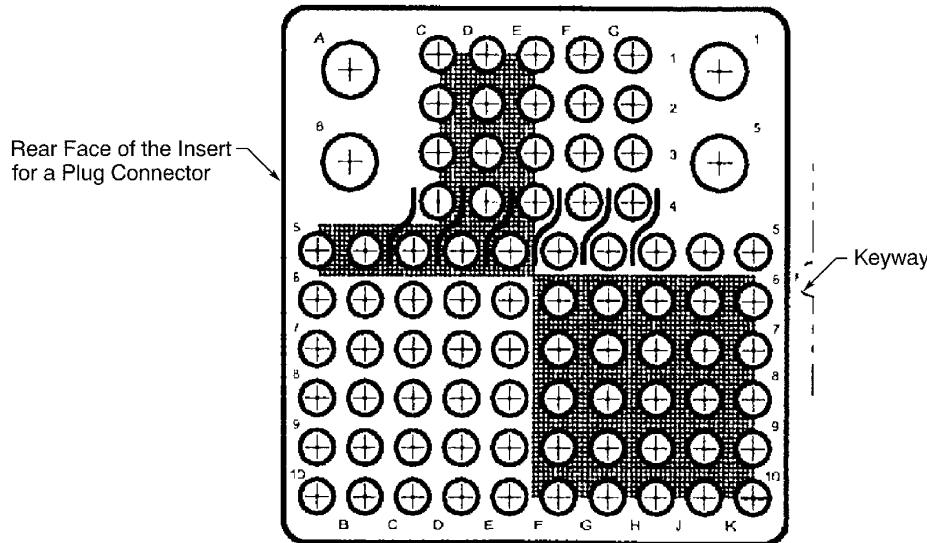
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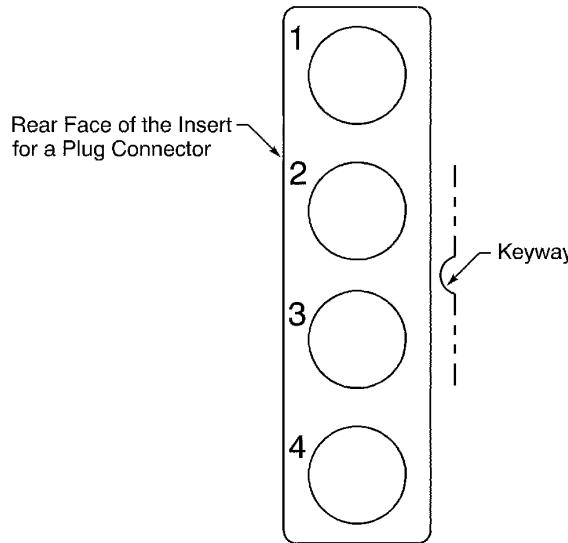
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2447788 S00061547520_V1

BACI10AH26 INSERT - 84

Figure 61



2447786 S00061547521_V1

BACI10AH27 INSERT - 4C

Figure 62

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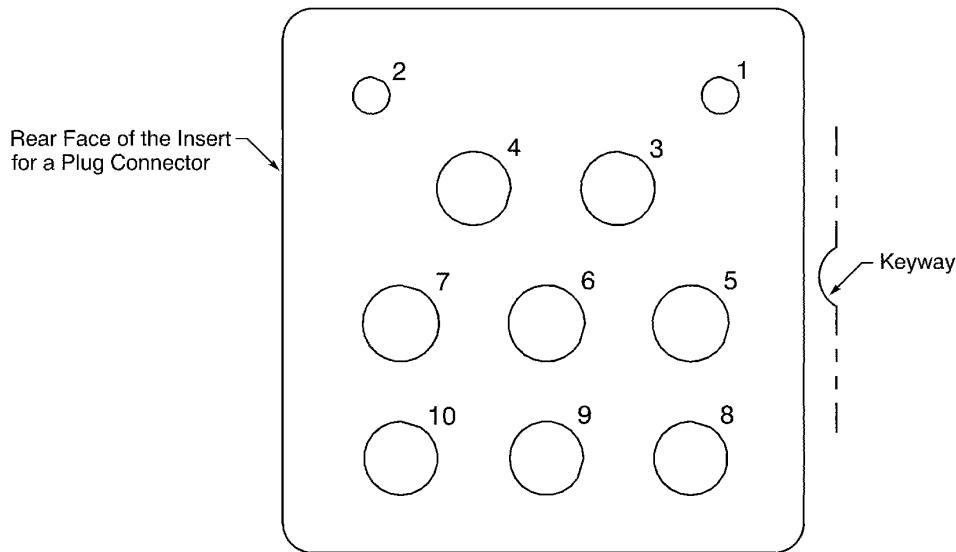
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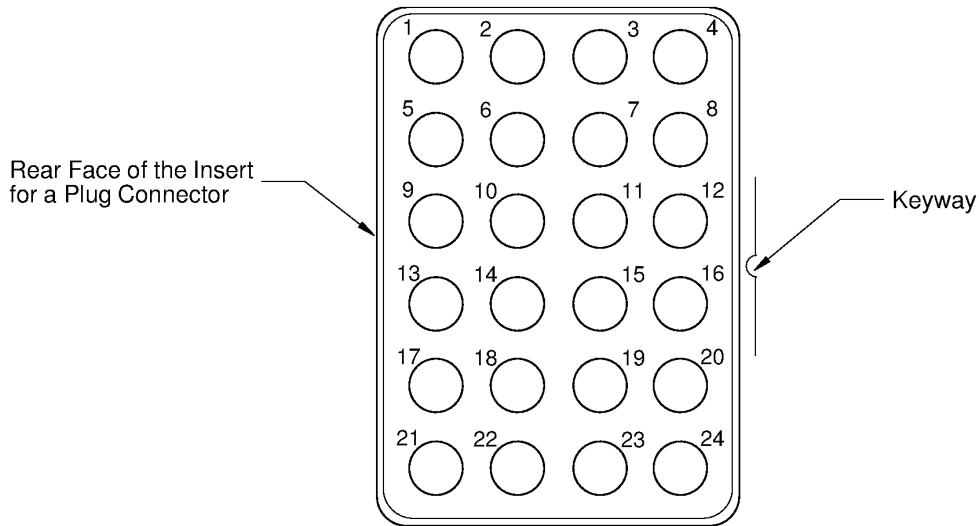
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL
CONNECTORS



2447784 S00061547522_V1

BACI10AH28 INSERT - 10

Figure 63



2447789 S00061547523_V1

BACI10AH29 INSERT - 24 or 24 pts

Figure 64

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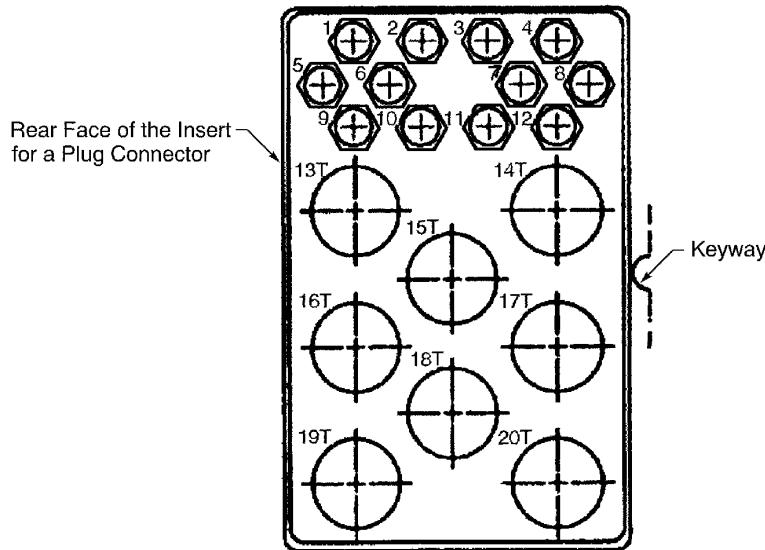
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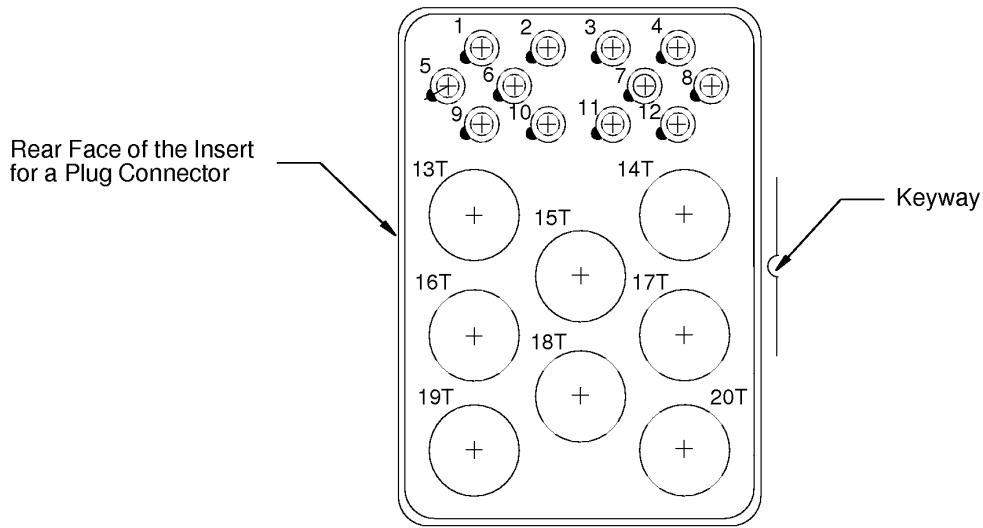
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2447790 S00061547524_V1

BACI10AH30 INSERT - 20F12T8 (Not Keyed)
Figure 65



2448151 S00061547525_V1

BACI10AH31 INSERT - 20F12T8 (Keyed)
Figure 66

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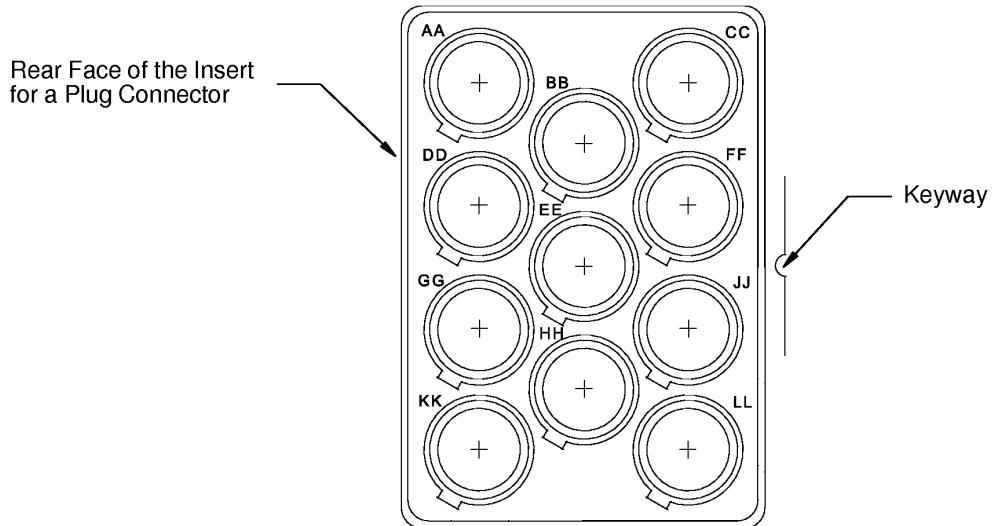
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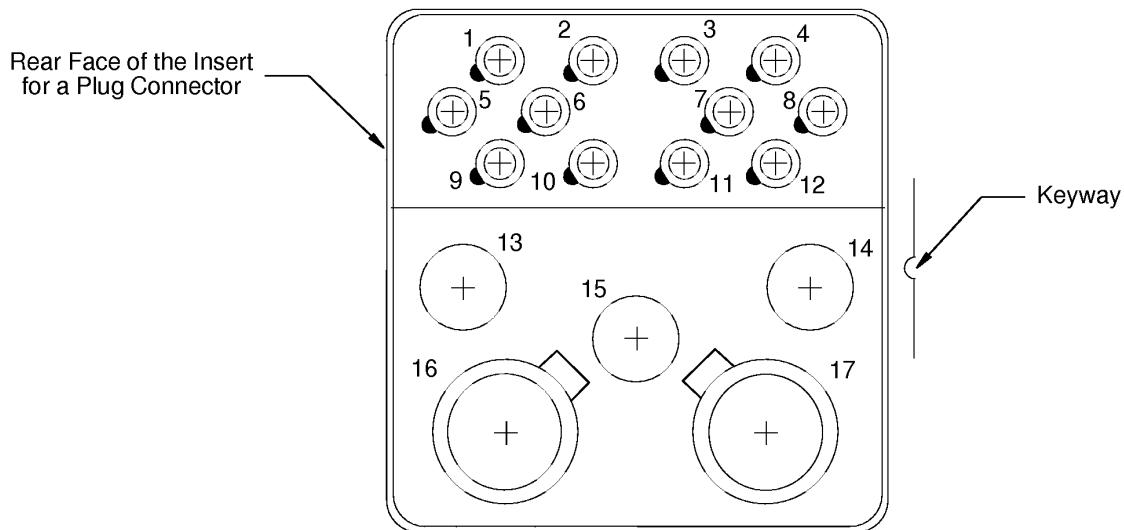
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2448152 S00061547526_V1

BACI10AH32 INSERT - Q11

Figure 67



2448153 S00061547527_V1

BACI10AH33 INSERT - 17F12Q2

Figure 68

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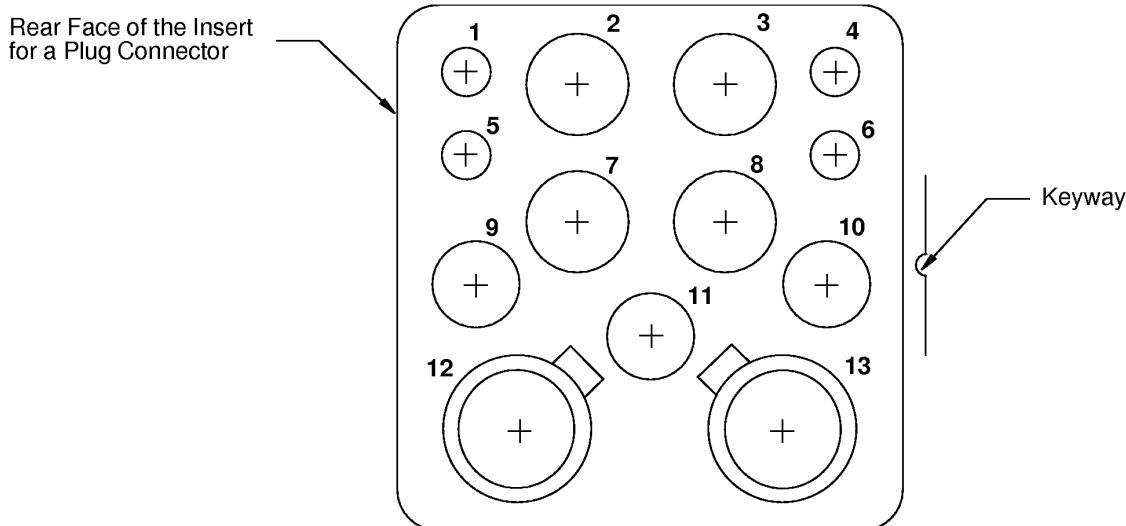
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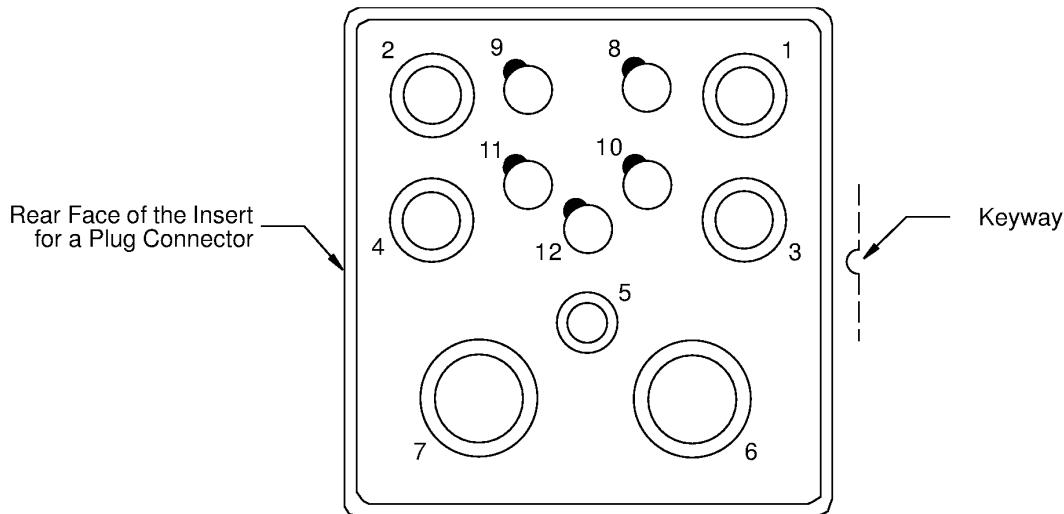
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2448150 S00061547528_V1

BACI10AH34 INSERT - 11Q2

Figure 69



2448850 S00061547529_V1

BACI10AH35 INSERT - 12F5C2

Figure 70

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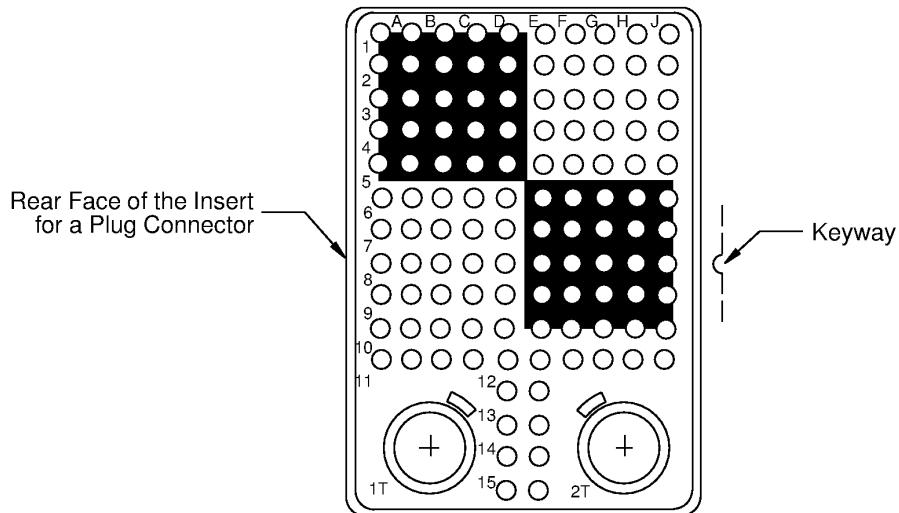
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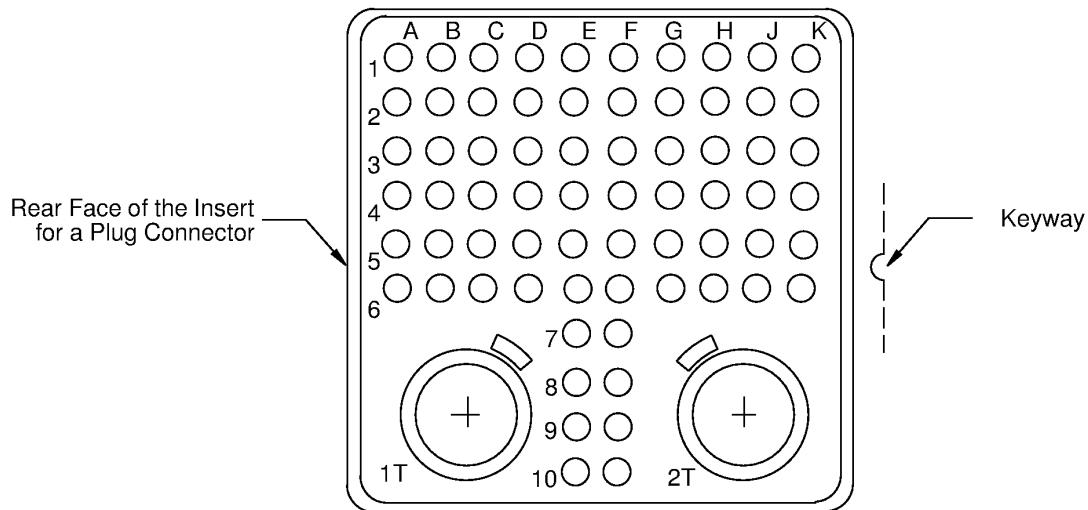
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2448851 S00061547530_V1

BACI10AH36 INSERT - 118Q2

Figure 71



2449958 S00061547531_V1

BACI10AH37 INSERT - 68Q2

Figure 72

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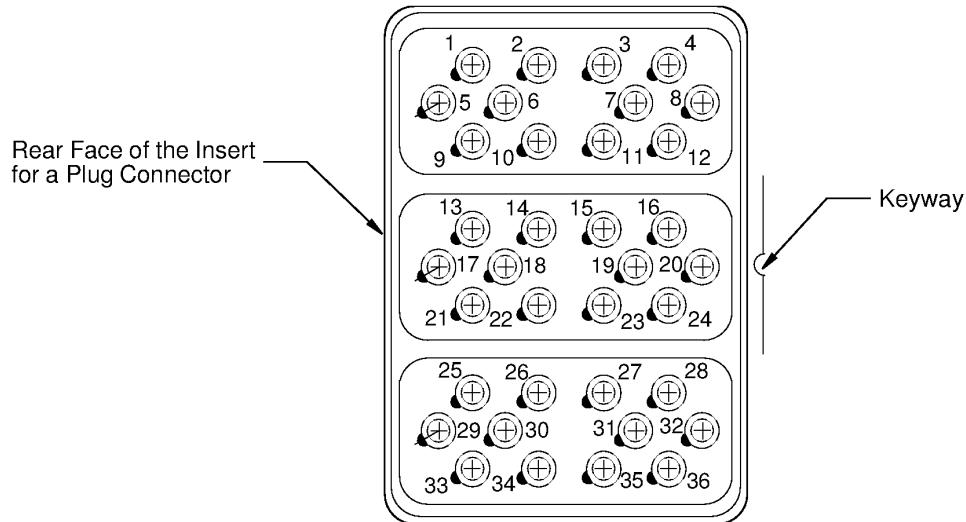
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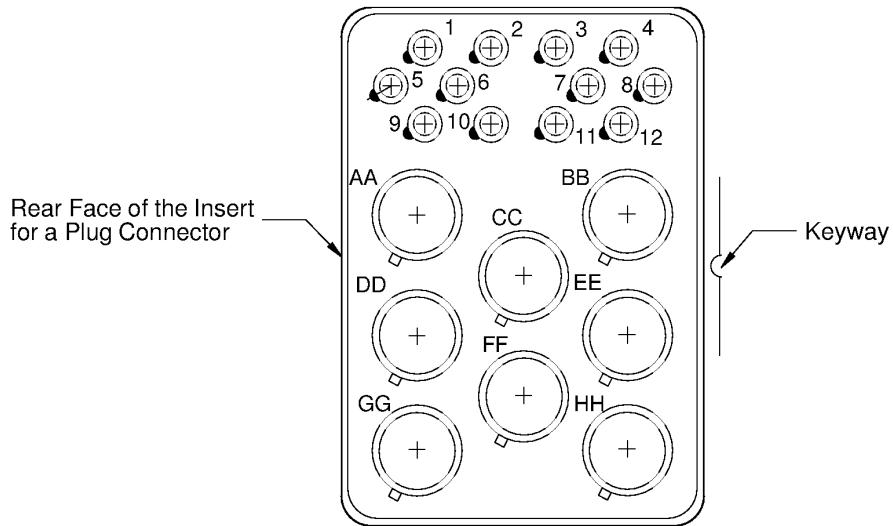
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2449959 S00061547532_V1

BACI10AH38 INSERT - 36F36

Figure 73



2449960 S00061547533_V1

BACI10AH39 INSERT - 20F12Q8 (Keyed)

Figure 74

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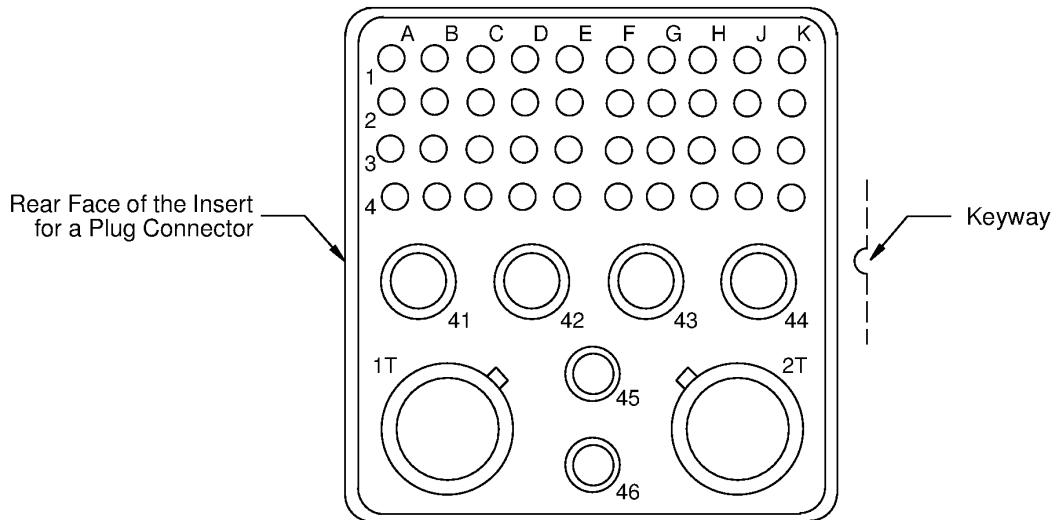
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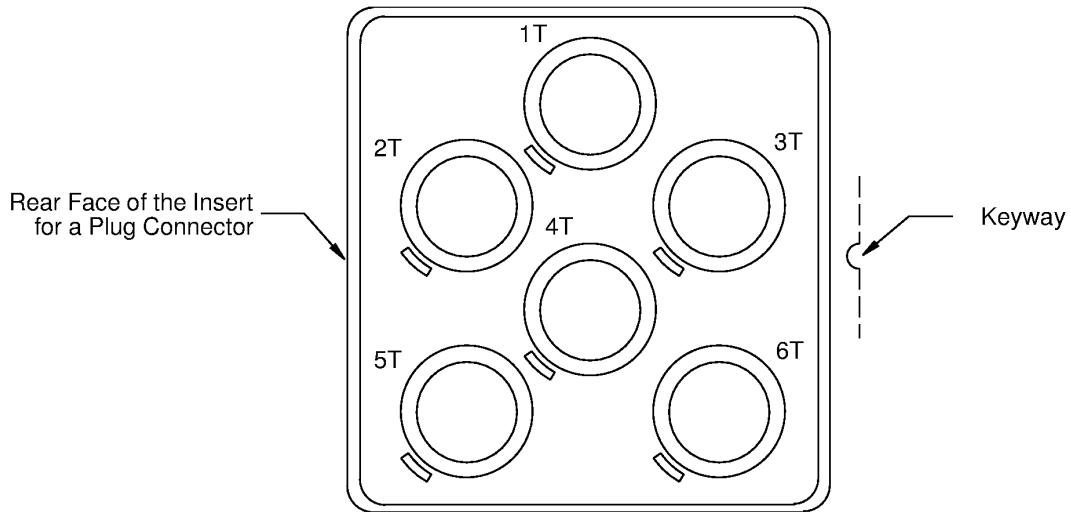
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2449961 S00061547534_V1

BACI10AH40 INSERT - 46Q2

Figure 75



2449962 S00061547535_V1

BACI10AH41 INSERT - Q6

Figure 76

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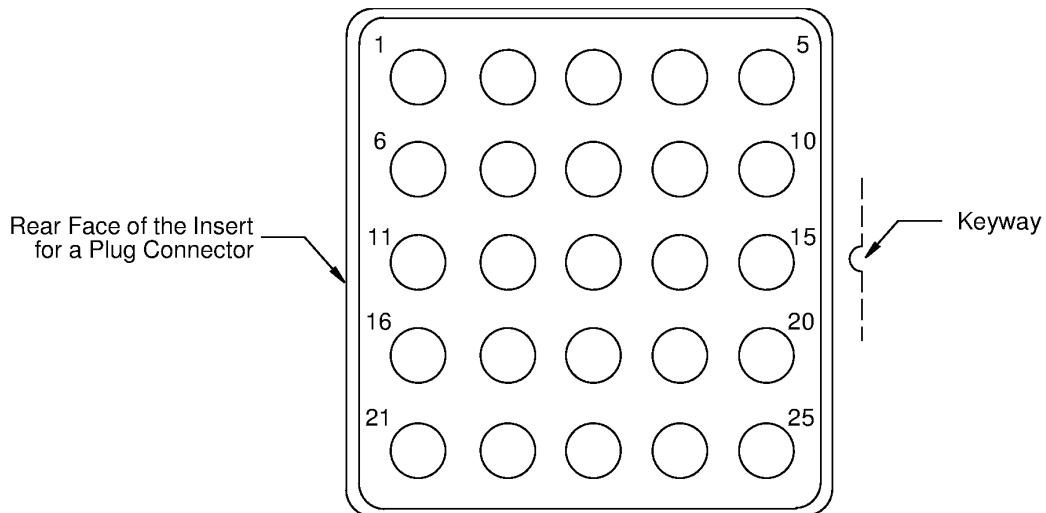
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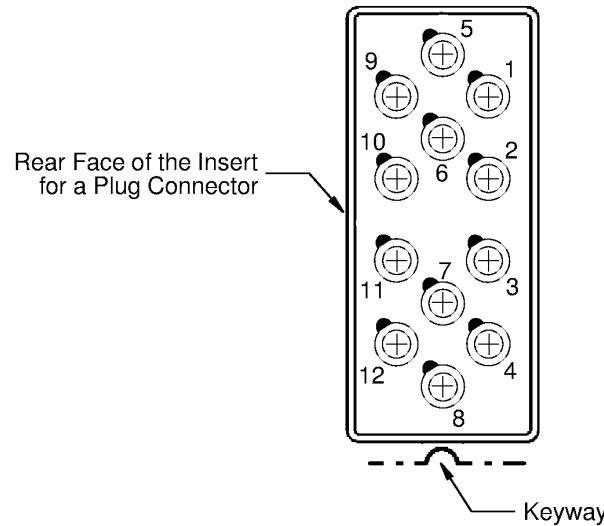
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS



2449963 S00061547536_V1

BACI10AH42 INSERT - 25

Figure 77



2448852 S00061547537_V1

12F12 INSERT

Figure 78

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**ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL
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7. CONNECTOR DISASSEMBLY

A. Removal of Standard Contacts

This paragraph give the procedure to remove size 22, 20, 16 and 12 contacts. For the procedure to remove size 8 contacts, refer to Paragraph 7.C.

Table 77
CONTACT REMOVAL TOOLS FOR BOEING STANDARD CONTACTS

Contact		Removal Tool		
Size	Part Number	Part Number	Size	Type
2222	BACC47EF1	282880	22	Rear Release
		282890		
		8660-162		
		91066-1		
		ATBO2054		
		ATC1054		
		CET-DPXMA-22		
		CIET-22		
		CIET-22DPXMA		
		DRK2663		
		DRK266J		
		M81969/1-01		
2020HD	BACC47EG2	282881	20HD	Rear Release
		282891		
		91066-4		
		ATC2073		
		CET-20D-1		
		CIET		
		CIET-20 HDL		
		DRK145		
		M81969/1-02		
		M81969/14-10		
		MS3156-20		
		ST2220-3-33		

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Table 77 CONTACT REMOVAL TOOLS FOR BOEING STANDARD CONTACTS (Continued)

Contact		Removal Tool		
Size	Part Number	Part Number	Size	Type
1616	BACC47EG3	282892	16	Rear Release
		282929		
		91066-3		
		CET-16-15		
		CET-16-9		
		DRK83-16		
		M81969/1-03		
		MS3156-16		
1212	BACC47EG4	282945	12	Rear Release
		91078-1		
		CE912-4		
		CET-12-4		
		CIET-12		
		M81969/28-02		
		MS3178-002		

- (1) Make a selection of a removal tool from Table 77.
- (2) At the rear of the connector, put the removal tool on the wire. Refer to Figure 79.

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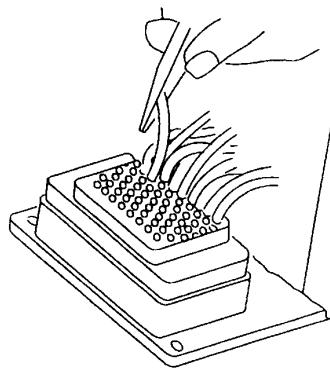
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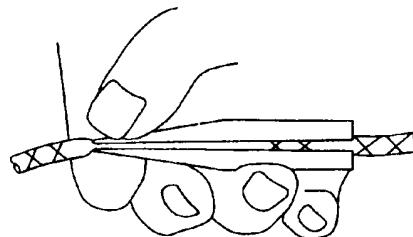


2446467 S00061547341_V1

POSITION OF THE WIRE IN THE REMOVAL TOOL

Figure 79

- (3) Put the wire through the forward part of the tool. Refer to Figure 80.



2446468 S00061547342_V1

POSITION OF THE WIRE IN THE FORWARD PART OF THE REMOVAL TOOL

Figure 80

- (4) Align the removal tool the with the contact cavity.
- (5) Push the tool into the contact cavity until it stops. Refer to Figure 81.

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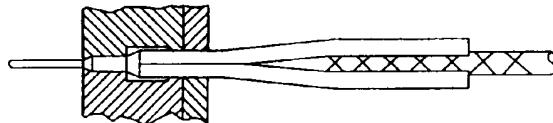
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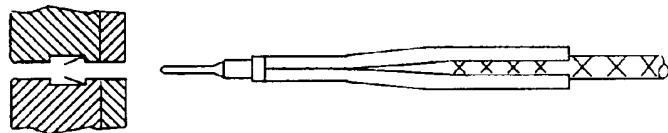


2446469 S00061547343_V1

REMOVAL TOOL FULLY INSERTED IN THE CONTACT CAVITY

Figure 81

- (6) Carefully pull the wire and the tool from the contact cavity at the same time. Refer to Figure 82.



2446470 S00061547345_V1

TOOL AND CONTACT REMOVED FROM THE CAVITY

Figure 82

- (7) If the contact is not released:
- Carefully remove the tool.
 - Turn the tool approximately 90 degrees.
 - Do Step 7.A.(3) through Step 7.A.(6) again.

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**ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL
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B. Removal of Size 12 Coax and Size 12 Shielded Contacts

Table 78
SIZE 12 CONTACT REMOVAL TOOLS

Contact Cavity Size	Removal Tool	
	Part Number	Type
12	282945	Rear Release
	91078-1	
	CE912-4	
	CET-12-4	
	CIET-12	
	M81969/28-02	
	MS3178-002	

- (1) Make a selection of a removal tool from Table 78.
- (2) Remove the contact. Refer to Paragraph 7.C.

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C. Removal of Size 8 Power, Ground, Coax, Twinax and Quadrax Contacts

Table 79
CONTACT REMOVAL TOOLS FOR SIZE 8 CONTACTS

Contact			Removal Tool		
Size	Part Number	Type	Part Number	Size	Type
8	S280W552-105	Twinax	CET8-T	8	Rear Release
			M81969/28-03		
			RRX-04-C-1		
	S280W552-205	Twinax	CET8-T	8	Rear Release
			M81969/28-03		
			RRX-04-C-1		
	S280W553-2	Power	CET8-2	8	Rear Release
	S280W553-4	Ground	CET8-T	8	Rear Release
			M81969/28-03		
			RRX-04-C-1		
	S280W554-111	Coax	CET8-T	8	Rear Release
			M81969/28-03		
			RRX-04-C-1		
	S280W554-113	Coax	CET8-T	8	Rear Release
			M81969/28-03		
			RRX-04-C-1		
	BACC47GB1	Quadrax	1738894-1	8	Rear Release
	BACC47GB2	Quadrax	1738894-1	8	Rear Release

Table 80
LUBRICANTS

Lubricant	Specification	Supplier
Alcohol, Isopropyl	TT-I-735	An available source

- (1) Make a selection of a removal tool from Table 79.
 - (2) If there is a seal boot on the cable, pull the boot away from the insert to prevent interference with the removal tool.
 - (3) At the rear of the connector, put the bit of the removal tool on the wire near the connector insert.
 - (4) Align the bit of the removal tool with the contact cavity.
 - (5) Push the tool into the contact cavity until it stops and the contact retention clip unlocks the contact.
- NOTE:** A lubricant can be used to make it easier to push the tool into the contact cavity. Refer to Table 80.
- (6) Carefully pull the tool and the wire from the contact cavity at the same time.

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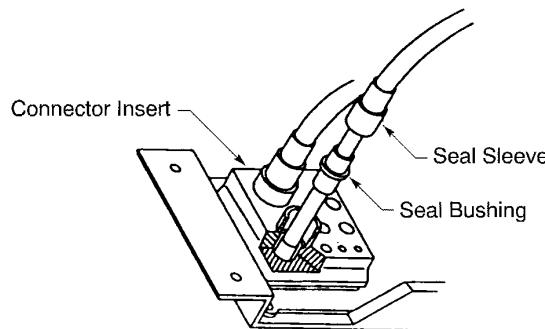
- (7) If the contact is not released:
 - (a) Carefully remove the tool.
 - (b) Turn the tool approximately 90 degrees.
 - (c) Do Step 7.C.(3) through Step 7.C.(6) again.
- (8) Push the seal boot forward on the contact to protect the contact from damage.

D. Removal of Size 5 Coax Contacts

Table 81
CONTACT REMOVAL TOOLS FOR SIZE 5 COAX CONTACTS

Contact		Removal Tool		
Size	Type	Part Number	Size	Type
5	Coax	91174-1	5	Rear Release
		CET-C8		
		MS3178-001		
		SET-C8		

- (1) Make a selection of a size 5 removal tool from Table 81.
- (2) Push the sealing sleeve back away from the connector insert. Refer to Figure 83.



2446471 S00061547538_V1

POSITION OF THE SEAL SLEEVE ON THE COAX CABLE
Figure 83

- (3) Push the seal bushing or the seal boot back away from the connector insert. Refer to Figure 84.

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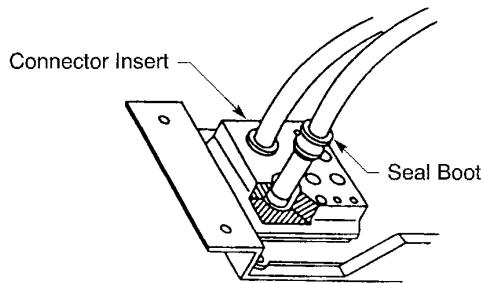
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2446472 S00061547539_V1

POSITION OF THE SEAL BOOT ON THE COAX CABLE

Figure 84

- (4) Put the removal tool on the cable.
- (5) Align the tool and the contact cavity.
- (6) Push the tool into the insert cavity until it stops.
- (7) Carefully pull the wire and the tool from the contact cavity at the same time.

E. Removal of Size 1 Coax Contacts from the BACI10AH05, 08, 09 and 25 Inserts

This paragraph gives the procedure to remove a size 1 coax contact or a TNC adapter that has a mounting block from these inserts:

- BACI10AH05
- BACI10AH08
- BACI10AH09
- BACI10AH25

Refer to Paragraph 7.F. for the procedure to remove a size 1 coax termination kit contact from the BACI10AH11 insert.

- (1) If the coax cable is connected to the ARINC connector with a TNC connector, turn the coupling ring of the TNC plug in the counterclockwise direction until the TNC plug disengages from the TNC adapter.

NOTE: It is not necessary to remove the TNC adapter from the ARINC connector to disconnect the coax cable from the ARINC connector.

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- (2) For Boeing connector part numbers that have insert configuration code 22, 23 or 25, remove the retainer plates on the rear of the connector.

NOTE: If the Boeing connector part number has insert configuration code 122, 123 or 125, it is not necessary to remove the retainer plates from the connector to remove the size 1 coax contact.

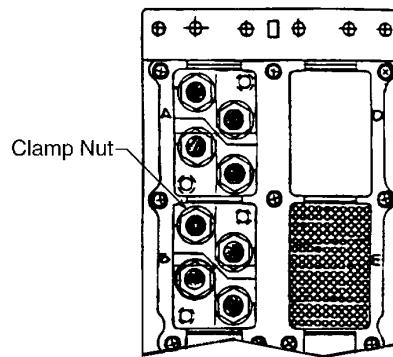
- (a) From the rear side of the connector shell, remove the screws that hold the insert retainer plates.
 - (b) Remove the insert retainer plates.
- (3) Remove the four screws from the front face of the connector insert.
- (4) Remove the contact from the rear of the connector.

F. Removal of ITT Cannon Size 1 Coax Termination Kit Contacts from the BACI10AH11 insert

This procedure is applicable for the removal of ITT Cannon size 1 coax termination kit contacts 320-1066-006 and 320-1066-015.

NOTE: The coax contact termination kit contains the center contact assembly.

- (1) At the rear of the connector, turn the clamp nut in the counterclockwise direction to loosen it. Refer to Figure 85 and Figure 86.



2447798 S00061547540_V1

LOCATION OF THE CLAMP NUTS ON THE BACI10AH11 INSERT

Figure 85

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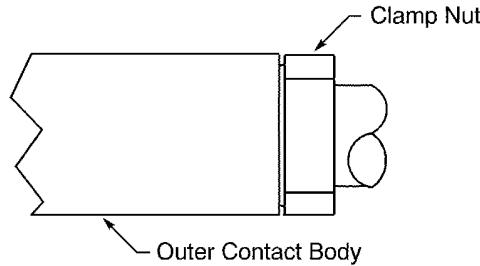
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CENTER CONTACT ASSEMBLY INSTALLED IN THE OUTER CONTACT BODY

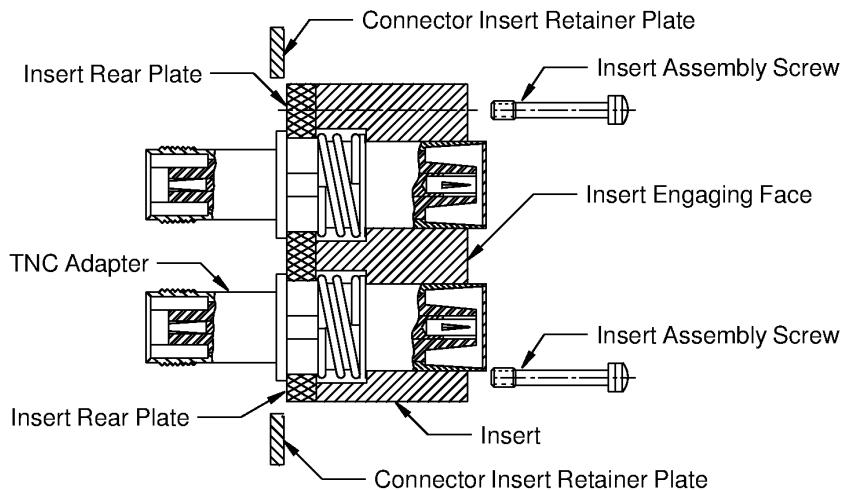
Figure 86

- (2) Disengage the threads of the clamp nut and the outer contact body.
- (3) Pull the center contact assembly out of the outer contact body.

G. Removal of the BACA19BK1 TNC Adapters or the Outer Coax Bodies from the BACI10AH11 Insert

- (1) Remove the screws from the engaging face of the insert. Refer to Figure 87.

NOTE: It is possible that these screws are captivated and cannot be completely removed from the insert.



2447974 S00061547542_V1

BACA19BK1 TNC ADAPTERS IN THE BACI10AH11 INSERT

Figure 87

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ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS

- (2) Pull the rear plate that holds the four TNC adapters or outer coax bodies rearward from the insert.
NOTE: It can be necessary to push on the engaging ends of the contacts at the same time to help move the plate rearward.
- (3) If the connector insert retainer plates prevent the movement of the rear plate from the connector, remove the connector insert retainer plates:
 - (a) From the rear side of the connector shell, remove the screws that hold the insert retainer plates.
 - (b) Remove the insert retainer plates from the connector.
- (4) Pull the rear plate that holds the four TNC adapters or outer coax bodies rearward from the insert.
NOTE: It can be necessary to push on the engaging ends of the contacts at the same time to help move the plate rearward.
- (5) Remove the TNC adapters or the outer coax bodies from the plate.

H. Removal of Fiber Optic Contact Termini

Refer to the procedures for Contact Terminus Removal in Subject 20-12-21.

I. Removal of the Fiber Optic Alignment Sleeve Insert from a BACC66E, BACC66G, or BACC66J ARINC 600 Receptacle Connector

NOTE: Fiber optic alignment sleeve inserts are:

- Not applicable to ARINC 600 plug connectors
- Used in the LRU or box-mounted ARINC 600 receptacle connectors

CAUTION: DO NOT PULL, SHAKE, OR TWIST THE ALIGNMENT SLEEVE INSERT FROM THE RECEPTACLE CONNECTOR. DAMAGE TO THE CERAMIC FERRULES OF THE CONTACT TERMINI CAN OCCUR.

Table 82
NECESSARY TOOLS

Tool	Type	Size (inch)
Driver	Allen Wrench	5/64
	Screwdriver, Hex	5/64

- (1) Make a selection of a driver from Table 82.

NOTE: The driver can have a ball type end.

- (2) Turn the installation screw in a counterclockwise direction until the screw is disengaged from the face of the connector.

CAUTION: DO NOT SHAKE OR TWIST THE ALIGNMENT SLEEVE INSERT TO REMOVE IT FROM THE CONNECTOR. DAMAGE TO THE CERAMIC FERRULES OF THE CONTACT TERMINI CAN OCCUR.

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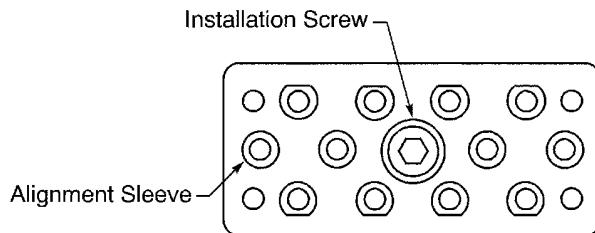
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2447776 S00061547544_V1

FRONT FACE OF THE ALIGNMENT SLEEVE INSERT

Figure 88

- (3) Put the alignment sleeve insert in a clean plastic bag.

CAUTION: KEEP THE ALIGNMENT SLEEVE INSERT IN A CLEAN PLASTIC BAG UNTIL IT IS INSTALLED IN THE CONNECTOR. CONTAMINATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE CONNECTOR.

J. Seal Plug Removal

This paragraph gives the procedure to remove a MS27488 type seal plug from a contact cavity.

Refer to Paragraph 7.K. for the procedure to remove a S280W552-109 conductive seal plug from a grounded size 8 contact cavity.

Table 83
NECESSARY TOOLS

Tool	Type
Pliers	Needle Nose
Tweezers	-

- (1) Make a selection of a tool from Table 83.

CAUTION: MAKE SURE THAT THE PLIERS OR TWEEZERS HAVE SMOOTH SURFACES AND NO SHARP EDGES. TOOLS WITH A ROUGH SURFACE OR SHARP EDGES CAN CAUSE DAMAGE TO THE REAR GROMMET.

NOTE: An acceptable alternative is to use the fingers.

- (2) Remove the plastic tie straps or the wire harness ties, that are less than 6 inches from the connector, from the wire harness.
- (3) Tightly hold the end of the seal plug or the seal rod.
- (4) Pull the seal plug or the seal rod out of the contact cavity.

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K. Removal of a Conductive Seal Plug From a Grounded Size 8 Contact Cavity

This paragraph gives the procedure to remove a S280W552-109 conductive seal plug from a grounded size 8 contact cavity.

Table 84
SIZE 8 SEAL PLUG REMOVAL TOOLS

Contact Cavity Size	Removal Tool	
	Part Number	Supplier
8	M81969/28-03	QPL
	RRX-04-C-1	Russtech

- (1) Make a selection of a seal plug removal tool from Table 84.
- (2) From the rear of the insert, put the end of the tool on the end of the seal plug.
- (3) Push the tool into the contact cavity until it stops.
- (4) From the front of the connector, put the end of a plastic rod against the end of the seal plug.
Make sure that:
 - The rod has a flat end
 - The diameter of the rod is 0.20 inch minimum to 0.22 inch maximum.
- (5) Push the seal plug and the removal tool out of the rear of the cavity with the rod.
- (6) If the seal plug is not released:
 - (a) Carefully remove the removal tool from the contact cavity.

CAUTION: DO NOT TURN THE REMOVAL TOOL. IF THE TOOL IS TURNED, DAMAGE TO THE CONTACT RETENTION MECHANISM OCCURS.

- (b) Do Step 7.K.(3) through Step 7.K.(5) again.
- (7) Pull the tool and the seal plug from the contact cavity.

L. Removal of a Connector Insert

To get access to a connector that is installed on a shelf in the electronic rack, either of these alternatives are acceptable:

- The shelf can be removed
- The connector can be disconnected from the shelf.

NOTE: Sufficient clearance around the connector is necessary to let both hands do the work. Access to both the front and rear of the connector is necessary.

- (1) Remove the necessary wire harness ties and clamps that are necessary to make the removal of the connector contacts easier.
- (2) Remove the screws, washers, and retainer plates from the rear of the connector.
- (3) Put the screws in a safe place.

NOTE: The initial connectors from Souriau are installed with metric screws; replacements screws can be difficult to find.

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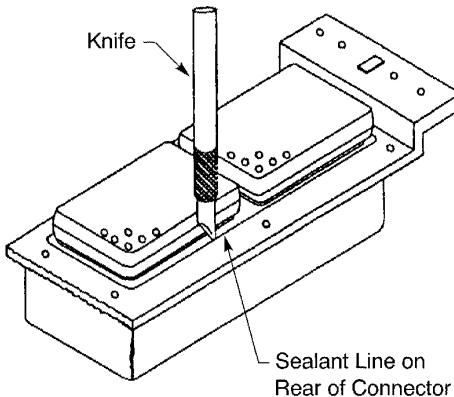
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- (4) If the insert is installed in a BACC66()B() environmental connector, cut the resilient seal material around the rear of the insert with a sharp knife. Refer to Figure 89.

CAUTION: DO NOT CUT THE SEALANT AROUND THE OTHER INSERTS.



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REMOVAL OF THE SEALANT LINE AROUND THE INSERT
Figure 89

- (5) From the front face of the connector, push the insert out of the connector shell with both thumbs. Make sure that:
- The force is applied equally to each end of the insert
 - One end of the insert does not catch on the connector shell, or on an adjacent insert.
- NOTE:** If the end of an adjacent insert makes an overlap with the insert, remove the adjacent insert, then remove the insert.
- (6) If the insert does not move from the connector shell, hold the connector shell in a fixture and push the front face of the insert with a larger force.
- Make sure that:
- The force is applied equally to each end of the insert
 - One end of the insert does not catch on the connector shell
 - One end of the insert does not catch on an adjacent insert.

CAUTION: DO NOT CAUSE A BEND OR OTHER DAMAGE TO THE CONNECTOR SHELL DURING THE FORCE.

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8. CONTACT ASSEMBLY

A. Assembly of Standard Contacts

NOTE: Refer to Subject 20-60-00 for contact assembly with filler wire as an alternative to the assembly of a contact with a folded back conductor and an eyelet.

Table 85
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Crimp Barrel Size	Removal Length (inch)		Special Instructions
		Target	Tolerance	
26	22	0.15	± 0.03	-
	20	0.34	± 0.03	Fold the conductor back
24	22	0.15	± 0.03	-
	20	0.17	± 0.03	-
	16	0.56	± 0.03	Fold the conductor back
		0.28	± 0.03	Use a Y-6015-C or a CE46FC eyelet
22	12	0.56	± 0.03	Fold the conductor back and use a Y-9015-C or a CE66FC eyelet
	22	0.15	± 0.02	-
	20	0.17	± 0.03	-
	16	0.56	± 0.03	Fold the conductor back
		0.28	± 0.03	Use a Y-6015-C or a CE46FC eyelet
20	12	0.56	± 0.03	Fold the conductor back and use a Y-9015-C or a CE66FC eyelet
	20	0.17	± 0.03	-
	16	0.28	± 0.03	-
		0.56	± 0.03	Fold the conductor back
	12	0.28	± 0.03	Use a Y-9015-C or a CE66FC eyelet
18	16	0.28	± 0.03	-
	12	0.28	± 0.03	-
16	16	0.28	± 0.03	-
	12	0.28	± 0.03	-
14	12	0.28	± 0.03	-
12	12	0.28	± 0.03	-

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Table 86
CONTACT CRIMP TOOLS

Wire Size (AWG)	Contact Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
26	2222	85-220	3	M22520/2-23	-
		M22520/2-01	3	M22520/2-23	-
		WA22	3	M22520/2-23	-
	2020HD	M22520/2-01	6	M22520/2-08	-
24	2222	85-220	3	M22520/2-23	-
		M22520/2-01	3	M22520/2-23	-
		WA22	3	M22520/2-23	-
		WA22LC	3	M22520/2-23	-
	2020HD	85-220	5	L-3198-20HD	-
			5	M22520/2-02	-
			5	M22520/2-08	-
		M22520/2-01	5	L-3198-20HD	-
			5	M22520/2-02	-
			5	M22520/2-08	-
		WA22	5	L-3198-20HD	-
			5	M22520/2-02	-
			5	M22520/2-08	-
		WA22LC	5	M22520/2-08	-
	1616	85-550	4	M22520/1-02	Blue
		M22520/1-01	4	M22520/1-02	Blue
		WA27F	4	M22520/1-02	Blue
	1212	M22520/1-01	7	M22520/1-02	Yellow
			7	M22520/1-11	-
		WA27F	7	M22520/1-02	Yellow
			7	M22520/1-11	-

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Table 86 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Contact Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
22	2222	85-220	4	M22520/2-23	-
		M22520/2-01	4	M22520/2-23	-
		WA22	4	M22520/2-23	-
		WA22LC	4	M22520/2-23	-
	2020HD	85-220	6	L-3198-20HD	-
			6	M22520/2-02	-
			6	M22520/2-08	-
		M22520/2-01	6	L-3198-20HD	-
			6	M22520/2-02	-
			6	M22520/2-08	-
		WA22	6	L-3198-20HD	-
			6	M22520/2-02	-
			6	M22520/2-08	-
	1616	WA22LC	6	M22520/2-08	-
		85-550	4	M22520/1-02	Blue
		M22520/1-01	4	M22520/1-02	Blue
	1212	WA27F	4	M22520/1-02	Blue
		M22520/1-01	7	M22520/1-02	Yellow
			7	M22520/1-11	-
		WA27F	7	M22520/1-02	Yellow
			7	M22520/1-11	-

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Table 86 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Contact Size	Crimp Tool				
		Basic Unit		Locator		
		Part Number	Setting	Part Number	Color	
20	2020HD	85-220	7	L-3198-20HD	-	
			7	M22520/2-02	-	
			7	M22520/2-08	-	
		M22520/2-01	7	L-3198-20HD	-	
			7	M22520/2-02	-	
			7	M22520/2-08	-	
		WA22	7	L-3198-20HD	-	
	1616		7	M22520/2-02	-	
			7	M22520/2-08	-	
	1212	WA22LC	7	M22520/2-08	-	
		85-550	4	M22520/1-02	Blue	
		M22520/1-01	4	M22520/1-02	Blue	
		WA27F	4	M22520/1-02	Blue	
		85-550	7	M22520/1-11	-	
		M22520/1-01	7	M22520/1-02	Yellow	
			7	M22520/1-11	-	
18	1616	WA27F	7	M22520/1-02	Yellow	
			7	M22520/1-11	-	
			5	M22520/1-02	Blue	
	1212	85-550	5	M22520/1-02	Blue	
		M22520/1-01	5	M22520/1-02	Blue	
		WA27F	5	M22520/1-02	Blue	
		85-550	7	M22520/1-11	-	
		M22520/1-01	6	M22520/1-02	Yellow	
			6	M22520/1-11	-	
	WA27F	6	6	M22520/1-02	Yellow	
		6	6	M22520/1-11	-	

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Table 86 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Contact Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
16	1616	85-550	6	M22520/1-02	Blue
		M22520/1-01	6	M22520/1-02	Blue
		WA27F	6	M22520/1-02	Blue
	1212	85-550	7	M22520/1-11	-
		M22520/1-01	7	M22520/1-02	Yellow
			7	M22520/1-11	-
14	1212	WA27F	7	M22520/1-02	Yellow
			7	M22520/1-11	-
		85-550	7	M22520/1-11	-
		M22520/1-01	7	M22520/1-02	Yellow
			7	M22520/1-11	-
12	1212	WA27F	7	M22520/1-02	Yellow
			7	M22520/1-11	-
		85-550	8	M22520/1-11	-
		M22520/1-01	8	M22520/1-02	Yellow
			8	M22520/1-11	-
		WA27F	8	M22520/1-02	Yellow
			8	M22520/1-11	-

Table 87
ALTERNATIVE EYELET PART NUMBERS

Specified Eyelet		Alternative Eyelet	
Part Number	Supplier	Part Number	Supplier
Y-6015-C	International Eyelets Inc.	S-6049CUAU	Global Supply
Y-9015-C	International Eyelets Inc.	S-5934CUAU	Global Supply

- (1) If the contact is a size 12 and it must be installed in a size 5 cavity, install the sealing boot on the wire. Refer to Paragraph 16.D.
- (2) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 90
- Table 85 for the insulation removal length
- Subject 20-00-15 for the insulation removal procedures.

NOTE: If the wire size and a larger crimp barrel size are not specified in Table 85, refer to Subject 20-60-00 for the alternate procedure to prepare the wire.

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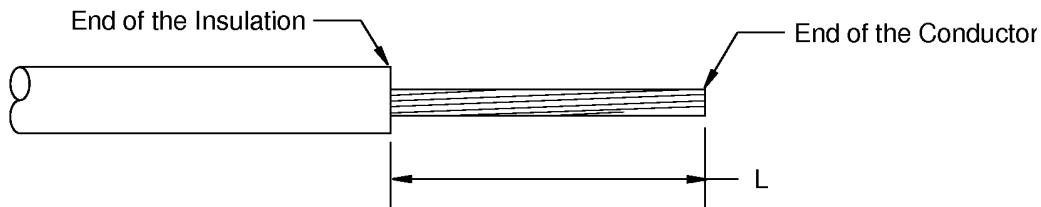
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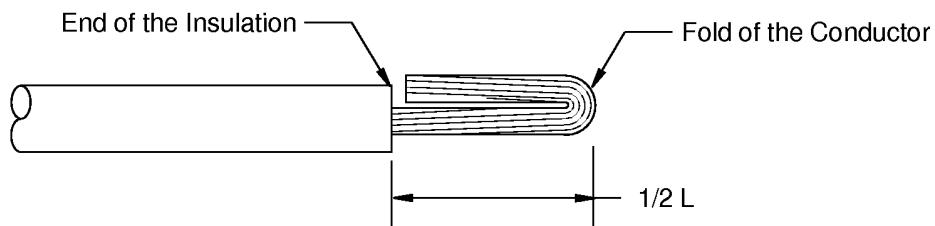
INSULATION REMOVAL LENGTH

Figure 90

- (3) If the contact cavity is larger than size 22 and the O.D. of the wire is less than the minimum seal diameter of the grommet holes, increase the O.D. of the wire. Refer to Paragraph 1.F.
- (4) If it is necessary, put the eyelet in the crimp barrel of the contact. Refer to Table 85.
- (5) If it is necessary, fold the conductor back on itself.

Refer to:

- Table 85
- Figure 91.



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FOLDED BACK CONDUCTOR

Figure 91

- (6) Make a selection of a crimp tool from Table 86.
- (7) Put the end of the wire in the crimp barrel or in the eyelet in the crimp barrel. Refer to Figure 92. Make sure that:
 - All of the strands of the conductor are in the crimp barrel or in the eyelet
 - If an eyelet is not in the crimp barrel, the conductor can be seen in the inspection hole.
 - If an eyelet is in the crimp barrel, the flange of the eyelet stays against the rear end of the crimp barrel
 - The distance from the end of the insulation to the crimp barrel or to the end of the eyelet is not more than 0.03 inch.

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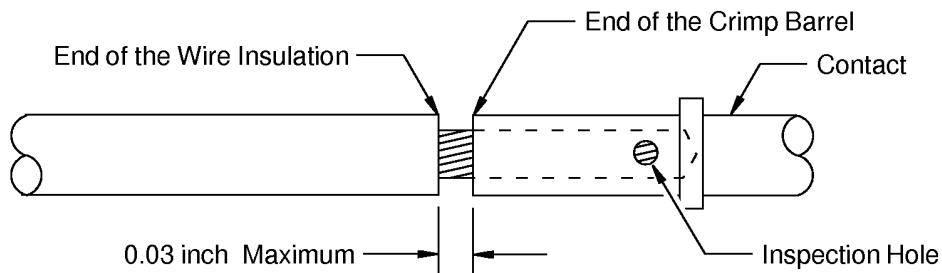
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POSITION OF THE WIRE IN THE CONTACT CRIMP BARREL

Figure 92

- (8) Crimp the contact.

B. Assembly of a Contact with Oversize Wire

This procedure is applicable if the outside diameter of the wire insulation is larger than the maximum wire O.D. specified in Table 88.

**Table 88
MAXIMUM WIRE OUTSIDE DIAMETER**

Contact Cavity Size	Wire Size (AWG)	Maximum Wire O.D. (inch)
22	22	0.054
20HD	20	0.071

**Table 89
NECESSARY MATERIALS**

Material	Part Number	Supplier
Sleeve, Heat Shrinkable	AMS-DTL-23053/12 Class 5	An available source
	RT850	Raychem
	RW175	
	TFE 4X	Chemplast Zeus

- (1) Make a selection of a 1.50 inch ± 0.06 inch length of heat shrinkable sleeve from Table 89.

NOTE: An equivalent heat shrinkable sleeve is a satisfactory alternative. Refer to Subject 20-00-11.

Make sure that the sleeve has the smallest diameter that can move easily on the wire.

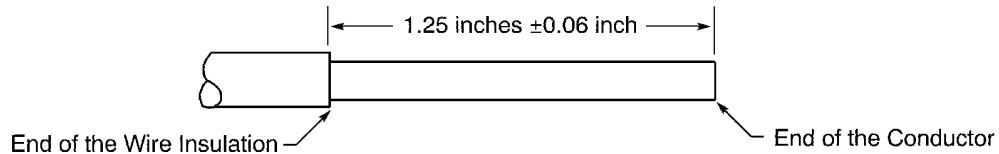
- (2) Remove 1.25 inch ± 0.06 inch length of insulation from the end of the wire. Refer to Figure 93.

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INSULATION REMOVAL LENGTH

Figure 93

- (3) Put the sleeve on the wire.
- (4) Put the conductor into the crimp barrel of the contact.

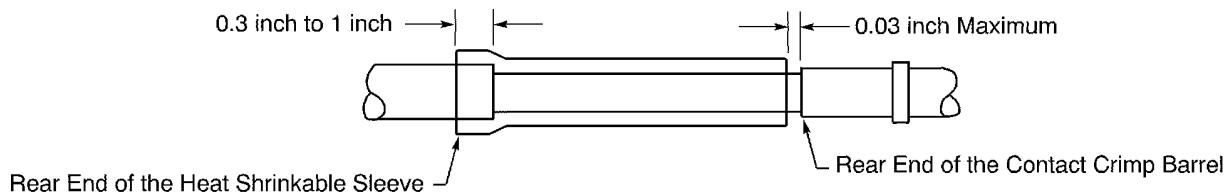
Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact.

- (5) Crimp the contact. Refer to Paragraph 8.A.
- (6) Align the sleeve. Refer to Figure 94.

Make sure that:

- The sleeve makes a 0.3 inch to 1 inch overlap with the wire insulation
- The distance from the forward end of the sleeve to the rear end of the contact crimp barrel is not more than 0.03 inch.



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POSITION OF THE HEAT SHRINKABLE SLEEVE

Figure 94

- (7) Shrink the sleeve into its position. Refer to Subject 20-10-14.

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C. Assembly of a Contact with Solid Conductor Wire

This paragraph gives the procedure to assemble BACC47EF and BACC47EG contacts with solid conductor wire and, if necessary, stranded filler wire.

NOTE: Only stranded wire can be used for the filler wire.

Table 90
INSULATION REMOVAL LENGTH

Crimp Barrel Size	Removal Length (inch)	
	Target	Tolerance
22	0.15	±0.02
20	0.17	±0.03
16	0.28	±0.03

Table 91
SELECTION OF FILLER WIRE SIZE

Crimp Barrel Size	Solid Conductor Wire		Stranded Filler Wire (AWG)
	First Wire (AWG)	Second Wire (AWG)	
22	30	-	24
		28	24
		26	None
	28	-	24
		26	None
		26	-
20	30	-	22
		28	22
		26	22
	28	-	22
		26	22
		26	-
16	30	-	18
		28	18
		26	18
	28	-	18
		26	18
	26	-	18

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Table 92
CRIMP TOOLS FOR CONTACTS WITH SOLID CONDUCTORS

Crimp Barrel Size	Solid Conductor Wire		Stranded Filler Wire (AWG)	Crimp Tool			
	First Wire (AWG)	Second Wire (AWG)		Basic Unit		Locator	
				Setting	Part Number		
22	30	-	24	5	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
			24	5	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
		28	None	4	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
			26	None	4	AFM8 K267-1 M22520/2-01 M22520/2-23	
	28	-	24	5	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
			26	None	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
		26	-	4	AFM8	K267-1	
					M22520/2-01	M22520/2-23	
20	30	-	22	3	AF8	TH1A	
					M22520/1-01	M22520/1-02	
			28	22	AF8	TH1A	
					M22520/1-01	M22520/1-02	
		26	22	4	AF8	TH1A	
					M22520/1-01	M22520/1-02	
	28	-	22	3	AF8	TH1A	
					M22520/1-01	M22520/1-02	
			26	22	AF8	TH1A	
					M22520/1-01	M22520/1-02	
		26	-	4	AF8	TH1A	
					M22520/1-01	M22520/1-02	

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Table 92 CRIMP TOOLS FOR CONTACTS WITH SOLID CONDUCTORS (Continued)

Crimp Barrel Size	Solid Conductor Wire		Stranded Filler Wire (AWG)	Crimp Tool			
	First Wire (AWG)	Second Wire (AWG)		Basic Unit		Locator	
				Setting	Part Number		
16	30	-	18	6	AF8	TH1A	
					M22520/1-01	M22520/1-02	
			28	7	AF8	TH1A	
					M22520/1-01	M22520/1-02	
	28	26	18	7	AF8	TH1A	
					M22520/1-01	M22520/1-02	
			18	6	AF8	TH1A	
					M22520/1-01	M22520/1-02	
	26	-	18	7	AF8	TH1A	
					M22520/1-01	M22520/1-02	

- (1) Make a selection of a filler wire size from Table 91.
- (2) Make a selection of a crimp tool from Table 92.
- (3) Remove the necessary length of insulation from the end of the solid conductor wire.
Refer to:
 - Table 90 for the insulation removal length
 - Subject 20-00-15 for the insulation removal procedures.
- (4) If a filler wire is specified, remove 0.5 inch of insulation from the end of the filler wire.
Refer to Subject 20-00-15 for the insulation removal procedures.
- (5) Put the conductor in the crimp barrel of the contact.
 - (a) If filler wire is not specified, put the end of the solid conductor wire in the crimp barrel of the contact.
 - (b) If filler wire is specified, put the end of the solid conductor wire and the filler wire in the crimp barrel of the contact.

Make sure that:

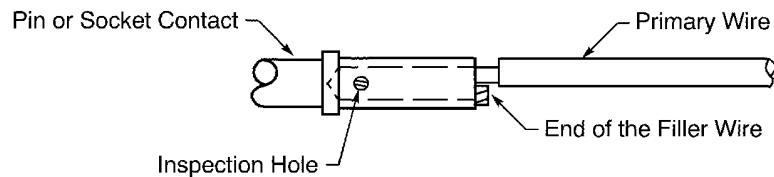
 - All of the strands of the filler wire and the solid conductor are in the crimp barrel of the contact
 - The strands of the conductors are visible in the inspection hole of the contact
 - The distance between the end of the crimp barrel and the insulation of the wire is a maximum of 0.03 inch.
- (6) Crimp the contact.
- (7) If the contact has a filler wire, remove the unwanted length of the filler wire as close as possible to the end of the crimp barrel. Refer to Figure 95.

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REMOVAL OF THE UNWANTED LENGTH OF THE FILLER WIRE

Figure 95

D. Assembly of S280W553-() Size 0808 Power and Ground Contacts

This paragraph gives the procedure to assemble these contacts:

- S280W553-2 power contact socket
- S280W553-4 ground contact socket.

Table 93
CRIMP BARREL ADAPTER SLEEVE PART NUMBERS

Crimp Barrel Size	Wire Size (AWG)	Adapter Sleeve		
		Part Number	Supplier	
8	12	252-1231-000	ITT Cannon	
	10			

Table 94
CONTACT CRIMP TOOLS FOR SIZE 0808 CONTACTS

Contact Type	Contact Part Number	Wire Size (AWG)	Crimp Tool				
			Tool Type	Basic Unit	Locator	Die	
Power	S280W553-2	12	Hex Crimp	13642	-	ST2354-5	11732
			Indenter	400B	4046A	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-
	S280W553-2	10	Hex Crimp	13642	-	ST2354-5	11732
			Indenter	400B	4046A	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-
	S280W553-2	8	Hex Crimp	13642	-	ST2354-5	11732
			Indenter	400B	4046A	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-

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Table 94 CONTACT CRIMP TOOLS FOR SIZE 0808 CONTACTS (Continued)

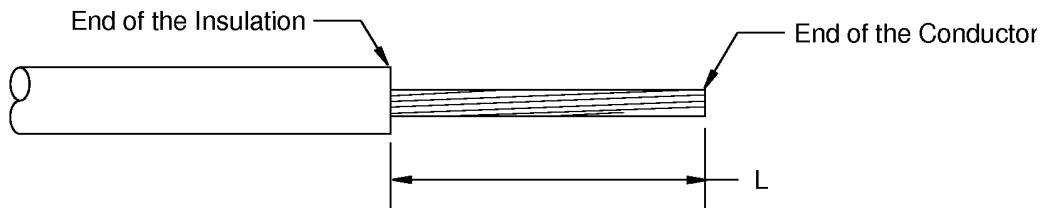
Contact Type	Contact Part Number	Wire Size (AWG)	Crimp Tool				
			Tool Type	Basic Unit	Locator	Die	
						Primary	Secondary
Ground	S280W553-4	12	Indenter	400B	4046	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-
		10	Indenter	400B	4046	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-
		8	Indenter	400B	4046	414DA-8N	-
				M22520/23-01	M22520/23-09	M22520/23-02	-

NOTE: A pneumatic indenter crimp tool cannot be used to assemble a size 0808 or larger contact that has an adapter sleeve in the crimp barrel.

- (1) Make a selection of a crimp tool from Table 94.
- (2) Remove $0.50 \text{ inch} \pm 0.03 \text{ inch}$ of insulation from the end of the wire.

Refer to:

- Figure 96
- Subject 20-00-15 for the insulation removal procedures.



2446140 S00061544325_V1

INSULATION REMOVAL LENGTH
Figure 96

- (3) If the wire size is 12 AWG:
 - (a) Cut a $2.00 \text{ inch} \pm 0.25 \text{ inch}$ length of AWG 14 filler wire.
 - (b) Remove the insulation from the AWG 14 filler wire.
 - (c) Put the filler wire into the crimp barrel of the contact.
- (4) If the wire size is 10 AWG or 12 AWG:
 - (a) Make a selection of a crimp barrel adapter sleeve from Table 93.

NOTE: A pneumatic indenter crimp tool cannot be used to assemble a size 0808 contact that has an adapter sleeve in the crimp barrel.

 - (b) Push the adapter sleeve into the crimp barrel of the contact until it stops.

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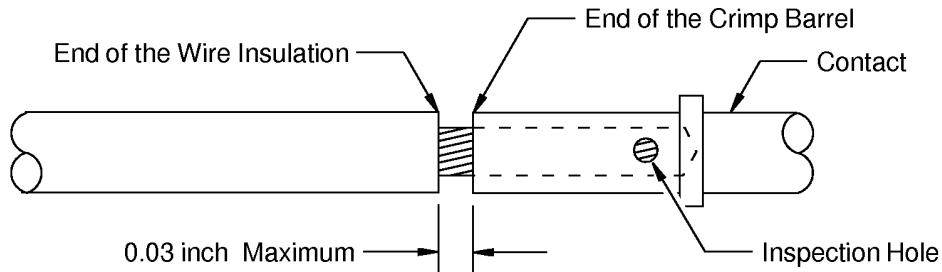
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- (5) Put the conductor into the crimp barrel of the contact. Refer to Figure 97.

Make sure that:

- All of the strands of the conductor are in the contact crimp barrel
- If a filler wire is used, all of the strands of the filler wire are in the crimp barrel of the contact
- The conductor can be seen in the inspection hole
- The distance from the end of the insulation to the crimp barrel is not more than 0.03 inch.



2446968 S00061546268_V1

POSITION OF THE WIRE IN THE CONTACT CRIMP BARREL

Figure 97

- (6) If the crimp tool is an indenter type, crimp the contact.

NOTE: A pneumatic indenter crimp tool cannot be used to assemble a size 0808 contact that has an adapter sleeve in the crimp barrel.

- (7) If the crimp tool is a hex crimp type:

- (a) Put the primary die in the crimp tool.
- (b) Put the contact and the conductor in the crimp tool.
- (c) Crimp the contact.
- (d) Remove the primary die from the crimp tool.
- (e) Put the secondary die in the crimp tool.
- (f) Turn the contact approximately 60 degrees around the longitudinal axis.
- (g) Crimp the contact.
- (h) If the crimp area of the contact has flash, turn the contact approximately 60 degrees around the longitudinal axis and crimp the contact again with the secondary die.

- (8) If the contact has a filler wire, carefully remove the unwanted length of the filler wire as close as possible to the end of the crimp barrel. Refer to Figure 98.

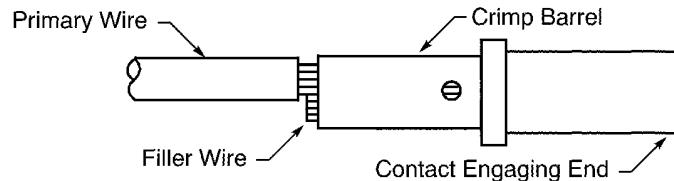
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2448086 S00061547349_V1

REMOVAL OF THE UNWANTED LENGTH OF THE FILLER WIRE

Figure 98

CAUTION: DO NOT CAUSE DAMAGE TO THE STRANDS OF THE CONDUCTOR OF THE PRIMARY WIRE. DAMAGE TO THE CONDUCTOR CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

E. Assembly of Ground Block Contacts for S280W601 Ground Blocks

NOTE: This paragraph gives the procedures to assemble ground block contacts for S280W601 ground blocks. .

Refer to Subject 20-25-14 for the assembly of the ground block contacts for the Flight Dynamics 6720-0389 backshell ground block.

Table 95
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Crimp Barrel Size	Removal Length L (inch)		Special Instructions
		Target	Tolerance	
24	20	0.15	± 0.02	-
	16	0.54	± 0.04	Fold the conductor back
22	20	0.15	± 0.02	-
	16	0.54	± 0.04	Fold the conductor back
20	20	0.15	± 0.02	-
	16	0.27	± 0.02	-
18	18	0.15	± 0.02	-
	16	0.27	± 0.02	-
16	16	0.27	± 0.02	-

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Table 96
CONTACT CRIMP TOOLS

Wire Size (AWG)	Crimp Barrel Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
24	20	M22520/1-01	2	M22520/1-02	Red
		M22520/2-01	5	M22520/2-11	-
		WA22	5	M22520/2-11	-
		WA22LC	5	M22520/2-11	-
		WA27	2	M22520/1-02	Red
	16	M22520/1-01	5	M22520/1-02	Blue
		ST2220-1-Y	-	ST2220-1-2	-
		WA27F	5	M22520/1-02	Blue
22	20	M22520/1-01	3	M22520/1-02	Red
		M22520/2-01	6	M22520/2-11	-
		WA22	6	M22520/2-11	-
		WA22LC	6	M22520/2-11	-
		WA27	3	M22520/1-02	Red
	16	M22520/1-01	6	M22520/1-02	Blue
		ST2220-1-Y	-	ST2220-1-2	-
		WA27F	6	M22520/1-02	Blue
20	20	M22520/1-01	4	M22520/1-02	Red
		M22520/2-01	7	M22520/2-11	-
		WA22	7	M22520/2-11	-
		WA22LC	7	M22520/2-11	-
		WA27	4	M22520/1-02	Red
	16	M22520/1-01	4	M22520/1-02	Blue
		ST2220-1-Y	-	ST2220-1-2	-
		WA27F	4	M22520/1-02	Blue
18	18	M22520/1-01	5	M22520/1-02	Red
		WA27	5	M22520/1-02	Red
	16	M22520/1-01	5	M22520/1-02	Blue
		WA27	5	M22520/1-02	Blue
16	16	M22520/1-01	6	M22520/1-02	Blue
		WA27	6	M22520/1-02	Blue

(1) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 99

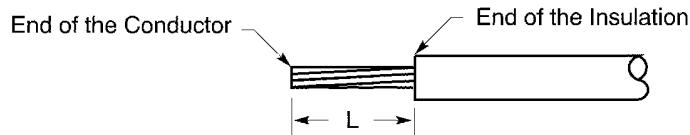
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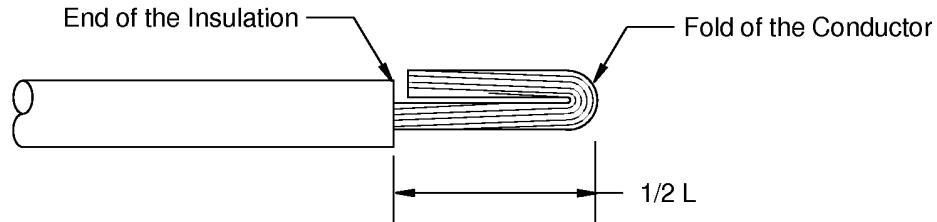
- Table 95
- Subject 20-00-15 for the insulation removal procedures.



2446656 S00061544391_V1

WIRE PREPARATION
Figure 99

- (2) If it is specified, fold the conductor back. Refer to Figure 100.



2446657 S00061544480_V1

CONDUCTOR FOLDED BACK
Figure 100

- (3) Make a selection of a crimp tool from Table 96.
 - (4) Put the end of the wire into the crimp barrel of the contact. Refer to Figure 101.
- Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The strands of the conductor can be seen in the inspection hole
- The distance from the end of the insulation to the end of the crimp barrel is a maximum of 0.03 inch.

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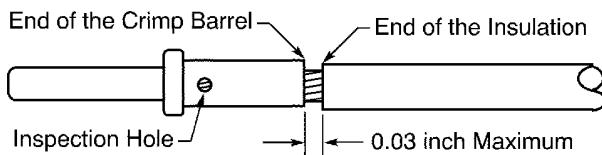
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2446855 S00061544427_V1

POSITION OF THE WIRE IN THE CRIMP BARREL

Figure 101

- (5) Crimp the contact.
 - (6) Examine the contact assembly for these types of damage:
 - Broken strands of the conductor
 - Strands of the conductor on which the base metal can be seen
 - Cracks in the crimp barrel of the contact.
 - (7) If the contact or the wire has damage, replace the contact.
- F. Assembly of a Shield Ground Wire with a Ground Block Contact**
- (1) Make a selection of a contact from Table 36.
 - (2) Remove 2.0 inches ± 0.2 inch of the outer jacket from the end of the shielded wire or coax cable.
 - (3) Cut a 2.75 inch ± 0.25 inch length of wire that has the applicable AWG size.
 - (4) Assemble a shield ground wire. Refer to Subject 20-10-15.
 - (5) Assemble the contact on the end of the shield ground wire. Refer to Paragraph 8.E.

9. ASSEMBLY OF SIZE 16 COAX CONTACTS

A. Assembly of Amphenol AC-401060-1 Size 16 Coax Contacts with MIL-C-17/113 (RG-316) Coax Cable

Table 97
CENTER CONTACT CRIMP TOOLS

Basic Unit			Locator	
Part Number	Setting	Supplier	Part Number	Supplier
M22520/2-01	2	QPL	K 370	Daniels

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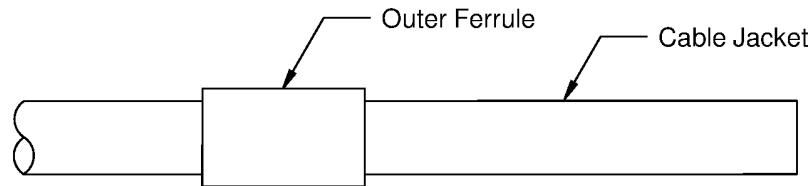
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Table 98
OUTER FERRULE CRIMP TOOLS

Basic Unit		Die	
Part Number	Supplier	Part Number	Supplier
M22520/4-01	QPL	GP 926	Daniels

- (1) Put the outer ferrule on the cable jacket.

Refer to Figure 102.



2449713 S00061547551_V1

POSITION OF THE OUTER FERRULE ON THE CABLE JACKET

Figure 102

- (2) Prepare the cable. Refer to Figure 103.

Make sure that:

- The cuts are clean and perpendicular to the longitudinal axis of the cable
- The cable is not be deformed.

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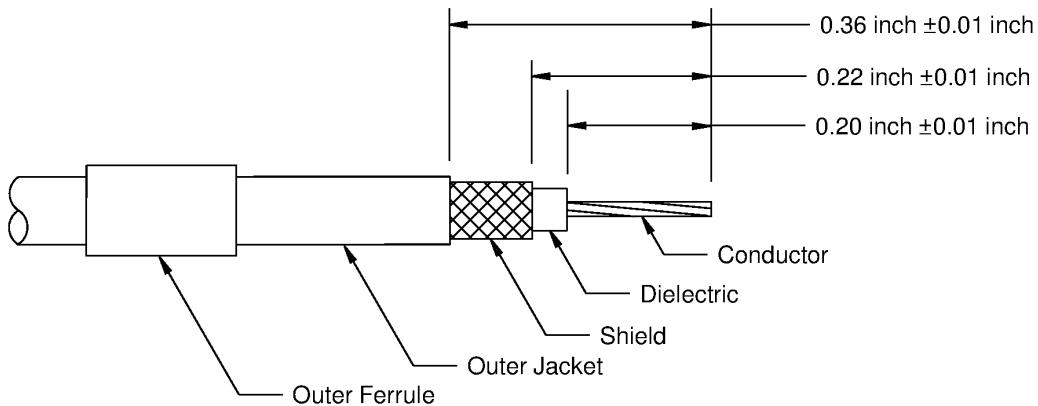
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2449714 S00061547552_V1

CABLE PREPARATION

Figure 103

- (3) Move the strands of the shield apart. Refer to Figure 104.
Make sure that the shield strands do not touch the conductor.

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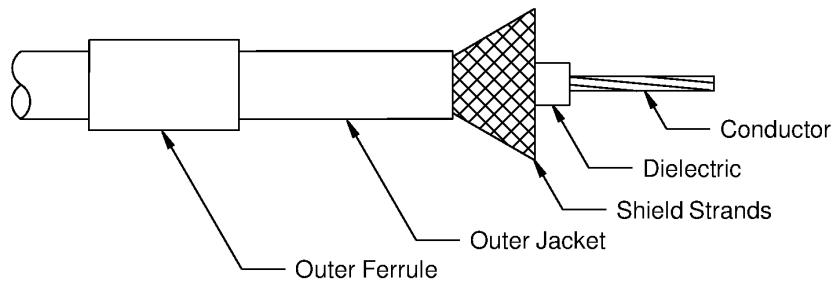
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2449715 S00061547553_V1

CONFIGURATION OF THE SHIELD STRANDS

Figure 104

- (4) Carefully push the conductor into the crimp barrel of the center contact until it stops. Refer to Figure 105.

Make sure that:

- All of the conductor strands are in the center contact crimp barrel
- The end of the crimp barrel is against the end of the dielectric.
- The conductor is visible in the inspection hole

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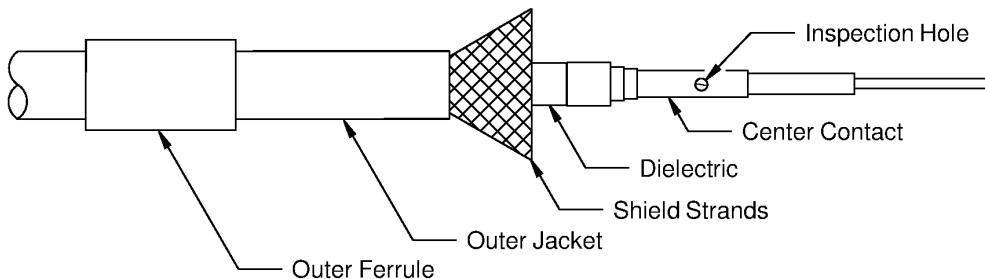
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2449716 S00061547554_V1

POSITION OF THE CENTER CONTACT ON THE CONDUCTOR

Figure 105

- (5) Make a selection of a center contact crimp tool from Table 97.
- (6) Push the center contact into the locator until it stops.
- (7) Crimp the center contact.
- (8) Push the outer socket contact rearward onto the center contact assembly until it stops against the cable jacket. Refer to Figure 106

Make sure that the rear end of the outer socket contact is between the dielectric and all of the shield strands.

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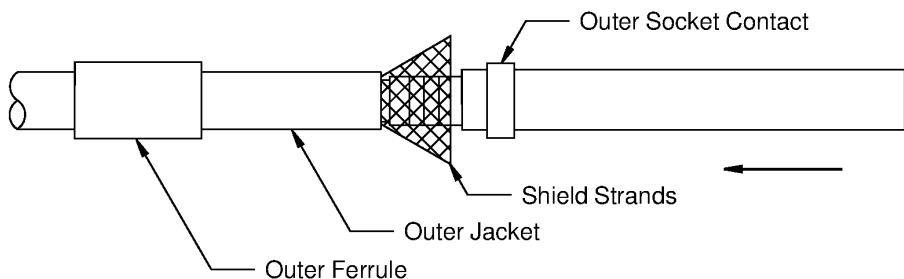
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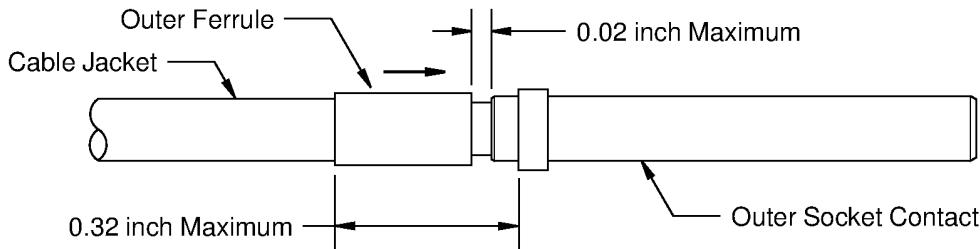


2449717 S00061547555_V1

POSITION OF THE OUTER SOCKET CONTACT

Figure 106

- (9) Fold the shield strands forward on the outer socket contact.
- (10) Push the outer ferrule forward on the shield strands. Refer to Figure 107.



2449718 S00061547556_V1

POSITION OF THE OUTER FERRULE ON THE SHIELD STRANDS

Figure 107

- (11) Make a selection of an outer ferrule crimp tool from Table 98.
- (12) Crimp the outer ferrule. Refer to Figure 107.

Make sure that:

- The forward end of the outer ferrule is a maximum of 0.02 inch from the rear shoulder of the outer socket contact.
- The rear end of the outer ferrule is a maximum of 0.32 inch from the rear edge of the forward shoulder of the outer socket contact.

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- (13) Turn the contact approximately 45 degrees and crimp the outer ferrule again.
- (14) Remove the unwanted shield strands that come out from the outer ferrule.

10. ASSEMBLY OF SIZE 12 COAX AND SIZE 12 SHIELDED CONTACTS

A. Assembly of ITT Cannon 249-1768-000 and 249-2203-000 Size 12 Shielded Contacts

Table 99
CENTER CONTACT CRIMP TOOLS

Wire Size (AWG)	Shielded Contact Size	Contact Part Number	Crimp Tool		
			Basic Unit		Locator
			Part Number	Setting	
24	12	249-1768-000	M22520/2-01	2	K-182
		249-2203-000	M22520/2-01	3	K-644 22-944

Table 100
OUTER CONTACT BODY CRIMP TOOLS

Wire Size (AWG)	Shielded Contact Size	Contact Part Number	Crimp Tool			
			Basic Unit	Die		Secondary Part Number
				Primary	Cavity	
24	12	249-1768-000	612648	612778	B	-
			KTH-1000	KTH-2011	D	-
				KTH-2021	D	-
				KTH-2022	D	-
			M22520/5-01	M22520/5-03	A	-
				M22520/5-08	-	-
				M22520/5-35	B	-
				Y119	A	-
			WT-400	-	-	-
			ST2966M	ST2966M-1	-	-
		249-2203-000	M22520/5-01	M22520/5-03	A	M22520/5-17 Y193
				M22520/5-08	-	M22520/5-17 Y193
				WT-400	-	M22520/5-17 Y193

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Table 101
NECESSARY MATERIALS

Material	Part Number	Supplier
Heat Shrinkable Sleeve	DWP-125	Tyco/Raychem
	MWSF	Remtek

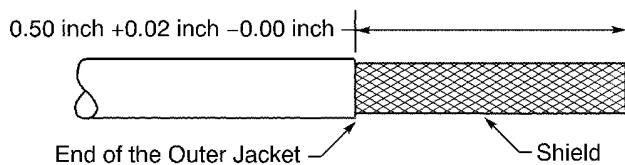
- (1) Make a selection of a center contact crimp tool from Table 99.
- (2) Make a selection of an outer contact body crimp tool and a primary die from Table 100.
- (3) If it is specified, make a selection of an outer contact body crimp tool and a secondary die from Table 100.
- (4) If the contact must be installed in a size 5 cavity, install the sealing boot on the wire or cable. Refer to Paragraph 16.D.
- (5) Make a selection of a heat shrinkable sleeve from Table 101.

Make sure that the sleeve has the smallest diameter that can be moved over the rear end of the contact.

NOTE: An equivalent heat shrinkable sleeve is a satisfactory alternative. Refer to Subject 20-00-11.

- (6) Put a 1.00 inch ± 0.13 inch length of the heat shrinkable sleeve on the shielded wire or cable.
- (7) Cut the cable to make its end perpendicular to its longitudinal axis.
- (8) Remove 0.50 inch $+0.02$ inch -0.00 inch of the outer jacket. Refer to Figure 108.

CAUTION: DO NOT CAUSE ANY DAMAGE TO THE SHIELD. DAMAGE TO THE SHIELD CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.



2447954 S00061547558_V1

CABLE JACKET PREPARATION
Figure 108

- (9) Put the inner ferrule on the cable. Refer to Figure 109.

Make sure that:

- The end of the ferrule that has the shoulder is pointed rearward away from the end of the cable
- The shoulder of the ferrule is against the end of the jacket.

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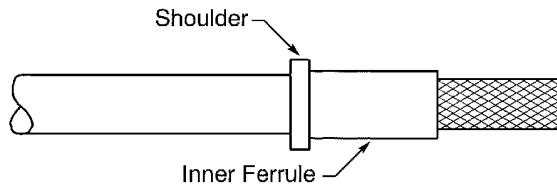
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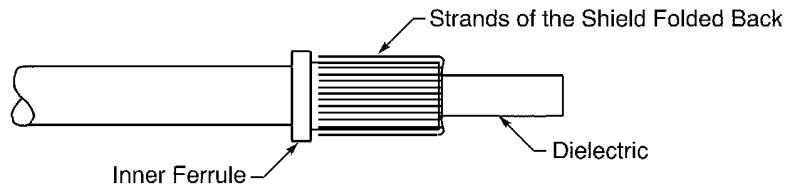
POSITION OF THE INNER FERRULE ON THE CABLE

Figure 109

- (10) Move the strands of the shield apart.
- (11) Fold the strands of the shield back on the ferrule. Refer to Figure 110.

Make sure that:

- The strands of the shield are on the ferrule
- The strands of the shield are symmetrical around the circumference of the ferrule.



2447956 S00061547560_V1

POSITION OF THE SHIELD ON THE FERRULE

Figure 110

- (12) Remove 0.14 inch \pm 0.02 inch of the dielectric and the conductor from the end of the cable. Refer to Figure 111.

Make sure that the distance from the end of the jacket to the end of the dielectric is 0.34 inch to 0.36 inch.

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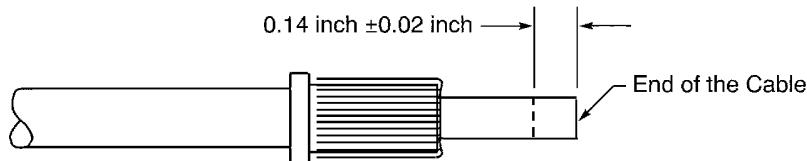
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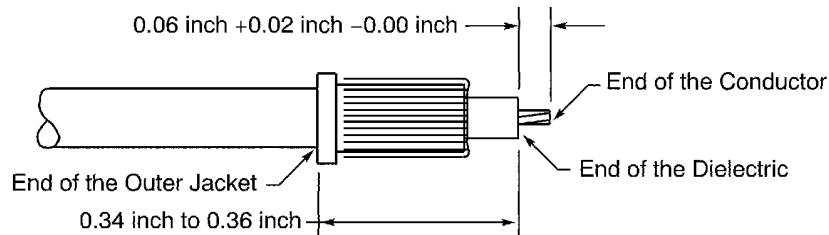


2447957 S00061547561_V1

REMOVAL OF THE END OF THE CABLE

Figure 111

- (13) Remove 0.06 inch +0.02 inch -0.00 inch of the dielectric from the end of the conductor. Refer to Figure 112.



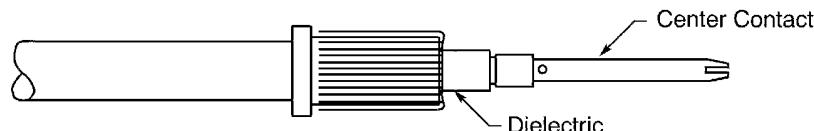
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INSULATION REMOVAL LENGTH

Figure 112

- (14) Put the conductor in the crimp barrel of the center contact. Refer to Figure 113.
Make sure that:

- The rear end of the contact is against the end of the dielectric
- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact.



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CENTER CONTACT ASSEMBLY

Figure 113

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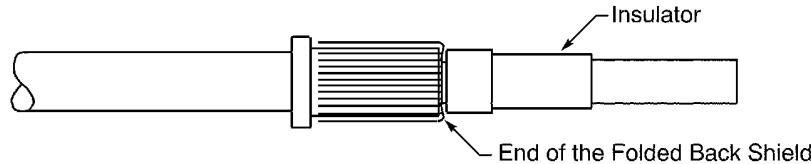
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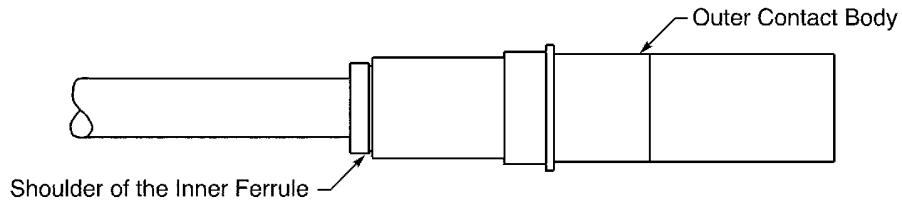
- (15) Crimp the center contact.
- (16) Put the white insulator, large end first, on the center contact assembly until it stops.



2447960 S00061547564_V1

INSULATOR ON THE CENTER CONTACT
Figure 114

- (17) Push the center contact assembly into the outer contact body. Refer to Figure 115.



2447961 S00061547565_V1

POSITION OF THE OUTER CONTACT BODY ON THE CENTER CONTACT ASSEMBLY
Figure 115

- (18) Remove the unwanted strands of the shield that extend farther than the shoulder of the inner ferrule.
Make sure that the end of the shield is aligned with the forward end of the shoulder of the ferrule.
- (19) Crimp the rear end of the outer contact body with the primary crimp die. Refer to Figure 116.
Make sure that the distance between the shoulder of the inner ferrule and the rear end of the outer contact body is 0.03 inch maximum.

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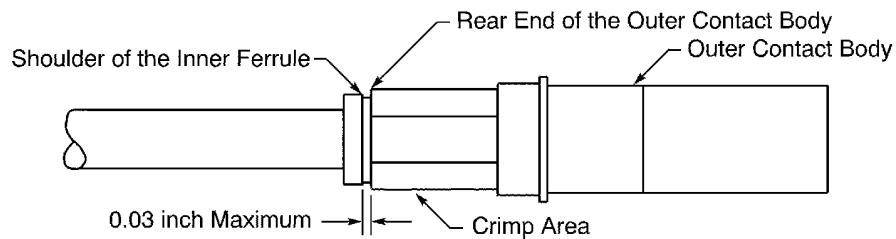
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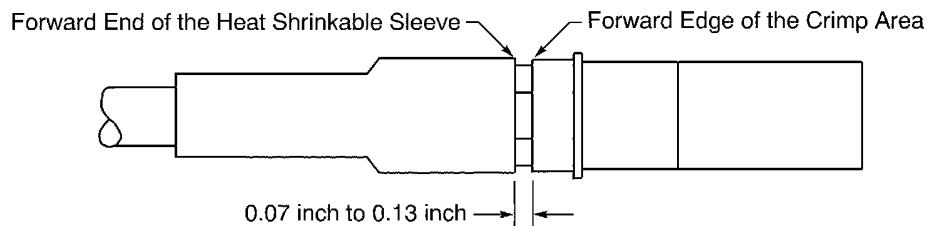


2447962 S00061547566_V1

POSITION OF THE CRIMP ON THE OUTER CONTACT BODY

Figure 116

- (20) If a secondary crimp die is specified, crimp the rear end of the outer contact body again with the secondary crimp die.
 - (21) Push the heat shrinkable sleeve forward on the end of the contact assembly. Refer to Figure 117. Make sure that the distance from the forward end of the sleeve to the shoulder of the contact body is a maximum of 0.13 inch. Refer to Figure 117.
 - (22) Shrink the sleeve into its position.
- Refer to:
- Figure 117
 - Subject 20-10-14.



2447963 S00061547567_V1

POSITION OF THE HEAT SHRINKABLE SLEEVE ON THE CONTACT ASSEMBLY

Figure 117

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B. Assembly of ITT Cannon 151700-0688 Size 12 Shielded Contacts with AWG 22 Shielded Wire

Table 102
CENTER CONTACT CRIMP TOOLS

Wire Size (AWG)	Shielded Contact Size	Crimp Tool		
		Basic Unit		Locator
		Part Number	Setting	
22	12	M22520/2-01	5	K-644
			5	22-944

Table 103
OUTER FERRULE CRIMP TOOLS

Wire Size (AWG)	Shielded Contact Size	Crimp Tool		
		Basic Unit	Die	
			Part Number	Cavity
22	12	M22520/5-01	M22520/5-33	B

Table 104
NECESSARY MATERIALS

Material	Part Number	Supplier
Heat Shrinkable Sleeve	DWP-125	Tyco/Raychem
	MWSF	Remtek

- (1) Make a selection of a center contact crimp tool from Table 102.
- (2) Make a selection of an outer ferrule crimp tool from Table 103.
- (3) If the contact must be installed in a size 5 cavity, install the sealing boot on the wire or cable. Refer to Paragraph 16.D.
- (4) Make a selection of a heat shrinkable sleeve from Table 104.

NOTE: An equivalent heat shrinkable sleeve is a satisfactory alternative. Refer to Subject 20-00-11.

- (5) Put a 1 inch length of 3/16 inch diameter heat shrinkable sleeve on the wire.
- (6) Put the ferrule on the wire.
- (7) Prepare the cable. Refer to Figure 118.

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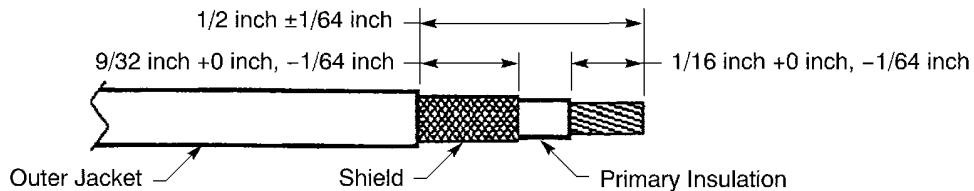
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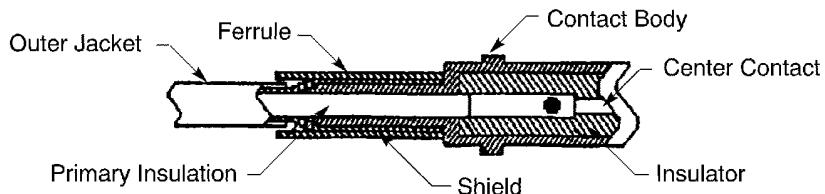


2446482 S00061547568_V1

BMS 13-51 WIRE PREPARATION

Figure 118

- (a) Remove $1/2$ inch $\pm 1/64$ inch of the outer jacket from the end of the shielded wire.
 - (b) Remove the necessary length of the shield to make the distance from end of the outer jacket to the end of the shield equal to $9/32$ inch $+0$ inch, $-1/64$ inch.
 - (c) Remove the necessary length of the primary insulation to make the distance from the end of the conductor to the end of the primary insulation equal to $1/16$ inch $+0$ inch, $-1/64$ inch.
- (8) Put the conductor into the crimp barrel of the center contact
Make sure that:
 - All of the strands of the conductor are in the crimp barrel
 - The conductor can be seen in the inspection hole of the contact.
- (9) Crimp the center contact.
- (10) Put the contact body on the center contact assembly. Refer to Figure 119.
Make sure that the shield is on the small end of the contact body.



2446483 S00061547569_V1

POSITION OF THE CONTACT BODY ON THE CABLE

Figure 119

- (11) Push the ferrule forward on the shield until the forward end of the ferrule is against the rear end of the contact body.
- (12) Crimp the ferrule.
- (13) Remove the unwanted length of the remaining shield.

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- (14) Push the heat shrinkable sleeve forward until the forward end of the sleeve is against the rear edge of the contact body.
Make sure that the sleeve is fully on the ferrule.
- (15) Shrink the sleeve into its position. Refer to Subject 20-10-14.
Make sure that the forward end of the heat shrinkable sleeve is aligned with the rear edge of the contact body.

C. Assembly of Radiall 618040 Size 12 Coax Contacts with RG-316 Cable

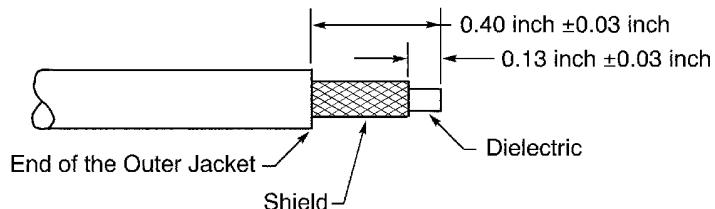
Table 105
CENTER CONTACT CRIMP TOOLS

Coax Contact Size	Crimp Tool				
	Basic Unit			Locator	
	Part Number	Setting	Supplier		
12	M22520/2-01	4	QPL	282580	Radiall

Table 106
OUTER CONTACT BODY CRIMP TOOLS

Coax Contact Size	Crimp Tool				
	Basic Unit		Die		
	Part Number	Supplier	Part Number	Cavity	Supplier
12	KTH-1000	Kings	KTH-2177	A	Kings
			KTH-2043	A	Kings

- (1) Make a selection of a center contact crimp tool from Table 105.
- (2) Make a selection of an outer ferrule crimp tool from Table 106.
- (3) If the contact must be installed in a size 5 cavity, install the sealing boot on the wire or cable. Refer to Paragraph 16.D.
- (4) Prepare the cable. Refer to Figure 120.



2447947 S00061547570_V1

CABLE JACKET PREPARATION

Figure 120

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.

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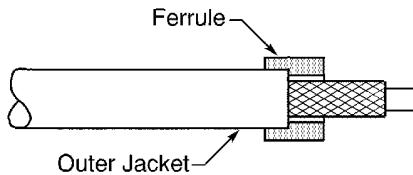
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- (b) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to 0.40 inch ± 0.03 inch.
- (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable equal to 0.13 inch ± 0.03 inch.
- (5) Put the ferrule on the cable. Refer to Figure 121.

Make sure that:

- The end of the ferrule that has the larger inner diameter is pointed rearward away from the end of the cable.
- The inner shoulder of the ferrule in the end that has the larger inner diameter is against the end of the jacket.



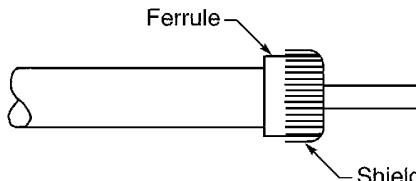
2447948 S00061547571_V1

POSITION OF THE INNER FERRULE ON THE CABLE
Figure 121

- (6) Move the strands of the shield apart.
- (7) Fold the strands of the shield back on the ferrule. Refer to Figure 122.

Make sure that:

- The strands of the shield are on the ferrule
- The strands of the shield are symmetrical around the circumference of the ferrule.



2447949 S00061547572_V1

POSITION OF THE SHIELD ON THE FERRULE
Figure 122

- (8) Remove the necessary length of the dielectric to make the distance from the end of the folded back shield to the end of the dielectric equal to 0.04 inch ± 0.01 inch. Refer to Figure 123.

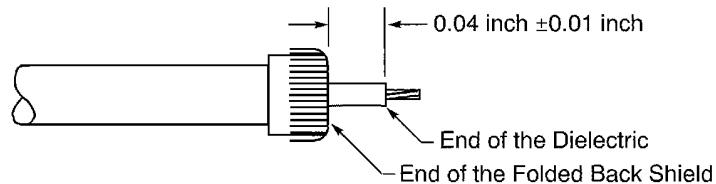
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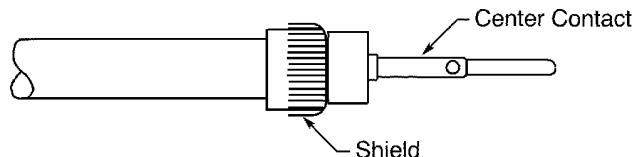
DIELECTRIC REMOVAL LENGTH

Figure 123

- (9) Put the conductor in the crimp barrel of the center contact. Refer to Figure 124.

Make sure that:

- The rear end of the contact is against the end of the dielectric
- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact.



2447951 S00061547574_V1

CENTER CONTACT ASSEMBLY

Figure 124

- (10) Crimp the center contact.

- (11) Push the center contact assembly into the outer contact body. Refer to Figure 125.

Make sure that the distance from the rear end of the ferrule to the rear end of the outer contact body is 0.05 inch ±0.02 inch.

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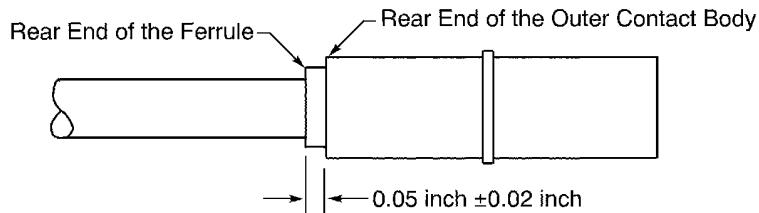
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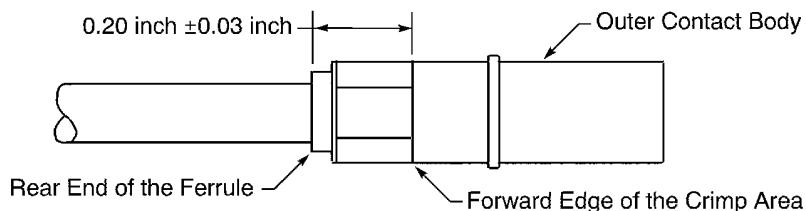
2447952 S00061547575_V1

POSITION OF THE OUTER CONTACT BODY ON THE CENTER CONTACT ASSEMBLY

Figure 125

- (12) Crimp the rear end of the outer contact body. Refer to Figure 126.

Make sure that the distance from the rear end of the ferrule to the forward edge of the crimp area is 0.20 inch ±0.03 inch.



2447953 S00061547576_V1

POSITION OF THE CRIMP ON THE OUTER CONTACT BODY

Figure 126

- (13) If necessary, remove the unwanted length of the shield strands that extend farther than the rear end of the outer contact body. Refer to Figure 126.

11. ASSEMBLY OF S280W554-() SIZE 8 COAX CONTACTS

A. Assembly of Size 8 Coax Contacts

Table 107
CENTER CONTACT CRIMP TOOLS

Coax Contact Size	Crimp Tool		
	Basic Unit		Locator
	Part Number	Setting	
8	M22520/2-01	5	K1025S

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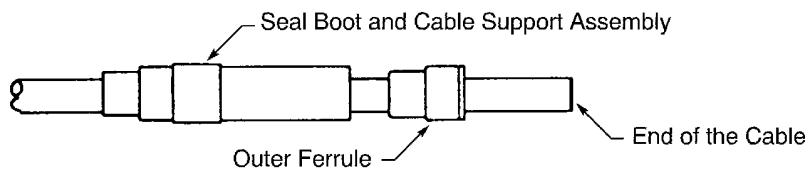
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS

Table 108
OUTER CONTACT CRIMP TOOLS

Coax Contact Size	Crimp Tool		
	Basic Unit	Die	
		Part Number	Cavity
8	M22520/5-01	Y793A	A

- (1) Make a selection of a center contact crimp tool from Table 107.
- (2) Make a selection of an outer contact crimp tool from Table 108.
- (3) Put these components on the cable:
 - The seal boot and cable support assembly
 - The outer ferrule.

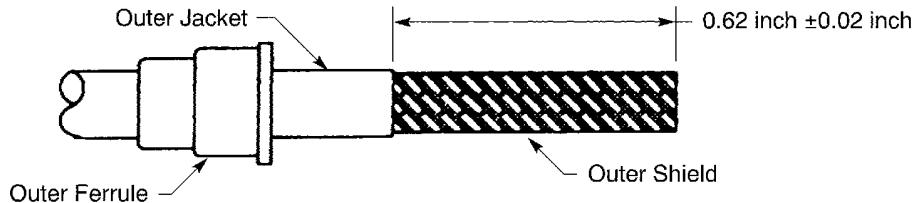
Refer to Figure 127.



2446484 S00061547577_V1

POSITION OF THE SEAL BOOT AND THE OUTER FERRULE ON THE CABLE
Figure 127

- (4) Remove 0.62 inch ± 0.02 inch of jacket from the end of the cable. Refer to Figure 128.



2446485 S00061547578_V1

OUTER JACKET REMOVAL LENGTH
Figure 128

- (5) Cut the outer round shield to make the distance from the end of the cable jacket to the end of the round shield equal to 0.20 inch ± 0.02 inch.

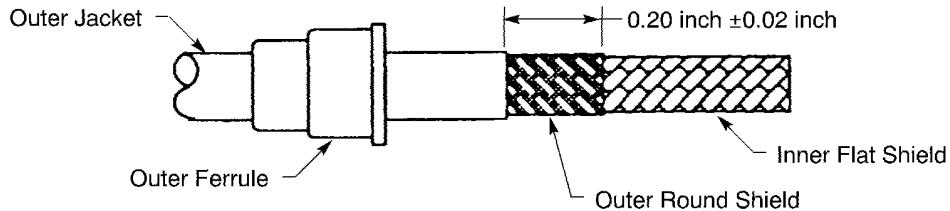
Refer to Figure 129.

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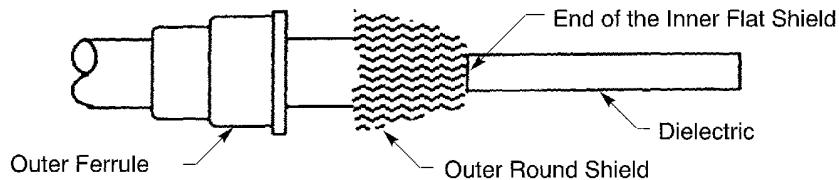


2446486 S00061547579_V1

REMOVAL OF THE OUTER ROUND SHIELD

Figure 129

- (6) Loosen the round shield and fold it back on the cable jacket.
- (7) Cut the inner flat shield to align the edge of the shield with the edge of the folded back outer round shield. Refer to Figure 130.

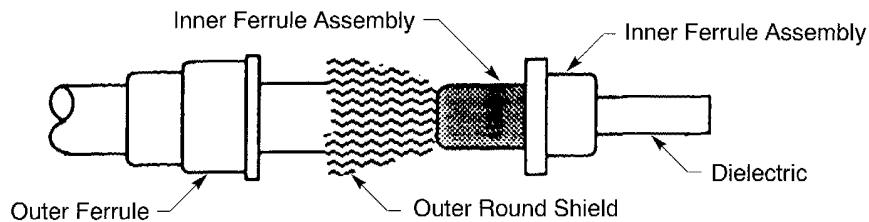


2446487 S00061547580_V1

OUTER ROUND SHIELD FOLDED BACK

Figure 130

- (8) Push the inner ferrule assembly rearward on the dielectric until it is against the edge of the round shield. Refer to Figure 131.



2446488 S00061547581_V1

POSITION OF THE INNER FERRULE ASSEMBLY ON THE CABLE

Figure 131

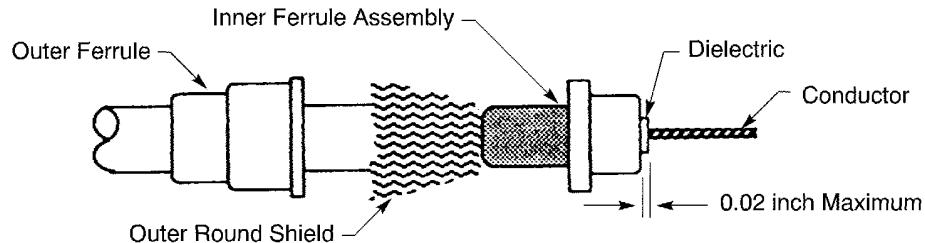
- (9) Remove the length of the dielectric between the end of the inner ferrule assembly and the end of the cable. Refer to Figure 132.

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Make sure that the distance from the end of the dielectric to the edge of the inner ferrule assembly is not greater than 0.02 inch.



2446489 S00061547582_V1

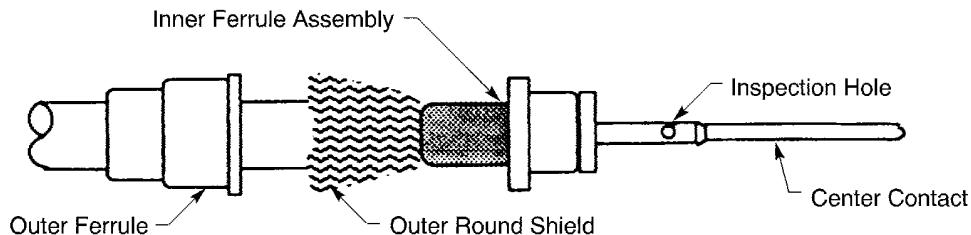
DIELECTRIC REMOVAL
Figure 132

- (10) Put the conductor into the crimp barrel of the center contact.

Make sure that:

- All of the strands of the conductor are in the center contact
- The conductor can be seen in the inspection hole.

- (11) Push the center contact rearward toward the outer ferrule until the inner ferrule assembly is against the outer round shield. Refer to Figure 133.



2446490 S00061547583_V1

POSITION OF THE CENTER CONTACT ON THE CABLE
Figure 133

- (12) Crimp the center contact.

- (13) Symmetrically put the outer round shield around the inner ferrule assembly. Refer to Figure 134.

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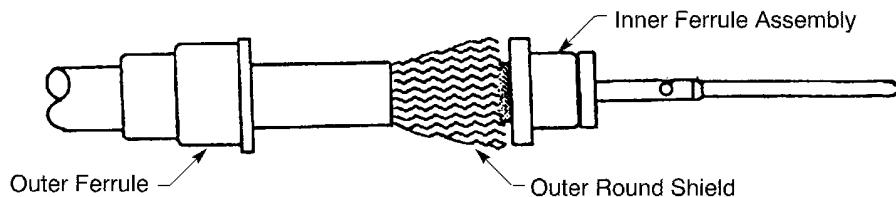
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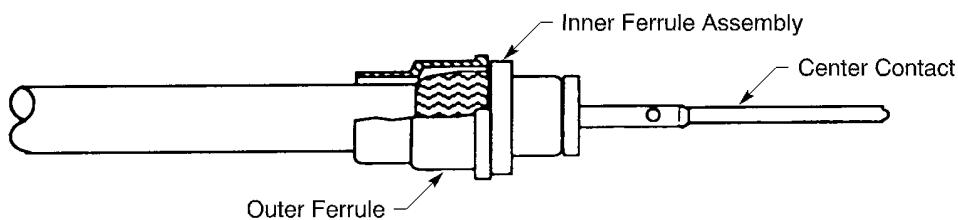


2446491 S00061547584_V1

POSITION OF THE OUTER ROUND SHIELD ON THE INNER FERRULE ASSEMBLY

Figure 134

- (14) Push the outer ferrule forward until it is against the inner ferrule assembly. Refer to Figure 135.
Make sure that the shield is between the outer ferrule and the inner ferrule assembly.

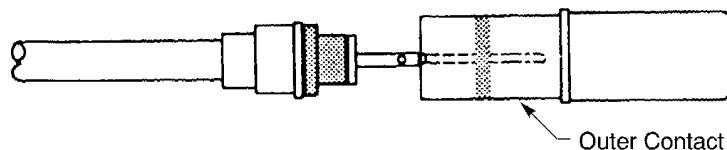


2446492 S00061547585_V1

POSITION OF THE OUTER FERRULE AGAINST THE INNER FERRULE ASSEMBLY

Figure 135

- (15) Remove the unwanted length of the shield strands.
Make sure that the end of the shield strands aligns with the rear edge of the shoulder of the inner ferrule assembly.
- (16) Push the cable and the inner contact assembly into the outer contact assembly until it stops.
Refer to Figure 136.



2446493 S00061547586_V1

ALIGNMENT OF THE CENTER CONTACT AND THE OUTER CONTACT

Figure 136

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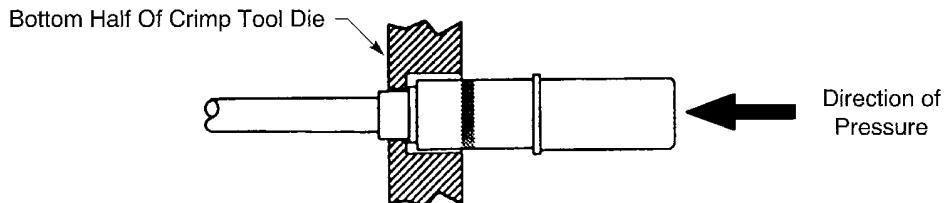


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- (17) Apply pressure on the outer contact toward the outer and inner ferrule and crimp the outer contact. Refer to Figure 137.

Make sure that the outer contact is against the outer ferrule during the crimp operation.



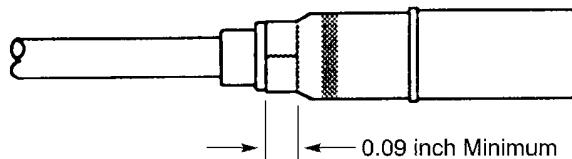
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DIRECTION OF PRESSURE DURING THE CRIMP OPERATION

Figure 137

- (18) Examine the crimp area of the outer contact.

Make sure that the length of the crimp area on the outer contact is 0.09 inch or longer. Refer to Figure 138.

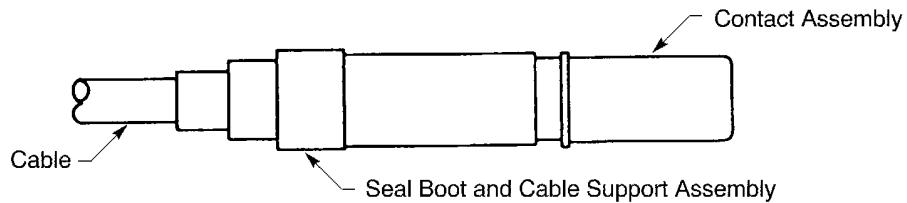


2446495 S00061547588_V1

CRIMP AREA OF THE OUTER CONTACT

Figure 138

- (19) Push the seal boot and cable support assembly toward the contact assembly until it stops. Refer to Figure 139.



2446496 S00061547589_V1

POSITION OF THE SEAL BOOT AGAINST THE CONTACT ASSEMBLY

Figure 139

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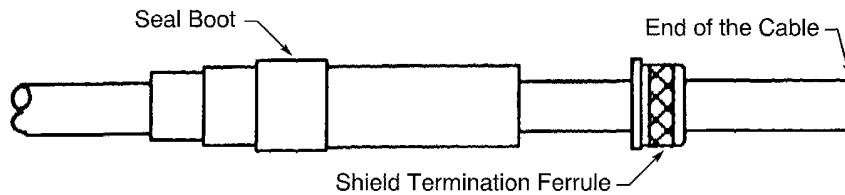
12. ASSEMBLY OF S280W552-() SIZE 8 TWINAX CONTACTS

A. Twinax Cable Preparation

This paragraph gives the procedure to prepare the S280W502-1 twinax cable for the assembly of the twinax contact.

- (1) Put the seal boot on the cable. Refer to Figure 140.

Make sure that the larger end of the seal boot is pointed forward to the end of the cable.



2446531 S00061547590_V1

POSITION OF THE SEAL BOOT AND THE FERRULE ON THE CABLE

Figure 140

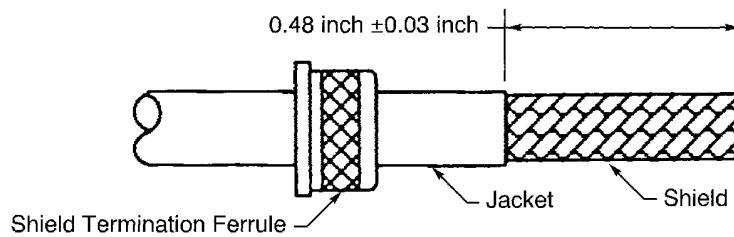
- (2) Put the shield termination ferrule on the cable. Refer to Figure 140.

Make sure that the larger end of the shield termination ferrule is pointed rearward away from the end of the cable.

- (3) Remove 0.48 inch ± 0.03 inch of the jacket from the end of the cable.

Refer to Figure 141 and Subject 20-00-15.

CAUTION: DO NOT CAUSE DAMAGE TO THE STRANDS OF THE SHIELD.
UNSATISFACTORY PERFORMANCE OF THE CABLE CAN OCCUR.



2446532 S00061547592_V1

CABLE JACKET REMOVAL LENGTH

Figure 141

- (4) Fold the shield back against the jacket of the cable.

- (5) Cut the fillers at the necessary location to make the distance from the forward end of the shield to the end of the fillers equal to or less than 0.03 inch. Refer to Figure 142.

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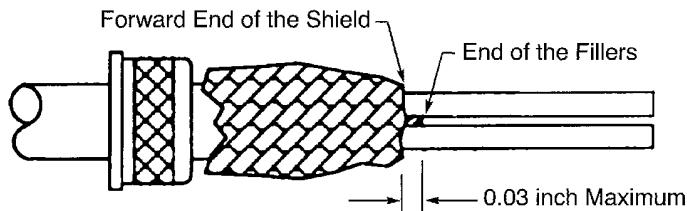
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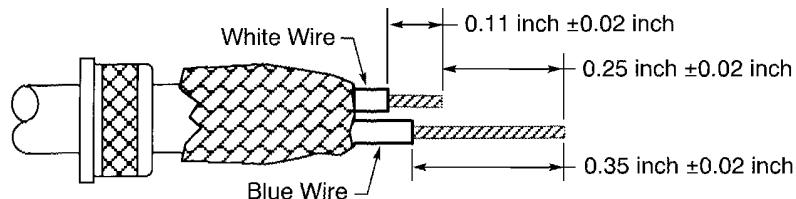


2446533 S00061547593_V1

REMOVAL OF THE CABLE FILLERS

Figure 142

- (6) Prepare the wires. Refer to Figure 143.



2447552 S00061547594_V1

INSULATION REMOVAL LENGTH

Figure 143

- (a) Cut the white wire $0.25 \text{ inch} \pm 0.02 \text{ inch}$ from the end of the wire.
- (b) Remove $0.11 \text{ inch} \pm 0.02 \text{ inch}$ of the insulation from the end of the white wire.

CAUTION: DO NOT CAUSE DAMAGE TO THE CONDUCTOR. UNSATISFACTORY PERFORMANCE OF THE WIRE CAN OCCUR.

- (c) Remove $0.35 \text{ inch} \pm 0.02 \text{ inch}$ of the insulation from the end of the blue wire.

CAUTION: DO NOT CAUSE DAMAGE TO THE CONDUCTOR. UNSATISFACTORY PERFORMANCE OF THE WIRE CAN OCCUR.

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B. Assembly of Twinax Contacts

Refer to Paragraph 3.I. for the twinax contact termination identification.

Table 109
CRIMP TOOLS FOR THE TWINAX CONTACT INNER CONTACTS

Twinax Cable Component	Twinax Contact			Crimp Tool			
	Code	Component	Conductor Cavity Location	Basic Unit		Die	
				Part Number	Setting	Part Number	Cavity
Blue	Blank	Center Contact	Center	AFM-2	6	-	-
White	R	Inner Ring	Side	M22520/5-01	-	Y797	A
				HX-23			
				HXE4B			

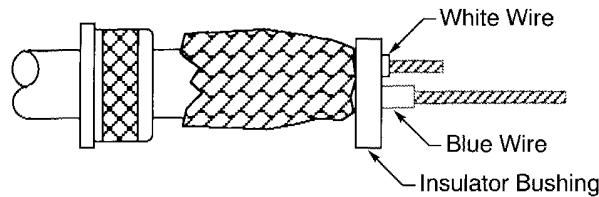
Table 110
CRIMP TOOLS FOR THE TWINAX CONTACT OUTER CONTACT BODY

Twinax Cable Component	Twinax Contact			Crimp Tool		
	Code	Component	Conductor Location	Basic Unit	Die	
					Part Number	Cavity
Shield	C	Outer Contact Body	Outer Contact Body	M22520/5-01	Y797	B
				HX-23		
				HXE4B		

- (1) Put the insulator bushing on the cable. Refer to Figure 144.

Make sure that:

- The white wire is in the hole near the edge of the bushing
- The blue wire is in the hole near the center of the bushing
- The bushing is against the shield.



2447553 S00061547595_V1

POSITION OF THE INSULATOR BUSHING ON THE CABLE
Figure 144

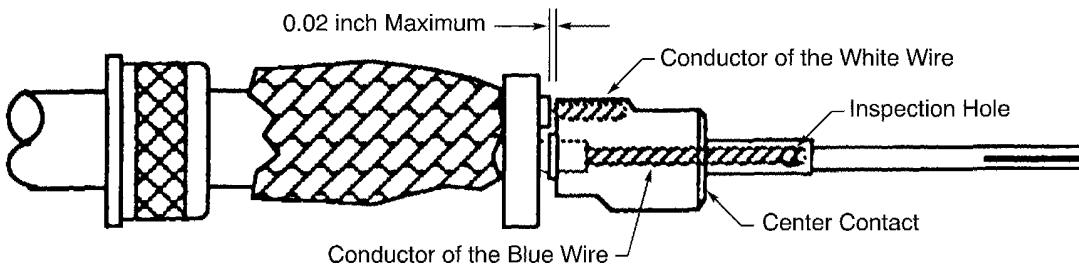
- (2) Align the conductor of the blue wire and the longer cavity in the center of the center contact.

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- (3) Align the conductor of the white wire and the shorter cavity near the side of the center contact.
 Make sure that the conductor of the blue wire stays aligned with the longer cavity in the center of the contact.
- (4) Put the center contact on the wires. Refer to Figure 145.
 Make sure that:
 - All of the strands of the conductor of the blue wire are in the longer center cavity
 - All of the strands of the conductor of the white wire are in the shorter side cavity
 - The conductor of the blue wire can be seen in the inspection hole
 - The distance between the center contact and the end of the insulation of the white wire is a maximum of 0.02 inch.

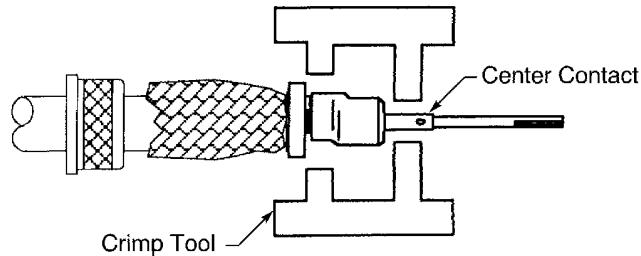


2446534 S00061547596_V1

POSITION OF THE CENTER CONTACT ON THE CABLE

Figure 145

- (5) Make a selection of a center contact crimp tool for the blue wire from Table 109.
- (6) Put the center contact in the crimp tool.
- (7) Crimp the contact.
- (8) Make a selection of a center contact crimp tool for the white wire from Table 109.
- (9) Put the center contact in the crimp tool. Refer to Figure 146.
 Make sure that the contact is correctly aligned in the tool.



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POSITION OF THE CENTER CONTACT IN THE CRIMP TOOL

Figure 146

- (10) Crimp the contact.

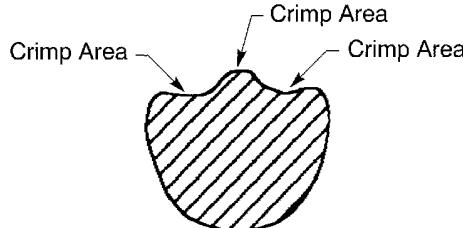
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- (11) Examine the crimp area of the contact. Refer to Figure 147.

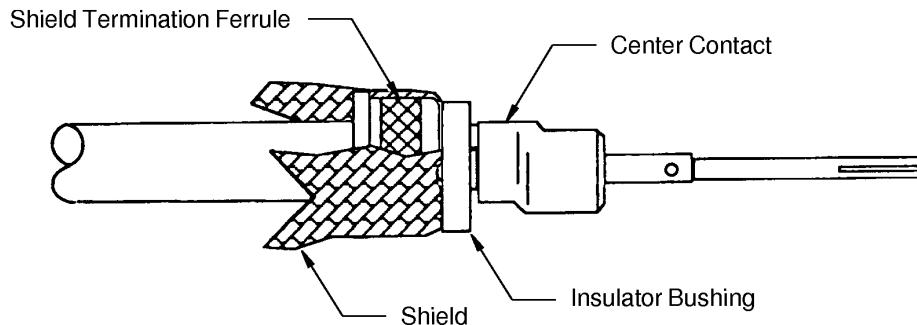
Make sure that each crimp area does not have a crack.



2446535 S00061547598_V1

CRIMP AREAS OF THE CENTER CONTACT
Figure 147

- (12) Push the shield termination ferrule forward until it is against the insulator bushing. Refer to Figure 148.



2446536 S00061547599_V1

POSITION OF THE FERRULE
Figure 148

- (13) Make the shield flat against the outer surface of the ferrule.

- (14) Cut the shield at the forward edge of the shoulder of the ferrule. Refer to Figure 149.

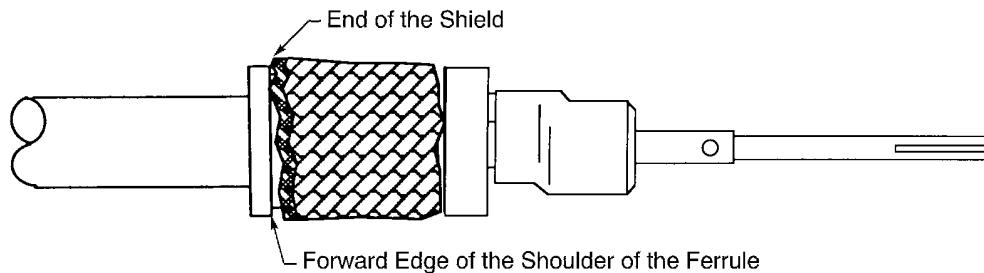
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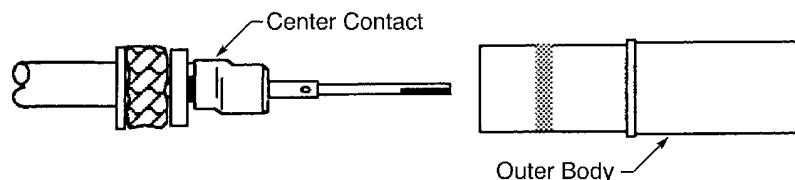


2447555 S00061547600_V1

LOCATION OF SHIELD REMOVAL

Figure 149

- (15) Make a selection of an outer contact body crimp tool from Table 110.
- (16) Align the center contact and the outer body. Refer to Figure 150.

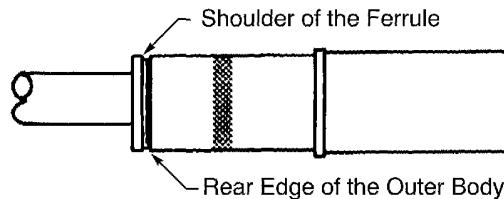


2447556 S00061547601_V1

ALIGNMENT OF THE CENTER CONTACT AND THE OUTER BODY

Figure 150

- (17) Push the center contact into the outer body until it stops.
Make sure that the rear edge of the outer body is against the shoulder of the ferrule. Refer to Figure 151.



2446537 S00061547602_V1

POSITION OF THE OUTER BODY ON THE CENTER CONTACT

Figure 151

- (18) Put the contact in the crimp tool. Refer to Figure 152.
Make sure that the contact is in the small groove of the die.

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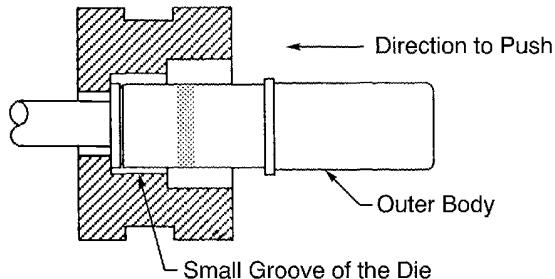
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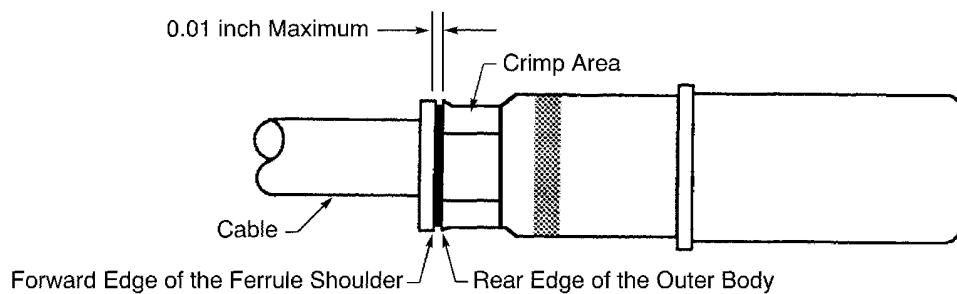


2447557 S00061547603_V1

POSITION OF THE CONTACT IN THE CRIMP TOOL

Figure 152

- (19) Push the outer body against the die.
- (20) Continue to push the outer body against the die and crimp the outer body.
Make sure that the contact stays tight against the die during the crimp operation.
- (21) Examine the crimp area of the contact. Refer to Figure 153.
Make sure that:
 - The crimp area does not have a crack
 - The distance from the rear edge of the outer body to the forward edge of the shoulder of the ferrule is not more than 0.01 inch.



2447558 S00061547604_V1

POSITION OF THE OUTER BODY AFTER THE CRIMP OPERATION

Figure 153

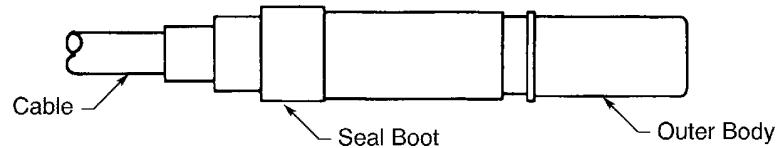
- (22) If the crimp area has deformed metal on the edges, do Step 12.B.(18) through Step 12.B.(21) again with the contact turned 60 degrees from its position in the initial crimp operation.
- (23) Remove the unwanted strands of the shield between the outer body and the ferrule.
- (24) Carefully push the seal boot forward until it stops. Refer to Figure 154.

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2446538 S00061547605_V1

POSITION OF THE SEAL BOOT ON THE CONTACT

Figure 154

- (25) Examine the position of the engaging end of the center contact.
- (26) If the engaging end of the center contact is not located at the center of the outer contact, carefully push it into its correct position.

CAUTION: IF THE ENGAGING END OF THE CENTER CONTACT IS NOT LOCATED AT THE CENTER OF THE OUTER CONTACT, DAMAGE TO THE CONTACT, THE CONNECTOR, OR THE RECEPTACLE CONNECTOR CAN OCCUR.

13. ASSEMBLY OF SIZE 8 QUADRAX CONTACTS

A. Assembly of the BACC47GB1 and BACC47GB2 Quadrax Contacts

Table 111
QUADRAX CONTACT INNER CONTACT CRIMP TOOLS

Quadrax Contact	Crimp Tool		
	Basic Unit		Locator
	Part Number	Setting	Part Number
BACC47GB1	M22520/2-01	5	K709
BACC47GB2	M22520/2-01	5	K709

Table 112
QUADRAX CONTACT OUTER CONTACT CRIMP TOOLS

Quadrax Contact	Crimp Tool		
	Basic Unit	Die	
		Part Number	Cavity
BACC47GB1	M22520/5-01	M22520/5-45	B
BACC47GB2	M22520/5-01	M22520/5-45	B

- (1) Make a selection of an inner contact crimp tool from Table 111.
- (2) Make a selection of an outer contact crimp tool from Table 112.
- (3) Cut the cable perpendicular to its longitudinal axis.

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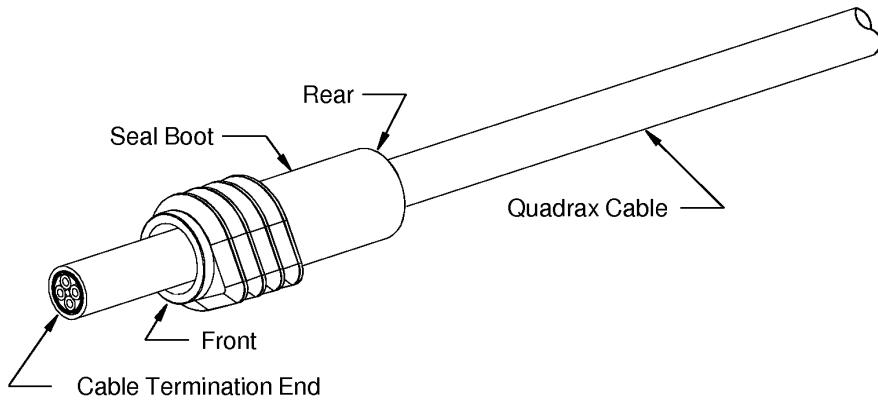


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- (4) Put the seal boot on the cable. Refer to Figure 155.

Make sure that the end of the seal boot that has the smaller diameter points rearward, away from the end of the cable.



2448160 S00061547607_V1

THE SEAL BOOT ON THE CABLE
Figure 155

- (5) Move the seal boot away from the end of the cable.
(6) Prepare the end of the cable. Refer to Figure 156.

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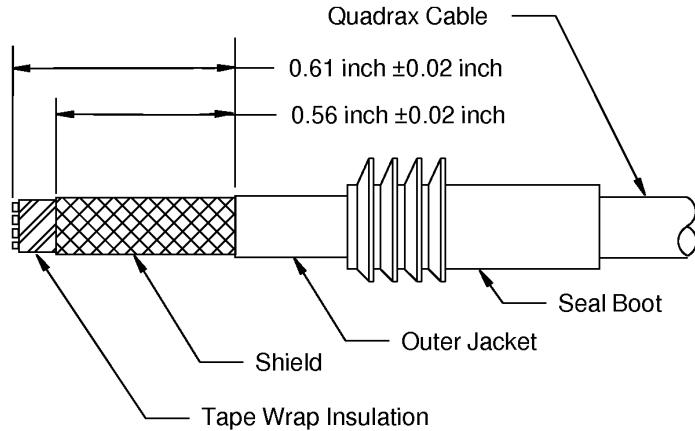
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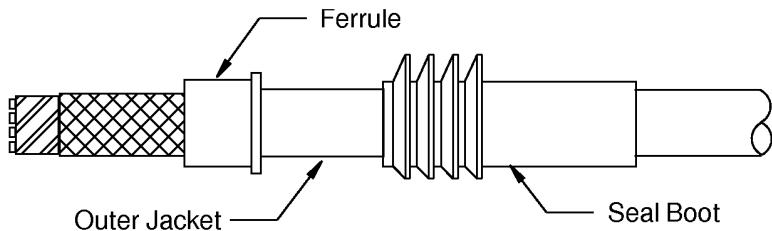


2448218 S00061547608_V1

QUADRAX CABLE TRIM DIMENSIONS

Figure 156

- (a) Remove 0.61 inch ± 0.02 inch of the outer jacket from the end of the cable.
 - (b) Remove the necessary length of the shield from the end of the cable to make the distance from the end of the outer jacket to the end of the shield equal to 0.56 inch ± 0.02 inch.
- (7) Put the ferrule on the cable. Refer to Figure 157.
- Make sure that the end of the ferrule that has the smaller diameter is pointed forward toward the end of the cable.



2448219 S00061547609_V1

POSITION OF THE FERRULE ON THE CABLE

Figure 157

- (8) Push the ferrule rearward until it is against the end of the outer jacket. Refer to Figure 157.
- (9) Fold the outer round shield back on the ferrule. Refer to Figure 158.

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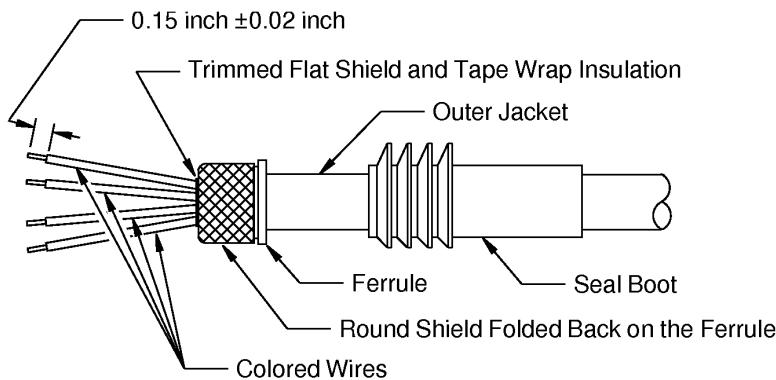
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2448220 S00061547610_V1

COLORED WIRE INSULATION REMOVAL LENGTH AND SHIELD PREPARATION

Figure 158

- (10) Remove the necessary length of the inner flat shield and the tape wrap insulation.
Make sure that the ends of the flat shield and the tape wrap are approximately aligned with the front end of the ferrule.
- (11) Move the four colored wires apart.
Make sure that:
 - The colored wires do not cross each other
 - The initial positions of the colored wires in the cable is not changed.
- (12) Remove the necessary length of the filler rods.
Make sure that the ends of the filler rods are approximately aligned with the front end of the ferrule.
- (13) Remove $0.15 \text{ inch } \pm 0.02 \text{ inch}$ of insulation from the end of each of the four colored wires.
Refer to:
 - Refer to Figure 158.
 - Subject 20-00-15 for the procedure to remove the wire insulation.
- (14) Crimp an inner contact on the conductor of each of the four colored wires.
Make sure that:
 - The distance between the wire insulation and the end of each inner contact crimp barrel is 0.02 inch maximum
 - The wire insulation is not in the crimp barrel
 - The conductor strands can be seen in the inspection hole

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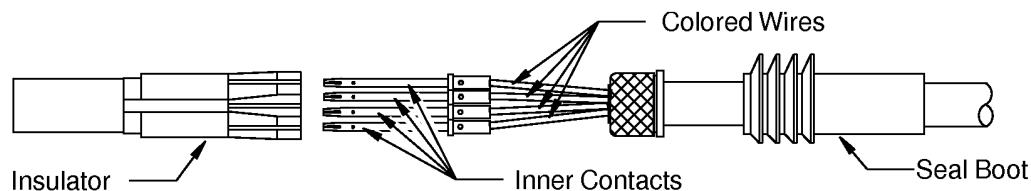
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL CONNECTORS

- All conductor strands are in the crimp barrel
 - The conductor strands do not go out of the inspection hole
 - The plating of each inner contact is not removed
 - The inner contacts have no cracks.
- (15) Put the inner contacts into the larger end of the insulator. Refer to Figure 159, Figure 160 and Figure 161.

Make sure that:

- The insulator keyway is between the red wire and the yellow wire. Refer to Figure 160 Insulator Rear View.
- The position of the colored wires in the insulator is the same as the position of the colored wires in the cable
- Each inner contact is fully installed in the insulator
- The colored wires do not cross each other.

NOTE: All of the wire color position configurations in Figure 160 and Figure 161 are correct. Only one of these configurations is possible at each end of the quadrax cable.



2448221 S00061547611_V1

INSTALLATION OF THE INNER CONTACTS IN THE INSULATOR
Figure 159

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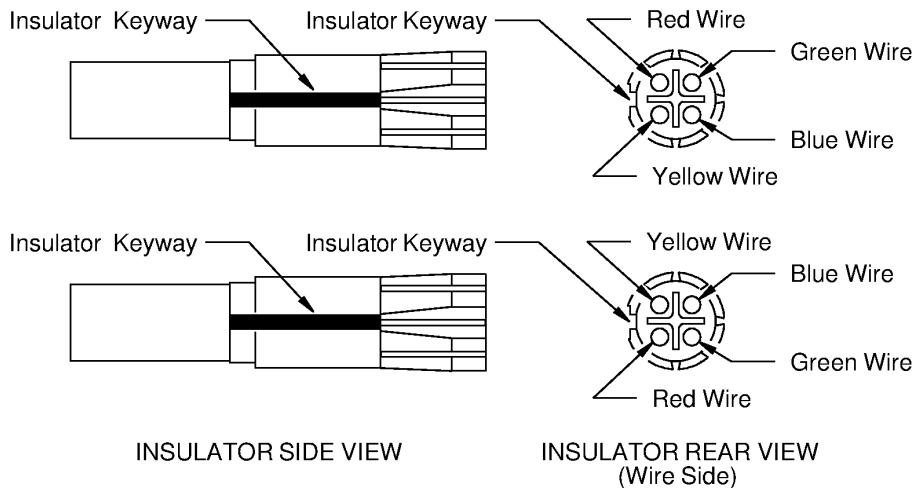
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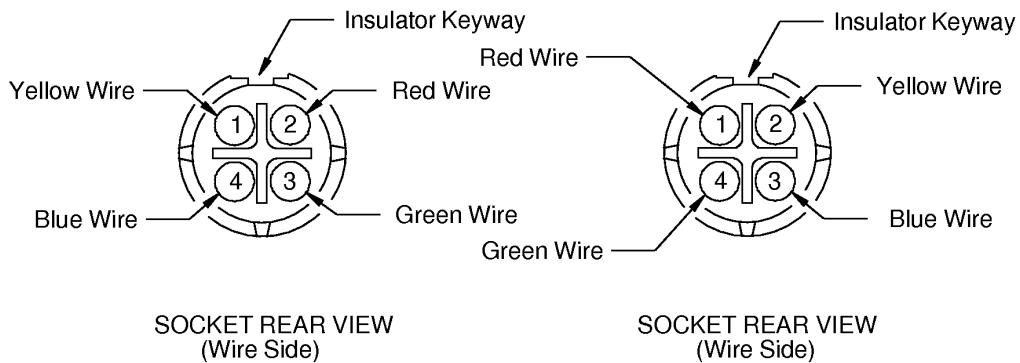
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2448166 S00061547612_V1

SATISFACTORY POSITIONS OF THE COLORED WIRES IN THE INSULATOR - KEYWAY BETWEEN THE RED AND YELLOW WIRES

Figure 160



2449060 S00061547613_V1

SATISFACTORY POSITIONS OF THE INNER CONTACTS IN THE INSULATOR

Figure 161

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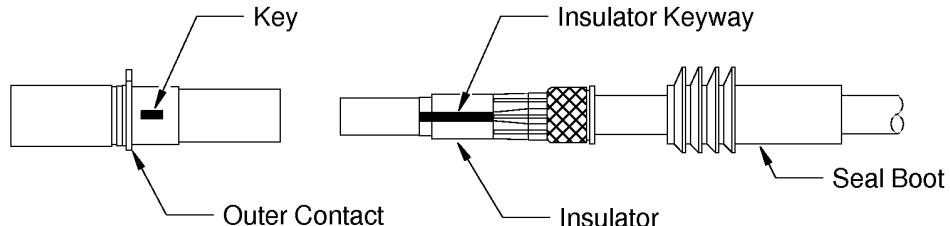
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- (16) Align the wiring key on the outer contact and the wiring keyway of the insulator. Refer to Figure 162.



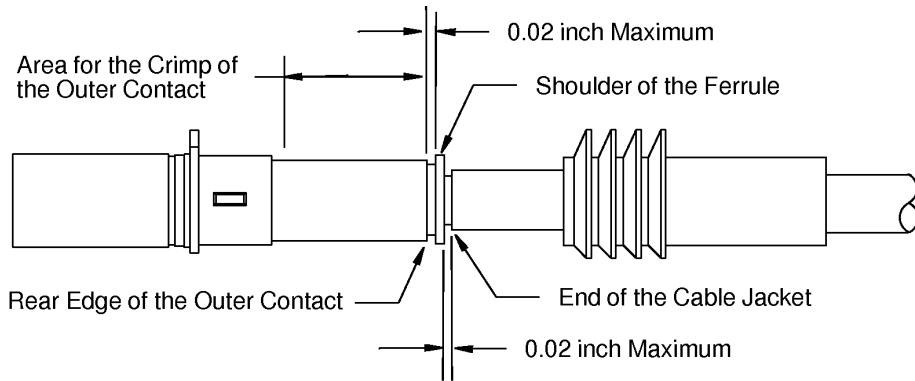
2448222 S00061547614_V1

ALIGNMENT OF THE OUTER CONTACT AND THE INSULATOR ASSEMBLY
Figure 162

- (17) Push the insulator assembly into the outer contact until it stops. Refer to Figure 163.

Make sure that:

- The wiring key on the outer contact and the wiring keyway of the insulator are aligned
- The rear of the insulator is against the shield that is folded back on the ferrule
- The distance from the rear edge of the outer contact to the shoulder of the ferrule is not more than 0.02 inch
- The distance from the rear end of the ferrule to the end of the cable jacket is not more than 0.02 inch.



2448217 S00061547615_V1

QUADRAX CONTACT ASSEMBLY
Figure 163

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- (18) Crimp the outer contact. Refer to Figure 163.
- (19) Remove all of the strands of the shield that are between the rear edge of the outer contact and the shoulder of the ferrule.

14. ASSEMBLY OF SIZE 5 COAX CONTACTS

A. Assembly of ITT Cannon Size 5 Coax Contacts

For the assembly of size 5 coax contacts with S280W503-() coax cable, refer to Paragraph 14.D.

Table 113
CABLE TRIM DIMENSIONS

Contact		Removal Length		
ITT Cannon Part Number	Standard Part Number	Dimension	Target (inch)	Tolerance (inch)
349-0013-000	BACC47EU1	A	0.59	±0.06
		B	0.35	±0.06
349-0013-001	BACC47EU1A	A	0.59	±0.06
		B	0.35	±0.06
349-0015-000	BACC47EU2	A	0.59	±0.06
		B	0.35	±0.06
349-0015-001	BACC47EU2A	A	0.59	±0.06
		B	0.35	±0.06

Table 114
COAX CONTACT CENTER CONTACT CRIMP TOOLS

ITT Cannon Coax Contact Part Number	Crimp Tool		
	Basic Unit		Locator
	Part Number	Setting	
349-0013-000	M22520/2-01	5	K345
349-0013-001	M22520/2-01	5	K345
349-0015-000	M22520/2-01	6	K345
349-0015-001	M22520/2-01	6	K345

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Table 115
COAX CONTACT OUTER CONTACT CRIMP TOOLS

ITT Cannon Coax Contact Part Number	Crimp Tool		
	Basic Unit	Die	
		Part Number	Cavity
349-0013-000	612648	612971	B
	CCT-HX3-156	-	-
	KTH-1000	KTH-2221	B
	M22520/10-01	M22520/10-23	A
	M22520/5-01	M22520/5-45	B
349-0013-001	612648	612971	B
	CCT-HX3-156	-	-
	KTH-1000	KTH-2221	B
	M22520/10-01	M22520/10-23	A
	M22520/5-01	M22520/5-45	B
349-0015-000	612648	613365	B
	KTH-1000	KTH-2221	A
	M22520/5-01	M22520/5-45	A
	ST2966M	ST2966M-7	-
	ST965-4	-	C
	WT201-03-10	-	-
349-0015-001	612648	613365	B
	KTH-1000	KTH-2221	A
	M22520/5-01	M22520/5-45	A
	ST2966M	ST2966M-7	-
	ST965-4	-	C
	WT201-03-10	-	-

- (1) Make a selection of a center contact crimp tool from Table 114.
- (2) Make a selection of an outer contact crimp tool from Table 115.
- (3) In this sequence, put these components on the cable:
 - The seal boot
 - The crimp sleeve.
- (4) Prepare the cable. Refer to Figure 164.

Refer to Table 113 for the trim dimensions.

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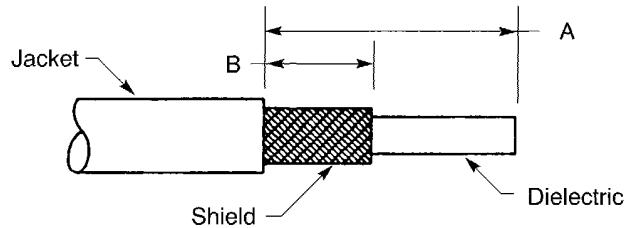
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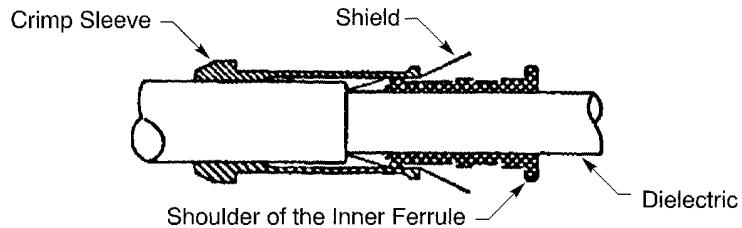


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COAX CABLE PREPARATION

Figure 164

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.
- (b) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
- (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.
- (5) Move the end of the shield strands to increase the diameter of the shield at the end of the shield by approximately 50 percent.
- (6) Push the inner ferrule rearward until it stops.
Make sure that all of the strands of the shield are on the ferrule.
- (7) Push the crimp sleeve forward until it holds the shield against the inner ferrule. Refer to Figure 165.



2446498 S00061547617_V1

POSITION OF THE SHIELD BETWEEN THE INNER FERRULE AND THE CRIMP SLEEVE

Figure 165

- (8) Remove the unwanted length of the strands of the shield.
Make sure that the end of the shield strands is aligned with the forward shoulder of the inner ferrule.
- (9) Push the crimp sleeve forward until it is against the shoulder of the ferrule.
- (10) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the forward shoulder of the inner ferrule equal to 0.03 inch \pm 0.01 inch. Refer to Figure 166.

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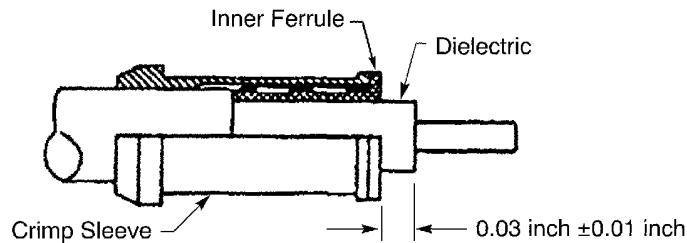
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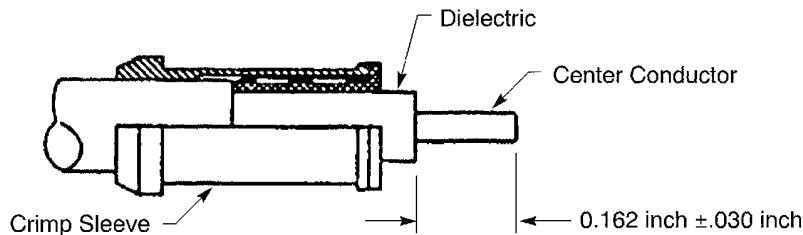


2446499 S00061547618_V1

DIELECTRIC REMOVAL LENGTH

Figure 166

- (11) Remove the necessary length of the conductor to make the distance from the end of the conductor to the end of the dielectric equal to 0.162 inch ±0.030 inch. Refer to Figure 167.



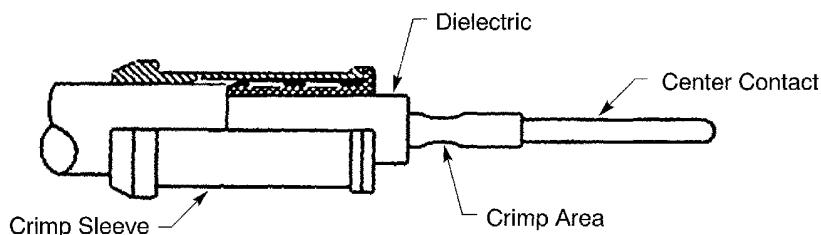
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CONDUCTOR REMOVAL LENGTH

Figure 167

- (12) Put the center conductor in the crimp barrel of the center contact. Refer to Figure 168.
Make sure that:

- The rear end of the contact is against the end of the dielectric
- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact.



2446501 S00061547620_V1

CENTER CONTACT ASSEMBLY

Figure 168

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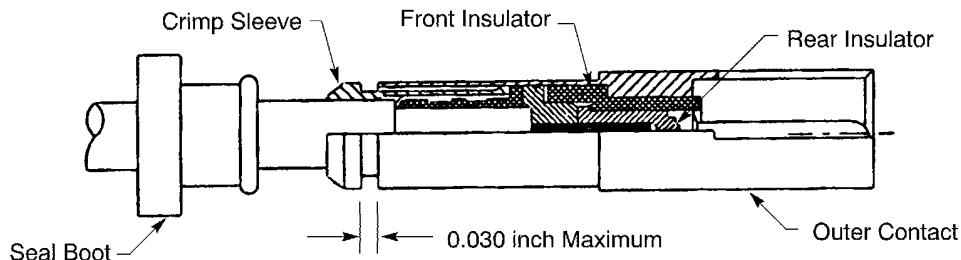
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- (13) Crimp the center contact.
- (14) Put the rear insulator and the front insulator on the center contact. Refer to Figure 169.
Make sure that the rear end of the rear insulator is against the dielectric.



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OUTER CONTACT ASSEMBLY

Figure 169

- (15) Push the outer contact rearward on the center contact assembly. Refer to Figure 169.
Make sure that the distance from the forward edge of the shoulder of the crimp sleeve to the rear edge of the outer contact is not greater than 0.030 inch.
- (16) Crimp the outer contact.
- (17) Push the seal boot forward until the forward end of the boot is against the rear end of the outer contact.

B. Assembly of ITT Cannon 249-2108-000 Size 5 Coax Contacts with RG-142 Cable

Table 116
COAX CONTACT OUTER CONTACT CRIMP TOOLS

Coax Contact	Crimp Tool		
	Basic Unit	Die	
		Part Number	Cavity
249-2108-000	M22520/5-01	M22520/5-45	B

- (1) Prepare the cable. Refer to Figure 170.

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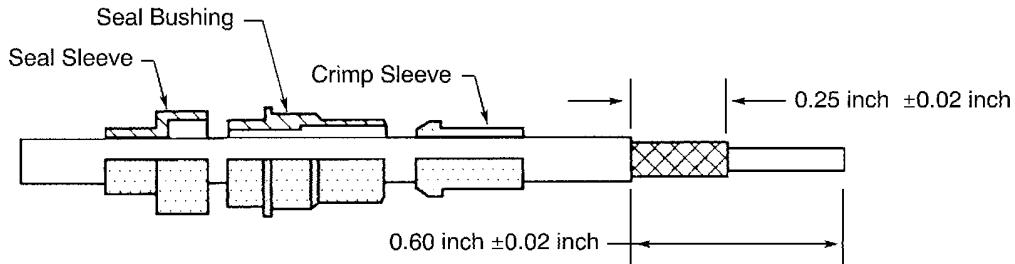
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2446924 S00061547622_V1

CABLE PREPARATION

Figure 170

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.
- (b) In this sequence, put these components on the cable:
 - The seal sleeve
 - The seal bushing
 - The crimp sleeve.
- (c) Remove $0.60 \text{ inch } \pm 0.02 \text{ inch}$ of the jacket from the end of the cable.

CAUTION: DO NOT CAUSE ANY DAMAGE TO THE SHIELD. DAMAGE TO THE SHIELD CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE CABLE.

- (d) Remove the necessary length of shield to make the distance from the end of the jacket to the end of the shield equal to $0.25 \text{ inch } \pm 0.02 \text{ inch}$.
- (2) Assemble the center contact:
 - (a) Loosen the strands of the shield.
 - (b) Put the inner ferrule on the cable.

Make sure that:

 - The shield makes an overlap with the rear end of the inner ferrule
 - The rear end of the inner ferrule is against the end of the jacket
 - The shield is smooth and symmetrical around the circumference of the inner ferrule.- (c) Push the crimp sleeve forward on the shield until it makes an overlap with the end of the inner ferrule. Refer to Figure 171.

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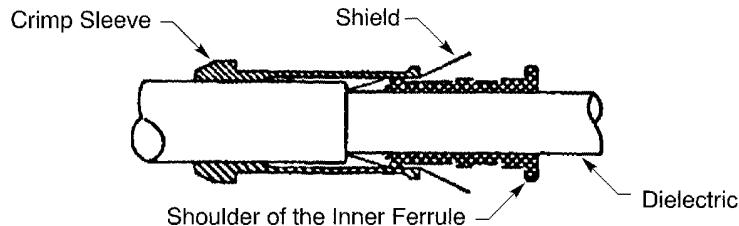
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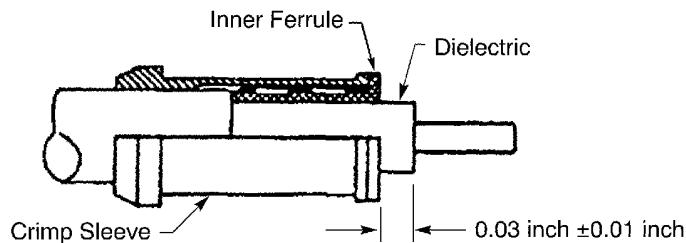


2446498 S00061547617_V1

POSITION OF THE SHIELD BETWEEN THE INNER FERRULE AND THE CRIMP SLEEVE

Figure 171

- (d) Remove the unwanted length of shield at the rear edge of the shoulder of the ferrule.
- (e) Push the crimp sleeve forward until it is against the shoulder of the inner ferrule.
- (f) Remove the necessary length of dielectric to make the distance from the end of the crimp sleeve to the end of the dielectric equal to 0.03 inch ± 0.01 inch. Refer to Figure 172.



2446499 S00061547618_V1

DIELECTRIC REMOVAL LENGTH

Figure 172

- (g) Put the rear insulator on the cable.
 Make sure that the rear end of the insulator is against the inner ferrule.
- (h) Remove the necessary length of the center conductor to make the distance from the forward end of the rear insulator to the end of the conductor equal to 0.14 inch ± 0.02 inch. Refer to Figure 173.

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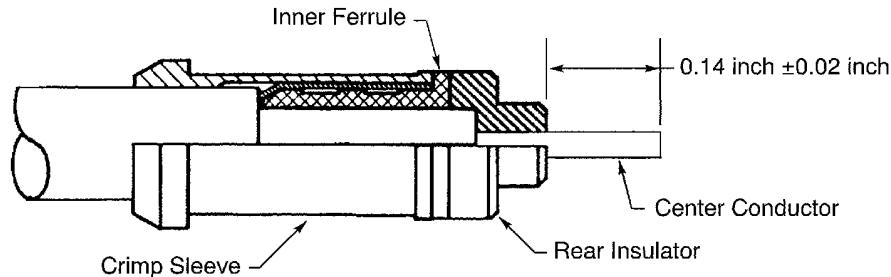
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2446925 S00061547624_V1

CENTER CONDUCTOR LENGTH

Figure 173

- (i) Put the center conductor in the solder cup of the center contact.

Make sure that:

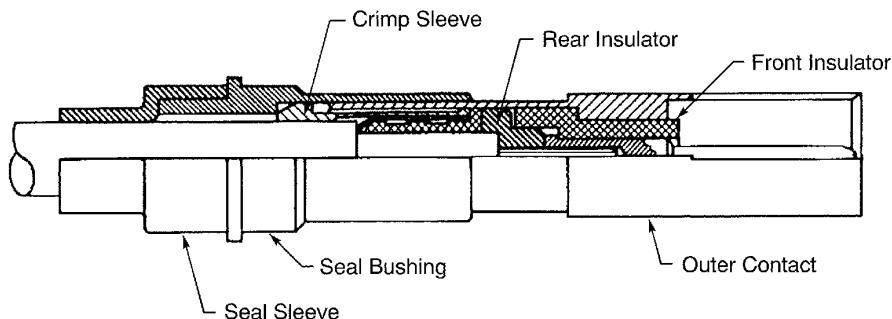
- The end of the solder cup of the contact is against the rear insulator
- All of the strands of the conductor are in the solder cup.

- (j) Solder the contact and the conductor. Refer to Subject 20-40-00.

- (3) Put the front insulator on the center contact.

Make sure that the rear end of the front insulator is against the shoulder of the rear insulator.

- (4) Assemble the outer contact. Refer to Figure 174.



2446926 S00061547625_V1

ITT CANNON 249-2108-000 COAX CONTACT ASSEMBLY

Figure 174

- (a) Make a selection of a crimp tool from Table 116.

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- (b) Push the outer contact onto the center contact assembly until it stops.
- (c) Crimp the outer contact.
- (d) Push the seal bushing forward on the outer contact until it stops.
- (e) Push the seal sleeve forward into its position.

Make sure that:

- The forward edge of the seal sleeve is against the shoulder of the seal bushing
- The seal sleeve makes an overlap with the seal bushing.

C. Assembly of AMP, Radiall, and Souriau Size 5 Coax Contacts

For the assembly of size 5 coax contacts with S280W503(-) coax cable, refer to Paragraph 14.D.

Table 117
CABLE TRIM DIMENSIONS

Contact			Removal Length		
Boeing Standard	Supplier Part Number	Supplier	Dimension	Target (inch)	Tolerance (inch)
BACC47EU1	225791-1	Tyco/AMP	A	0.438	±0.015
			B	0.219	±0.015
			C	0.125	±0.015
	620020	Radiall	A	0.47	±0.02
			B	0.31	±0.02
			C	0.16	±0.02
	8660-2485	Souriau	A	0.60	±0.02
			B	0.42	±0.02
			C	0.18	±0.02
BACC47EU2	8660-2298D	Souriau	A	0.56	±0.02
			B	0.28	±0.02
			C	0.17	±0.02
	8660-2298E	Souriau	A	0.56	±0.02
			B	0.28	±0.02
			C	0.17	±0.02

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Table 118
CENTER CONTACT CRIMP TOOLS

Coax Contact	Crimp Tool		
	Basic Unit		Locator
	Part Number	Setting	
225791-1	M22520/2-01	5	M22520/2-14
620020	M22520/2-01	5	M22520/2-14
8660-2298D	M22520/2-01	5	M22520/2-14
8660-2298E	M22520/2-01	5	M22520/2-14
8660-2485	M22520/2-01	5	M22520/2-14

Table 119
OUTER CONTACT CRIMP TOOLS

Coax Contact	Crimp Tool	
	Basic Unit	Die
225791-1	612648	620467
620020	612648	620467
8660-2298D	612648	612746
	M22520/5-01	Y120
8660-2298E	612648	612746
	M22520/5-01	Y120
8660-2485	612648	620467

- (1) Make a selection of a center contact crimp tool from Table 118.
- (2) Make a selection of an outer contact crimp tool from Table 119.
- (3) In this order, put these components on the cable:
 - The seal boot
 - The ferrule.

Refer to Figure 177.

- (4) Prepare the cable. Refer to Figure 175.
Refer to Table 117 for the trim dimensions.

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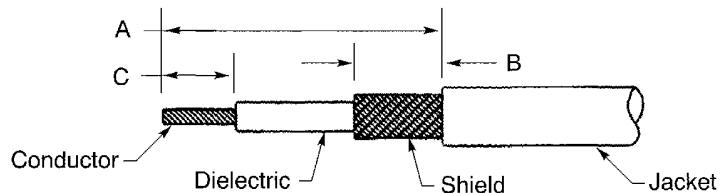
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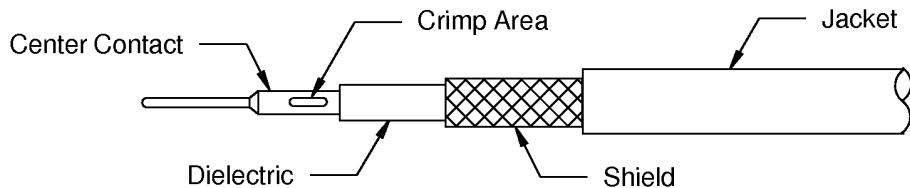


2446503 S00061544338_V1

COAX CABLE PREPARATION

Figure 175

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.
 - (b) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
 - (c) Remove the necessary length of the shield to make the distance from the end of the shield to the end of the cable jacket equal to Dimension B.
 - (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension C.
- (5) Put the center conductor in the crimp barrel of the center contact. Refer to Figure 176.
- Make sure that:
- The rear end of the contact is against the end of the dielectric
 - All of the strands of the conductor are in the crimp barrel
 - The conductor can be seen in the inspection hole of the contact.



2446504 S00061547626_V1

CENTER CONTACT ASSEMBLY

Figure 176

- (6) Crimp the center contact.
 - (7) Move the strands of the shield to increase the diameter of the shield approximately 50 percent at end of the shield.
 - (8) Put the outer contact on the center contact assembly.
- Make sure that the rear end of the outer contact is between the shield and the jacket.

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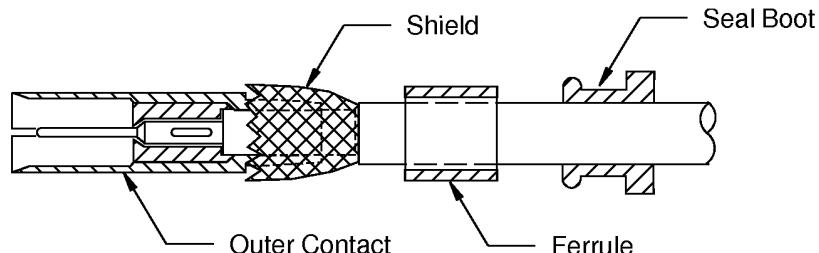
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- (9) Push the outer contact rearward until it stops. Refer to Figure 177.

Make sure that the shield is equal and symmetrical around the circumference of the outer contact.

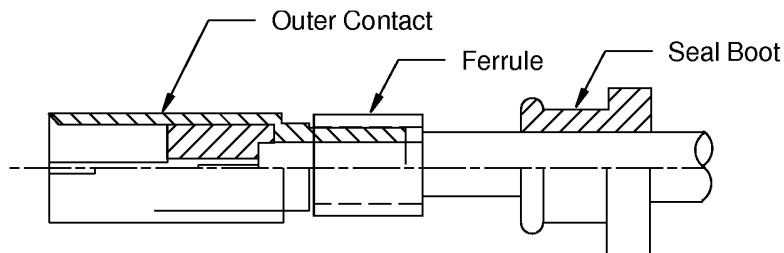


2446505 S00061547627_V1

POSITION OF THE OUTER CONTACT ON THE CENTER CONTACT ASSEMBLY

Figure 177

- (10) Push the ferrule forward until the forward edge of the ferrule is against the rear shoulder of the outer contact. Refer to Figure 178.



2446506 S00061547628_V1

OUTER CONTACT ASSEMBLY

Figure 178

- (11) Cut the unwanted length of the shield.
 Make sure that the end of the shield is aligned with the end of the ferrule.
- (12) Crimp the outer contact.
- (13) Push the seal boot toward the end of the cable until the forward edge of the boot is against the rear shoulder of the outer contact.

D. Assembly of Size 5 Coax Contacts with S280W503-() Coax Cable

Table 120
CENTER CONTACT CRIMP TOOLS

Coax Contact	Coax Cable	Crimp Tool		
		Basic Unit		Locator
		Part Number	Setting	
BACC47EU3	S280W503-1	M22520/2-01	5	K345

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Table 120 CENTER CONTACT CRIMP TOOLS (Continued)

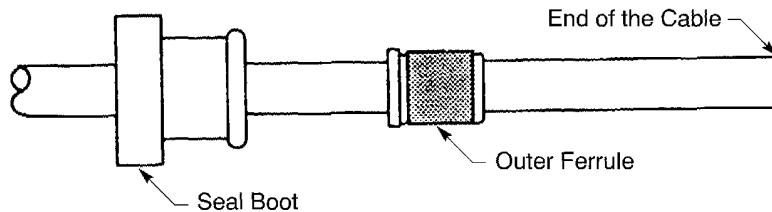
Coax Contact	Coax Cable	Crimp Tool		
		Basic Unit		Locator
		Part Number	Setting	
BACC47EU4	S280W503-2	M22520/2-01	6	K345

Table 121
OUTER CONTACT CRIMP TOOLS

Coax Contact	Coax Cable	Crimp Tool		
		Basic Unit	Die	
			Part Number	Cavity
BACC47EU3	S280W503-1	M22520/5-01	M22520/5-45	B
		M22520/10-01	M22520/10-23	-
BACC47EU4	S280W503-2	M22520/5-01	M22520/5-45	B
		M22520/10-01	M22520/10-23	-

- (1) Make a selection of a center contact crimp tool from Table 120.
- (2) Make a selection of an outer contact crimp tool from Table 121.
- (3) Put these components on the cable:
 - The seal boot
 - The outer ferrule.

Refer to Figure 179.



2446507 S00061547629_V1

POSITION OF THE SEAL BOOT AND THE OUTER FERRULE ON THE CABLE
Figure 179

- (4) Remove 0.41 inch ± 0.02 inch of the outer jacket from the end of the cable. Refer to Figure 180.

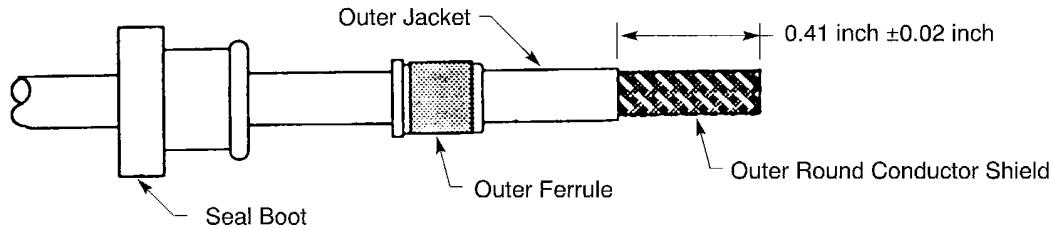
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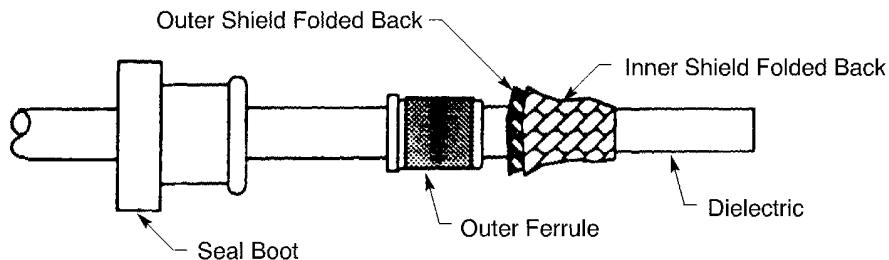
2446508 S00061547630_V1

CABLE JACKET REMOVAL LENGTH

Figure 180

- (5) Fold the outer round conductor shield and the inner flat conductor shield back on the cable jacket. Refer to Figure 181.

If it is necessary, the strands of the inner shield can be moved apart and made straight before they are folded back.

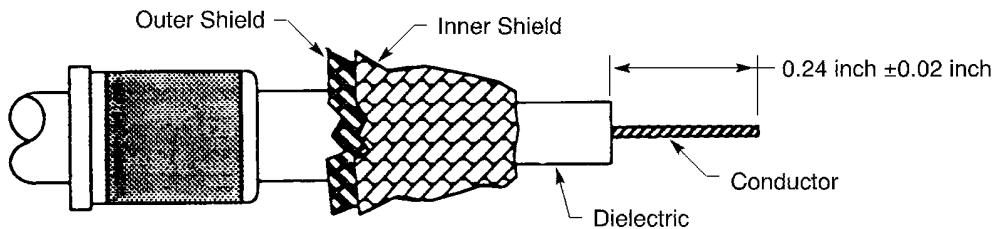


2446509 S00061547631_V1

POSITION OF THE OUTER SHIELD AND THE INNER SHIELD FOLDED BACK

Figure 181

- (6) Remove 0.24 inch \pm 0.02 inch of the dielectric from the end of the cable. Refer to Figure 182.



2446510 S00061547632_V1

DIELECTRIC REMOVAL LENGTH

Figure 182

- (7) Put the rear insulation bushing on the cable.

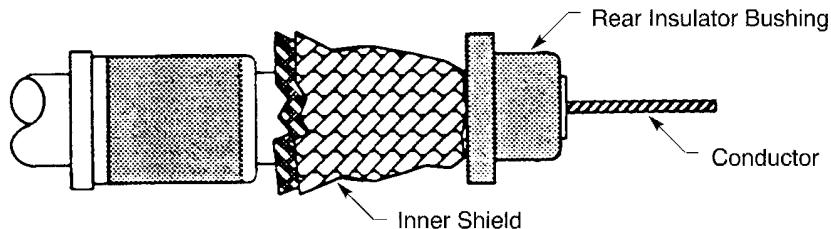
Make sure that the large end of the bushing is pointed rearward on the cable.

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- (8) Push the bushing rearward until it is against the inner shield. Refer to Figure 183.



2446511 S00061547633_V1

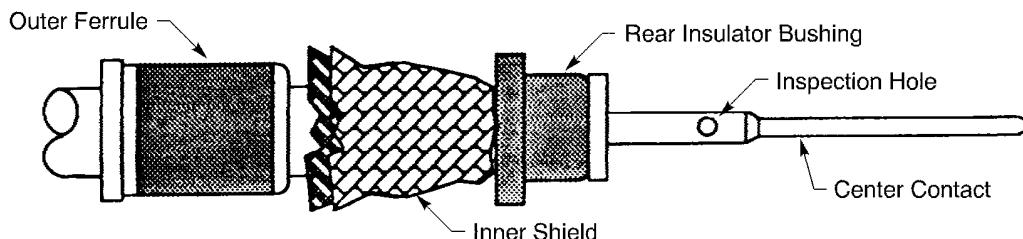
POSITION OF THE REAR INSULATOR BUSHING AGAINST THE INNER SHIELD
Figure 183

- (9) Put the conductor in the crimp barrel of the center contact.

Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact.

- (10) Push the center contact rearward until the end of the contact is against the insulator bushing. Refer to Figure 184.



2446512 S00061547634_V1

POSITION OF THE CENTER CONTACT ON THE CONDUCTOR
Figure 184

- (11) Crimp the center contact.

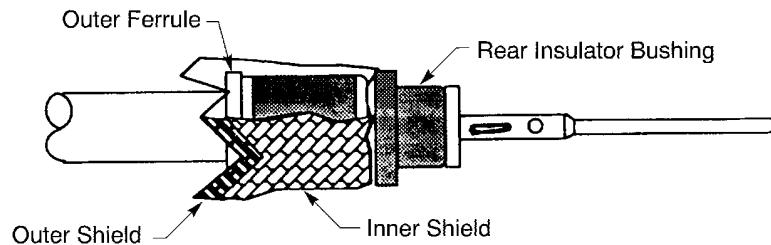
- (12) Push the outer ferrule forward between the cable jacket and the shields until it is against both shields and the rear insulator bushing. Refer to Figure 185.

Make sure that the both shields are symmetrical around the circumference of the outer ferrule.

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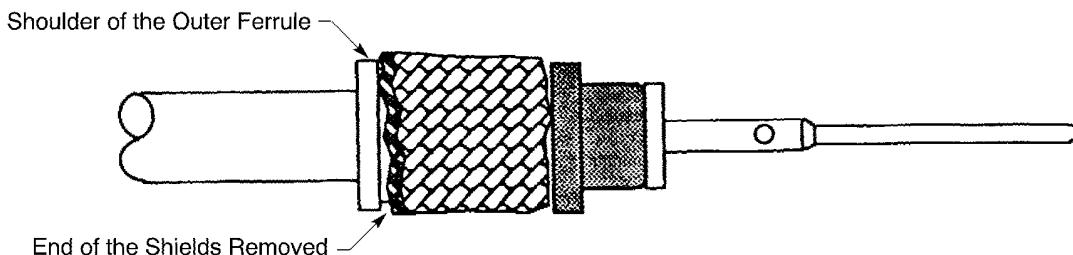
2446513 S00061547635_V1

POSITION OF THE OUTER FERRULE BETWEEN THE CABLE JACKET AND THE SHIELDS

Figure 185

- (13) Remove the unwanted length of the shields. Refer to Figure 186.

Make sure that the end of the shield strands is aligned with the front edge of the shoulder of the outer ferrule.

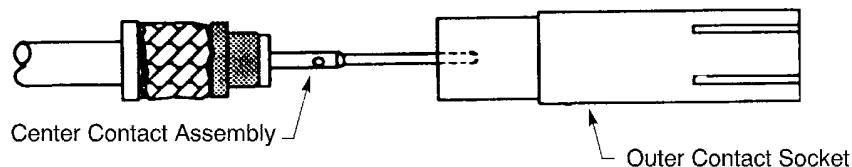


2446514 S00061547636_V1

REMOVAL OF THE UNWANTED LENGTH OF THE SHIELDS

Figure 186

- (14) Push the center contact assembly into the outer contact assembly until it stops. Refer to Figure 187.



2446515 S00061547637_V1

OUTER CONTACT ASSEMBLY

Figure 187

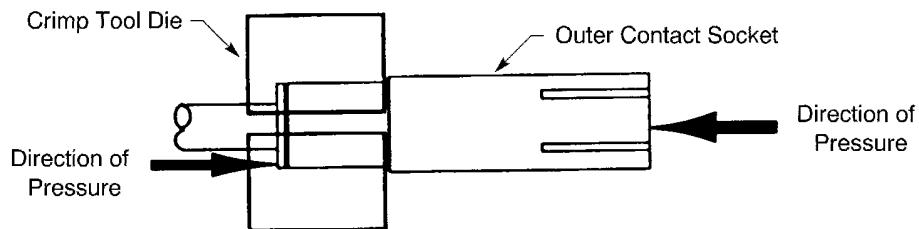
- (15) Assemble the outer contact. Refer to Figure 188.

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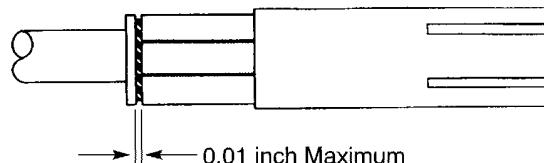


2446516 S00061547638_V1

DIRECTION OF APPLIED PRESSURE DURING THE CRIMP OPERATION

Figure 188

- (a) At the same time, apply pressure:
 - On the outer contact toward the center contact assembly
 - On the center contact assembly toward the outer contact.
 - (b) Crimp the outer contact.
Make sure that the outer contact is tight against the center contact assembly during the crimp operation.
- (16) Examine the contact.
Make sure that the distance between the forward edge of the shoulder of the outer ferrule and the rear end of the outer contact is not greater than 0.01 inch. Refer to Figure 189.



2446517 S00061547639_V1

DISTANCE BETWEEN THE OUTER FERRULE AND THE OUTER CONTACT
Figure 189

- (17) Push the seal boot forward until it is against the rear edge of the outer contact. Refer to Figure 190.

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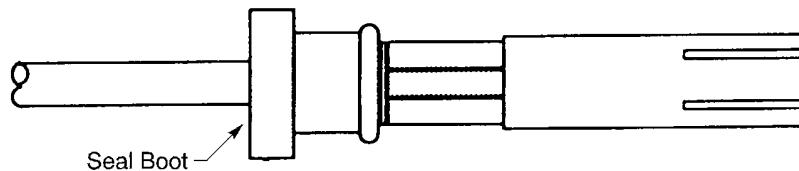
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POSITION OF THE SEAL BOOT AGAINST THE OUTER CONTACT

Figure 190

15. ASSEMBLY OF SIZE 1 COAX CONTACTS

A. Assembly of Size 1 Coax Contacts

This paragraph gives the procedures to assemble the BACC47EN1, BACC47EN2, BACC47EN3 and ITT Cannon 349-0005-000 coax contacts. Refer to Table 122 for other size 1 coax contact assembly and installation procedures.

Table 122
OTHER SIZE 1 COAX CONTACT ASSEMBLY AND INSTALLATION PROCEDURES

Procedure	Reference
Install the BACC47EN4 adapter contact in a BACI10AH05, 08, 09 or 25 insert	Paragraph 16.I.
Install the BACA19BK1 adapter contact in a BACI10AH11 insert	Paragraph 16.K.
Assemble the ITT Cannon 320-1066-006 termination kit	Paragraph 15.D.
Assemble the ITT Cannon 320-1066-015 termination kit	Paragraph 15.E.
Assemble the Kings 3011-1-103 coax contact	Paragraph 15.C.
Install a size 1 coax contact that has a mounting block in a BACI10AH05, 08, 09 or 25 insert	Paragraph 16.I.
Install a termination kit contact	Paragraph 16.J.

Table 123
COAX CABLE JACKET REMOVAL LENGTH

Contact		Removal Length		
Supplier	Part Number	Dimension	Target (inch)	Tolerance (inch)
ITT Cannon	349-0005-000	A	0.470	±0.06
	349-0017-000	A	0.470	±0.06
	349-0018-000	A	0.470	±0.06

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Table 123 COAX CABLE JACKET REMOVAL LENGTH (Continued)

Contact		Removal Length		
Supplier	Part Number	Dimension	Target (inch)	Tolerance (inch)
Radiall	620001	A	0.510	±0.03
	620002	A	0.470	±0.03
	620101	A	0.510	±0.03
	620101-001	A	0.510	±0.03
	620102	A	0.470	±0.03
	620102-001	A	0.470	±0.03
Souriau	8660-2295	A	0.600	±0.06
	8660-2297	A	0.511	±0.06
	8660-2299	A	0.511	±0.06

**Table 124
DIELECTRIC REMOVAL LENGTH**

Contact		Removal Length		
Supplier	Part Number	Dimension	Target (inch)	Tolerance (inch)
ITT Cannon	349-0005-000	A	0.24	±0.03
	349-0017-000	A	0.24	±0.03
	349-0018-000	A	0.24	±0.03
Radiall	620001	A	0.24	±0.03
	620002	A	0.24	±0.03
	620101	A	0.24	±0.03
	620101-001	A	0.24	±0.03
	620102	A	0.24	±0.03
	620102-001	A	0.24	±0.03
Souriau	8660-2295	A	0.18	±0.03
	8660-2297	A	0.21	±0.03
	8660-2299	A	0.21	±0.03

(1) Prepare the cable:

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.
- (b) In this order, put these components on the cable:
 - The coupling nut
 - The washer
 - The seal ring.

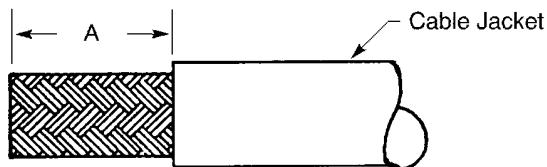
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- (c) For the Souriau 8660-2295A contact with an RG-393 cable, make a selection of a Grade B, Class 1 heat shrinkable sleeve from Subject 20-00-11. Make sure that the diameter of the sleeve is the smallest that can easily move on the cable jacket.
- (d) For the Souriau 8660-2295A contact with an RG-393 cable, put a 1.50 inch ± 0.25 inch length of the heat shrinkable sleeve on the cable.
- (e) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to Dimension A. Refer to Figure 191. Refer to Table 123 the value of the dimension.

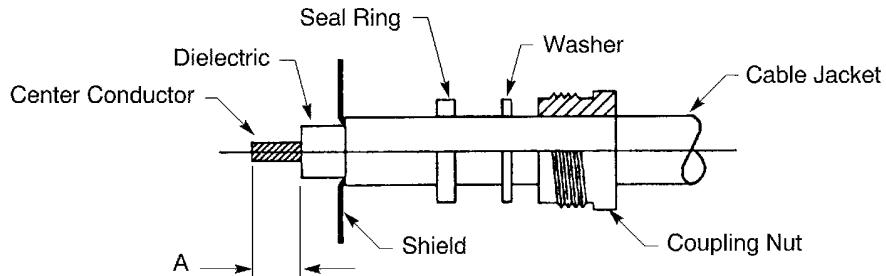


2446519 S00061547641_V1

CABLE JACKET REMOVAL LENGTH

Figure 191

- (f) For the Souriau 8660-2295A contact with an RG-393 cable, shrink the sleeve into position. Refer to Subject 20-10-14. Make sure that the forward end of the sleeve is aligned with the end of the cable jacket.
- (g) Move the strands of the shield apart.
- (h) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the cable equal to Dimension A. Refer to Figure 192. Refer to Table 124 the value of the dimension.



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DIELECTRIC REMOVAL LENGTH

Figure 192

- (2) Put the center contact on the conductor.

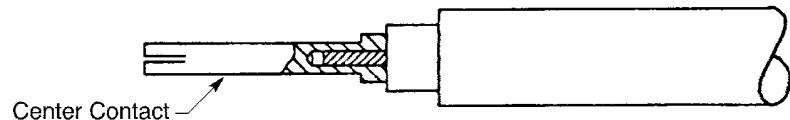
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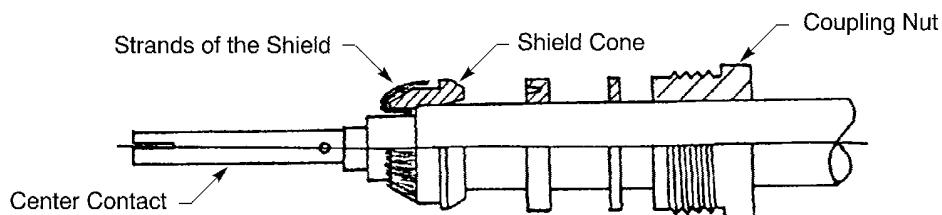
- (3) Solder the contact. Refer to Figure 193 and Subject 20-40-00.



2446521 S00061547643_V1

CENTER CONTACT ASSEMBLY
Figure 193

- (4) Put the shield cone on the cable.
Make sure that the forward end of the cone is against the end of the jacket.
(5) Fold the strands of the shield back on the shield cone.
(6) Remove the unwanted length of the strands of the shield. Refer to Figure 194.
Make sure that the end of the strands is aligned with the forward edge of the shoulder of the shield cone.



2446522 S00061547644_V1

POSITION OF THE SHIELD AND THE SHIELD CONE
Figure 194

- (7) Put the outer contact on the inner contact assembly.
(8) Engage the threads of the coupling nut and the body of the outer contact. Refer to Figure 195.

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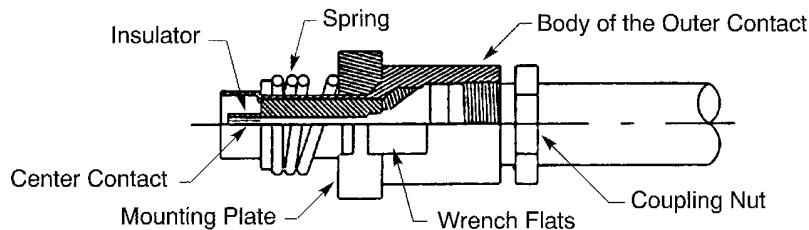
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2446523 S00061547645_V1

OUTER CONTACT ASSEMBLY

Figure 195

(9) Torque the coupling nut:

- 50 inch-pounds ± 5 inch-pounds for the ITT Cannon contact
- 30 inch-pounds ± 5 inch-pounds for the Souriau contact.

B. Replacement of a Size 1 Coax Mounting Block that has Special Hole Spacing

This paragraph gives the procedure to remove a size 1 coax contact mounting block that has special hole spacing, and replace it with a standard size 1 coax contact mounting block.

This procedure is applicable if the Boeing connector part number has insert configuration code 122, 123 or 125. These insert configuration codes indicate a connector that has inserts that fit the standard mounting block of the size 1 coax contact.

Table 125
ITT CANNON SIZE 1 COAX CONTACT MOUNTING BLOCK CONVERSION KIT

Description	Part Number	Supplier
Size 1 Coax Mounting Block Conversion Kit	320-0091-000	ITT Cannon

(1) Make a selection of a size 1 coax contact mounting block conversion kit from Table 125.

(2) Remove the size 1 coax contact from the connector. Refer to Paragraph 7.E.

(3) Remove these components from the contact:

- The retaining ring
- The washer
- The O-ring
- The second washer
- The spring
- The mounting block.

NOTE: The O-ring and the second washer are part of the environmental configuration of the size 1 coax contact only.

(4) Get the mounting block from the conversion kit.

(5) In this sequence, put these components on the coax contact:

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- The new mounting block
- The spring
- The washer
- The O-ring
- The second washer
- The retaining ring.

NOTE: The O-ring and the second washer are part of the environmental configuration of the size 1 coax contact only.

C. Assembly of Kings 3011-1-103 Size 1 Coax Contact with S280W503-5 Cable

Table 126
CENTER CONTACT CRIMP TOOLS

Crimp Tool Basic Unit	Crimp Tool Die	
	Part Number	Cavity
KTH-1000	KTH-2213	A

Table 127
OUTER FERRULE CRIMP TOOLS

Crimp Tool Basic Unit	Crimp Tool Die	
	Part Number	Cavity
KTH-1000	KTH-2213	B

Table 128
NECESSARY MATERIALS

Material	Part Number	Supplier
Heat Shrinkable Sleeve	DWP-125	Raychem
	MWSF	Remtek

(1) Prepare the cable:

- Cut the cable to make its end perpendicular to its longitudinal axis.
- Make a selection of a heat shrinkable sleeve from Table 128.

NOTE: An equivalent heat shrinkable sleeve is a satisfactory alternative. Refer to Subject 20-00-11.

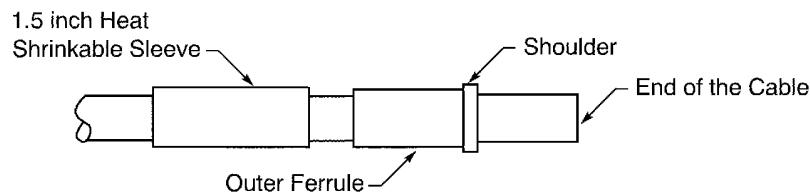
- Put a 1.5 inch minimum length of heat shrinkable sleeve on the cable.
Make sure that the sleeve has the smallest diameter that moves easily on the outer ferrule.
- Put the outer ferrule on the cable. Refer to Figure 196.
Make sure that the end of the ferrule that has the shoulder is pointed forward to the end of the cable.

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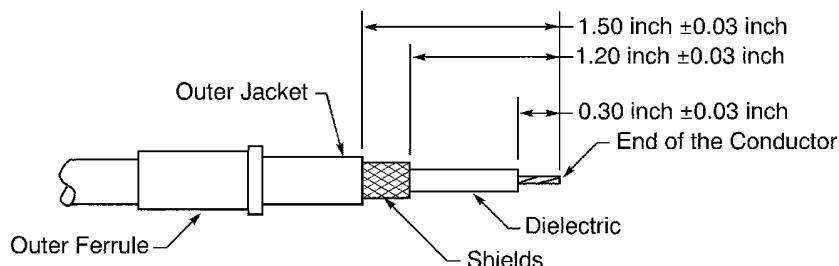
ASSEMBLY OF BACC66F, H, AND K ARINC 600, AND S280W551 RACK AND PANEL
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2447944 S00061547646_V1

POSITION OF THE OUTER FERRULE ON THE CABLE

Figure 196



2447939 S00061547647_V1

CABLE PREPARATION

Figure 197

Refer to Figure 197:

- (e) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to 1.50 inches \pm 0.03 inch.
 - (f) Remove the necessary length of the round and flat shields from the end of the cable to make the distance from the end of the shields to the end of the cable equal to 1.20 inches \pm 0.03 inch.
 - (g) Move the strands of the outer shield apart.
 - (h) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the conductor equal to 0.30 inch \pm 0.03 inch.
- (2) Push the end of the cable into the inner contact body. Refer to Figure 198.

Make sure that:

- The conductor can be seen in the inspection hole of the center contact
- The inner ferrule is between the inner shield and the outer shield.

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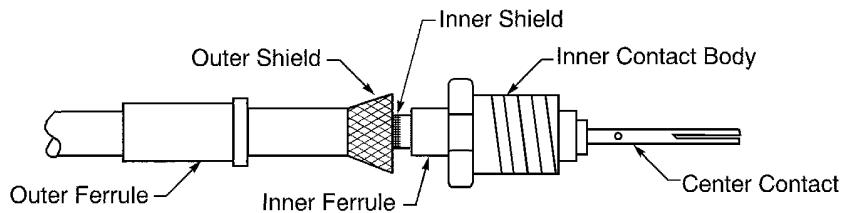
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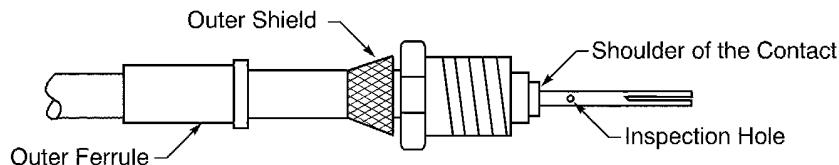


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CENTER CONTACT ASSEMBLY

Figure 198

- (3) Make a selection of a center contact crimp tool from Table 126.
- (4) Crimp the center contact between the contact shoulder and the inspection hole. Refer to Figure 199.



2447941 S00061547649_V1

CENTER CONTACT ASSEMBLY

Figure 199

- (5) Push the outer ferrule forward until it is against the shoulder of the contact body.
- (6) Remove the unwanted length of the strands of the shield.
- (7) Make a selection of an outer ferrule crimp tool from Table 127.
- (8) Crimp the outer ferrule. Refer to Figure 200.

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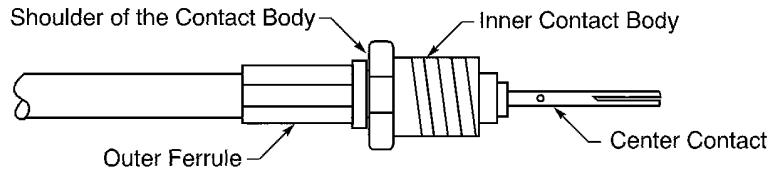
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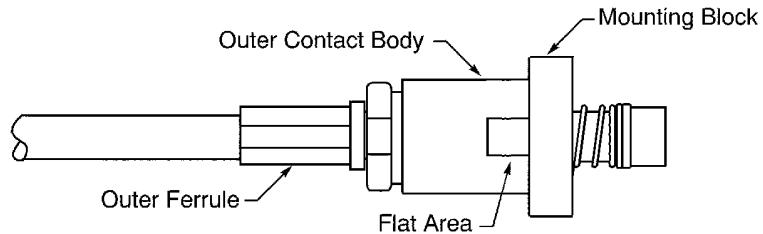


2447942 S00061547650_V1

CRIMPED OUTER FERRULE ON THE INNER CONTACT ASSEMBLY

Figure 200

- (9) Put the inner contact assembly into the outer contact body.
- (10) Engage the threads of the inner contact body and the threads of the outer contact body. Refer to Figure 201.



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CONTACT ASSEMBLY

Figure 201

- (11) Hold the flat areas of the outer contact body and torque the coupling nut of the inner contact to 30 inch-pounds \pm 3 inch-pounds.
 - (12) Push the heat shrinkable sleeve forward on the crimped area of the ferrule. Refer to Figure 202. Make sure that the distance from the forward end of the sleeve to the rear shoulder of the contact body is a maximum of 0.13 inch. Refer to Figure 202.
 - (13) Shrink the sleeve into its position.
- Refer to:
- Figure 202
 - Subject 20-10-14.

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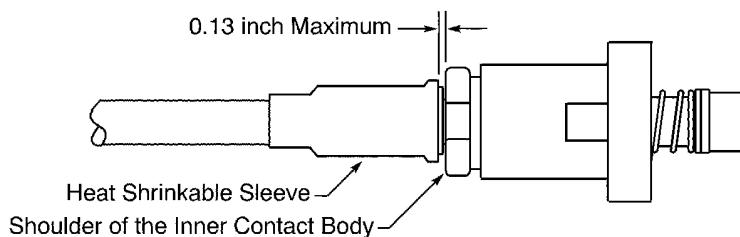
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POSITION OF THE HEAT SHRINKABLE SLEEVE ON THE CONTACT ASSEMBLY

Figure 202

- (14) Install the contact assembly in the connector. Refer to Paragraph 16.I.

D. Assembly of the ITT Cannon 320-1066-006 Size 1 Coax Contact Termination Kit

NOTE: The coax contact termination kit contains the center contact assembly.

Table 129
CENTER CONTACT CRIMP TOOLS

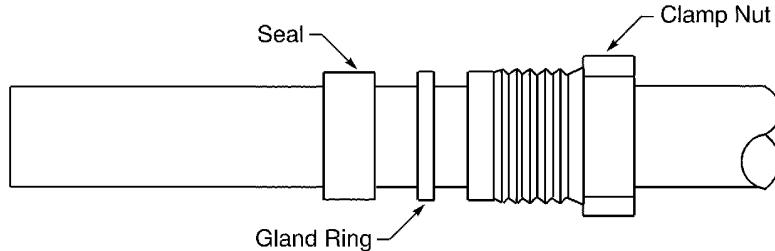
Basic Unit		Locator
Part Number	Setting	
M22520/1-01	7	M22520/1-02

- (1) Make a selection of a center contact crimp tool from Table 129.

- (2) Put these components on the cable in this sequence:

- The clamp nut
- The gland ring
- The seal.

Refer to Figure 203.



2450251 S00061547653_V1

POSITION OF THE CLAMP NUT, THE GLAND RING, AND THE SEAL ON THE CABLE

Figure 203

- (3) Cut the cable to make its end perpendicular to its longitudinal axis.
- (4) Remove 0.50 inch ± 0.01 inch of the jacket from the end of the cable. Refer to Figure 204.

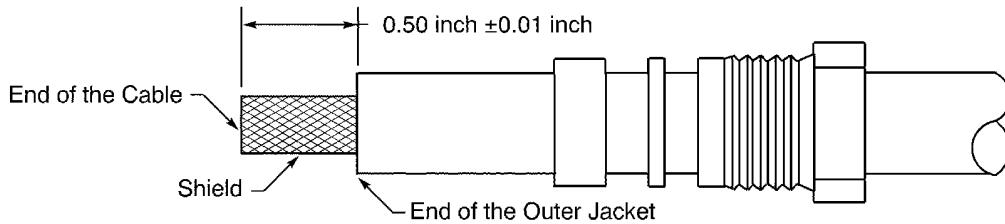
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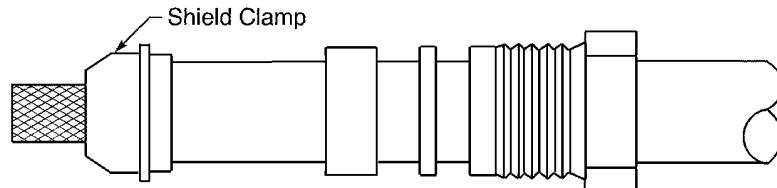


2446524 S00061547654_V1

CABLE JACKET REMOVAL LENGTH

Figure 204

- (5) Put the shield clamp on the cable. Refer to Figure 205.
- Make sure that the end of the clamp is against the end of the jacket.

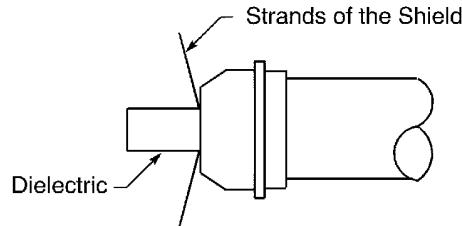


2446525 S00061547655_V1

POSITION OF THE SHIELD CLAMP

Figure 205

- (6) Move the strands of the shield apart.
- (7) Make the strands of the shield straight.
- (8) Move the strands of the shield away from the dielectric. Refer to Figure 206.



2446526 S00061547656_V1

POSITION OF THE SHIELD STRANDS

Figure 206

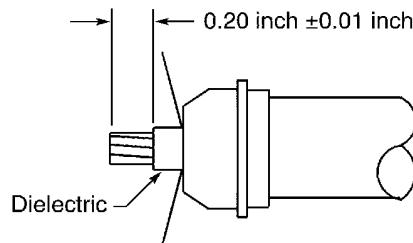
- (9) Remove 0.20 inch \pm 0.01 inch of the dielectric from the end of the cable. Refer to Figure 207.

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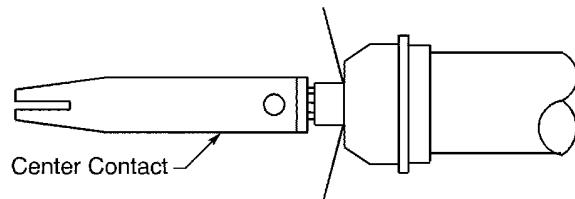
DIELECTRIC REMOVAL

Figure 207

- (10) Put the conductor in the crimp barrel of the center contact. Refer to Figure 208.

Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact
- The end of the conductor is against the bottom of the crimp barrel of the contact.



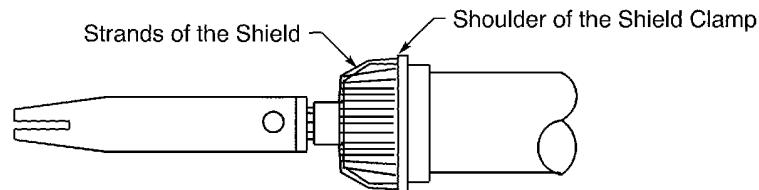
2446528 S00061547658_V1

CENTER CONTACT ASSEMBLY

Figure 208

- (11) Crimp the center contact.

- (12) Fold the strands of the shield back on the shield clamp. Refer to Figure 209.



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POSITION OF THE SHIELD ON THE SHIELD CLAMP

Figure 209

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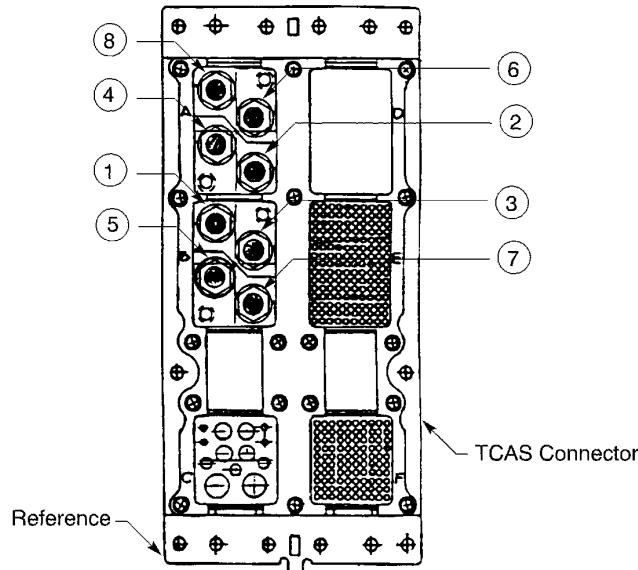
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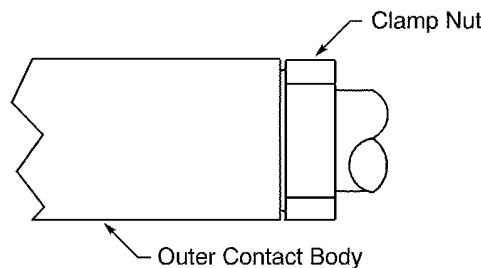
- (13) Remove the length of the strands of the shield that extend farther than the shoulder of the shield clamp. Refer to Figure 209.
 Make sure that the ends of the strands are aligned with the forward edge of the shoulder of the shield clamp.
- (14) If the connector is a TCAS connector, find the recommended installation sequence for the 8 coax contacts in the connector. Refer to Figure 210



2446530 S00061547660_V1

COAX CONTACT INSTALLATION SEQUENCE
Figure 210

- (15) Put the center contact assembly into the outer contact body.
 (16) Engage the threads of the clamp nut and the outer contact body. Refer to Figure 211.



2447969 S00061547541_V1

CENTER CONTACT ASSEMBLY INSTALLED IN THE OUTER CONTACT BODY
Figure 211

- (17) Torque the clamp nut 18 inch-pounds to 20 inch-pounds.

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E. Assembly of the ITT Cannon 320-1066-015 Size 1 Coax Contact Termination Kit

NOTE: The coax contact termination kit contains the center contact assembly.

Table 130
CENTER CONTACT CRIMP TOOLS

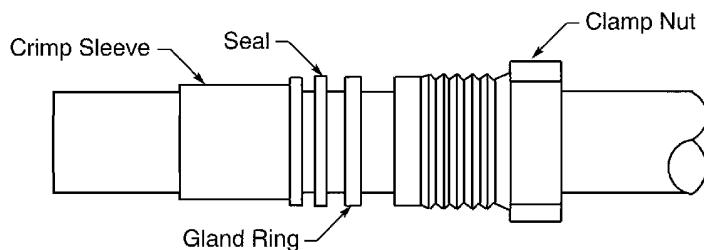
Basic Unit		Locator
Part Number	Setting	
M22520/1-01	7	TP855
		995-0002-239

Table 131
CRIMP SLEEVE CRIMP TOOLS

Part Number	Die
M22520/5-01	Y804
	41
CCT-HX4-156	995-0002-239

- (1) Make a selection of a center contact crimp tool from Table 130.
- (2) Make a selection of a crimp sleeve crimp tool from Table 131.
- (3) Put these components on the cable in this sequence:
 - The clamp nut
 - The gland ring
 - The seal
 - The crimp sleeve.

Refer to Figure 212.



2447965 S00061547661_V1

POSITION OF THE CLAMP NUT, THE GLAND RING, THE SEAL, AND THE CRIMP SLEEVE ON THE CABLE

Figure 212

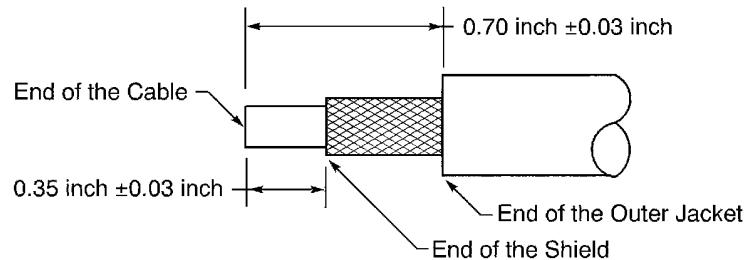
- (4) Cut the cable to make its end perpendicular to its longitudinal axis.
- (5) Remove 0.70 inch ± 0.03 inch of the jacket from the end of the cable. Refer to Figure 213.

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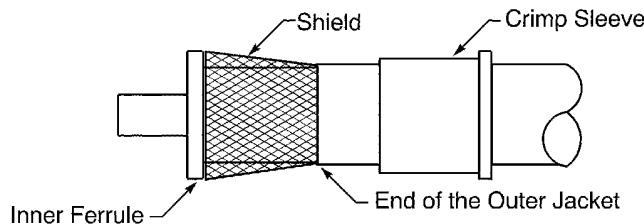
CABLE PREPARATION

Figure 213

- (6) Remove $0.35\text{ inch} \pm 0.03\text{ inch}$ of the shield from the end of the cable. Refer to Figure 213.
- (7) Move the strands of the shield apart.
- (8) Move the strands of the shield away from the dielectric.
- (9) Push the inner ferrule rearward on the dielectric until it stops. Refer to Figure 214.

Make sure that:

- The shield strands are on the outer surface of the ferrule
- The rear end of the ferrule is against the end of the cable jacket.



2447970 S00061547663_V1

POSITION OF THE INNER FERRULE ON THE DIELECTRIC

Figure 214

- (10) Push the crimp sleeve forward on the shield until the forward end of the crimp sleeve is against the shoulder of the inner ferrule. Refer to Figure 215.

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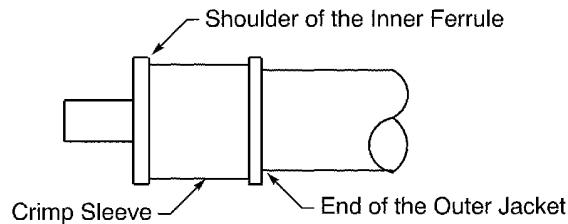
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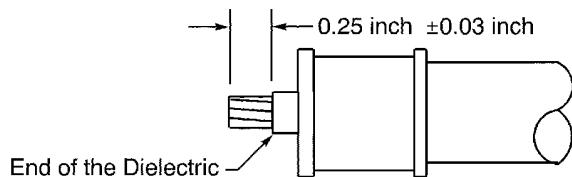


2447966 S00061547664_V1

POSITION OF THE CRIMP SLEEVE ON THE SHIELD AND THE INNER FERRULE

Figure 215

- (11) Remove 0.25 inch ± 0.03 inch of the dielectric from the end of the cable. Refer to Figure 216.



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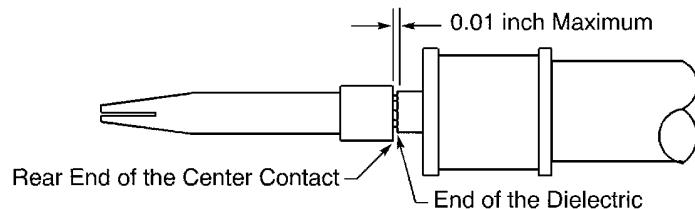
DIELECTRIC REMOVAL LENGTH

Figure 216

- (12) Put the conductor in the crimp barrel of the center contact. Refer to Figure 217.

Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole of the contact
- The distance from the end of the dielectric to the rear end of the center contact is 0.01 inch maximum.



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CENTER CONTACT ASSEMBLY

Figure 217

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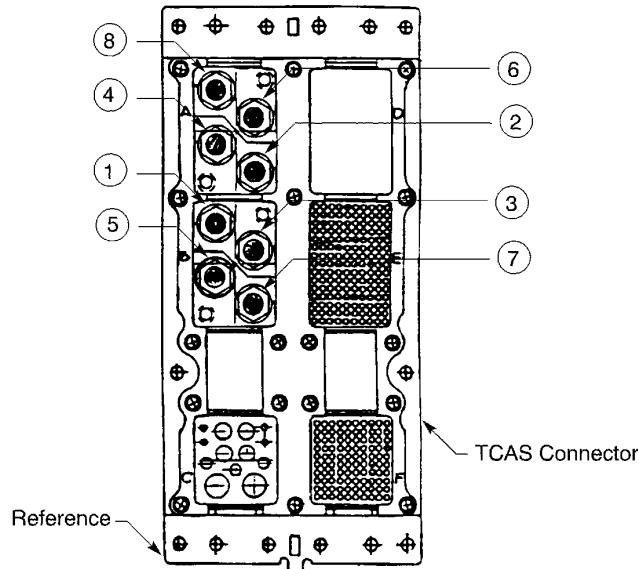
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- (13) Crimp the center contact.

Make sure that the distance from the end of the dielectric to the end of the contact is 0.01 inch maximum.

- (14) Crimp the crimp sleeve.

- (15) If the connector is a TCAS connector, find the recommended installation sequence for the 8 coax contacts in the connector. Refer to Figure 218.



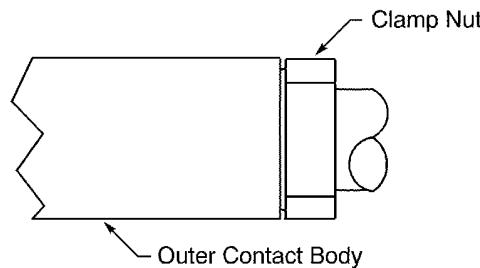
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COAX CONTACT INSTALLATION SEQUENCE

Figure 218

- (16) Put the center contact assembly into the outer contact body.

- (17) Engage the threads of the clamp nut and the outer contact body. Refer to Figure 219.



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CENTER CONTACT ASSEMBLY INSTALLED IN THE OUTER CONTACT BODY

Figure 219

- (18) Torque the clamp nut 45 inch-pounds \pm 5 inch-pounds.

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16. CONNECTOR ASSEMBLY

A. Insertion of Standard Contacts and Size 8 Contacts

Table 132
INSERTION TOOLS FOR BOEING STANDARD CONTACTS

Contact Size	Boeing Standard Contact	Insertion Tool	
		Part Number	Size
2222	BACC47EF1	282880	22
		8660-162	
		ATB01054	
		CIET-22	
		CIET-22DPXMA	
		CIT-DPXMA-22-1	
		DAK266	
		DRK266J	
		M81969/1-01	
		MS3156-22	
2020HD	BACC47EG2	282881	20HD
		91066-4	
		ATC2073	
		CIET	
		CIET-20 HDL	
		DAK145J	
		M81969/1-02	
		MS3156-20	
1616	BACC47EG3	282892	16
		282929	
		91066-3	
		DAK55-16	
		M81969/1-03	
		MS3156-16	
1212	BACC47EG4	CIET-12	12
		M81969/28-02	
		MS3178-002	
0808	S280W553-2	-	-
	S280W553-4		

(1) Make a selection of an insertion tool from Table 132.

NOTE: A tool is not necessary for the insertion of these contacts:

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- A size 1616 contact
- A size 1212 contact
- A size 0808 power or ground contact
- A size 8 coax or twinax contact
- A size 5 coax contact.

CAUTION: MANUAL INSERTION IS NOT AN ACCEPTABLE ALTERNATIVE FOR THE
INSTALLATION OF SIZE 12 COAX OR SIZE 12 SHIELDED CONTACTS. MANUAL
INSERTION CAN CAUSE DAMAGE TO THE STRANDS OF THE SHIELD OF THE
CABLE.

Refer to Paragraph 16.C. for the procedure to install size 12 coax and size 12 shielded contacts.

NOTE: A quadra contact has a key that must be aligned with the keyway in the contact cavity in
the connector.

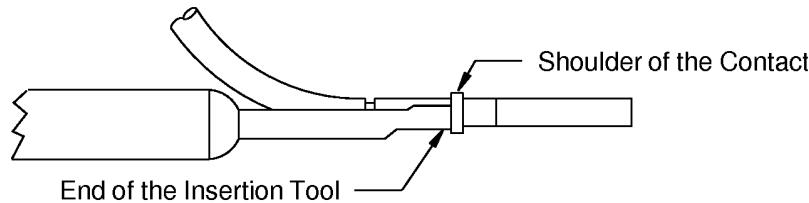
Refer to Paragraph 16.H. for the procedure to install quadra contacts.

- (2) Examine the contact.

Make sure that the contact is straight.

- (3) Put the contact assembly in the insertion tool. Refer to Figure 220.

Make sure that the end of the insertion tool is against the rear edge of the shoulder of the contact.



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POSITION OF THE CONTACT ASSEMBLY IN THE INSERTION TOOL
Figure 220

- (4) At the rear of the connector, axially align the insertion tool, the contact assembly, and the contact cavity. Refer to Figure 221.

Make sure that the insertion tool is perpendicular to the rear face of the insert.

CAUTION: IF THE INSERTION TOOL AND THE CONTACT ASSEMBLY ARE NOT ALIGNED
CORRECTLY, DAMAGE TO THE CONNECTOR INSERT OCCURS.

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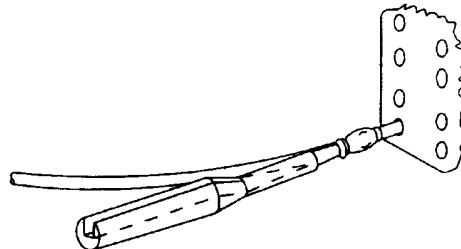
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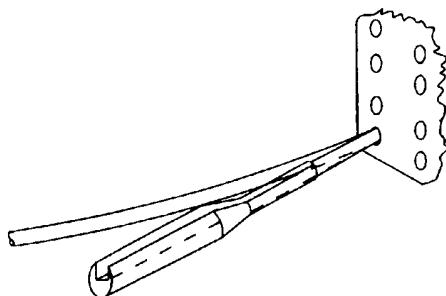
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ALIGNMENT OF THE INSERTION TOOL, THE CONTACT ASSEMBLY, AND THE CONTACT CAVITY

Figure 221

- (5) Carefully push the contact assembly into the contact cavity until it stops. Refer to Figure 222.
Make sure that the insertion tool stays axially aligned with the contact cavity.

CAUTION: DO NOT TURN THE INSERTION TOOL IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.



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CONTACT INSERTION
Figure 222

- (6) Carefully pull the insertion tool out of the contact cavity.
- (7) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (8) If the contact is not locked in the contact cavity:
 - (a) Pull the contact assembly out of the contact cavity.
 - (b) Do Step 16.A.(3) through Step 16.A.(7) again.

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B. Insertion of a Shield Ground Wire Contact in a Connector Ground Block

- (1) Make a selection of an empty contact cavity in the ground block.
Make sure that the shield ground wire is not pulled tightly when the contact is installed.
- (2) Install the contact. Refer to Subject 20-90-15.

C. Insertion of Size 12 Shielded and Coax Contacts

Table 133
SHIELDED CONTACT INSERTION TOOLS

Shielded Contact	Insertion Tool
151700-0688	CIET-12
249-2203-000	CIET-12

- (1) Make a selection of an insertion tool from Table 133.

CAUTION: MANUAL INSERTION IS NOT AN ACCEPTABLE ALTERNATIVE. MANUAL
INSERTION CAN CAUSE DAMAGE TO THE STRANDS OF THE SHIELD OF THE
CABLE.

- (2) Insert the contact. Refer to Paragraph 16.A.

NOTE: The size 12 shielded contact is rear release, rear removable.

D. Installation of a Size 12 Contact in a Size 5 Contact Cavity

This procedure is applicable for the installation of a size 12 contact in a size 5 contact cavity.

- (1) Make a selection of a sealing boot from Table 43.
- (2) Make a selection of a cavity reducer from Table 42.
- (3) Put the sealing boot on the wire.
- (4) Assemble the contact.

Refer to:

- Paragraph 8. for standard size 12 contacts
- Paragraph 10. for size 12 coax or shielded contacts.

- (5) Push the cavity reducer into the size 5 coax contact cavity in the connector until it stops.

CAUTION: THE CAVITY REDUCER IS NOT REMOVABLE FROM THE CONNECTOR AFTER
IT IS INSTALLED.

- (6) Push the contact into the cavity reducer until it stops.
- (7) Lightly pull the wire to make sure that the contact and the cavity reducer are locked in the contact cavity of the connector.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE
CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

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CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS.
DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY
PERFORMANCE OF THE WIRE.

- (8) Push the sealing boot forward on the wire into the connector grommet.

E. Insertion of Size 8 Power and Ground Contacts

Refer to Paragraph 16.A. for the procedure to insert size 8 power and size 8 ground contacts.

F. Insertion of Size 8 Twinax Contacts

Table 134
TWINAX CONTACT INSERTION TOOLS

Contact Size	Insertion Tool
8	M81969/28-03
	RIT-04-C-1

- (1) Make a selection of an insertion tool from Table 134.

NOTE: Manual insertion of size 8 twinax contacts is an acceptable alternative.

- (2) Put the contact assembly in the insertion tool.

Make sure that the end of the insertion tool is against the rear edge of the shoulder of the contact.

- (3) At the rear of the connector, axially align the insertion tool, the contact assembly, and the contact cavity.

Make sure that the insertion tool is perpendicular to the rear face of the insert.

CAUTION: IF THE INSERTION TOOL AND THE CONTACT ASSEMBLY ARE NOT ALIGNED
CORRECTLY, DAMAGE TO THE CONNECTOR INSERT OCCURS.

- (4) Carefully push the contact assembly into the contact cavity until it stops.

Make sure that the insertion tool stays axially aligned with the contact cavity.

CAUTION: DO NOT TURN THE INSERTION TOOL IN THE CONTACT CAVITY. DAMAGE TO
THE CONTACT RETENTION CLIPS CAN OCCUR.

- (5) Carefully pull the insertion tool out of the contact cavity.

- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE
CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS.
DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY
PERFORMANCE OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:

- (a) Pull the contact assembly out of the contact cavity.

- (b) Do Step 16.G.(2) through Step 16.G.(6) again.

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G. Insertion of Size 8 and Size 5 Coax Contacts

Table 135
SIZE 8 AND SIZE 5 COAX CONTACT INSERTION TOOLS

Contact Size	Insertion Tool
8	M81969/28-03
	RIT-04-C-1
5	MS3178-001

- (1) Make a selection of an insertion tool from Table 135.

NOTE: Manual insertion of size 8 and size 5 coax contacts is an acceptable alternative.

- (2) Put the contact assembly in the insertion tool.

Make sure that the end of the insertion tool is against the rear edge of the shoulder of the contact.

- (3) At the rear of the connector, axially align the insertion tool, the contact assembly, and the contact cavity.

Make sure that the insertion tool is perpendicular to the rear face of the insert.

CAUTION: IF THE INSERTION TOOL AND THE CONTACT ASSEMBLY ARE NOT ALIGNED CORRECTLY, DAMAGE TO THE CONNECTOR INSERT OCCURS.

- (4) Carefully push the contact assembly into the contact cavity until it stops.

Make sure that the insertion tool stays axially aligned with the contact cavity.

CAUTION: DO NOT TURN THE INSERTION TOOL IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.

- (5) Carefully pull the insertion tool out of the contact cavity.

- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:

- (a) Pull the contact assembly out of the contact cavity.

- (b) Do Step 16.G.(2) through Step 16.G.(6) again.

- (8) For the size 5 coax contact assembly with a seal bushing and a seal sleeve, install the seal bushing and sleeve, refer to Figure 223.

Make sure that:

- The seal sleeve makes an overlap with the seal bushing
- The forward edge of the seal sleeve is against the shoulder of the seal bushing.

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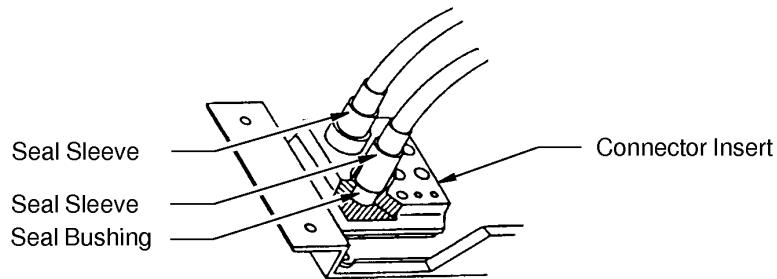
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POSITION OF THE SEAL SLEEVE ON THE CABLE

Figure 223

- (a) Push the seal sleeve and boot forward into the contact cavity until it stops.
- (9) For the size 5 coax contact assembly with a seal boot, push the seal boot forward into the contact cavity until the forward edge of the shoulder of the boot is against the connector insert. Refer to Figure 224.

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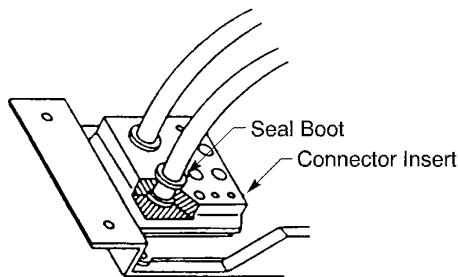
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2446543 S00061547675_V1

POSITION OF THE SEAL BOOT ON THE CABLE

Figure 224

H. Installation of Size 8 Quadrax Contacts

Table 136
LUBRICANTS

Lubricant	Specification	Supplier
Alcohol, Isopropyl	TT-I-735	An available source

- (1) At the rear of the connector, align the polarization key of the contact, and the keyway of the contact cavity.

Make sure that the longitudinal axis of the contact assembly is perpendicular to the rear face of the connector.

Refer to:

- Figure 225 for the polarization key of the quadrax contact
- Figure 226 for the keyway of the quadrax contact cavity.

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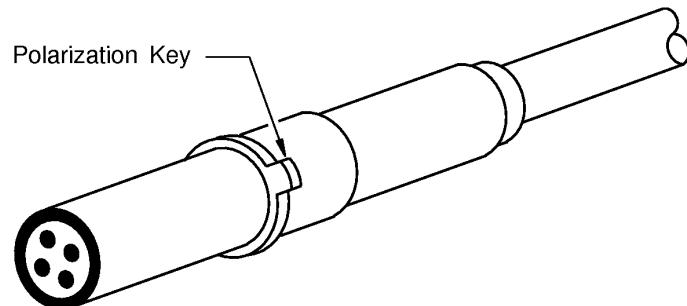
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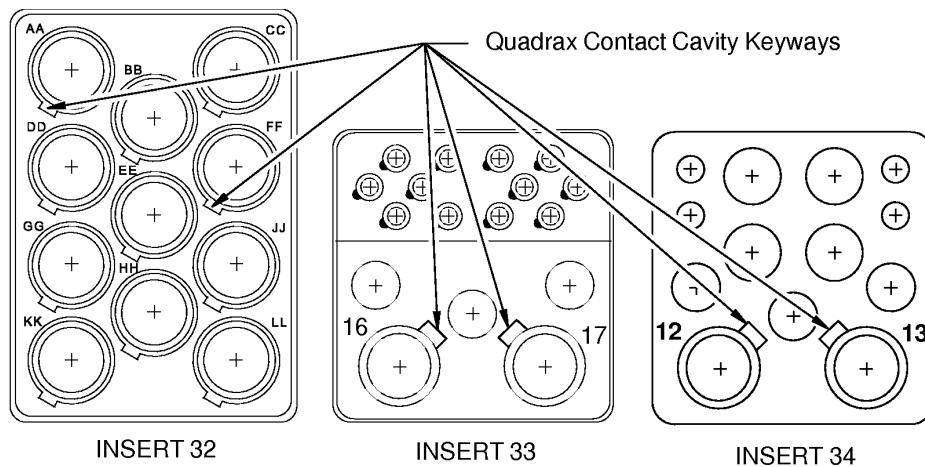
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POLARIZATION KEY OF THE QUADRAX CONTACT

Figure 225



2448171 S00061547676_V1

KEYWAY OF THE QUADRAX CONTACT CAVITY

Figure 226

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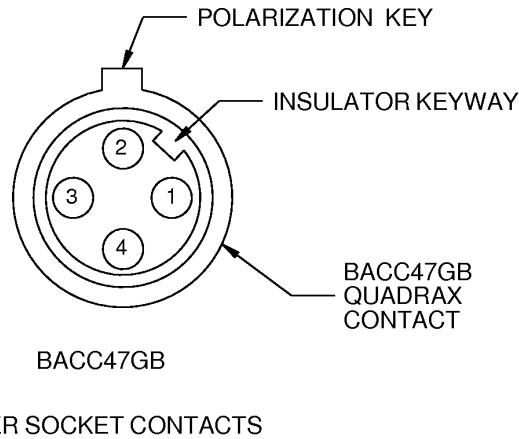
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QUADRAX INNER CONTACT IDENTIFICATION NUMBERS - ENGAGING FACE OF THE CONNECTOR

Figure 227

- (2) Push the contact into the contact cavity until the contact stops and is locked.

NOTE: A lubricant can be used to make it easier to push the contact into the contact cavity.
Refer to Table 136.

- (3) Align the seal boot key with the contact cavity keyway. Refer to Figure 226.

- (4) Push the seal boot into the contact cavity.

Make sure that the rear edge of the seal boot key is aligned with the rear face of the connector.

NOTE: A lubricant can be used to make it easier to push the seal boot into the contact cavity.
Refer to Table 136.

- (5) Lightly pull on the cable.

Make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. THE FORCE CAN CAUSE DAMAGE TO THE CONNECTOR OR THE CONTACT.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS.
DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE WIRE.

- (6) If the contact is not locked in the contact cavity:

(a) Pull the contact assembly out of the contact cavity.

(b) Do Step 16.G.(2) through Step 16.G.(6) again.

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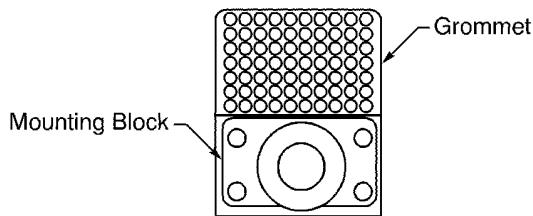
I. Installation of Size 1 Coax Contacts in the BACI10AH05, 08, 09 and 25 Inserts

This paragraph gives the procedure to install size 1 coax contacts and TNC adapters that have a mounting block.

For the procedure to install:

- A BACA19BK1 TNC adapter in a BACI10AH11 insert, refer to Paragraph 16.K.
- An ITT Cannon size 1 coax termination kit contact in a BACI10AH11 insert, refer to Paragraph 16.J.

- (1) If the coax cable has a TNC plug, connect the TNC plug to the correct TNC receptacle on the ARINC connector.
- (2) Install the contact in the connector from the rear. Refer to Figure 228.



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POSITION OF THE MOUNTING BLOCK OF THE SIZE 1 COAX CONTACT
Figure 228

- (3) If the mounting block does not easily move in, turn the mounting block 180 degrees.
- (4) Install and tighten the four screws on the front face of the connector.
- (5) Torque each screw 7 inch-pounds \pm 1 inch-pound.

J. Installation of ITT Cannon Size 1 Coax Termination Kit Contacts in the BACI10AH11 Insert

Installation of the size 1 coax termination kit contact is completed during contact assembly. Refer to Table 137.

Table 137
TERMINATION KIT ASSEMBLY AND CONTACT INSTALLATION PROCEDURES

Part Number	Reference
320-1066-006	Paragraph 15.D.
320-1066-015	Paragraph 15.E.

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K. Installation of BACA19BK1 TNC Adapters or Size 1 Coax Outer Bodies in the BACI10AH11 Insert

Table 138
NECESSARY TOOLS

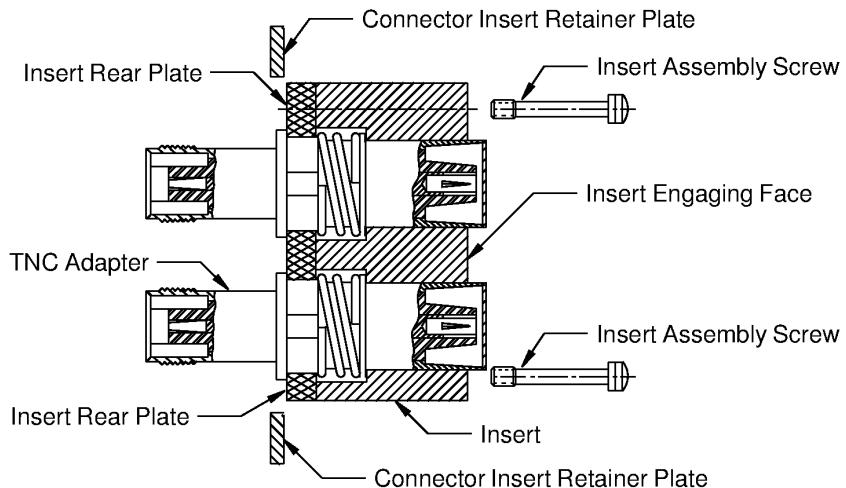
Tool	Type	Supplier
Screw Bit	Flat Blade	An available source
Torque Driver	Hex	An available source

Table 139
NECESSARY MATERIALS

Material	Description	Part Number	Supplier
Lubricant	Oil, Conductive	CRC 3-36	CRC Chemicals

- (1) Remove the two insert assembly screws from the engaging face of the insert. Refer to Figure 229.

NOTE: It is possible that these screws are captivated and cannot be completely removed from the insert.



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BACA19BK1 TNC ADAPTERS IN THE BACI10AH11 INSERT

Figure 229

- (2) From the engaging face of the connector, push the engaging face of the insert rearward, or push the engaging ends of the contacts rearward to remove the insert assembly.
- (3) Remove the insert rear plate from the insert assembly.

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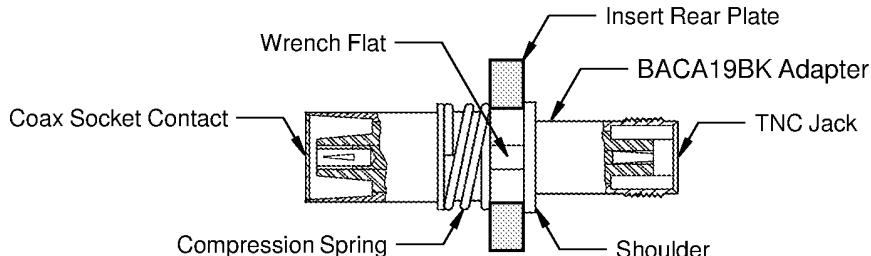
- (4) If the connector insert retainer plates prevent the removal of the insert rear plate from the connector:
 - (a) From the rear face of the connector shell, remove the screws that hold the insert retainer plates.
 - (b) Remove the insert retainer plates from the connector.
 - (c) From the engaging face of the connector, push the insert to the rear and out of the connector shell with the thumbs.
 - (d) Remove the insert rear plate from the insert assembly
- (5) Install a TNC adapter contact or a coax outer body in each contact location in the insert rear plate. Refer to Figure 230.

Make sure that:

- The rear plate is between the compression spring and the shoulder of the adapter.
- The compression springs are against the side of the insert rear plate that does not have numbers.

NOTE: The assembly of the connector is made easier if:

- The TNC plugs are connected to the TNC jacks of the BACA19BK adapters before the adapters are installed in the connector
- The coax termination kits are assembled in the coax outer bodies before the coax outer bodies are installed in the connector.



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POSITION OF THE BACA19BK1 ADAPTER ON THE INSERT REAR PLATE
Figure 230

- (6) Hold the assembly of the rear plate and the adapters or contacts with the hand and, from the rear face of the connector, push the assembly into the connector shell. Refer to Figure 231.
- Make sure that the contact cavity identification numbers on the insert rear plate can be seen.

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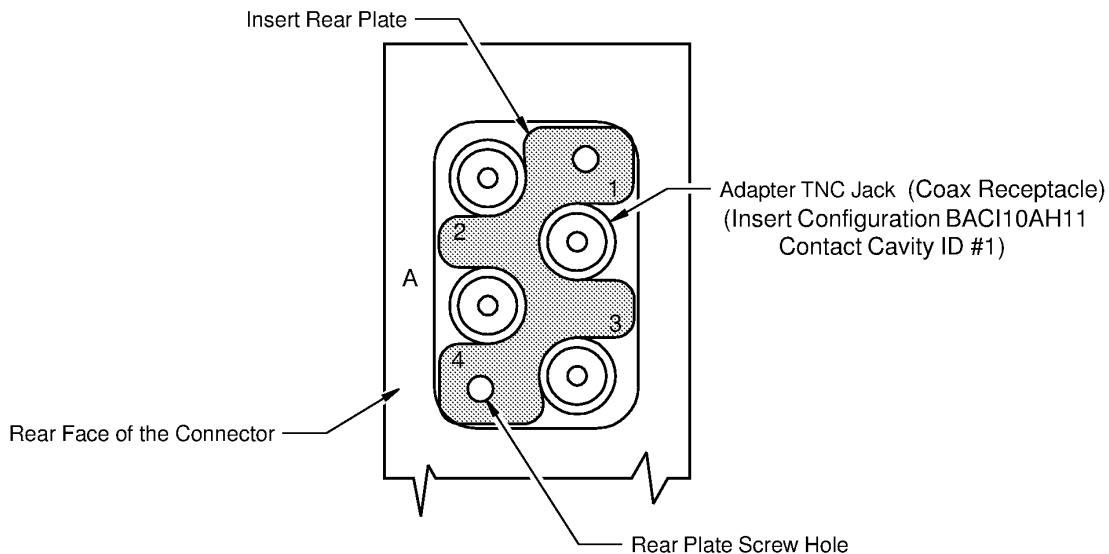
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POSITION OF THE BACA19BK1 ADAPTERS AND THE INSERT REAR PLATE IN THE CONNECTOR
SHELL

Figure 231

- (7) From the engaging face of the insert, engage the threads of the insert assembly screws and the screw holes.
- (8) Tighten each insert assembly screw 6 inch-pounds ± 1 inch-pound.

Make sure that the position of the edge of the washer below each screw head on the engaging face of the insert is not farther than the edge of the insert.

CAUTION: THE EDGE OF A WASHER THAT IS LOCATED FARTHER THAN THE EDGE OF THE INSERT WILL PREVENT THE INSTALLATION OF THE INSERT INTO THE CONNECTOR SHELL.

- (9) With the finger, push on the engaging end of each of the four size 1 coax contacts in the insert. Make sure that each coax contact returns to its initial position.
- (10) If a contact does not return to its initial position:
 - (a) Make a selection of a conductive lubricant from Table 139.
 - (b) Remove the insert assembly screws from the engaging face of the insert.
 - (c) Pull the rear plate with the contacts rearward from the insert.
 - (d) Remove the contacts from the rear plate.
 - (e) Apply one or two drops of the lubricant to the outside of each contact near the spring to help make sure that the spring can push the contact back to its initial position.

Make sure that no lubricant is on an end of a contact.

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CAUTION: DO NOT USE A SILICONE, TEFLON OR OTHER NON-CONDUCTIVE LUBRICANT OR A SPRAY LUBRICANT. A NON-CONDUCTIVE, OR A SPRAY LUBRICANT WILL PREVENT THE SATISFACTORY OPERATION OF THE CONTACT AND THE CONNECTOR.

- (f) Clean unwanted lubricant from each contact with a clean wiper.
- (g) Do Step 16.K.(5) through Step 16.K.(9) again.
- (11) If the insert is not installed in the connector shell, install the insert in the connector:
 - (a) Align the insert with the shell cavity.
Make sure that the insert polarization key is aligned correctly in relation to the shell cavity.
 - (b) Carefully apply equal pressure with the thumbs on the rear of the insert to fully install the insert in the cavity.
 - (c) Make sure that when the insert is installed:
 - The surface of the insert is parallel with the rear face of the connector shell
 - The insert flange is aligned with the rear face of the connector shell.
- (12) If the connector insert retainer plates are not installed on the connector, Install the retainer plates on the rear surface of the connector shell:
 - (a) Put a screw with a washer in each installation hole of the retainer plates.
 - (b) Torque each retainer plate screw 5 inch-pounds ± 1 inch-pound.

L. Insertion of Fiber Optic Contact Termini

NOTE: A contact terminus can be installed before or after the alignment sleeve insert is installed in the connector.

Refer to the procedures for Contact Terminus Insertion in Subject 20-12-21.

M. Installation of the Fiber Optic Alignment Sleeve Insert in a BACC66E, BACC66G, or BACC66J ARINC 600 Receptacle Connector

NOTE: Fiber optic alignment sleeve inserts are:

- Not applicable to ARINC 600 plug connectors
- Used in the LRU or box mounted ARINC 600 receptacle connectors
- Can be installed in a receptacle connector before or after the contact termini are installed in the connector.

Table 140
NECESSARY TOOLS

Tool	Type	Size (inch)
Driver	Allen Wrench	5/64
	Screwdriver, Hex	5/64
Torque	Allen Wrench	5/64
	Screwdriver, Hex	5/64

- (1) Examine the alignment sleeve insert. Refer to Paragraph 20.

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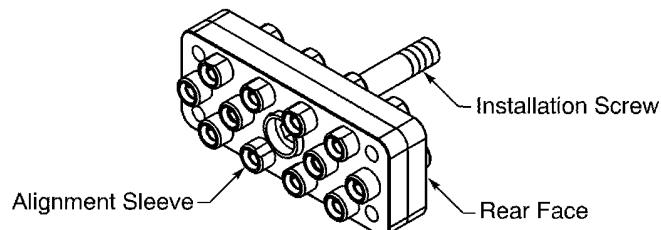
- (2) Make a selection of these tools from Table 140:

- A driver
- A torque tool.

NOTE: The driver can have a ball type end.

- (3) Align the rear face of the alignment sleeve insert with the engaging face of the connector.

CAUTION: DO NOT SHAKE OR TWIST THE ALIGNMENT SLEEVE INSERT WHEN IT IS INSTALLED IN THE CONNECTOR. DAMAGE TO THE CERAMIC FERRULES OF THE CONTACT TERMINI CAN OCCUR.



2447757 S00061547494_V1

ALIGNMENT SLEEVE INSERT

Figure 232

- (4) Fully engage the threads of the installation screw and the screw hole the connector.
 (5) Torque the screw 2.0 inch-pounds ± 0.2 inch-pound.

N. Seal of an Empty Contact Cavity

Empty size 5 and size 8 cavities must be sealed. Refer to Table 141.

Empty contact cavities that are not specified in Table 141 can stay empty.

Table 141
SEAL PROCEDURES FOR EMPTY CONTACT CAVITIES

Contact Cavity Size	Applicable Insert	Seal Condition	Seal Procedure
8	BACI10AH12	S280W552-109 Conductive Seal Plug	Paragraph 16.O.
	BACI10AH13		
	BACI10AH14		
	BACI10AH20		
	BACI10AH30		
	All other inserts with a rear grommet	ITT Cannon 225-0090-000 Seal plug	Paragraph 16.P.
		Seal Rod	
5	Inserts with a rear grommet	ITT Cannon 225-0090-000 Seal plug	Paragraph 16.P.
		Seal Rod	

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O. Seal of an Empty Size 8 Cavity with a Conductive Seal Plug

For the conditions that are applicable for this procedure, refer to Paragraph 16.N.

Table 142
CONDUCTIVE SIZE 8 SEAL PLUG PART NUMBERS

Contact Cavity Size	Boeing Specification	Seal Plug	
		Part Number	Supplier
8	S280W552-109	225-1066-000	ITT Cannon

The S280W552-109 seal plug has these technical properties:

- Is a conductive filler plug for size 8 coax or twinax contact cavities
- Is locked in the connector insert by the retention clips of the contact cavity
- Must be removed with a seal plug removal tool.

Table 143
SIZE 8 SEAL PLUG INSERTION TOOLS

Contact Cavity Size	Insertion Tool	
	Part Number	Supplier
8	M81969/28-03	QPL
8	RIT-04-C-1	Russtech

- (1) Make a selection of a seal plug from Table 142.
 - (2) Make a selection of a seal plug insertion tool from Table 143.
- NOTE:** A plastic awl is a satisfactory alternative to a seal plug insertion tool.
- (3) At the rear of the connector, push the seal plug into the contact cavity until the shoulder of the seal plug is against the surface of the connector insert. Refer to Figure 233.

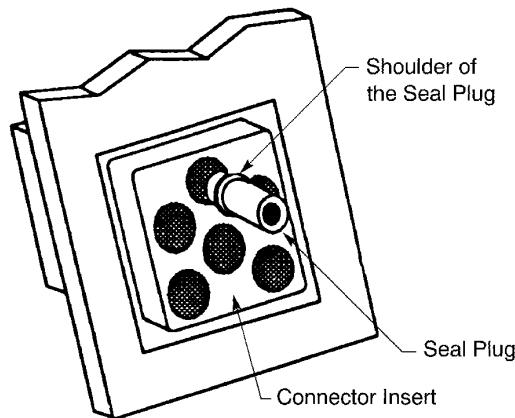
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POSITION OF THE SEAL PLUG IN THE CONTACT CAVITY

Figure 233

- (4) Put the insertion tool on the seal plug.
Make sure that the end of the insertion tool is against shoulder of the seal plug.
 - (5) Axially align the insertion tool, the seal plug, and the contact cavity.
Make sure that the insertion tool is perpendicular to the rear face of the insert.
- CAUTION:** IF THE INSERTION TOOL AND THE CONTACT ASSEMBLY ARE NOT ALIGNED CORRECTLY, DAMAGE TO THE CONNECTOR INSERT OCCURS.
- (6) Push the seal plug into the contact cavity until it makes a click.
Make sure that the insertion tool stays axially aligned with the contact cavity.
- CAUTION:** DO NOT TURN THE INSERTION TOOL IN THE CONTACT CAVITY. DAMAGE TO THE CONTACT RETENTION CLIPS CAN OCCUR.
- (7) Carefully pull the insertion tool out of the contact cavity.
 - (8) If the seal plug does not make a click:
 - (a) From the front of the connector, put the end of a plastic rod against the seal plug.
Make sure that:
 - The rod has a flat end
 - The diameter of the rod is 0.20 inch minimum to 0.22 inch maximum.
 - (b) Push the seal plug out of the rear of the contact cavity with the rod.
 - (c) From the rear of the connector, push the seal plug into the contact cavity with the rod.

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Make sure that the seal plug locks in the contact cavity.

P. Seal of an Empty Size 5 or Size 8 Contact Cavity

For the conditions that are applicable for this procedure, refer to Paragraph 16.N.

Table 144
SEAL PLUGS FOR SIZE 5 AND SIZE 8 CAVITIES

Contact Cavity Size	Seal Plug	
	Part Number	Supplier
8	225-0090-000	ITT Cannon
5	225-0090-000	ITT Cannon

Table 145
SEAL RODS FOR SIZE 5 AND SIZE 8 CAVITIES

Target	Tolerance	Diameter (inch)		Material	Specification
		Target	Tolerance		
0.50	±0.10	0.313	±0.015	Plastic, polyimide (Nylon)	L-P-410 Type 6/6
		0.339	±0.015	PTFE (Teflon)	AMS 3656
				Silicone rubber	BMS 1-52

- (1) Make a selection of a seal plug from Table 144 or a seal rod from Table 145.
- (2) Put the smaller end of the seal plug in the contact cavity.
- (3) For a size 5 cavity, push the seal plug or the seal rod into the cavity until it stops or until the distance from the rear end of the seal plug or seal rod is less than 0.20 inch from the rear surface of the grommet.
- (4) For a size 8 cavity, push the seal plug or the seal rod into the cavity until it stops or until the distance from the rear end of the seal plug or seal rod is less than 0.35 inch from the rear surface of the grommet.

Q. Installation of a Protective Cap

- (1) Align the walls of the cap with the connector inserts.
- (2) With light, equal pressure on all sides of the dust cap, push the dust cap forward against the connector shell.

CAUTION: MORE THAN THE NECESSARY FORCE TO INSTALL THE DUST CAP MUST NOT BE APPLIED. IF THE CONNECTOR HAS GROUND SPRINGS, DAMAGE TO THE GROUND SPRINGS CAN OCCUR.

- (3) Assemble a lacing tape wire harness tie tightly on the cap between the rear grommets of the inserts of the connector. Refer to Figure 234 and 20-10-11 Paragraph 4.C.

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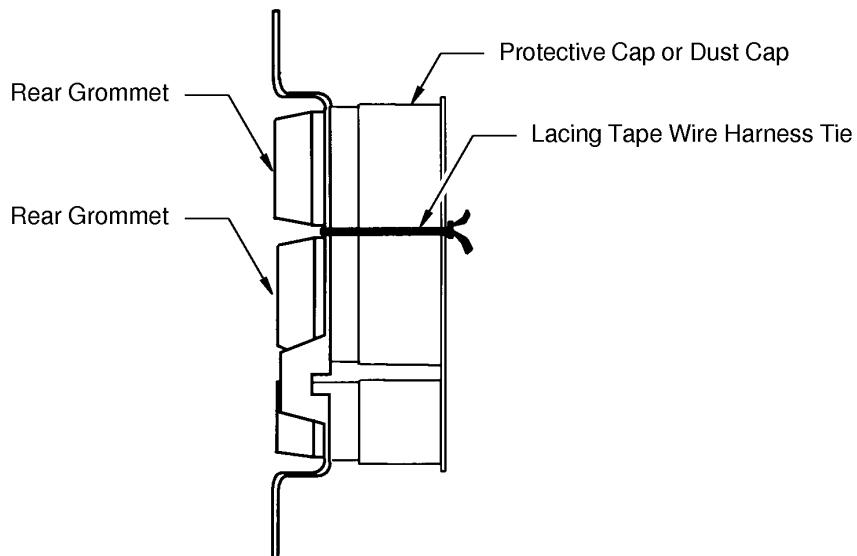
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INSTALLATION OF A DUST CAP ON AN ARINC 600 CONNECTOR

Figure 234

Make sure that:

- The tie is between the rear grommets of the top and bottom inserts
- The tie is not on the rear grommets.

CAUTION: DO NOT USE A PLASTIC TIE STRAP TO ATTACH THE CAP TO THE CONNECTOR. DAMAGE TO THE REAR GROMMET OF THE CONNECTOR CAN OCCUR.

17. INSTALLATION OF CONNECTOR GROUND BLOCKS

A. Installation of Ground Blocks on ARINC 600 Connectors

The ground block for the ARINC 600 connector is installed on the rear face of the plug. The mounting holes are located on the top and the bottom of the connector shell. Refer to Figure 235.

These mounting holes are used to attach:

- The connector to the tray backplate
- The ground block to the connector.

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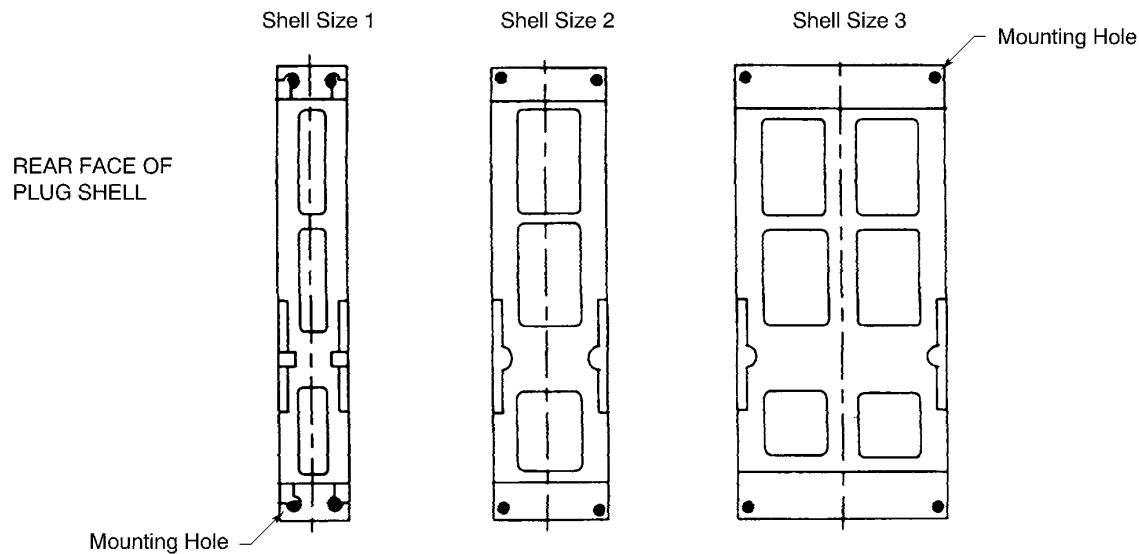
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2446478 S00061547685_V1

MOUNTING HOLES FOR GROUND BLOCKS ON ARINC 600 CONNECTORS

Figure 235

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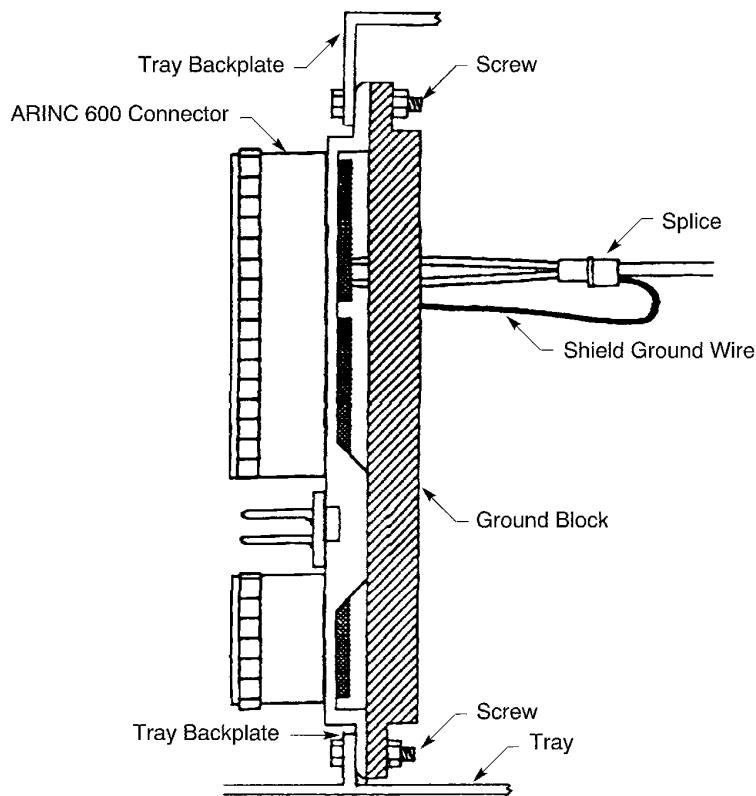
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2446480 S00061547686_V1

INSTALLATION OF THE GROUND BLOCK ON THE ARINC 600 CONNECTOR
Figure 236

Refer to Figure 236.

- (1) Clean the surfaces of the connector and the ground block that are against each other when the ground block is installed.

Refer to Subject 20-20-00 Cleaning Procedure 5, the removal of contamination with cleaning solvent.

NOTE: The ground block must be installed on the connector within 30 minutes after the surfaces are cleaned.

- (2) Put the connector against the backplate of the tray.

Make sure that the A insert is at the top.

- (3) Put the ground block against the rear of the connector.

- (4) Install the screws, washers, and nuts.

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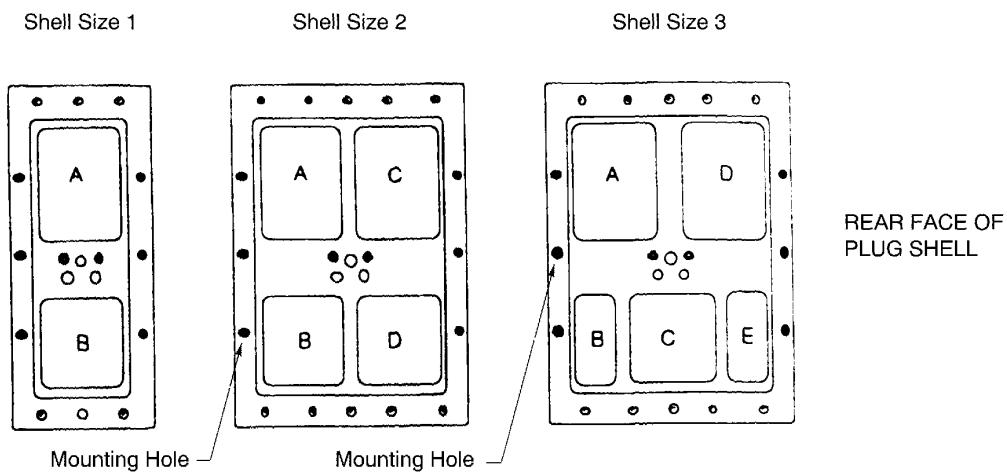
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- (5) Tighten the screws.
- (6) Torque the screws 6 inch-pounds to 8 inch-pounds.

B. Installation of Ground Blocks on S280W551 Connectors

The ground block for the S280W551 connector is installed on the rear face of the plug. The mounting holes are located on the sides of the connector shell. Refer to Figure 237.



2446479 S00061547687_V1

MOUNTING HOLES FOR GROUND BLOCKS ON S280W551 CONNECTORS

Figure 237

Table 146
GROUND BLOCK FASTENERS FOR S280W551 CONNECTORS

Fastener	Part Number	Supplier
Screw	NAS1801-())	QPL

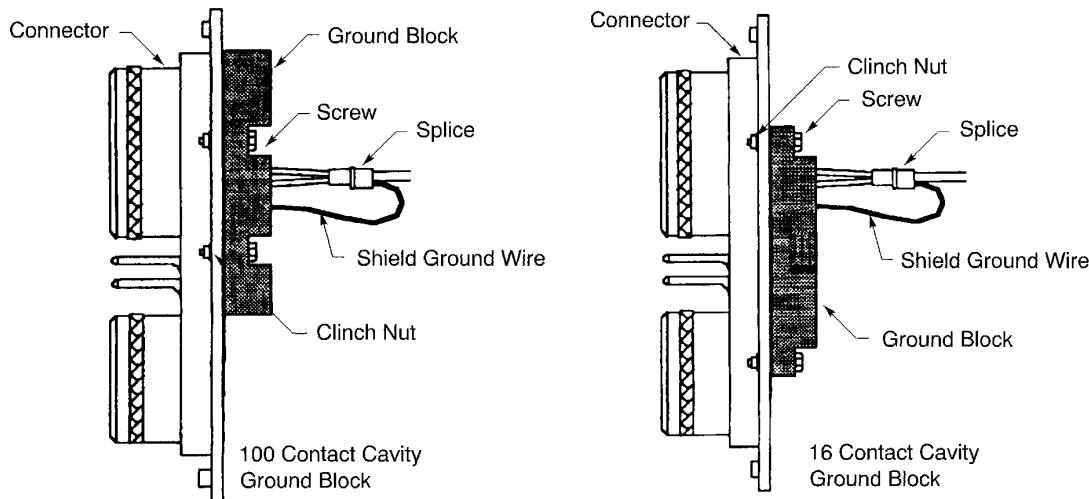
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2446481 S00061547688_V1

INSTALLATION OF THE GROUND BLOCK ON THE S280W551 CONNECTOR

Figure 238

Refer to Figure 238.

- (1) Make a selection of a fastener from Table 146.
- (2) Clean the surfaces of the connector and the ground block that are against each other when the ground block is installed.

Refer to Subject 20-20-00 for Cleaning Procedure 5, the removal of contamination with cleaning solvent.

NOTE: The ground block must be installed on the connector within 30 minutes after the surfaces are cleaned.

- (3) Install the screws, washers, and nuts.
Make sure that the A insert is at the top of the connector.
- (4) Tighten the screws.
- (5) Torque the screws 6 inch-pounds to 8 inch-pounds.

18. BACKSHELL INSTALLATION

NOTE: Refer to Subject 20-25-14 for the assembly of these backshells:

- Glenair 527-187() backshell on a shell size 1 ARINC 600 plug connector
- Glenair 527-212() backshell on a shell size 2 ARINC 600 plug connector with shield tape
- Glenair 527-212() backshell on a shell size 2 ARINC 600 plug connector with shield ground wires
- Glenair 527-530MP29 or 527-108() backshell on a shell size 3 ARINC 600 plug connector with shield ground wires

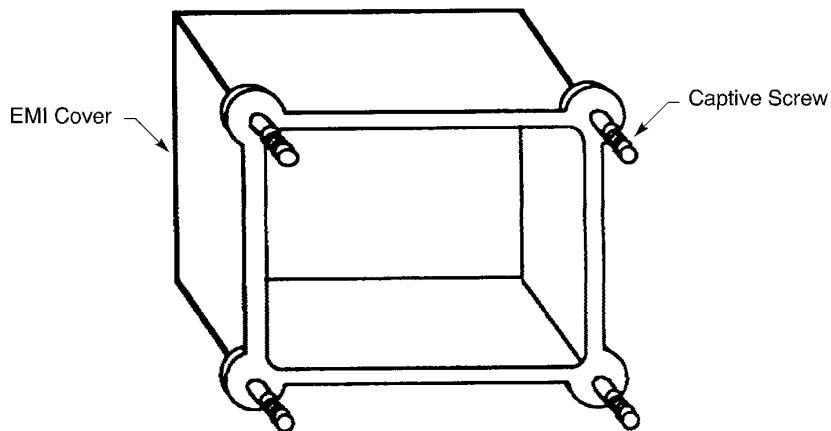
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- Glenair 557-() backshell
- Glenair 637-221 backshell and a shield termination ring
- Flight Dynamics 6720-0389 backshell.

A. Installation of the ITT Cannon 046-1000-000 Backshell on the S280W551-407 Connector



2446545 S00061547689_V1

ITT CANNON 046-1000-000 BACKSHELL
Figure 239

- (1) Remove the four screws on the connector shell that hold the insert retainer plates on the shell.
NOTE: Do not remove the retainer plates or the connector insert.
- (2) Discard the screws.
- (3) Put the backshell with captive screws against the retainer plates.
- (4) Align the four captive screws of the backshell with the four holes in the retainer plates. Refer to Figure 239.
- (5) Tighten the screws.
- (6) Torque each screw 5 inch-pounds \pm 1 inch-pound.

19. CONNECTOR INSERT INSTALLATION

A. Insert Replacement

These general conditions are applicable:

- Damaged inserts can be removed and replaced
- If an insert is replaced with another insert that does not have the same configuration, the connector part number must be changed; refer to Paragraph 19.B.

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CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

NOTE: If an insert is replaced with another insert that does not have the same configuration and the insert retainer screws are not long enough to satisfactorily install the new insert, alternative fasteners can be used. Refer to Table 147.

Table 147
ALTERNATIVE INSERT RETAINER PLATE FASTENERS

Fastener Hardware	Part Number	Supplier
Lockwasher	MS35333-69	QPL
Pan Head Screw	MS35206-203	QPL

B. Change of the Connector Part Number

- (1) Remove or erase the necessary part of the connector part number on the shell.

NOTE: It is acceptable to remove or erase all of the part number.

- (2) Stamp the new digits or the whole part number with six-point numerals adjacent to the original number.

C. Insert Installation

For the conditions that are applicable to this procedure, refer to Paragraph 19.A.

This paragraph gives the procedure to install:

- An insert in an ARINC 600 non-environmental or Class A, C, D, E, or F connector
- An insert in an S280W551 connector.

For the procedure to install:

- An insert in a sealed ARINC 600 or Class B connector, refer to Paragraph 19.E.
- The wave guide, refer to Paragraph 19.F.

- (1) Make a selection of the new insert.

Refer to:

- Paragraph 2.D. for ITT Cannon ARINC 600 connectors
- Paragraph 2.E. for Souriau ARINC 600 connectors
- Paragraph 2.F. for AMP ARINC 600 connectors
- Paragraph 2.G. for Radiall ARINC 600 connectors
- Paragraph 2.H. for Tri-Star ARINC 600 connectors
- Paragraph 2.I. for S280W551 connectors.

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

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CAUTION: ONLY THOSE INSERTS THAT ARE SPECIFIED CAN BE USED FOR
REPLACEMENT IN THE SPECIFIED SHELL FROM THE SPECIFIED SUPPLIER.

(2) Remove the new insert from its sealed package.

(3) Examine the insert.

Make sure that:

- All the contact cavities are clear
- If the insert has a grommet, the seal between the grommet and the insert body is not open.

(4) Clean the sides of the insert with isopropyl alcohol.

(5) If the insert has screws on the engaging face near the edge of the insert:

(a) Tighten the screws on the engaging face of the insert.

Make sure that the position of the edge of the washer under each screw head is not farther than the edge of the insert.

CAUTION: THE EDGE OF A WASHER THAT IS LOCATED FARTHER THAN THE EDGE
OF THE INSERT WILL PREVENT THE INSTALLATION OF THE INSERT INTO
THE CONNECTOR SHELL.

(b) Torque each screw 7 inch-pounds \pm 1 inch-pound.

(6) Align the insert with the shell cavity.

Make sure that the insert polarization key is aligned correctly in relation to the polarizing rib on the side of the shell cavity.

(7) Carefully apply equal pressure with the thumbs on the rear of the insert to fully install the insert in the cavity.

Make sure that when the insert is installed:

- The surface of the insert is parallel with the rear face of the connector shell
- The insert flange is aligned with the rear face of the connector shell.

(8) If the insert is an ITT Cannon 71W1() or an ITT Cannon 2W2 insert, install the C-bracket spacer. Refer to Paragraph 19.D.

(9) Install the retainer plates on the rear surface of the connector shell.

(10) Put a screw with a washer in each retainer plate hole.

(11) Tighten each screw.

(12) Torque each retainer plate screw 5 inch-pounds \pm 1 inch-pound.

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D. Installation of the ITT Cannon C-Bracket Spacer on the ITT Cannon 71W1() or 2W2 Insert

This procedure is applicable to the inserts in Table 148.

Table 148
INSERT PART NUMBERS SUPPLIED WITH C-BRACKET SPACERS

BACI10AH() Insert	ITT Cannon Insert Code	Insert Part Number	Supplier
05	71W1A	143-2085-000	ITT Cannon
		143-2085-001	ITT Cannon
08	71W1B	143-1114-000	ITT Cannon
		143-1113-000	ITT Cannon
09	2W2	144-2944-000	ITT Cannon
25	2W2 SPCL	144-2944-004	ITT Cannon

NOTE: The ITT Cannon C-bracket spacer is supplied with the insert.

This procedure is necessary if:

- The 71W1() or the 2W2 insert is changed to hold a size 1 coax contact that has a standard mounting block
- The C-bracket spacer is missing.

The ITT Cannon C-bracket spacer:

- Is located between the rear surface of the 71W1() or the 2W2 insert and the insert retaining plates
- Keeps the distance between the insert and the plates
- Is located adjacent to the standard mounting block of the size 1 coax contact.

NOTE: Two spacers are necessary on the 2W2 insert.

- (1) Remove the screws and washers that hold the retainer plates on the rear of the connector.
- (2) Remove the retainer plates from the rear of the connector.
- (3) Remove the screws from the front of the connector that attach the size 1 coax mounting block to the connector insert.
- (4) Pull the size 1 coax contact from the connector.
- (5) Put the C-bracket spacer on the rear of the insert adjacent to the location of the size 1 coax contact. Refer to Figure 240.

Make sure that the short leg of the C-bracket spacer is on the side of the shell cavity that has the polarizing rib.

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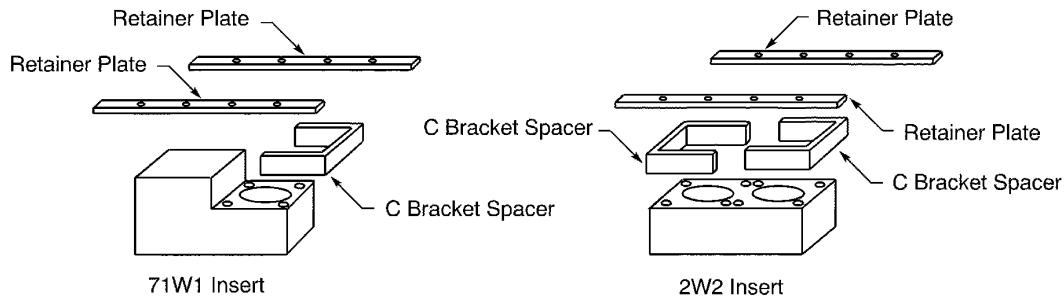
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THE INSERT, THE C-BRACKET SPACER, AND THE RETAINING PLATES

Figure 240

- (6) Install the retainer plates on the connector shell with the initial screws and washers.
- (7) Torque each retainer plate screw 5 inch-pounds \pm 1 inch-pound.
- (8) Install the size 1 coax contact in the connector. Refer to Paragraph 16.I.

E. Insert Installation in a Sealed or Class B ARINC 600 Connector

For the conditions that are applicable to this procedure, refer to Paragraph 19.A.

Table 149
NECESSARY MATERIALS

Material		Supplier
Description	Part Number	
Catalyst	Catalyst F	Dow Corning
	Catalyst S	
Sealant	RTV-3110	Dow Corning

- (1) Make a selection of the new insert.

Refer to:

- Paragraph 2.D. for ITT Cannon ARINC 600 connectors
- Paragraph 2.E. for Souriau ARINC 600 connectors
- Paragraph 2.F. for AMP ARINC 600 connectors
- Paragraph 2.G. for Radiall ARINC 600 connectors

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- Paragraph 2.H. for Tri-Star ARINC 600 connectors.

CAUTION: AN INSERT OF AN ARINC 600 CONNECTOR FROM ONE SUPPLIER MUST BE NOT USED IN A CONNECTOR SHELL FROM AN DIFFERENT SUPPLIER. IF THE SUPPLIER OF THE INSERT AND THE SHELL ARE NOT THE SAME, THE CONNECTOR PLUG AND RECEPTACLE DO NOT SATISFACTORILY ENGAGE.

CAUTION: ONLY THOSE INSERTS THAT ARE SPECIFIED CAN BE USED FOR REPLACEMENT IN THE SPECIFIED SHELL FROM THE SPECIFIED SUPPLIER.

- (2) Make a selection of these materials from Table 149:

- A sealant
- A catalyst.

- (3) Remove all of the old sealant from the insert cavity with an orangewood stick or cuticle.

CAUTION: DO NOT USE A KNIFE OR ANOTHER SHARP TOOL.

- (4) Use a cleaning solvent to fully clean the shell cavity.

CAUTION: DO NOT PERMIT THE CLEANING SOLVENT TO TOUCH ANOTHER PART OF THE CONNECTOR.

- (5) Remove the new insert from its sealed package.

- (6) Clean the insert flange and the bosses near the flange with isopropyl alcohol.

CAUTION: MAKE SURE THAT THE BOSSES ARE CLEAN. IT IS POSSIBLE THAT THE BOSSES ARE NOT CLEAN WHEN THE NEW INSERT IS REMOVED FROM THE PACKAGE.

- (7) If the insert has screws on the engaging face near the edge of the insert:

- (a) Tighten the screws on the engaging face of the insert.

Make sure that the position of the edge of the washer under each screw head is not farther than the edge of the insert.

CAUTION: THE EDGE OF A WASHER THAT IS LOCATED FARTHER THAN THE EDGE OF THE INSERT WILL PREVENT THE INSTALLATION OF THE INSERT INTO THE CONNECTOR SHELL.

- (b) Torque each screw 7 inch-pounds \pm 1 inch-pound.

- (8) Align the insert with the shell cavity.

Make sure that the insert polarization key is aligned correctly in relation to the shell cavity.

- (9) Carefully apply equal pressure with the thumbs on the rear of the insert to fully install the insert in the cavity.

Make sure that when the insert is installed:

- The surface of the insert is parallel with the rear face of the connector shell
- The insert flange is aligned with the rear face of the connector shell.

- (10) Apply a layer of sealant in the groove around the insert.

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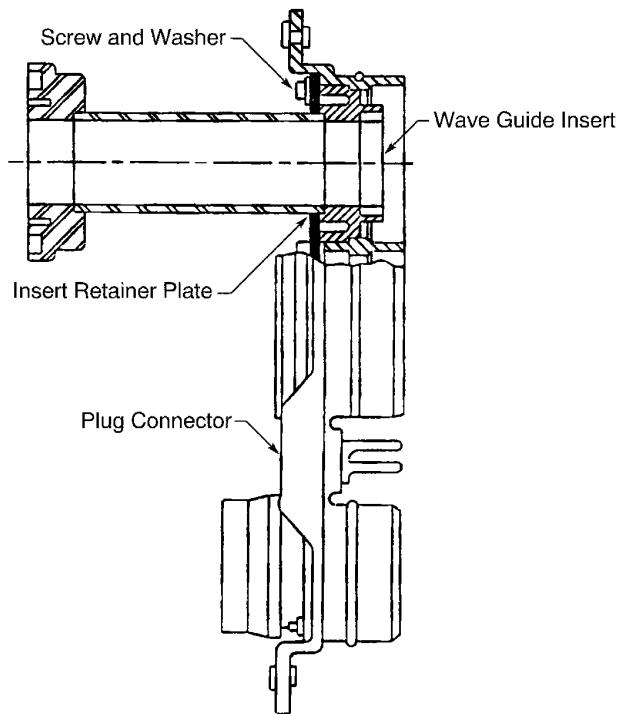
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Make sure that the top layer of sealant is aligned with the rear face of the shell.

- (11) Let the sealant cure until it is not tacky.
- (12) Install the retainer plates on the rear surface of the connector shell.
- (13) Put a screw with a washer in each retainer plate hole.
- (14) Tighten each screw.
- (15) Torque each retainer plate screw 5 inch-pounds \pm 1 inch-pound.

F. Installation of the Wave Guide Insert



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INSTALLATION OF THE WAVE GUIDE INSERT
Figure 241

- (1) Make a selection of a BACI10AH06 wave guide.

Refer to:

- Paragraph 2.D. for ITT Cannon ARINC 600 connectors

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- Paragraph 2.E. for Souriau ARINC 600 connectors
- Paragraph 2.H. for Tri-Star ARINC 600 connectors.

NOTE: A Tri-Star wave guide can be installed in an ITT Cannon connector.

NOTE: The wave guide insert for the Souriau connector is supplied with the connector.

- (2) Remove the screws that hold the insert retainer plates. Refer to Figure 241.
- (3) Remove the insert retainer plates.
- (4) If the flange of the wave guide insert has a keyway, align the keyway with the key in the insert cavity at the rear of the connector shell.
- (5) Put the smaller end of the wave guide insert into shell cavity A.
Make sure that the longitudinal axis of the wave guide insert is perpendicular to the rear face of the connector.
- (6) Install the retainer plates on the rear surface of the connector shell.
- (7) Put a screw and a washer in each retainer plate hole.
- (8) Tighten the screws.
- (9) Torque each retainer plate screw 5 inch-pounds \pm 1 inch-pound.

20. INSPECTION AND CLEANING OF A FIBER OPTIC ALIGNMENT SLEEVE INSERT

A. Necessary Tools and Materials

Table 150
NECESSARY TOOLS

Tool	Description	Part Number	Supplier
Canned Air	Tetrafluoroethane	ES1620	Chemtronics
Protective Equipment	Finger Cot	-	An available source
	Gloves, Powder Free	-	An available source

Table 151
SOLVENTS

Solvent	Specification	Supplier
Alcohol, Ethyl	O-E-760	An available source
Alcohol, Isopropyl	TT-I-735	An available source
Water, Distilled	-	An available source

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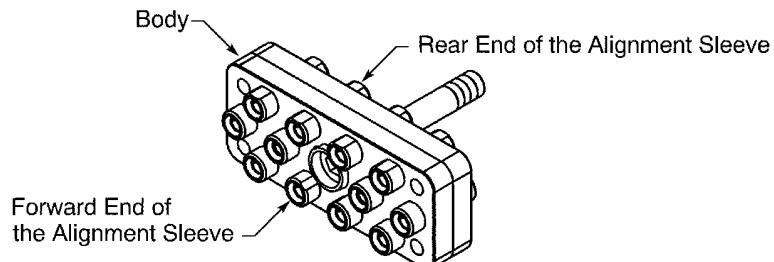
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B. Inspection and Cleaning



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ALIGNMENT SLEEVE INSERT
Figure 242

CAUTION: KEEP THE ALIGNMENT SLEEVE INSERT IN A CLEAN PLASTIC BAG UNTIL IT IS INSTALLED ON THE CONNECTOR. CONTAMINATION ON THE ALIGNMENT SLEEVE INSERT CAN CAUSE UNSATISFACTORY PERFORMANCE OF THE CONNECTOR.

Refer to Figure 242.

- (1) Without magnification, examine each end of the alignment sleeves of the insert.
- (2) If an alignment sleeve has contamination, clean the sleeve without solvent. Refer to Paragraph 20.C.
- (3) Without magnification, examine each end of the alignment sleeves again.
- (4) If an alignment sleeve has remaining contamination, clean the sleeve with solvent. Refer to Paragraph 20.D.
 - (a) Without magnification, examine each end of the alignment sleeves again.
 - (b) If an alignment sleeve has remaining contamination, clean the sleeve with solvent again. Refer to Paragraph 20.D.
 - (c) Without magnification, examine the alignment sleeves again.
 - (d) If an alignment sleeve has remaining contamination, replace the alignment sleeve insert.

C. Contamination Removal - Without Solvent

For the conditions that are applicable for this procedure, refer to Paragraph 20.B.

Refer to Figure 242.

- (1) Make a selection of canned air from Table 150.
NOTE: An equivalent canned air is a satisfactory alternative.
- (2) Make a selection of a protection equipment from Table 150.
NOTE: A satisfactory alternative is to clean the hands.
- (3) If the hands are not clean, put the protection equipment on.
- (4) Apply the canned air in each alignment sleeve that has contamination.

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D. Contamination Removal - With Solvent

For the conditions that are applicable for this procedure, refer to Paragraph 20.B.

WARNING: SOME SOLVENTS ARE FLAMMABLE. MAKE SURE THAT THE QUANTITY OF A FLAMMABLE SOLVENT NEAR THE AIRPLANE IS NOT MORE THAN THE QUANTITY THAT IS NECESSARY TO CLEAN THE ALIGNMENT SLEEVE INSERT.

Refer to Figure 242.

- (1) Make a selection of a canned air from Table 150.

NOTE: An equivalent canned air is a satisfactory alternative.

- (2) Make a selection of these solvents from Table 151:

- An alcohol
- Distilled water.

- (3) Make a selection of a protection equipment from Table 150.

NOTE: A satisfactory alternative is to clean the hands.

- (4) If the hands are not clean, put the protection equipment on.

- (5) Put a quantity of alcohol in a small container that can be sealed with a lid.

Make sure that:

- The container is clean
- The size of the container is sufficient to hold the alignment sleeve insert
- The quantity of alcohol is sufficient to put the body of the alignment sleeve insert below the surface of the alcohol.

- (6) Put a quantity of distilled water in a small container that can be sealed with a lid.

Make sure that:

- The container is clean
- The size of the container is sufficient to hold the alignment sleeve insert
- The quantity of distilled water is sufficient to put the body of the alignment sleeve insert below the surface of the alcohol.

- (7) Put the alignment sleeve insert in the container that has alcohol for 30 seconds minimum.

Make sure that the body of the alignment sleeve insert is below the surface of the alcohol.

- (8) Remove the alignment sleeve insert from the alcohol.

- (9) Seal the alignment sleeve insert in the container that has distilled water.

Make sure that the body of the alignment sleeve insert is below the surface of the distilled water.

- (10) Lightly shake the container for 1 to 3 minutes.

- (11) Remove the alignment sleeve insert from the water.

- (12) Dry the alignment sleeve insert with the canned air.

- (13) Put the alignment sleeve insert in the container that has alcohol for 30 seconds minimum.

Make sure that the body of the alignment sleeve insert is below the surface of the alcohol.

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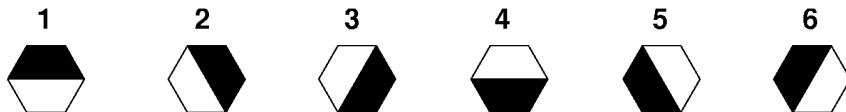
- (14) Remove the alignment sleeve insert from the alcohol.
- (15) Dry the alignment sleeve insert with the canned air.

21. CONNECTOR POLARIZATION AND CONNECTOR PART NUMBER

A. Polarization Post Positions

Table 152
LOCATION OF POLARIZATION POST POSITION DETAILS

Shell Size	Connector	Reference
1	BACC66F	Figure 244
	S280W551	Figure 245
2	BACC66H	Figure 246
	S280W551	Figure 247
3	BACC66K	Figure 248
	S280W551	Figure 249



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POLARIZATION POST AND KEY POSITIONS
Figure 243

NOTE: On the plug connector, the dark area shows the polarization post.

NOTE: On the receptacle connector:

- The light area shows the polarization keyway
- The dark area shows the solid part of the polarization key.

Table 153
PLUG CONNECTOR POLARIZATION POST POSITIONS

Polarization Code	Plug Shell Post		
	Left	Center	Right
01	1	1	1
02	2	1	1
03	3	1	1
04	4	1	1

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
05	5	1	1
06	6	1	1
07	1	1	6
08	2	1	6
09	3	1	6
10	4	1	6
11	5	1	6
12	6	1	6
13	1	1	5
14	2	1	5
15	3	1	5
16	4	1	5
17	5	1	5
18	6	1	5
19	1	1	4
20	2	1	4
21	3	1	4
22	4	1	4
23	5	1	4
24	6	1	4
25	1	1	3
26	2	1	3
27	3	1	3
28	4	1	3
29	5	1	3
30	6	1	3
31	1	1	2
32	2	1	2
33	3	1	2
34	4	1	2
35	5	1	2
36	6	1	2
37	1	2	1
38	2	2	1

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
39	3	2	1
40	4	2	1
41	5	2	1
42	6	2	1
43	1	2	6
44	2	2	6
45	3	2	6
46	4	2	6
47	5	2	6
48	6	2	6
49	1	2	5
50	2	2	5
51	3	2	5
52	4	2	5
53	5	2	5
54	6	2	5
55	1	2	4
56	2	2	4
57	3	2	4
58	4	2	4
59	5	2	4
60	6	2	4
61	1	2	3
62	2	2	3
63	3	2	3
64	4	2	3
65	5	2	3
66	6	2	3
67	1	2	2
68	2	2	2
69	3	2	2
70	4	2	2
71	5	2	2
72	6	2	2

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
73	1	3	1
74	2	3	1
75	3	3	1
76	4	3	1
77	5	3	1
78	6	3	1
79	1	3	6
80	2	3	6
81	3	3	6
82	4	3	6
83	5	3	6
84	6	3	6
85	1	3	5
86	2	3	5
87	3	3	5
88	4	3	5
89	5	3	5
90	6	3	5
91	1	3	4
92	2	3	4
93	3	3	4
94	4	3	4
95	5	3	4
96	6	3	4
97	1	3	3
98	2	3	3
99	3	3	3
100	4	3	3
101	5	3	3
102	6	3	3
103	1	3	2
104	2	3	2
105	3	3	2
106	4	3	2

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
107	5	3	2
108	6	3	2
109	1	4	1
110	2	4	1
111	3	4	1
112	4	4	1
113	5	4	1
114	6	4	1
115	1	4	6
116	2	4	6
117	3	4	6
118	4	4	6
119	5	4	6
120	6	4	6
121	1	4	5
122	2	4	5
123	3	4	5
124	4	4	5
125	5	4	5
126	6	4	5
127	1	4	4
128	2	4	4
129	3	4	4
130	4	4	4
131	5	4	4
132	6	4	4
133	1	4	3
134	2	4	3
135	3	4	3
136	4	4	3
137	5	4	3
138	6	4	3
139	1	4	2
140	2	4	2

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
141	3	4	2
142	4	4	2
143	5	4	2
144	6	4	2
145	1	5	1
146	2	5	1
147	3	5	1
148	4	5	1
149	5	5	1
150	6	5	1
151	1	5	6
152	2	5	6
153	3	5	6
154	4	5	6
155	5	5	6
156	6	5	6
157	1	5	5
158	2	5	5
159	3	5	5
160	4	5	5
161	5	5	5
162	6	5	5
163	1	5	4
164	2	5	4
165	3	5	4
166	4	5	4
167	5	5	4
168	6	5	4
169	1	5	3
170	2	5	3
171	3	5	3
172	4	5	3
173	5	5	3
174	6	5	3

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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
175	1	5	2
176	2	5	2
177	3	5	2
178	4	5	2
179	5	5	2
180	6	5	2
181	1	6	1
182	2	6	1
183	3	6	1
184	4	6	1
185	5	6	1
186	6	6	1
187	1	6	6
188	2	6	6
189	3	6	6
190	4	6	6
191	5	6	6
192	6	6	6
193	1	6	5
194	2	6	5
195	3	6	5
196	4	6	5
197	5	6	5
198	6	6	5
199	1	6	4
200	2	6	4
201	3	6	4
202	4	6	4
203	5	6	4
204	6	6	4
205	1	6	3
206	2	6	3
207	3	6	3
208	4	6	3

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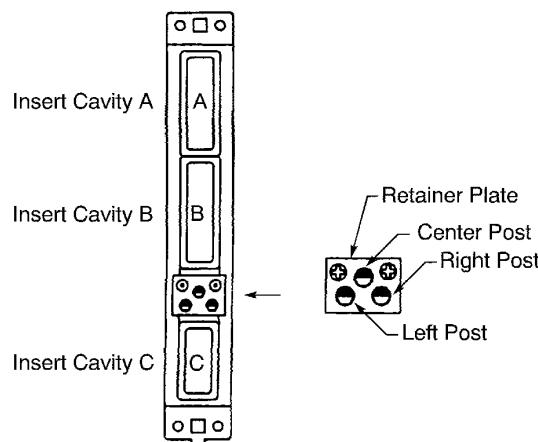
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Table 153 PLUG CONNECTOR POLARIZATION POST POSITIONS (Continued)

Polarization Code	Plug Shell Post		
	Left	Center	Right
209	5	6	3
210	6	6	3
211	1	6	2
212	2	6	2
213	3	6	2
214	4	6	2
215	5	6	2
216	6	6	2

B. Polarization Posts for Shell Size 1



2446461 S00061547699_V1

ARINC 600 (BACC66F) SHELL SIZE 1 PLUG
Figure 244

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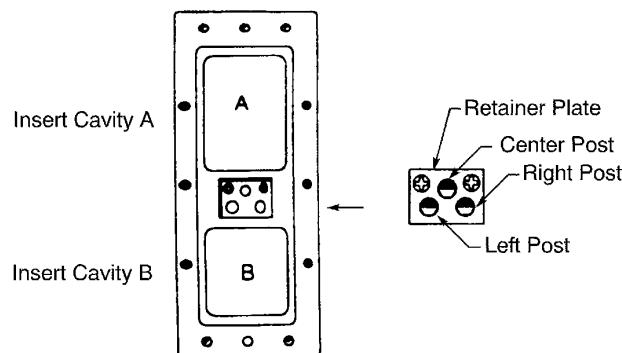
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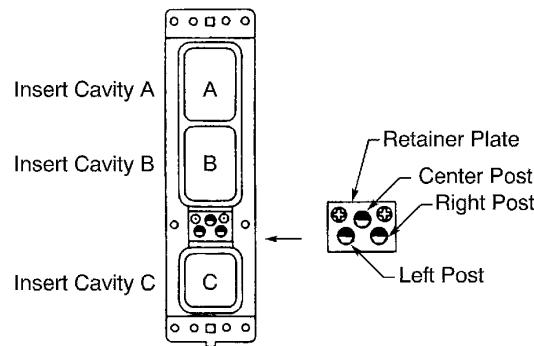


2446462 S00061547700_V1

S280W551 SHELL SIZE 1 PLUG

Figure 245

C. Polarization Posts for Shell Size 2



2446463 S00061547701_V1

ARINC 600 (BACC66H) SHELL SIZE 2 PLUG

Figure 246

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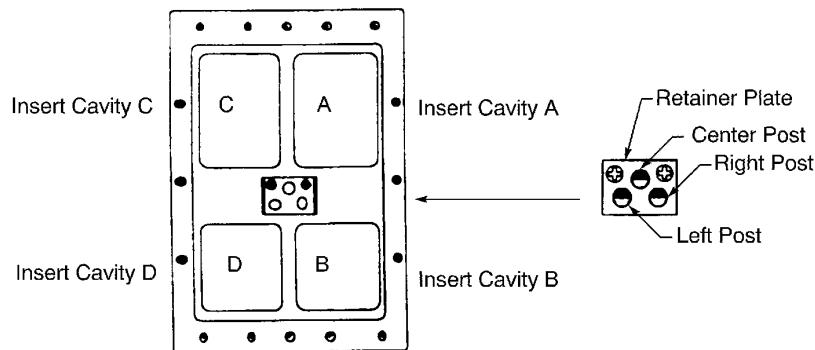
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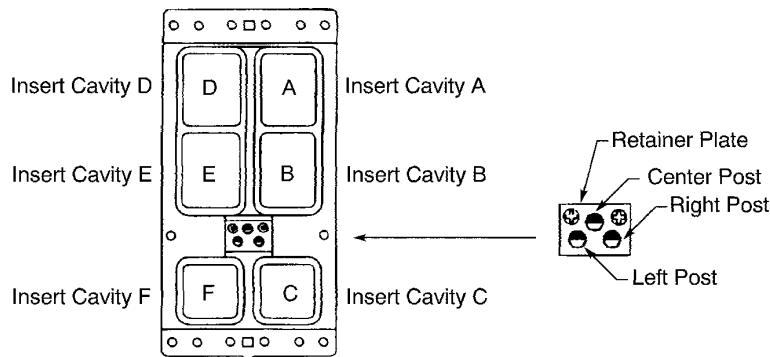


2446464 S00061547702_V1

S280W551 SHELL SIZE 2 PLUG

Figure 247

D. Polarization Posts for Shell Size 3



2446465 S00061547703_V1

ARINC 600 (BACC66K) SHELL SIZE 3 PLUG

Figure 248

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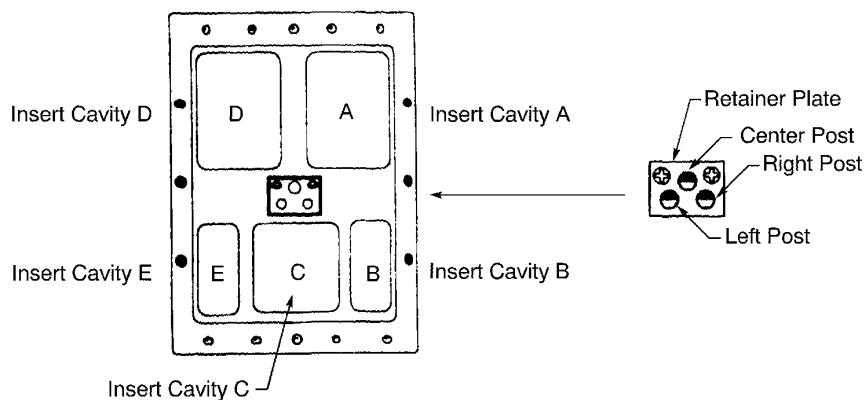
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2446466 S00061547704_V1

S280W551 SHELL SIZE 3 PLUG

Figure 249

E. Change of the Polarization Posts

Table 154
REPLACEMENT POLARIZATION POSTS

Post Part Number	Supplier
208018-1	Tyco/AMP
230-0138-000	ITT Cannon
765-60-060	Radiall
8660-125	Souriau

Table 155
REPLACEMENT POLARIZATION RETAINER PLATE FASTENERS

Screw Part Number	Supplier
NAS514P440-5P	An available source

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Table 156
NECESSARY MATERIALS FOR REPLACEMENT FASTENERS

Description	Part Number	Supplier
Thread Lock Compound	222	Loctite

CAUTION: IT IS POSSIBLE THAT THE POLARIZATION POSTS OF CONNECTORS FROM DIFFERENT MANUFACTURERS ARE NOT INTERCHANGEABLE.

NOTE: If the polarization posts on a connector are changed, the polarization code in the connector part number must be changed. Refer to Paragraph 21.F.

(1) Identify the polarization code in the connector part number from the equipment list.

(2) For that code, find the correct post positions on the plug.

Refer to:

- Figure 243
- Table 153.

(3) If the position of any of the posts on the connector is not correct:

(a) From the engaging face of the connector, remove the screws from the polarization retainer plate.

NOTE: It is not necessary to remove the connector from its installed location to change its polarization.

(b) Remove the polarization retainer plate from the connector.

(c) Remove the incorrect polarization post from the hexagonal hole.

(d) Align the post in the correct position.

(e) Put the post back into the hexagonal hole.

Make sure that the post is in the correct position.

(f) Put the polarization retainer plate on the posts.

(g) Engage the threads of each polarization retainer plate screw.

(h) Tighten the screws.

(4) If a polarization plate screw is lost or damaged:

(a) Make a selection of a screw from Table 155.

(b) Make a selection of a thread lock compound from Table 156.

(c) Apply one drop of thread lock compound to the threads of the screw.

(d) Engage the threads of the screw and the connector.

(e) Tighten the screw.

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**F. Change of the Polarization Code, Any Part of the Connector Part Number, or the Complete Part
Number on the Connector Shell**

**Table 157
NECESSARY MATERIALS**

Material	Part Number or Specification	Supplier
Clear Paint	683-3-2	Akzo
	Clear Lacquer	Tartan
	EC-776	3M
	BMS10-60, Type 1, Grade D, Clear	Boeing
Ink	No. 68 Fast Dry	Independent
	No. 73X NW Opaque	Independent
	No. 73X Opaque	Independent
Pen	Permanent Ink Pen, Ultra Fine Point	Sanford Sharpie

**Table 158
SUPPLIERS OF BOEING STANDARD CLEAR PAINT**

Part Number or Specification	Supplier
BMS10-60	Akzo
	PRC-DeSoto

- (1) Make a selection of these necessary materials from Table 157:
 - A permanent ink pen
 - A clear paint
 - An ink.
- (2) If the connector does not have a part number or a polarization code, write the part number and polarization code in the correct position on the connector shell.
Refer to the details of the applicable connector part number:
 - Figure 10 for Boeing ARINC 600 Connectors
 - Figure 11 for the ITT Cannon ARINC 600 Connectors
 - Figure 12 for the Souriau ARINC 600 Connectors
 - Figure 13 for the AMP ARINC 600 Connectors
 - Figure 14 for the Radiall ARINC 600 Connectors
 - Figure 15 for the Boeing S280W551 Connectors.
- (3) If the connector has an incorrect part number or polarization code:
 - (a) Apply a layer of ink on the incorrect part number or polarization code.
Make sure that the incorrect part number or polarization code cannot be read.
 - (b) Write the new part number or polarization code on the connector shell
 - Adjacent to the location of the incorrect part number or polarization code
 - In the correct position.

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- (4) Let the ink dry for 10 minutes minimum.
- (5) Paint the new code and the area of the old code with the clear paint.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. ANY PAINT ON THE SURFACE OF A CONTACT CAUSES UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

- (6) Let the clear paint dry before the connector shell is touched or moved.

22. CONNECTOR INSTALLATION

A. Installation of ARINC 600 Plug Connectors

Make sure that during the installation of the ARINC 600 plug connector shell, the tab on the lower edge of the connector shell is against the bottom of the tray while the mounting screws are tightened.

23. APPROVED TOOL SUPPLIERS

A. Contact Removal Tools

Table 159
CONTACT REMOVAL TOOL SUPPLIERS

Removal Tool	Supplier
1738894-1	Tyco
282890	Radiall
282891	Radiall
282892	Radiall
282945	Radiall
8660-162	Souriau
91066-1	AMP
91066-3	AMP
91066-4	AMP
91078-1	AMP
91174-1	AMP
ATBO2054	Astro
ATC1054	Astro
ATC2073	Astro
CE912-4	ITT Cannon
CET-16-15	ITT Cannon
CET-12-4	ITT Cannon
CET-16-9	ITT Cannon
CET-20D-1	ITT Cannon
CET-C8	ITT Cannon

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Table 159 CONTACT REMOVAL TOOL SUPPLIERS (Continued)

Removal Tool	Supplier
CET-DPXMA-22	ITT Cannon
CET8-2	ITT Cannon
CET8-T	ITT Cannon
CIET	ITT Cannon
CIET-12	ITT Cannon
CIET-20 HDL	ITT Cannon
CIET-22	ITT Cannon
CIET-22DPXMA	ITT Cannon
DRK145	Daniels
DRK2663	Daniels
DRK266J	Daniels
DRK83-16	Daniels
M81969/1-01	QPL
M81969/1-02	QPL
M81969/1-03	QPL
M81969/14-03	QPL
M81969/14-10	QPL
M81969/28-02	QPL
M81969/28-03	QPL
MS3156-16	QPL
MS3156-20	QPL
MS3156-22	QPL
MS3178-001	QPL
MS3178-002	QPL
RRX-04-C-1	Russtech
SET-C8	Daniels
ST2220-3-33	Boeing
ST2220-3-7	Boeing

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CONNECTORS

B. Crimp Tools

Table 160
CRIMP TOOL SUPPLIERS

Crimp Tool	Supplier
11732	Thomas & Betts
13642	Thomas & Betts
22-944	Balmar
282580	Radiall
400B	Pico
4046	Pico
4046A	Pico
41	ITT Cannon
414DA-8N	Pico
612648	Astro
	Buchanan
612746	Astro
	Buchanan
612778	Astro
	Buchanan
612971	Astro
	Buchanan
613365	Astro
	Buchanan
620467	Astro
	Buchanan
85-220	Balmar
85-550	Balmar
995-0002-239	ITT Cannon
995-0002-233	ITT Cannon
AF8	Daniels
AFM-2	Daniels
AFM8	Daniels
CCT-HX3-156	ITT Cannon
CCT-HX4-156	ITT Cannon
K-182	Daniels
K-644	Daniels
KTH-1000	Kings

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Table 160 CRIMP TOOL SUPPLIERS (Continued)

Crimp Tool	Supplier
KTH-2011	Kings
KTH-2021	Kings
KTH-2022	Kings
KTH-2177	Kings
KTH-2213	Kings
KTH-2221	Kings
K1025S	Daniels
K267-1	Daniels
K345	Daniels
K709	Daniels
L-3198-20HD	Cannon
M22520/1-01	QPL
M22520/1-02	QPL
M22520/1-11	QPL
M22520/10-01	QPL
M22520/10-23	QPL
M22520/2-01	QPL
M22520/2-02	QPL
M22520/2-08	QPL
M22520/2-11	QPL
M22520/2-14	QPL
M22520/2-23	QPL
M22520/23-01	QPL
M22520/23-02	QPL
M22520/23-09	QPL
M22520/5-01	QPL
M22520/5-03	QPL
M22520/5-08	QPL
M22520/5-17	QPL
M22520/5-33	QPL
M22520/5-35	QPL
M22520/5-45	QPL
ST2220-1-Y	Boeing
ST2220-1-2	Boeing
ST2354-5	Boeing

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Table 160 CRIMP TOOL SUPPLIERS (Continued)

Crimp Tool	Supplier
ST2966M	Boeing
ST2966M-1	Boeing
ST2966M-7	Boeing
ST965-4	Boeing
TH1A	Daniels
TP855	Daniels
WA22	Daniels
WA22LC	Daniels
WA27	Daniels
WA27F	Daniels
WT201-03-10	Thomas & Betts
WT-400	Thomas & Betts
Y119	Daniels
Y120	Daniels
Y193	Daniels
Y793A	Daniels
Y797	Daniels
Y804	Daniels

C. Contact Insertion Tools

Table 161
CONTACT INSERTION TOOL SUPPLIERS

Insertion Tool	Supplier
282880	Radiall
282881	Radiall
282892	Radiall
282929	Radiall
8660-162	Souriau
91066-3	AMP
91066-4	AMP
ATB01054	Astro
CIET	ITT Cannon
CIET-12	ITT Cannon
CIET-20 HDL	ITT Cannon
CIET-22	ITT Cannon
CIET-22DPXMA	ITT Cannon

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Table 161 CONTACT INSERTION TOOL SUPPLIERS (Continued)

Insertion Tool	Supplier
CIT-DPXMA-22-1	ITT Cannon
DAK145J	Daniels
DAK266	Daniels
DAK55-16	Daniels
DRK266J	Daniels
M81969/1-01	QPL
M81969/1-02	QPL
M81969/1-03	QPL
M81969/14-03	QPL
M81969/28-02	QPL
MS3156-16	QPL
MS3156-20	QPL
MS3156-22	QPL
MS3178-001	QPL
MS3178-002	QPL
RIT-04-C-1	Russtech

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ASSEMBLY OF RADIALL DSX SERIES CONNECTORS

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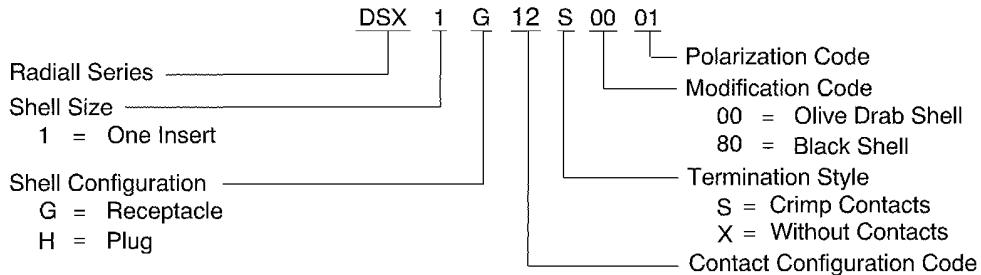
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS

1. PART NUMBERS AND DESCRIPTION

A. Connector Part Numbers

Table 1
CONNECTOR PART NUMBERS

Part Number	Description	Supplier
DSX1()	ARINC 404	Radiall
DSX2()	ARINC 404	Radiall
DSX3()	ARINC 404	Radiall
DSXE()	MIL-C-81659 Type	Radiall
DSXN()	MIL-C-81659 Type	Radiall
DSXT()	MIL-C-81659 Type	Radiall



2446546 S00061547708_V1

RADIALL ONE INSERT ARINC 404 CONNECTOR PART NUMBER STRUCTURE

Figure 1

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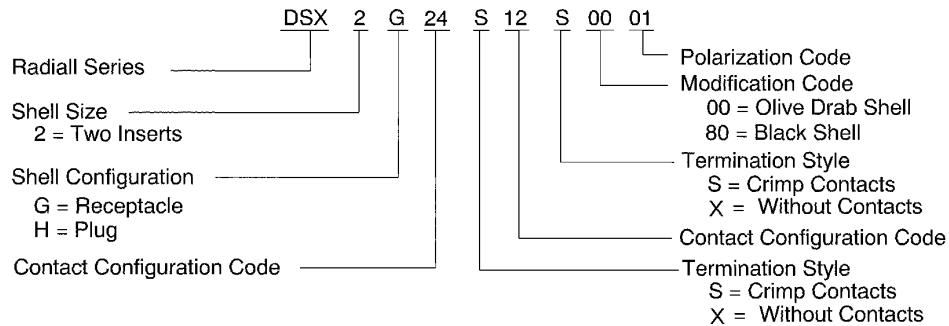
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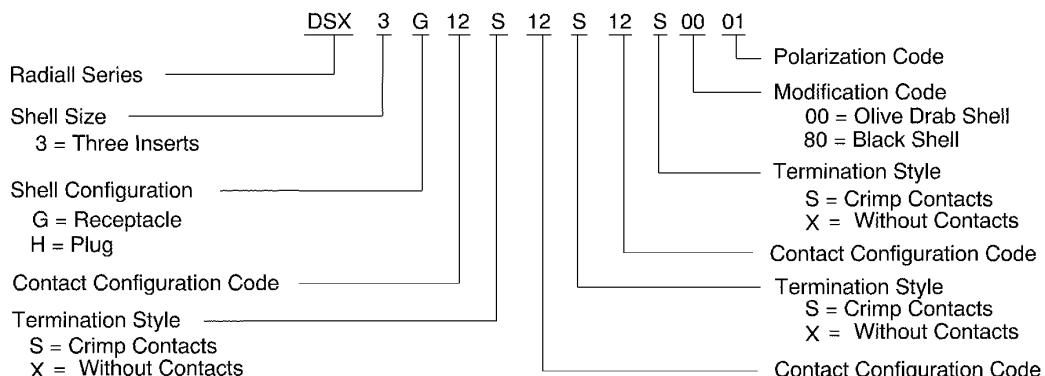
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2446547 S00061547709_V1

RADIALL TWO INSERT ARINC 404 CONNECTOR PART NUMBER STRUCTURE

Figure 2



2446548 S00061547710_V1

RADIALL THREE INSERT ARINC 404 CONNECTOR PART NUMBER STRUCTURE

Figure 3

20-71-15

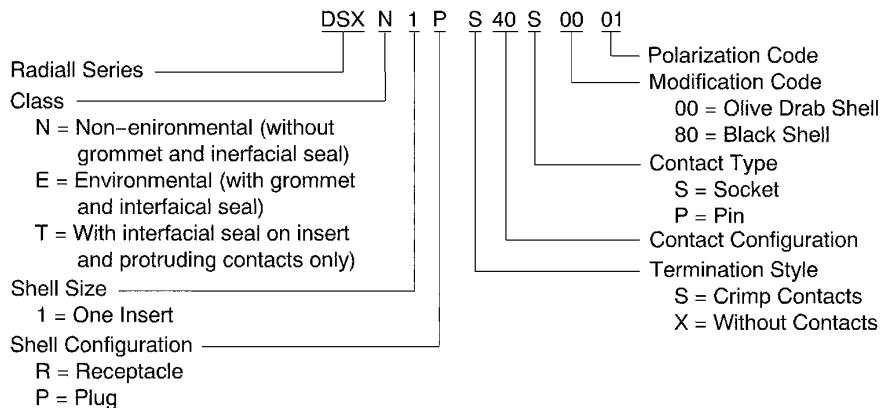
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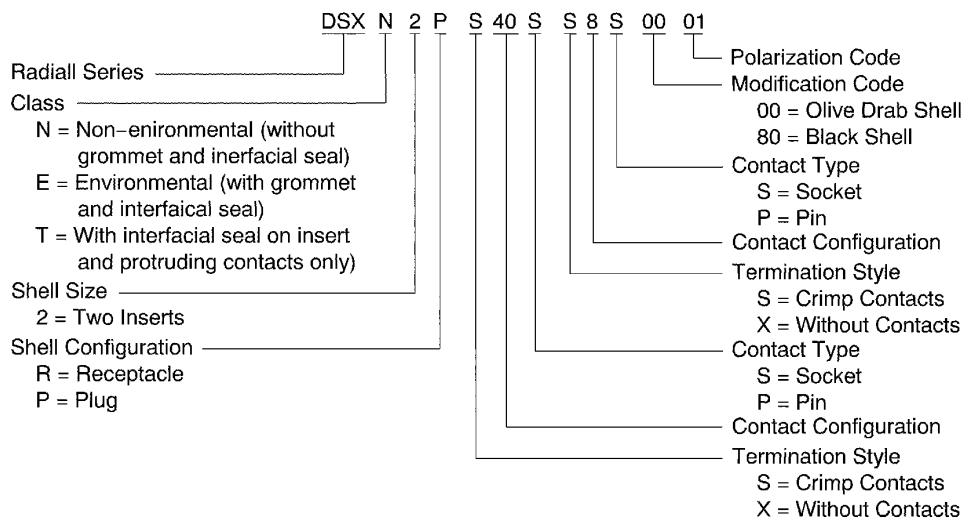
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2447065 S00061547711_V1

RADIALL ONE INSERT MIL-C-81659 TYPE CONNECTOR PART NUMBER STRUCTURE

Figure 4



2447066 S00061547712_V1

RADIALL TWO INSERT MIL-C-81659 TYPE CONNECTOR PART NUMBER STRUCTURE

Figure 5

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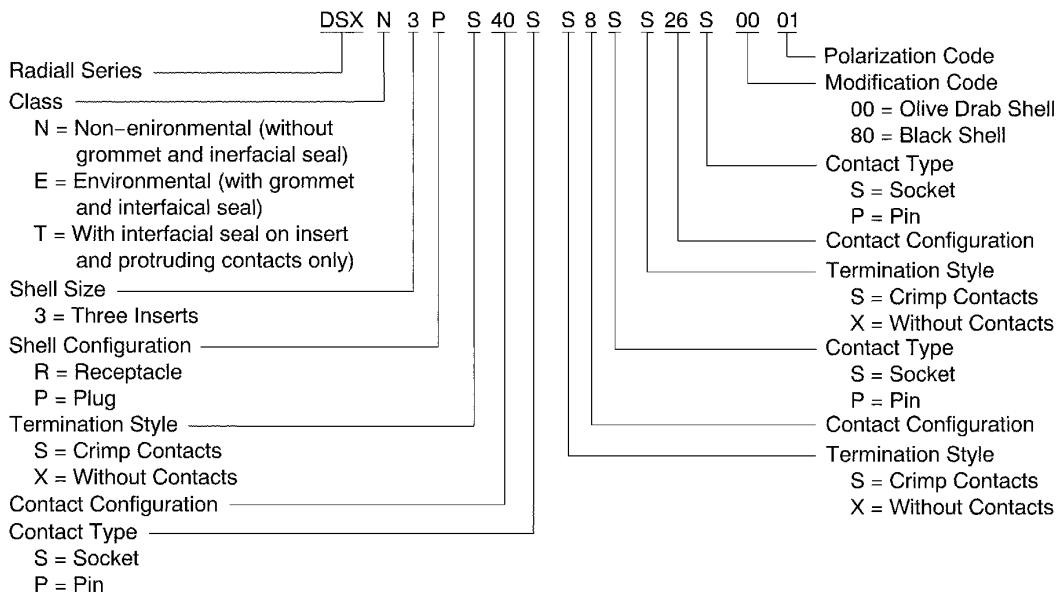
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2447067 S00061547713_V1

RADIALL THREE INSERT MIL-C-81659 TYPE CONNECTOR PART NUMBER STRUCTURE

Figure 6

B. Alternative Connector Part Numbers

Table 2
ALTERNATIVE CONNECTOR PART NUMBERS

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
DSX1G40S0001	Radiall	DPXBMA32C4-34P0001	ITT Cannon
DSX1H13S0001	Radiall	DPXBMA8-33S0001	ITT Cannon
DSX1H17S0001	Radiall	DPXBMA40-33S0001	ITT Cannon
DSX1H19S0001	Radiall	DPXBMA45-33S0001	ITT Cannon
DSX1H19S0001	Radiall	DPXBMB45-33S0001	ITT Cannon
DSX1H21S0001	Radiall	DPXBMA57-33S0001	ITT Cannon
DSX1H23S0001	Radiall	DPXBMA67-33S0001	ITT Cannon
DSX1H23S0001	Radiall	DPXBMB67-33S0001	ITT Cannon
DSX1H41S0001	Radiall	DPXBMA32W4-33S0001	ITT Cannon
DSX1H41S0001	Radiall	DPXBMA32C4-33S0001	ITT Cannon
DSX2H11S41S0001	Radiall	DPX2MAD0S32W4S33B0001	ITT Cannon
DSX2H15S19S0001	Radiall	DPX2MA26S45S33B0001	ITT Cannon
DSX2H17S17S0001	Radiall	DPX2MA40S40S33B0001	ITT Cannon

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Table 2 ALTERNATIVE CONNECTOR PART NUMBERS (Continued)

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
DSX2H19S19S0001	Radiall	DPX2MA45S45S33B0001	ITT Cannon
DSX2H21S24S0001	Radiall	DPX2MA57S106P33B0001	ITT Cannon
DSX2H24S24S0001	Radiall	DPX2MAD106PD106P33B0001	ITT Cannon
DSX2H27S21S0001	Radiall	DPX2MAD32C2S57S33B0001	ITT Cannon
DSX2H27S23S0001	Radiall	DPX2MAD32C2S67S33B0001	ITT Cannon
DSX2H29S29S0001	Radiall	DPX2MA40W1S40W1S33B0001	ITT Cannon
DSX2H29S29S0001	Radiall	DPX2MAF40C1SF40C1S33B0001	ITT Cannon
DSX2H31X23S0001	Radiall	DPX2MAW8S67S33B0001	ITT Cannon
DSX2H31X31X0001	Radiall	DPX2MAC8ASC8AS33B0001	ITT Cannon
DSX2H35X29S0001	Radiall	DPX2MAC2MSF40C1S33B0001	ITT Cannon
DSX2H43S23S0001	Radiall	DPX2MAAC3S67S33B0001	ITT Cannon

NOTE: Refer to Subject 20-71-11 for the part numbers and assembly procedures for coax contacts for ITT Cannon DPX connectors.

CAUTION: DO NOT INSTALL COAX CONTACTS MANUFACTURED BY A DIFFERENT MANUFACTURER THAN THE MANUFACTURER OF THE CONNECTOR. IF THE MANUFACTURER OF COAX CONTACTS IS DIFFERENT FROM THE MANUFACTURER OF THE CONNECTOR, UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE CONNECTOR CAN OCCUR.

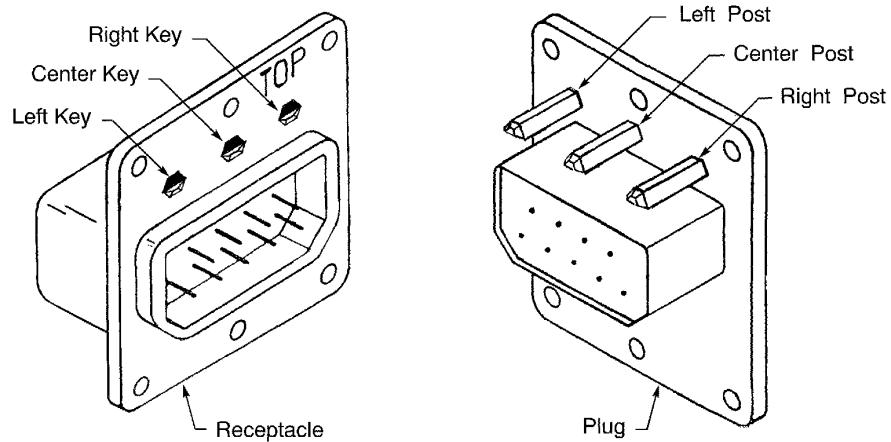
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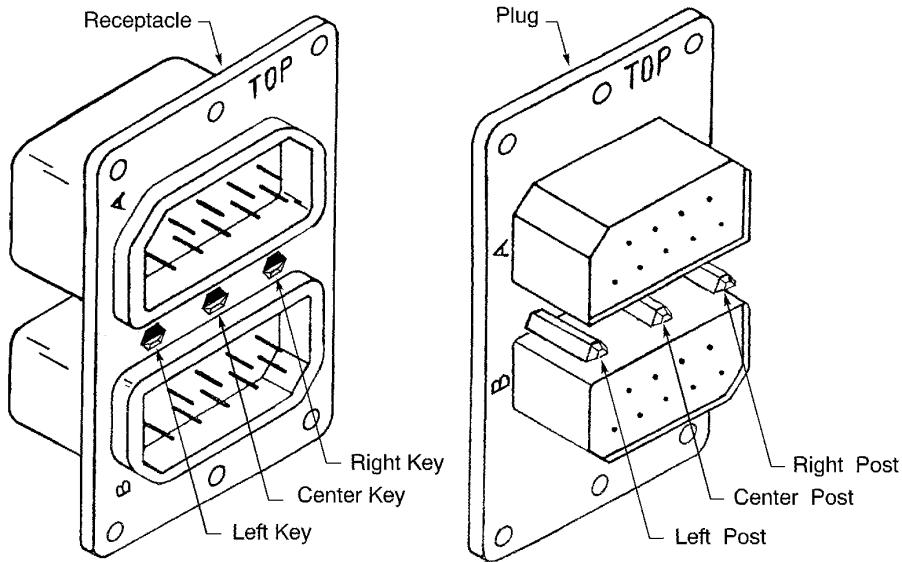
C. Connector Description



2446549 S00061547715_V1

ONE INSERT CONFIGURATION

Figure 7



2446550 S00061547716_V1

TWO INSERT CONFIGURATION

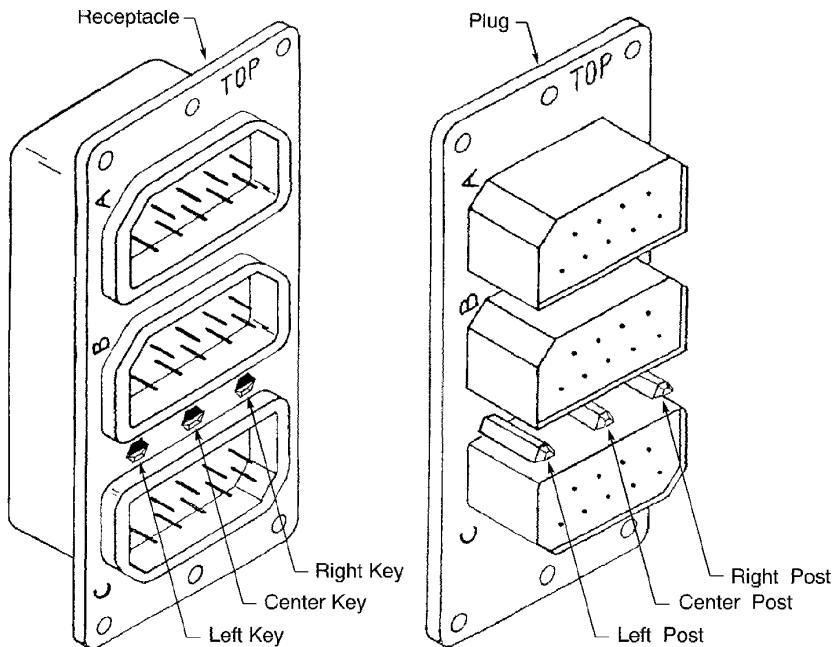
Figure 8

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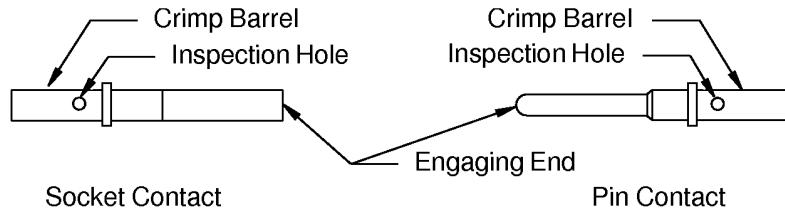


2447068 S00061547717_V1

THREE INSERT CONFIGURATION

Figure 9

D. Contact Part Numbers



2449030 S00061547132_V1

REAR RELEASE CONTACTS

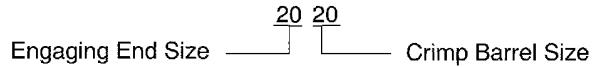
Figure 10

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ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2446651 S00061545900_V1

EXAMPLE OF A CONTACT SIZE

Figure 11

NOTE: The size 2020HD high density contact has a size 20 engaging end and a size 20 crimp barrel.

Table 3
CONTACT PART NUMBERS

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
2222	22	22	Pin	030-1975-000	ITT Cannon
				030-1975-005	ITT Cannon
				030-1975-007	ITT Cannon
				204873-4	Tyco/AMP
				616 200	Radiall
			Socket	M39029/11-144	QPL
				031-1113-007	ITT Cannon
				031-1113-008	ITT Cannon
				616 210	Radiall
				M39029/12-148	QPL
2020HD	20	20	Pin	030-9081-003	ITT Cannon
				616 210	Radiall
				M39029/11-145	QPL
			Socket	031-9134-004	ITT Cannon
				616 310	Radiall
				M39029/12-149	QPL
				316-2020-081	Tri-Star
2020	20	20	Pin	030-9081-000	ITT Cannon
				610 220	Radiall
			Socket	031-9134-001	ITT Cannon
				610 325	Radiall

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Table 3 CONTACT PART NUMBERS (Continued)

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
1616	16	16	Pin	030-9083-001	ITT Cannon
				204978-3	Tyco/AMP
				616 230	Radiall
				M39029/11-146	QPL
			Socket	031-9206-004	ITT Cannon
				205117-1	Tyco/AMP
				316-1616-076	Tri-Star
				616 330	Radiall
				M39029/12-150	QPL
				030-1909-001	ITT Cannon
1212	12	12	Pin	205763-3	Tyco/AMP
				616 240	Radiall
				M39029/11-147	QPL
			Socket	031-1059-001	ITT Cannon
				205851-2	Tyco/AMP
				616 340	Radiall
				M39029/12-151	QPL
0508	05	08	Socket	616 366	Radiall

Table 4
COAX CONTACT PART NUMBERS

Connector Type	Contact Size	Contact Type	Part Number	Supplier
ARINC 404	9	Socket	610040	Radiall
	5	Socket	610020001	Radiall
	3	Socket	610118	Radiall
	1	Socket	610108	Radiall
MIL-C-81659	5	Socket	616021	Radiall

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Table 5
ALTERNATIVE COAX CONTACT PART NUMBERS

Specified Coax Contact		Alternative Coax Contact	
Part Number	Supplier	Part Number	Supplier
610 020	Radiall	610020001	Radiall
610 030	Radiall	610020001	Radiall

2. INSERT CONFIGURATIONS

A. DSX Series ARINC 404 Connectors

The part numbers for these connectors contain the contact configuration codes. Refer to:

- Figure 1
- Figure 2
- Figure 3.

The contact configuration codes give the insert configurations. Refer to Table 6 and Table 7.

Table 6
CONTACT CONFIGURATION CODES FOR RADIALL ARINC 404 CONNECTORS

Contact		Insert Configuration
Configuration Code	Type	
10	Pin	00
11	Socket	00
12	Pin	8
13	Socket	8
14	Pin	26
15	Socket	26
16	Pin	40
17	Socket	40
18	Pin	45
19	Socket	45
20	Pin	57
21	Socket	57
22	Pin	67
23	Socket	67
24	Pin	106
25	Socket	106
26	Pin	32C2
27	Socket	32C2
28	Pin	40C1

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Table 6 CONTACT CONFIGURATION CODES FOR RADIALL ARINC 404 CONNECTORS (Continued)

Contact		Insert Configuration
Configuration Code	Type	
29	Socket	40C1
30	Pin	C8
31	Socket	C8
34	Pin	C2
35	Socket	C2
36	Pin	C3
	Pin	C3 Mod
37	Socket	C3
40	Pin	32C4
41	Socket	32C4
43	Socket	C3 Mod

Table 7
INSERT CONFIGURATIONS FOR RADIALL ARINC 404 CONNECTORS

Insert Configuration	Reference	Contact Cavities			
		Count	Size	Type	Notes
00	Figure 12	0	-	-	-
C2	Figure 13	2	1	Coax	Conductive metal insert
C3	Figure 14	2	7	Coax	Conductive metal insert
		1	3	Coax	
C3 Mod	Figure 14	2	5	Coax	-
		1	3	Coax	
8	Figure 16	8	12	Standard	-
C8	Figure 17	8	9	Coax	-
D8	Figure 18	4	16	Standard	-
		4	12	Standard	
13	Figure 19	13	16	Standard	-
26	Figure 20	26	16	Standard	-
32C2	Figure 21	30	20	Standard	-
		2	5	Coax	
32C4	Figure 22	24	20	Standard	-
		4	16	Standard	
		4	9	Coax	
36C7	Figure 24	29	22	Standard	-
		7	5	Coax	

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Table 7 INSERT CONFIGURATIONS FOR RADIALL ARINC 404 CONNECTORS (Continued)

Insert Configuration	Reference	Contact Cavities			
		Count	Size	Type	Notes
40	Figure 25	40	20	Standard	-
40C1	Figure 26	39	20	Standard	-
		1	5	Coax	
45	Figure 27	45	20	Standard	-
57	Figure 28	57	20	Standard	-
67	Figure 29	64	20HD	Standard	-
		3	16	Standard	
106	Figure 30	106	22	Standard	-

B. DSX Series MIL-C-81659 Type Connectors

The part numbers for these connectors contain the insert configurations directly. Refer to:

- Figure 4
- Figure 5
- Figure 6.

Table 8
INSERT CONFIGURATIONS FOR RADIALL MIL-C-81659 TYPE CONNECTORS

Insert Configuration	Reference	Contact Cavities			
		Count	Size	Type	Notes
00	Figure 12	0	-	-	-
MC2	Figure 13	2	1	Coax	Conductive metal insert
MC3	Figure 14	2	7	Coax	Conductive metal insert
		1	3	Coax	
C3 Mod	Figure 14	2	5	Coax	-
		1	3	Coax	
C5	Figure 15	5	5	Power	-
8	Figure 16	8	12	Standard	-
C8	Figure 17	8	9	Coax	-
T8	Figure 17	8	9	Coax	Size 9 coax pin contact cavities are electrically connected to the connector shell.
D8	Figure 18	4	16	Standard	-
		4	12	Standard	
26	Figure 20	26	16	Standard	-
32C2	Figure 21	30	20HD	Standard	-
		2	5	Coax	

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Table 8 INSERT CONFIGURATIONS FOR RADIALL MIL-C-81659 TYPE CONNECTORS (Continued)

Insert Configuration	Reference	Contact Cavities			
		Count	Size	Type	Notes
32T2	Figure 21	30	20HD	Standard	-
		2	5	Coax	Size 5 coax contact cavities are electrically connected to the connector shell.
32C4	Figure 22	24	20HD	Standard	-
		4	16	Standard	-
		4	9	Coax	-
32T4	Figure 22	24	20HD	Standard	-
		4	16	Standard	-
		4	9	Coax	Size 9 coax contact cavities are electrically connected to the connector shell.
33C4	Figure 23	25	20HD	Standard	-
		4	16	Standard	-
		4	5	Coax	-
33T4	Figure 23	25	20HD	Standard	-
		4	16	Standard	-
		4	5	Coax	Size 5 coax contact cavities are electrically connected to the connector shell.
36C7	Figure 24	29	22	Standard	-
		7	5	Coax	-
36T7	Figure 24	29	22	Standard	-
		7	5	Coax	Size 5 coax contact cavities are electrically connected to the connector shell.
40	Figure 25	40	20HD	Standard	-
40C1	Figure 26	39	20HD	Standard	-
		1	5	Coax	-
40T1	Figure 26	39	20HD	Standard	-
		1	5	Coax	Size 5 coax contact cavities are electrically connected to the connector shell.
45	Figure 27	45	20HD	Standard	-
57	Figure 28	57	20HD	Standard	-
67	Figure 29	64	20HD	Standard	-
		3	16	Standard	-

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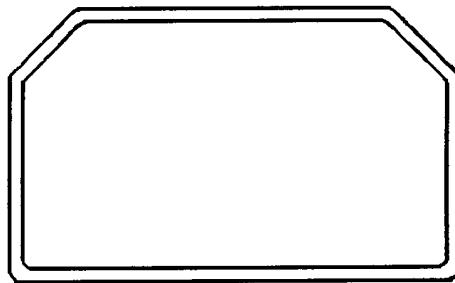
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Table 8 INSERT CONFIGURATIONS FOR RADIALL MIL-C-81659 TYPE CONNECTORS (Continued)

Insert Configuration	Reference	Contact Cavities			
		Count	Size	Type	Notes
106	Figure 30	106	22	Standard	-

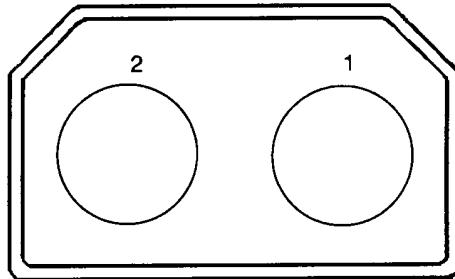
C. DSX Series Connector Inserts

NOTE: Figure 12 through Figure 30 show the rear face of an insert that has socket contacts. The view of the rear face of an insert that has pin contacts is the mirror image of this view.



2446551 S00061547317_V1

INSERT 00
Figure 12



2443662 S00061547318_V1

INSERT C2 AND INSERT MC2
Figure 13

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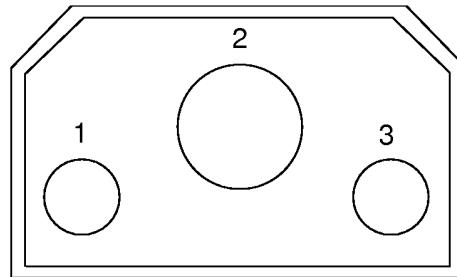
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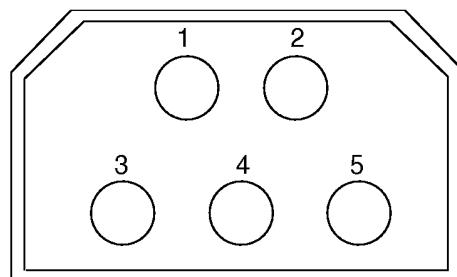
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2446562 S00061547718_V1

INSERT C3, INSERT MC3 AND INSERT C3 MOD

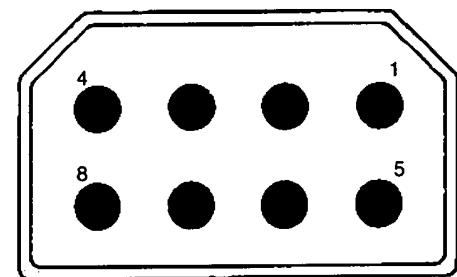
Figure 14



2449400 S00061547719_V1

INSERT C5

Figure 15



2446552 S00061547322_V1

INSERT 8

Figure 16

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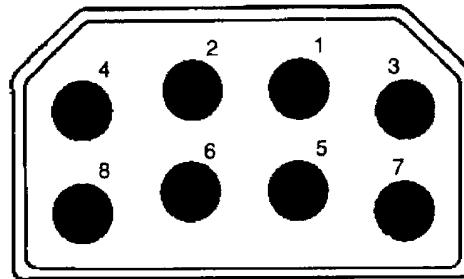
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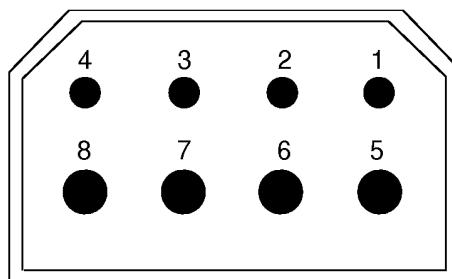
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2446563 S00061547324_V1

INSERT C8 AND INSERT T8

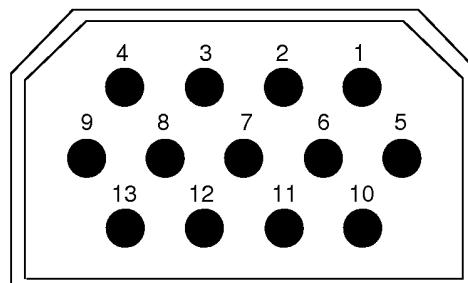
Figure 17



2449401 S00061547720_V1

INSERT D8

Figure 18



2449402 S00061547721_V1

INSERT 13

Figure 19

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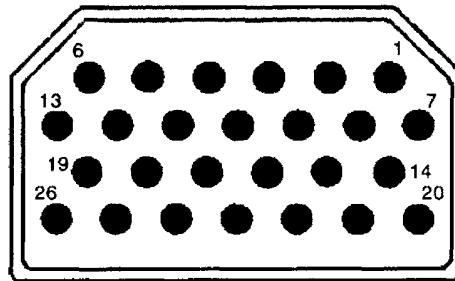
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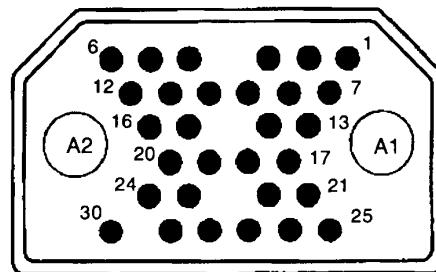
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2446553 S00061547331_V1

INSERT 26
Figure 20



2446558 S00061547333_V1

INSERT 32C2 AND INSERT 32T2
Figure 21

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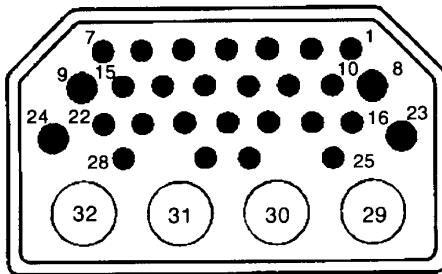
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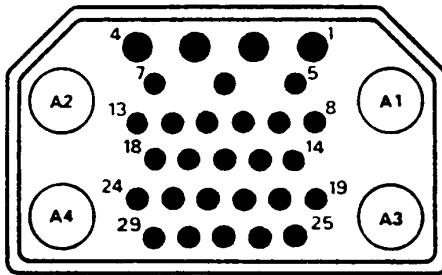
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2446559 S00061547334_V1

INSERT 32C4 AND INSERT 32T4

Figure 22



2443673 S00061547722_V1

INSERT 33C4 AND INSERT 33T4

Figure 23

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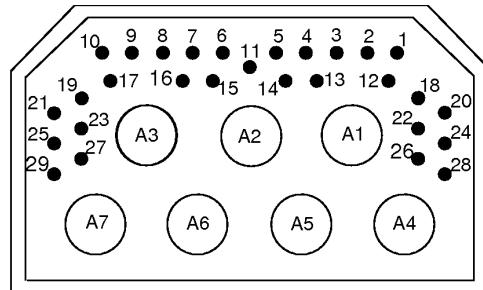
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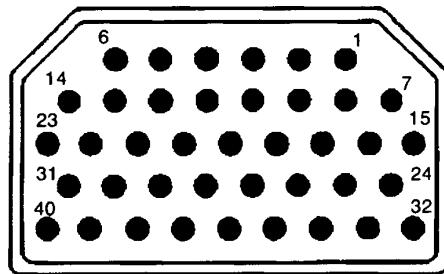
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS



2447069 S00061547723_V1

INSERT 36C7 AND INSERT 36T7

Figure 24



2446554 S00061547335_V1

INSERT 40
Figure 25

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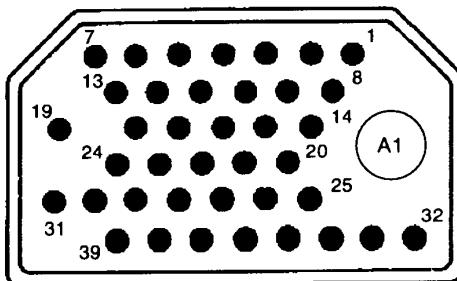
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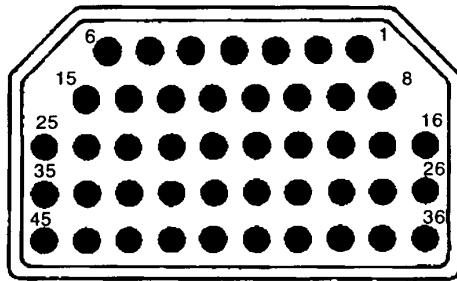


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2446560 S00061547336_V1

INSERT 40C1 AND INSERT 40T1
Figure 26



2446555 S00061547337_V1

INSERT 45
Figure 27

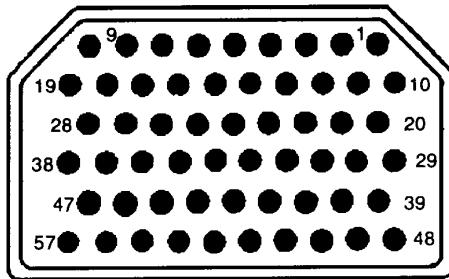
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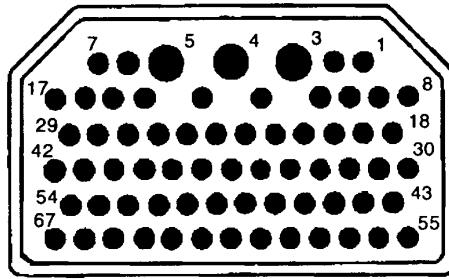


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2446556 S00061547338_V1

INSERT 57
Figure 28



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INSERT 67
Figure 29

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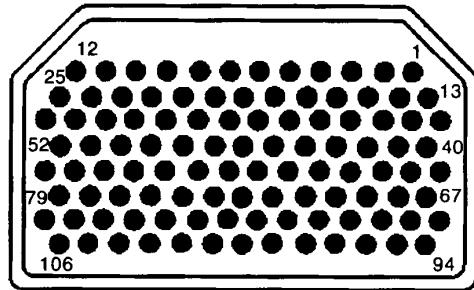
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Figure 30

3. CONNECTOR DISASSEMBLY

A. Contact Removal

Table 9
CONTACT REMOVAL TOOLS

Crimp Barrel Size	Removal Tool
22	M81969/1-01
	MS3156-22
	282 880
	282 890
20HD	M81969/1-02
	MS3156-20
	282 881
	282 891
20	282 943
16	M81969/1-03
	MS3156-16
	282 892
	282 929

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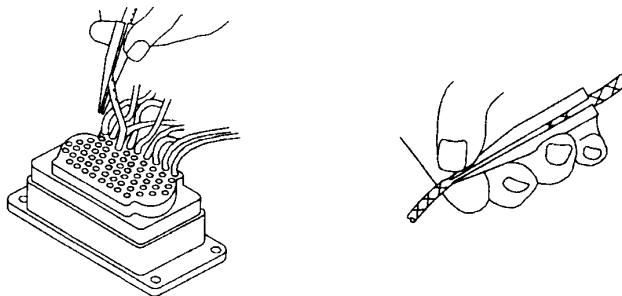
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Table 9 CONTACT REMOVAL TOOLS (Continued)

Crimp Barrel Size	Removal Tool
12	M81969/28-02
	MS3178-002
	282 945
8	CET-C8
	282 946
	M81969/28-01
	DRK310

- (1) Make a selection of a contact removal tool from Table 9.
- (2) Put the removal tool on the wire. Refer to Figure 31.



2446564 S00061547724_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE WIRE
Figure 31

- (3) Axially align the tool on the wire with the contact cavity. Refer to Figure 32.

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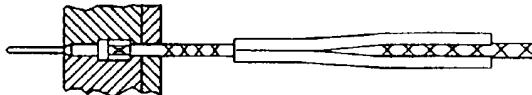
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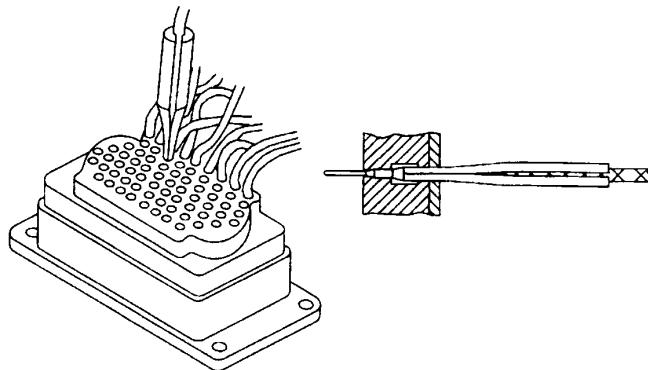
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ALIGNMENT OF THE REMOVAL TOOL AND THE CONTACT CAVITY

Figure 32

- (4) Push the removal tool straight into the contact cavity until:
 - The tool hits the bottom
 - The contact is released.

Refer to Figure 33.



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POSITION OF THE REMOVAL TOOL IN THE CONTACT CAVITY

Figure 33

- (5) Axially pull the tool and the wire from the contact cavity at the same time. Refer to Figure 34.

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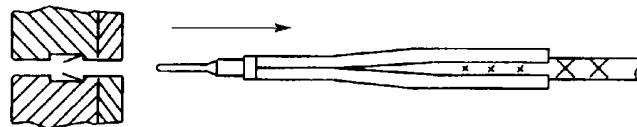
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REMOVAL OF THE WIRED CONTACT

Figure 34

B. Coax Contact Removal

Table 10
COAX CONTACT REMOVAL TOOLS

Contact Size	Removal Tool
9	CET-C8
	DRK310
	M81969/28-01
	282 946
7	CET-C8
	DRK310
	M81969/28-01
	282 946
5	CET-C8
	DRK310
	M81969/28-01
	282 946

- (1) Make a selection of a coax contact removal tool from Table 10.
- (2) Put the removal tool on the wire. Refer to Figure 35.

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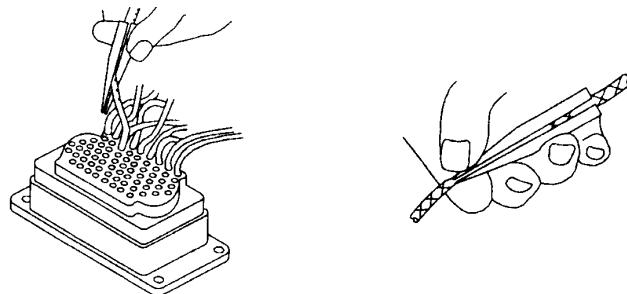
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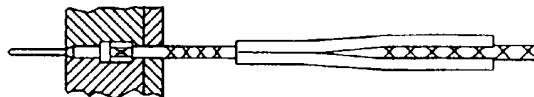


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ALIGNMENT OF THE REMOVAL TOOL AND THE WIRE

Figure 35

- (3) Axially align the tool on the wire with the contact cavity. Refer to Figure 36.



2446565 S00061547725_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE CONTACT CAVITY

Figure 36

- (4) Push the removal tool straight into the contact cavity until:
 - The tool hits the bottom
 - The contact is released.

Refer to Figure 37.

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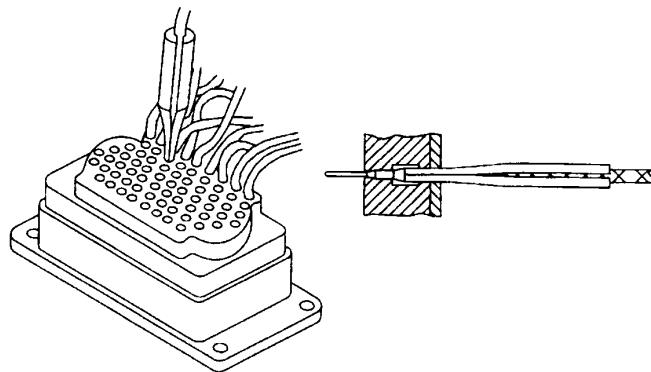
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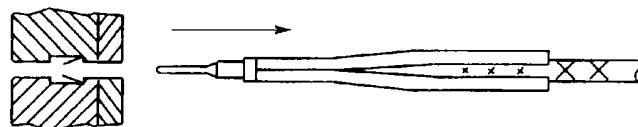


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POSITION OF THE REMOVAL TOOL IN THE CONTACT CAVITY

Figure 37

- (5) Axially pull the tool and the wire from the contact cavity at the same time. Refer to Figure 38.



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REMOVAL OF THE WIRED CONTACT

Figure 38

4. CONNECTOR ASSEMBLY

A. Contact Assembly

For the assembly of:

- A Radiall 616366 contact, refer to Paragraph 4.B.
- A Radiall 610020001 coax contact, refer to Paragraph 4.C.
- A Radiall 610040 coax contact, refer to Paragraph 4.D.
- A Radiall 610108 coax contact, refer to Paragraph 4.E.
- A Radiall 610118 coax contact, refer to Paragraph 4.F.

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- A Radiall 616021 coax contact, refer to Paragraph 4.G.

Table 11
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Crimp Barrel Size	Removal Length L (inch)		Special Instructions
		Target	Tolerance	
26	22	0.19	±0.03	-
	20HD	0.38	±0.03	Fold the conductor back
	20	0.38	±0.03	Fold the conductor back
24	22	0.19	±0.03	-
	20HD	0.19	±0.03	
	20	0.19	±0.03	
	16	0.56	±0.03	Fold the conductor back
22	22	0.19	±0.03	-
	20HD	0.19	±0.03	
	20	0.19	±0.03	
	16	0.56	±0.03	Fold the conductor back
20	20HD	0.19	±0.03	-
	20	0.19	±0.03	
	16	0.28	±0.03	-
18	16	0.28	±0.03	-
16	16	0.28	±0.03	-
	12	0.28	±0.03	
14	12	0.28	±0.03	-
12	12	0.28	±0.03	-

Table 12
CONTACT CRIMP TOOLS

Wire Size (AWG)	Crimp Barrel Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
26	22	M22520/2-01	3	M22520/2-23	-
	20HD	M22520/2-01	5	M22520/2-08	-
		MS3191-1	-	P20-3191-1	-
	20	11148	-	-	Red
		M22520/2-01	5	M22520/2-02	-
		MS3191-1	-	MS3191-20()	-

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Table 12 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Crimp Barrel Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
24	22	M22520/2-01	3	M22520/2-23	-
		M22520/2-01	5	M22520/2-08	-
		MS3191-1	-	P20-3191-1	-
	20	11148	-	-	Red
		M22520/1-01	2	M22520/1-02	Red
		M22520/2-01	5	M22520/2-02	-
		MS3191-1	-	MS3191-20()	-
	16	11148	-	-	Blue
		M22520/1-01	2	M22520/1-02	Blue
		MS3191-1	-	MS3191-16()	-
22	22	M22520/2-01	4	M22520/2-23	-
		M22520/2-01	6	M22520/2-08	-
		MS3191-1	-	P20-3191-1	-
	20	11148	-	-	Red
		M22520/1-01	3	M22520/1-02	Red
		M22520/2-01	6	M22520/2-02	-
		MS3191-1	-	MS3191-20()	-
	16	11148	-	-	Blue
		M22520/1-01	4	M22520/1-02	Blue
		MS3191-1	-	MS3191-16()	-
20	20HD	M22520/2-01	7	M22520/2-08	-
		MS3191-1	-	P20-3191-1	-
	20	11148	-	-	Red
		M22520/1-01	4	M22520/1-02	Red
		M22520/2-01	7	M22520/2-02	-
		MS3191-1	-	MS3191-20()	-
	16	11148	-	-	Blue
		M22520/1-01	4	M22520/1-02	Blue
		MS3191-1	-	MS3191-16()	-
18	16	11148	-	-	Blue
		M22520/1-01	5	M22520/1-02	Blue
		MS3191-1	-	MS3191-16()	-

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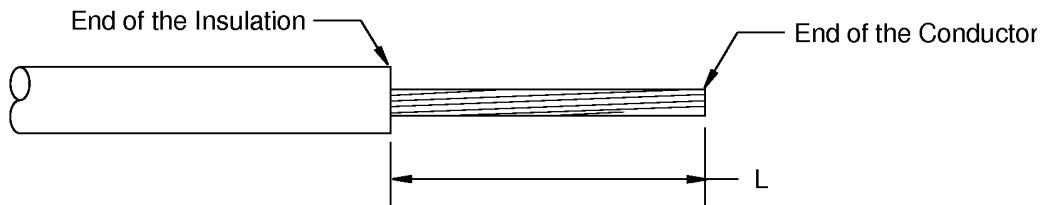
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ASSEMBLY OF RADIALL DSX SERIES CONNECTORS
Table 12 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Crimp Barrel Size	Crimp Tool			
		Basic Unit		Locator	
		Part Number	Setting	Part Number	Color
16	16	11148	-	-	Blue
		M22520/1-01	6	M22520/1-02	Blue
	12	MS3191-1	-	MS3191-16()	-
		M22520/1-01	6	M22520/1-02	Yellow
14	12	MS3191-1	-	-	Yellow
		M22520/1-01	7	M22520/1-02	Yellow
12	12	MS3191-1	-	-	Yellow
		M22520/1-01	8	M22520/1-02	Yellow

- (1) Make a selection of a crimp tool from Table 12.
- (2) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 39
- Table 11 for the insulation removal length
- Subject 20-10-15 for the insulation removal procedures.



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INSULATION REMOVAL LENGTH
Figure 39

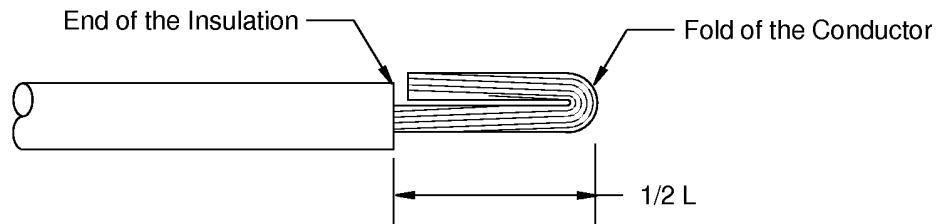
- (3) If it is necessary, fold the conductor back. Refer to Figure 40.

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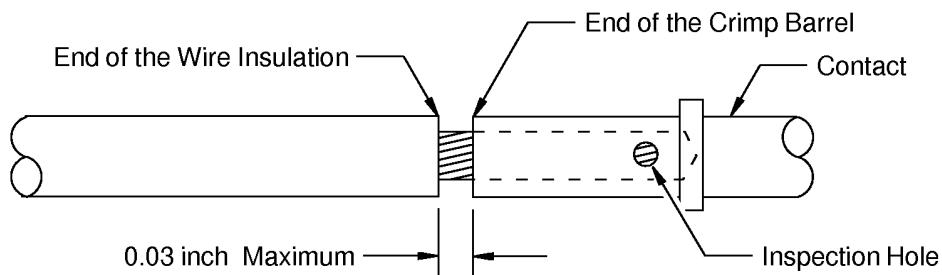
FOLDED BACK CONDUCTOR

Figure 40

- (4) Put the end of the wire in the crimp barrel of the contact. Refer to Figure 41.

Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole
- The distance from the end of the insulation to the crimp barrel is not more than 0.03 inch.



2446968 S00061546268_V1

POSITION OF THE WIRE IN THE CONTACT CRIMP BARREL

Figure 41

- (5) Crimp the contact.

B. Assembly of the Radiall 616366 Contact

Table 13
FILLER WIRE

Wire Size (AWG)	Filler Wire	
	Size (AWG)	Quantity
12	14	1
	10	1
10	10	1
8	-	-

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Table 14
CONTACT CRIMP TOOL

Basic Unit	Die	Locator
400B	414DA-12N-125	4960
WA23	414DA-12N-125	4960

- (1) Make a selection of filler wire. Refer to Table 13.
Make sure that the wire type of the filler wire is the same as the assembly wire.
 - (2) Make a selection of a crimp tool. Refer to Table 14.
 - (3) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be put on the wire.
 - (4) Put a 1.0 inch ± 0.03 inch length of the heat shrinkable sleeve on the wire.
 - (5) Remove 0.32 inch ± 0.03 inch insulation from the end of the wire and each filler wire. Refer to Subject 20-00-15.
 - (6) If a filler wire is necessary, remove 0.32 inch ± 0.03 inch insulation from the end of the wire. Refer to Subject 20-00-15.
 - (7) Put the ends of the wire and the filler wire into the crimp barrel of the contact.
NOTE: If it is possible, put the primary wire in the center of the crimp barrel.
Make sure that:
 - All the strands of each conductor are in the crimp barrel
 - The end of each conductor is against the bottom of the crimp barrel
 - The conductors can be seen in the inspection hole.
 - (8) Crimp the contact.
 - (9) Remove the unwanted length of the filler wire as close to the end of the crimp barrel as possible.
- CAUTION:** DO NOT CUT OR CAUSE ANY DAMAGE TO THE STRANDS OF THE PRIMARY WIRE. THE MECHANICAL STRENGTH OF THE WIRE CAN BE DECREASED.
- (10) Push the heat shrinkable sleeve forward on the wire.
Make sure that the sleeve is on the end of the contact crimp barrel and the end of the wire insulation.
 - (11) Shrink the sleeve in position. Refer to Subject 20-10-14.

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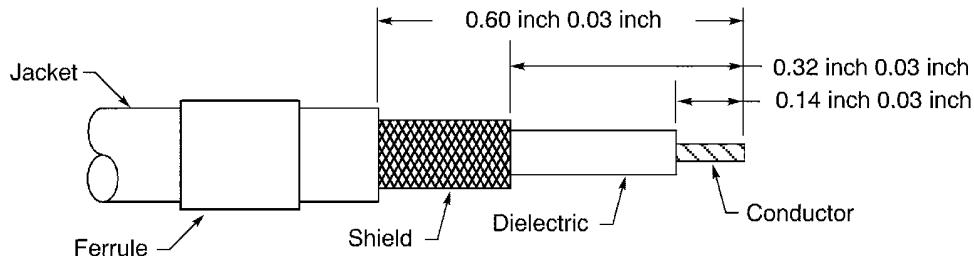
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS

C. Assembly of the Radiall 610020001 Coax Contact

Table 15
FERRULE CRIMP TOOLS

Basic Unit	Die	
	Part Number	Cavity
612648	612673	A
KTH-100	KTH-2001	B
	KTH-2042	B
	KTH-2220	B
M22520/5-01	M22520/5-05	A
	M22520/5-19	B
	Y142	B
	Y197	A
	Y322	B
ST2966M	ST2966M-6	B

- (1) Make a selection of a ferrule crimp tool. Refer to Table 15.
- (2) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be put on the cable.
- (3) Prepare the cable. Refer to Figure 42.



2447070 S00061547729_V1

COAX CABLE PREPARATION
Figure 42

- (a) Put a 1.5 inch to 3.0 inch length of the heat shrinkable sleeve on the cable.
- (b) Put the ferrule on the cable.
- (c) Cut the end of the cable.
Make sure that the end of the cable is perpendicular to the longitudinal axis of the cable.
- (d) Remove 0.60 inch ± 0.03 inch of the outer jacket from the end of the cable.
- (e) Remove 0.32 inch ± 0.03 inch of the shield from the end of the cable.
- (f) Remove 0.14 inch ± 0.03 inch of the dielectric from the end of the cable.

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- (4) Put the center contact on the center conductor.
- (5) Solder the center contact.
- (6) Move the strands of the shield apart.
- (7) Put the contact body on the cable.

Make sure that:

- The crimp barrel of the contact body is between the dielectric and the shield
- The crimp barrel of the contact body is against the end of the cable jacket.

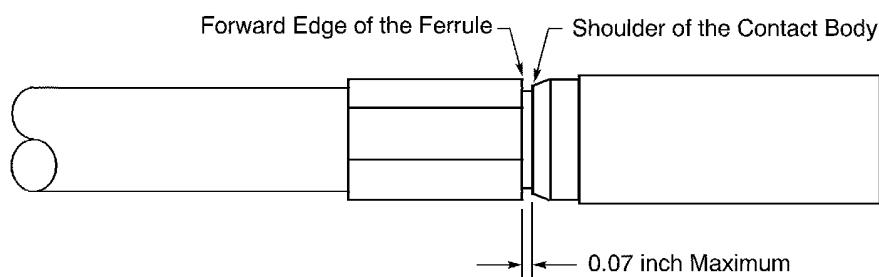
- (8) Push the ferrule forward on the shield until it is against the contact body.

- (9) Remove the unwanted length of the strands of the shield.

Make sure that the shield is aligned with the forward end of the ferrule.

- (10) Crimp the ferrule. Refer to Figure 43.

Make sure that the distance between the end of the ferrule and the shoulder of the contact body is not more than 0.07 inch.



2447071 S00061547730_V1

POSITION OF THE FERRULE
Figure 43

- (11) Align the forward end of the heat shrinkable sleeve with the forward end of the ferrule.

Make sure that no more than 0.05 inch of the ferrule can be seen.

- (12) Shrink the sleeve in position. Refer to Subject 20-10-14.

D. Assembly of the Radiall 610040 Coax Contact

Table 16
FERRULE CRIMP TOOLS

Basic Unit	Die	
	Part Number	Cavity
282293	282246	A
	M22520/5-05	A
M22520/5-01	282246	A
	M22520/5-05	A

- (1) Make a selection of a ferrule crimp tool. Refer to Table 16.

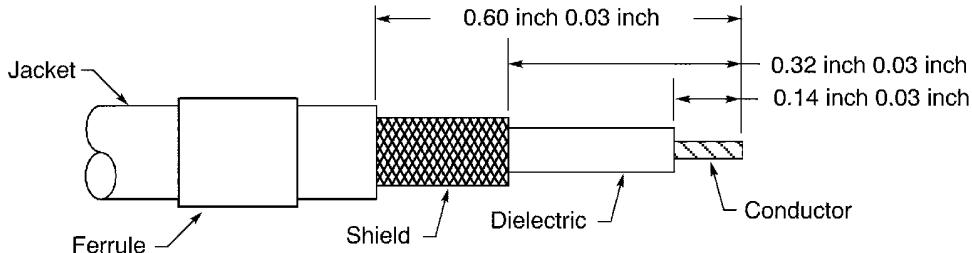
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- (2) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
 Make sure that the sleeve has the smallest diameter that can be put on the cable.
- (3) Prepare the cable. Refer to Figure 44.



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COAX CABLE PREPARATION

Figure 44

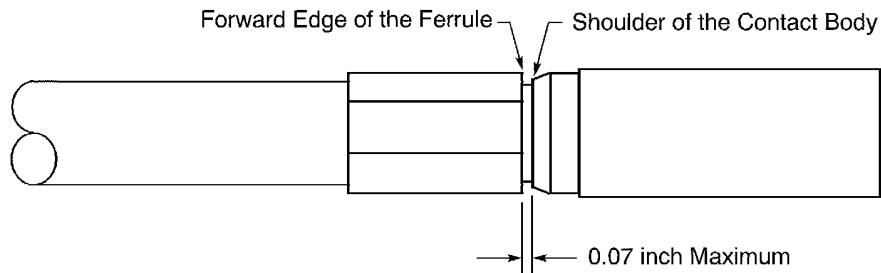
- (a) Put a 1.5 inch to 3.0 inch length of the heat shrinkable sleeve on the cable.
- (b) Put the ferrule on the cable.
- (c) Cut the end of the cable.
 Make sure that the end of the cable is perpendicular to the longitudinal axis of the cable.
- (d) Remove 0.60 inch ± 0.03 inch of the outer jacket from the end of the cable.
- (e) Remove 0.32 inch ± 0.03 inch of the shield from the end of the cable.
- (f) Remove 0.14 inch ± 0.03 inch of the dielectric from the end of the cable.
- (4) Put the center contact on the center conductor.
- (5) Solder the center contact.
- (6) Move the strands of the shield apart.
- (7) Put the contact body on the cable.
 Make sure that:
 - The crimp barrel of the contact body is between the dielectric and the shield
 - The crimp barrel of the contact body is against the end of the cable jacket.
- (8) Push the ferrule forward on the shield until it is against the contact body.
- (9) Remove the unwanted length of the strands of the shield.
 Make sure that the shield is aligned with the forward end of the ferrule.
- (10) Crimp the ferrule. Refer to Figure 45.
 Make sure that the distance between the end of the ferrule and the shoulder of the contact body is not more than 0.07 inch.

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CRIMPED FERRULE

Figure 45

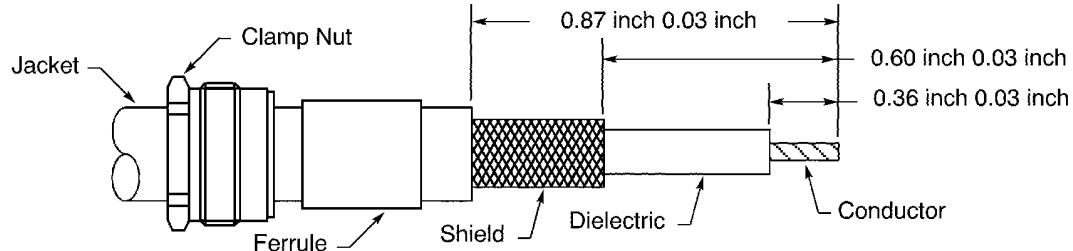
- (11) Align the forward end of the heat shrinkable sleeve with the forward end of the ferrule. Make sure that no more than 0.05 inch of the ferrule can be seen.
- (12) Shrink the sleeve in position. Refer to Subject 20-10-14.

E. Assembly of the Radiall 610108 Coax Contact

Table 17
FERRULE CRIMP TOOLS

Basic Unit	Die	
	Part Number	Cavity
282293	282247	A
	M22520/5-61	A
M22520/5-01	282247	A
	M22520/5-61	A

- (1) Make a selection of a ferrule crimp tool. Refer to Table 17.
- (2) Prepare the cable. Refer to Figure 46.



2447072 S00061547731_V1

COAX CABLE PREPARATION
Figure 46

- (a) Put the clamp nut on the cable.
- (b) Put the ferrule on the cable.

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- (c) Cut the end of the cable.

Make sure that the end of the cable is perpendicular to the longitudinal axis of the cable.

- (d) Remove 0.87 inch ± 0.03 inch of the outer jacket from the end of the cable.

- (e) Remove 0.60 inch ± 0.03 inch of the shield from the end of the cable.

- (f) Remove 0.36 inch ± 0.03 inch of the dielectric from the end of the cable.

- (3) Move the strands of the shield apart.

- (4) Put the center contact insulator assembly on the cable.

Make sure that:

- The crimp barrel of the center contact insulator assembly is between the dielectric and the shield
- The crimp barrel of the center contact insulator assembly is against the end of the cable jacket.

- (5) Solder the center contact on the center conductor.

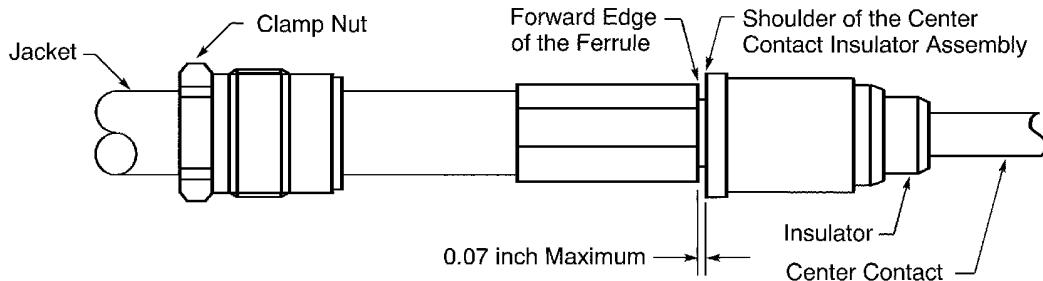
- (6) Push the ferrule forward on the shield until it is against the contact body.

- (7) Remove the unwanted length of the strands of the shield.

Make sure the shield is aligned with the forward end of the ferrule.

- (8) Crimp the ferrule. Refer to Figure 47.

Make sure that the distance between the end of the ferrule and the shoulder of the center contact insulator assembly is not more than 0.07 inch.



2447073 S00061547732_V1

POSITION OF THE FERRULE

Figure 47

- (9) Put the outer contact body on the cable assembly.
- (10) Engage the threads of the clamp nut with the threads of the outer contact body.
- (11) Torque the clamp nut 70 inch-pounds ± 5 inch-pounds.

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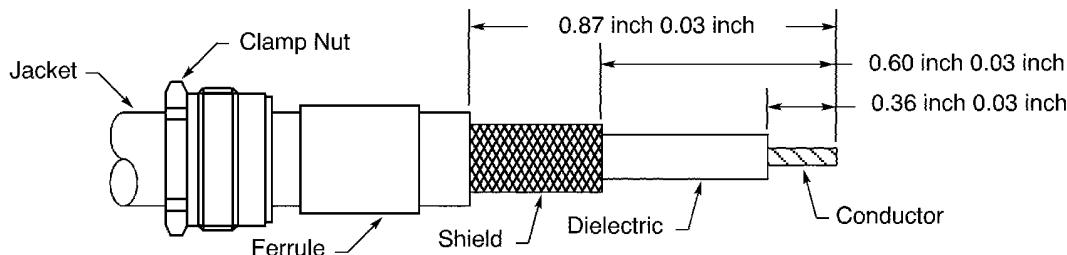
ASSEMBLY OF RADIALL DSX SERIES CONNECTORS

F. Assembly of the Radiall 610118 Coax Contact

Table 18
FERRULE CRIMP TOOLS

Basic Unit	Die	
	Part Number	Cavity
612648	612807	B
KTH-100	KTH-2004	A
	KTH-2235	A
M22520/5-01	M22520/5-25	A
ST2966M	ST266M-16	-

- (1) Make a selection of a ferrule crimp tool. Refer to Table 18.
- (2) Prepare the cable. Refer to Figure 48.



2447072 S00061547731_V1

COAX CABLE PREPARATION

Figure 48

- (a) Put the clamp nut on the cable.
- (b) Put the ferrule on the cable.
- (c) Cut the end of the cable.

Make sure that the end of the cable is perpendicular to the longitudinal axis of the cable.

- (d) Remove 0.87 inch ± 0.03 inch of the outer jacket from the end of the cable.
- (e) Remove 0.60 inch ± 0.03 inch of the shield from the end of the cable.
- (f) Remove 0.36 inch ± 0.03 inch of the dielectric from the end of the cable.

- (3) Move the strands of the shield apart.

- (4) Put the center contact insulator assembly on the cable.

Make sure that:

- The crimp barrel of the center contact insulator assembly is between the dielectric and the shield
- The crimp barrel of the center contact insulator assembly is against the end of the cable jacket.

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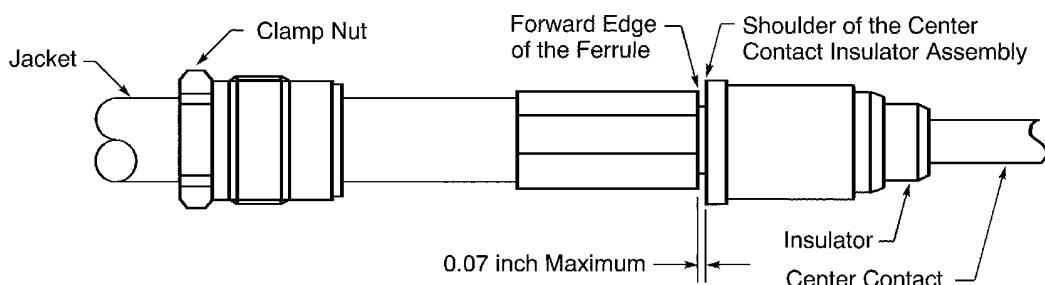
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- (5) Put the center contact on the center conductor.
- (6) Solder the center contact.
- (7) Push the ferrule forward on the shield until it is against the contact body.
- (8) Remove the unwanted length of the strands of the shield.
Make sure the shield is aligned with the forward end of the ferrule.
- (9) Crimp the ferrule. Refer to Figure 49.
Make sure that the distance between the end of the ferrule and the shoulder of the center contact insulator assembly is not more than 0.07 inch.



2447073 S00061547732_V1

CRIMPED FERRULE

Figure 49

- (10) Put the outer contact body on the cable assembly.
- (11) Engage the threads of the clamp nut with the threads of the outer contact body.
- (12) Torque the clamp nut 70 inch-pounds ± 5 inch-pounds.

G. Assembly of the Radiall 616021 Coax Contact

Table 19
CENTER CONTACT CRIMP TOOL

Basic Unit		Locator
Part Number	Setting	
282281	8	282974
M22520/2-01	8	282974

Table 20
FERRULE CRIMP TOOLS

Basic Unit		Die
Part Number	Cavity	
282293	282246	A
M22520/5-01	M22520/5-05	A

- (1) Make a selection of a center contact crimp tool. Refer to Table 19.

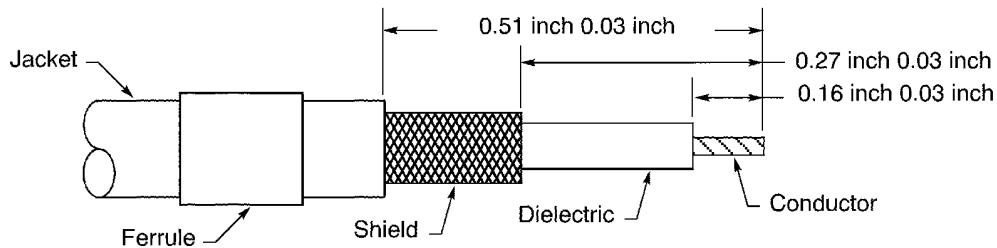
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- (2) Make a selection of a ferrule crimp tool. Refer to Table 20.
- (3) Make a selection of a heat shrinkable sleeve. Refer to Subject 20-10-14.
Make sure that the sleeve has the smallest diameter that can be put on the cable.
- (4) Prepare the cable. Refer to Figure 50.



2447074 S00061547733_V1

COAX CABLE PREPARATION
Figure 50

- (a) Put a 1.5 inch to 3.0 inch length of the heat shrinkable sleeve on the cable.
- (b) Put the ferrule on the cable.
- (c) Cut the end of the cable.
Make sure that the end of the cable is perpendicular to the longitudinal axis of the cable.
- (d) Remove 0.51 inch ± 0.03 inch of the outer jacket from the end of the cable.
- (e) Remove 0.27 inch ± 0.03 inch of the shield from the end of the cable.
- (f) Remove 0.16 inch ± 0.03 inch of the dielectric from the end of the cable.
- (5) Put the center contact on the center conductor.
- (6) Crimp the center contact.
- (7) Move the strands of the shield apart.
- (8) Put the contact body on the cable.
Make sure that:
 - The crimp barrel of the contact body is between the dielectric and the shield
 - The crimp barrel of the contact body is against the end of the cable jacket.
- (9) Push the ferrule forward on the shield until it is against the contact body.
- (10) Remove the unwanted length of the strands of the shield.
Make sure the shield is aligned with the forward end of the ferrule.
- (11) Crimp the ferrule. Refer to Figure 51.
Make sure that the distance between the end of the ferrule and the shoulder of the contact body is not more than 0.07 inch.

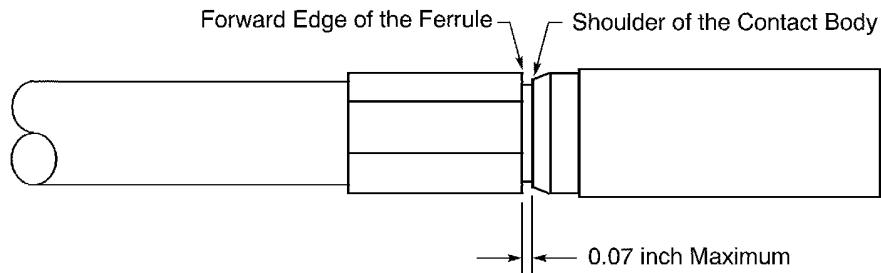
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CRIMPED FERRULE

Figure 51

- (12) Align the forward end of the heat shrinkable sleeve with the forward end of the ferrule. Make sure that no more than 0.05 inch of the ferrule can be seen.
- (13) Shrink the sleeve in position. Refer to Subject 20-10-14.

H. Contact Insertion

For coax contact insertion, refer to Paragraph 4.I.

Table 21
CONTACT INSERTION TOOLS

Crimp Barrel Size	Insertion Tool
22	M81969/1-01
	MS3156-22
	282 880
20HD	M81969/1-02
	MS3156-20
	282 881
20	282 943
16	M81969/1-03
	MS3156-16
	282 929
12	M81969/28-02
	MS3178-002
	282 945

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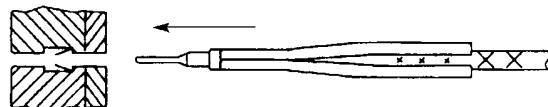
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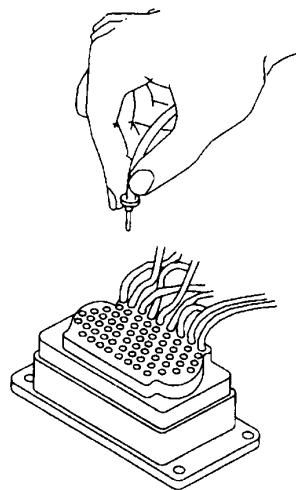
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INSERTION OF THE CONTACT

Figure 52



2446569 S00061547735_V1

CONTACT INSERTION WITHOUT A TOOL

Figure 53

Refer to Figure 52 and Figure 53.

- (1) Make a selection of an insertion tool from Table 21.

NOTE: Contact insertion without a tool is a satisfactory alternative for contact insertion with a tool.

- (2) Put the wired contact in the end of the insertion tool.

Make sure that the end of the tool is against the shoulder of the contact.

- (3) Axially align the tool and the contact with the contact cavity at the rear of the connector. Refer to Figure 54.

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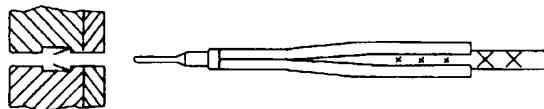
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ALIGNMENT OF THE INSERTION TOOL AND THE CONTACT CAVITY

Figure 54

- (4) Push the tool straight into the contact cavity until it stops. Refer to Figure 52.

CAUTION: MAKE SURE THAT THE TOOL AND THE CONTACT ARE PUSHED STRAIGHT INTO THE CONTACT CAVITY TO PREVENT DAMAGE TO THE CONNECTOR.

- (5) Carefully remove the tool from the contact cavity.
- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. DAMAGE TO THE CONTACT CAN OCCUR.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:
 - (a) Pull the wired contact out of the cavity.
 - (b) Do Step 4.H.(2) through Step 4.H.(6) again.

I. Coax Contact Insertion

- (1) Axially align the forward end of the coax contact with the contact cavity.
- (2) Push the coax contact into the contact cavity until it stops.
- (3) Lightly pull on the cable to make sure that the contact is locked.

CAUTION: DO NOT PULL THE CABLE WITH A STRONG OR A SUDDEN FORCE. DAMAGE TO THE CONNECTOR OR THE CONTACT CAN OCCUR.

CAUTION: DO NOT MAKE A DENT IN THE CABLE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE CABLE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE WIRE.

- (4) If the contact is not locked in the contact cavity, do Step 4.I.(1) through Step 4.I.(3) again.

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5. CONNECTOR POLARIZATION AND THE CONNECTOR PART NUMBER

A. Connector Polarization and the Connector Part Number

NOTE: The polarization code in the connector part number identifies the polarization position of the posts and keys.

- (1) Find the polarization code in the connector part number from the equipment list.
- (2) For that code, find the correct connector polarization for the:
 - Post positions on the plug
 - Key positions on the receptacle.

Refer to Figure 55 and Table 22.

- (3) If the polarization position of the posts and keys on the connector do not agree with the polarization code, put the posts and the keys in the correct position.
Refer to Paragraph 5.C.
- (4) If the polarization code in the part number on the connector does not agree with the polarization positions, change the part number on the connector.
Refer to Paragraph 5.D.

B. Polarization Post and Key Positions



For the Plug, the Dark Area Shows the Polarization Post

For the Receptacle, the Dark Area Shows the Solid Part of the Polarization Key

2446430 S00061547457_V1

POLARIZATION POSITIONS

Figure 55

Table 22

CONNECTOR POLARIZATION - POST AND KEY POSITION

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
01	4	4	4	1	1	1
02	4	4	3	2	1	1
03	4	4	2	3	1	1
04	4	4	1	4	1	1
05	4	4	6	5	1	1
06	4	4	5	6	1	1
07	5	4	4	1	1	6

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Table 22 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
08	5	4	3	2	1	6
09	5	4	2	3	1	6
10	5	4	1	4	1	6
11	5	4	6	5	1	6
12	5	4	5	6	1	6
13	6	4	4	1	1	5
14	6	4	3	2	1	5
15	6	4	2	3	1	5
16	6	4	1	4	1	5
17	6	4	6	5	1	5
18	6	4	5	6	1	5
19	1	4	4	1	1	4
20	1	4	3	2	1	4
21	1	4	2	3	1	4
22	1	4	1	4	1	4
23	1	4	6	5	1	4
24	1	4	5	6	1	4
25	2	4	4	1	1	3
26	2	4	3	2	1	3
27	2	4	2	3	1	3
28	2	4	1	4	1	3
29	2	4	6	5	1	3
30	2	4	5	6	1	3
31	3	4	4	1	1	2
32	3	4	3	2	1	2
33	3	4	2	3	1	2
34	3	4	1	4	1	2
35	3	4	6	5	1	2
36	3	4	5	6	1	2
37	4	3	4	1	2	1
38	4	3	3	2	2	1
39	4	3	2	3	2	1
40	4	3	1	4	2	1
41	4	3	6	5	2	1

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Table 22 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
42	4	3	5	6	2	1
43	5	3	4	1	2	6
44	5	3	3	2	2	6
45	5	3	2	3	2	6
46	5	3	1	4	2	6
47	5	3	6	5	2	6
48	5	3	5	6	2	6
49	6	3	4	1	2	5
50	6	3	3	2	2	5
51	6	3	2	3	2	5
52	6	3	1	4	2	5
53	6	3	6	5	2	5
54	6	3	5	6	2	5
55	1	3	4	1	2	4
56	1	3	3	2	2	4
57	1	3	2	3	2	4
58	1	3	1	4	2	4
59	1	3	6	5	2	4
60	1	3	5	6	2	4
61	2	3	4	1	2	3
62	2	3	3	2	2	3
63	2	3	2	3	2	3
64	2	3	1	4	2	3
65	2	3	6	5	2	3
66	2	3	5	6	2	3
67	3	3	4	1	2	2
68	3	3	3	2	2	2
69	3	3	2	3	2	2
70	3	3	1	4	2	2
71	3	3	6	5	2	2
72	3	3	5	6	2	2
73	4	2	4	1	3	1
74	4	2	3	2	3	1
75	4	2	2	3	3	1

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Table 22 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
76	4	2	1	4	3	1
77	4	2	6	5	3	1
78	4	2	5	6	3	1
79	5	2	4	2	3	6
80	5	2	3	2	3	6
81	5	2	2	3	3	6
82	5	2	1	4	3	6
83	5	2	6	5	3	6
84	5	2	5	6	3	6
85	6	2	4	1	3	5
86	6	2	3	2	3	5
87	6	2	2	3	3	5
88	6	2	1	4	3	5
89	6	2	6	5	3	5
90	6	2	5	6	3	5
91	1	2	4	1	3	4
92	1	2	3	2	3	4
93	1	2	2	3	3	4
94	1	2	1	4	3	4
95	1	2	6	5	3	4
96	1	2	5	6	3	4
97	2	2	4	1	3	3
98	2	2	3	2	3	3
99	2	2	2	3	3	3

C. Change of the Polarization Posts and Keys

- (1) To change the polarization of a post:
 - (a) Remove the nut and washer from the threaded end of the post.
 - (b) Remove the post from the hexagonal hole in the connector shell.
 - (c) Align the post with the correct position.
 - (d) Put the post back into the hexagonal hole.
Make sure that the post is in the correct position.
 - (e) Put the washer and the nut on the threaded end of the post.
 - (f) Tighten the nut.

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- (2) To change the polarization of a key:
 - (a) Remove the necessary screws from the connector shell.
 - (b) Remove the key from the hexagonal hole.
 - (c) Align the key with the correct position.
 - (d) Put the key back into the hexagonal hole.
Make sure the key is in the correct position.
 - (e) Install and tighten the screws.

D. Change of the Polarization Code, Any Part of the Connector Part Number, or the Complete Part Number on the Connector Shell

Table 23
NECESSARY MATERIALS

Material	Part Number	Supplier
Ink	No. 68 Fast Dry	Independent
Ink	No. 73X NW Opaque	Independent
Ink	No. 73X Opaque	Independent
Paint, Clear	683-3-2	Akzo
Paint, Clear	Clear Lacquer	Tartan
Paint, Clear	EC-776	3M
Paint, Clear	EC-776SR	3M
Pen	Permanent Ink Pen, Ultra Fine Point	Sanford Sharpie

Table 24
LOCATION OF CONNECTOR PART NUMBER DATA

Connector	Number of Inserts	Reference
ARINC 404	1	Figure 1
	2	Figure 2
	3	Figure 3
MIL-C-81659 Type	1	Figure 4
	2	Figure 5
	3	Figure 6

- (1) If the part number on the connector does not have a part number or polarization code:
 - (a) Make a selection of these materials from Table 23.
 - An ink or a permanent ink pen
 - A clear paint.
 - (b) Write the part number and the polarization code on the connector shell in the correct position.

Refer to Table 1 and Table 24 for the details of the applicable connector part number.

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- (c) Let the ink dry for a minimum of 10 minutes.
- (d) Apply a layer of the clear paint on the part number on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

- (e) Let the paint dry before the connector shell is touched or moved.
- (2) If the part number or polarization code on the connector is incorrect:
 - (a) Apply a layer of ink on the incorrect part number or polarization code on the connector shell.
Make sure that the incorrect part number or polarization code cannot be read.
- (3) Write the part number and the polarization code on the connector shell in the correct position.
 - Adjacent to the location of the incorrect part number and polarization code
 - In the correct position on the connector shell.

Refer to the details of the applicable connector part number:

- Figure 1 for the One Insert ARINC 404 Connector
- Figure 2 for the Two Insert ARINC 404 Connector
- Figure 3 for the Three Insert ARINC 404 Connector
- Figure 4 for the One Insert MIL-C-81659 Type Connector
- Figure 5 for the Two Insert MIL-C-81659 Type Connector
- Figure 6 for the Three Insert MIL-C-81659 Type Connector.

- (4) Let the ink dry for a minimum of 10 minutes.
- (5) Apply a layer of ink on the incorrect code on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

- (6) Let the paint dry before the connector shell is touched or moved.

6. APPROVED TOOL SUPPLIERS

A. Contact Crimp Tools

Table 25
CRIMP TOOL SUPPLIERS

Crimp Tool	Supplier
11148	Buchanan
282246	Radiall
282247	Radiall
282281	Radiall
282293	Radiall

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Table 25 CRIMP TOOL SUPPLIERS (Continued)

Crimp Tool	Supplier
282974	Radiall
400B	Pico
414DA-12N-125	Pico
4960	Pico
612648	Buchanan
612673	Buchanan
612807	Buchanan
KTH-100	Kings
KTH-2001	Kings
KTH-2004	Kings
KTH-2042	Kings
KTH-2220	Kings
KTH-2235	Kings
M22520/1-01	QPL
M22520/1-02	QPL
M22520/2-01	QPL
M22520/2-02	QPL
M22520/2-08	QPL
M22520/2-23	QPL
M22520/5-01	QPL
M22520/5-05	QPL
M22520/5-19	QPL
M22520/5-25	QPL
M22520/5-61	QPL
MS3191-1	QPL
MS3191-16()	QPL
MS3191-20()	QPL
P20-3191-1	ITT Cannon
ST266M-16	Boeing
ST2966M	Boeing
ST2966M-6	Boeing
WA23	Daniels
Y142	Daniels
Y197	Daniels
Y322	Daniels

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B. Contact Insertion Tools

**Table 26
INSERTION TOOL SUPPLIERS**

Insertion Tool	Supplier
282 880	Radiall
282 881	Radiall
282 929	Radiall
282 943	Radiall
282 945	Radiall
M81969/1-01	QPL
M81969/1-02	QPL
M81969/1-03	QPL
M81969/28-02	QPL
MS3156-16	QPL
MS3156-20	QPL
MS3156-22	QPL
MS3178-002	QPL

C. Contact Removal Tools

**Table 27
REMOVAL TOOL SUPPLIERS**

Removal Tool	Supplier
282 880	Radiall
282 881	Radiall
282 890	Radiall
282 891	Radiall
282 892	Radiall
282 929	Radiall
282 943	Radiall
282 945	Radiall
282 946	Radiall
CET-C8	ITT CANNON
DRK310	DANIELS
M81969/1-01	QPL
M81969/1-02	QPL
M81969/1-03	QPL
M81969/28-01	QPL

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Table 27 REMOVAL TOOL SUPPLIERS (Continued)

Removal Tool	Supplier
M81969/28-02	QPL
MS3156-16	QPL
MS3156-20	QPL
MS3156-22	QPL
MS3178-002	QPL

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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

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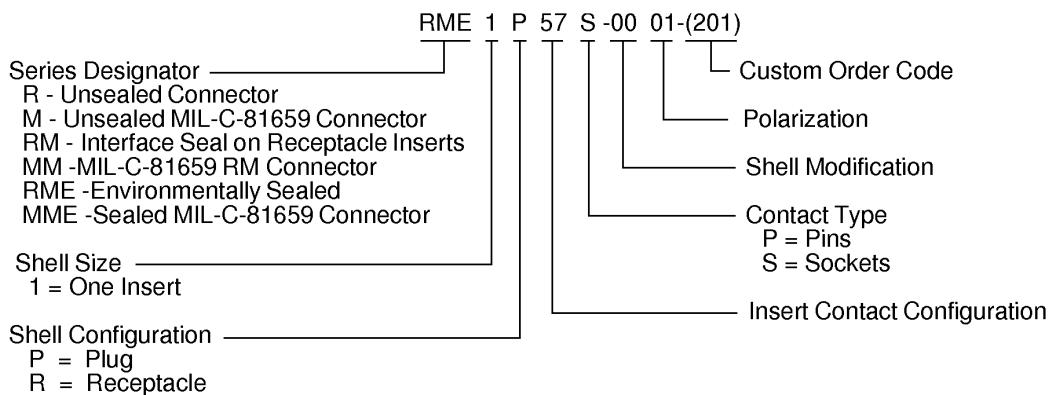
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

1. PART NUMBERS AND DESCRIPTION

A. AMP ARINC 404 and MIL-C-81659 Connector Part Numbers

Table 1
CONNECTOR PART NUMBERS

Series Designator	Description	Supplier
M()	Unsealed MIL-C-81659 Connector	AMP/Tyco
MM()	MIL-C-81659 Connector that has an Interface Seal on the Receptacle Inserts	AMP/Tyco
MME()	Environmentally Sealed MIL-C-81659 Connector	AMP/Tyco
R()	Unsealed Connector	AMP/Tyco
RM()	Connector that has an Interface Seal on the Receptacle Inserts	AMP/Tyco
RME()	Environmentally Sealed Connector	AMP/Tyco



2449136 S00061547742_V1

DESCRIPTIVE PART NUMBER STRUCTURE FOR AMP ONE INSERT ARINC 404 AND MIL-C-81659
CONNECTORS

Figure 1

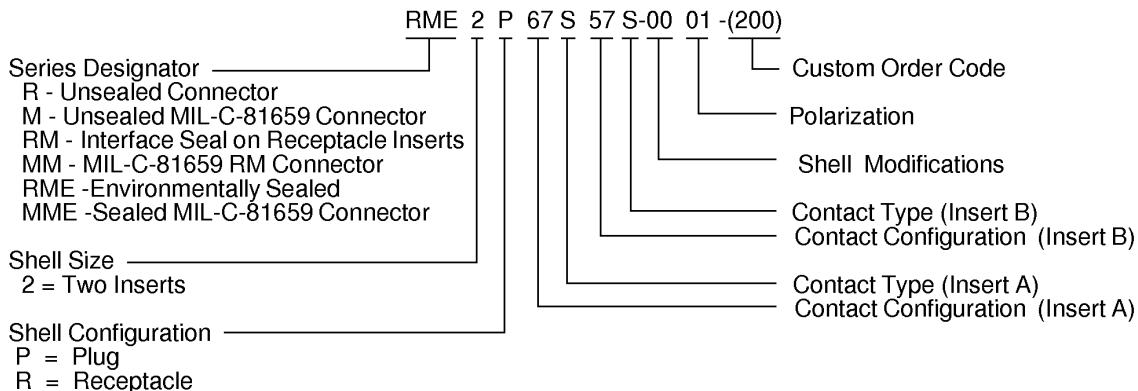
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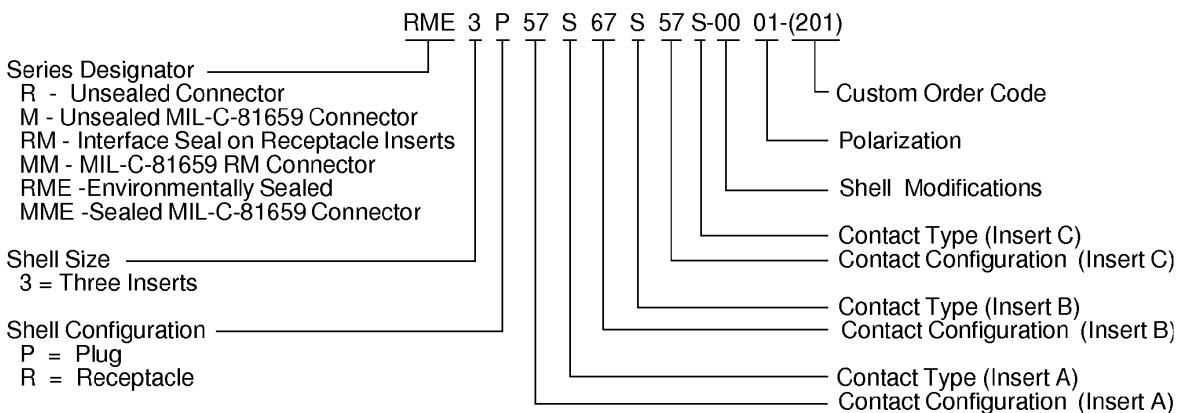
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2449137 S00061547743_V1

DESCRIPTIVE PART NUMBER STRUCTURE FOR AMP TWO INSERT ARINC 404 AND MIL-C-81659 CONNECTORS

Figure 2



2449138 S00061547744_V1

DESCRIPTIVE PART NUMBER STRUCTURE FOR AMP THREE INSERT ARINC 404 AND MIL-C-81659 CONNECTORS

Figure 3

20-71-16

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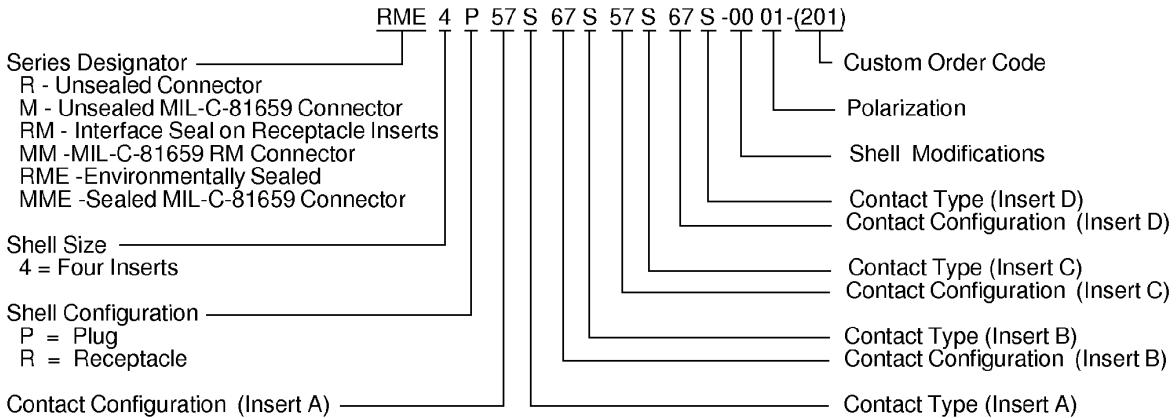
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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2449139 S00061547745_V1

DESCRIPTIVE PART NUMBER STRUCTURE FOR AMP FOUR INSERT ARINC 404 AND MIL-C-81659 CONNECTORS

Figure 4

Table 2
CUSTOM ORDER CODES

Code	Description
200	Standard connector kit, including signal contacts. Coaxial contacts must be procured independently. Shell finish: cadmium plated per QQ-P-416 with yellow chromate conversion.
201	Code 200 connector, except connector is supplied without contacts. All contacts must be procured independently by part number.

B. Alternative Connector Part Numbers

Table 3
ALTERNATIVE CONNECTOR PART NUMBERS

Specified Connector		Alternative Connector	
Part Number	Supplier	Part Number	Supplier
RM3P32C2S67S32C2S-0001-(201)	AMP	0-1218349-1	AMP
RM2P67S32C2S-0001-(200)	AMP	0-0213437-6	AMP
RM2P67S32C2S-0001-(201)	AMP	0-0213437-7	AMP

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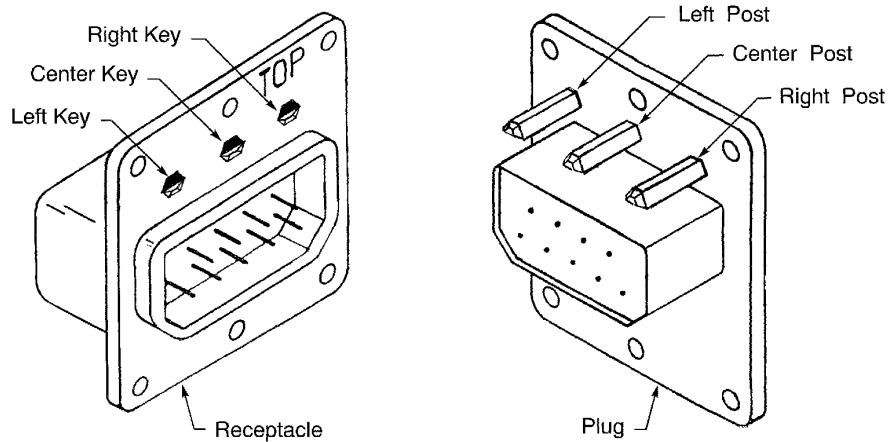
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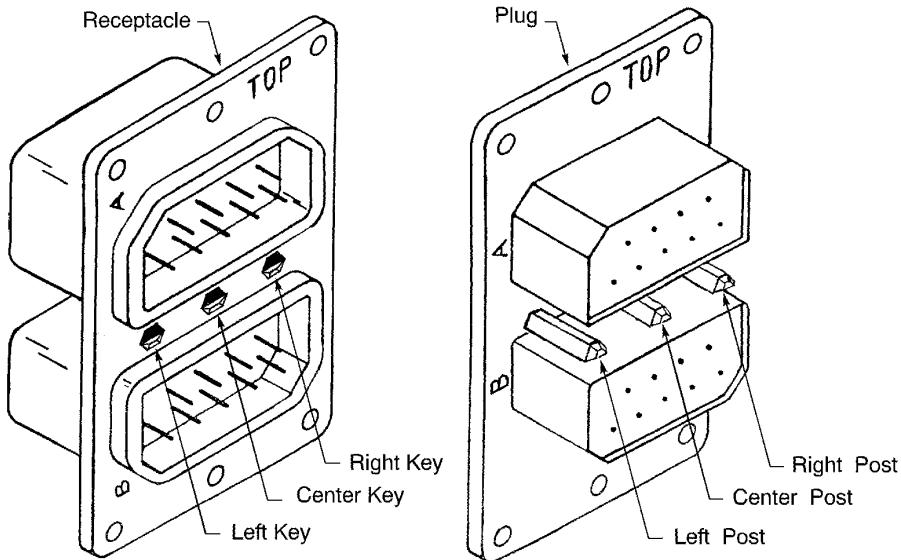
C. Connector Description



2446549 S00061547715_V1

ONE INSERT CONFIGURATION

Figure 5



2446550 S00061547716_V1

TWO INSERT CONFIGURATION

Figure 6

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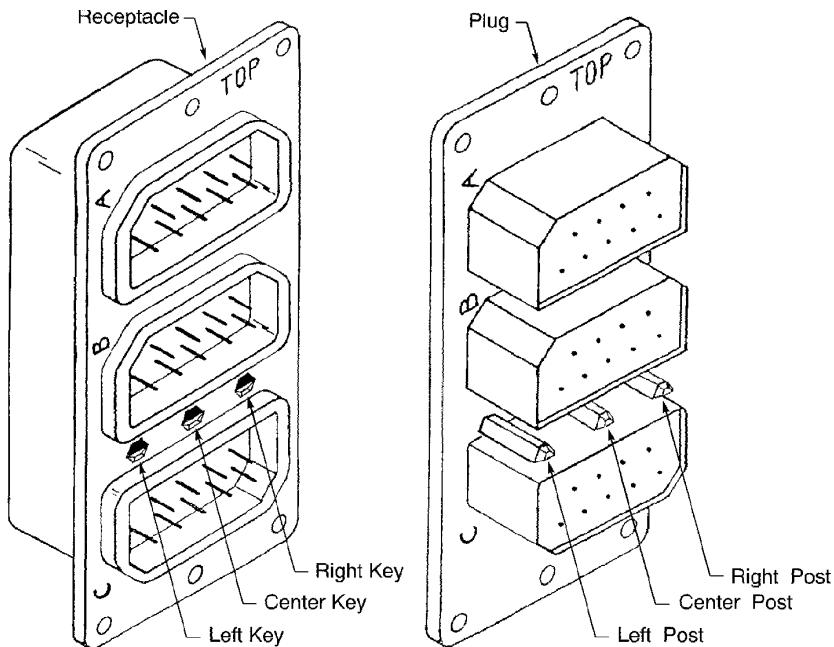
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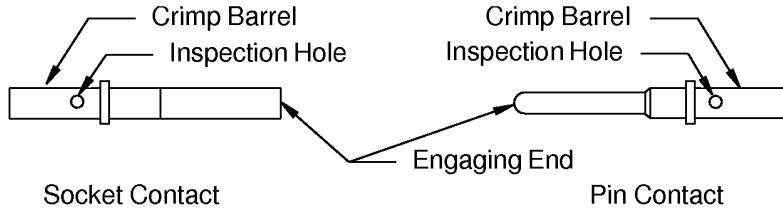


2447068 S00061547717_V1

THREE INSERT CONFIGURATION

Figure 7

D. Contact Part Numbers



2449030 S00061547132_V1

REAR RELEASE CONTACTS

Figure 8

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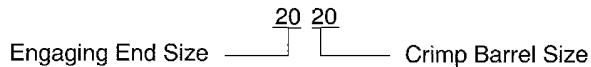
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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2446651 S00061545900_V1

EXAMPLE OF A CONTACT SIZE

Figure 9

NOTE: AMP size 20 contacts for the AMP ARINC 404 connectors and the AMP MIL-C-81659 connectors are High Density Contacts, and are referred to in this Subject as contact size 2020HD.

NOTE: The size 2020HD high density contact has a size 20 engaging end and a size 20 crimp barrel.

Table 4
CONTACT PART NUMBERS

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
2222	22	22	Pin	030-1975-000	ITT Cannon
				030-1975-005	ITT Cannon
				030-1975-007	ITT Cannon
				204873-4	AMP
				616 200	Radiall
				M39029/11-144	QPL
			Socket	031-1113-007	ITT Cannon
				031-1113-008	ITT Cannon
				205103-3	AMP
				616 210	Radiall
				M39029/12-148	QPL

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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

Table 4 CONTACT PART NUMBERS (Continued)

Contact Size	Contact Engaging End Size	Contact Crimp Barrel Size	Contact Type	Part Number	Supplier
2020HD	20	20	Pin	030-9081-003	ITT Cannon
				204938-3	AMP
				616 210	Radiall
				M39029/11-145	QPL
			Socket	031-9134-004	ITT Cannon
				205116-1	AMP
				616 310	Radiall
				M39029/12-149	QPL
				316-2020-081	Tri-Star
				030-9083-001	ITT Cannon
1616	16	16	Pin	204978-3	AMP
				616 230	Radiall
				M39029/11-146	QPL
			Socket	031-9206-004	ITT Cannon
				205117-1	AMP
				316-1616-076	Tri-Star
				616 330	Radiall
				M39029/12-150	QPL
				030-1909-001	ITT Cannon
1212	12	12	Pin	205763-5	AMP
				616 240	Radiall
				M39029/11-147	QPL
			Socket	031-1059-001	ITT Cannon
				205851-2	AMP
				616 340	Radiall
				M39029/12-151	QPL

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Table 5
COAX CONTACT PART NUMBERS

Contact Size	Contact Type	Part Number	Cable	Supplier
5	Pin	225790-1	RG/U-58C	AMP
		225791-1	RG/U-58C	AMP
	Socket	225791-3	RG/U-174	AMP
			RG/U-188	AMP
			RG/U-316	AMP
9	Socket	225936-2	RG/U-58C	AMP
			RG/U-141A	AMP
		225936-3	RG/U-174	AMP
			RG/U-188	AMP
			RG/U-316	AMP

2. INSERT CONFIGURATIONS

A. AMP ARINC 404 and MIL-C-81659 Connector Insert Configurations

Table 6
AMP ARINC 404 AND MIL-C-81659 CONNECTOR INSERT CONFIGURATIONS

Insert	Contacts or Contact Cavities				Reference
	Count	Size	Type	Notes	
106	106	2222	-	Crimp, Rear Release	Figure 23
26	26	1616	-	Crimp, Rear Release	Figure 15
32C2	30	2020HD	-	Crimp, Rear Release	Figure 16
	2	5	Coax	Rear Release	
32C4	24	2020HD	-	Crimp, Rear Release	Figure 17
	4	1616	-		
	4	9	Coax		
40	40	2020HD	-	Crimp, Rear Release	Figure 18
40C1	39	2020HD	-	Crimp, Rear Release	Figure 19
	1	5	Coax	Rear Release	
45	45	2020HD	-	Crimp, Rear Release	Figure 20
57	57	2020HD	-	Crimp, Rear Release	Figure 21
67	64	2020HD	-	Crimp, Rear Release	Figure 22
	3	1616	-		
8	8	1212	-	Crimp, Rear Release	Figure 12
C2	2	1	Coax	Rear Release	Figure 10

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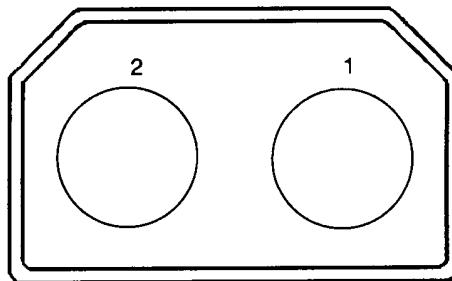
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Table 6 AMP ARINC 404 AND MIL-C-81659 CONNECTOR INSERT CONFIGURATIONS (Continued)

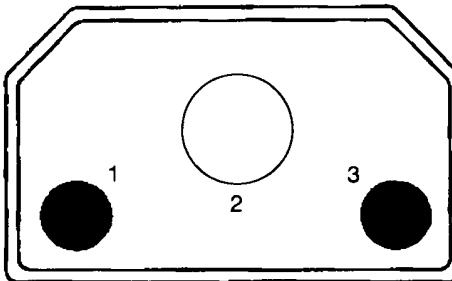
Insert	Contacts or Contact Cavities				Reference
	Count	Size	Type	Notes	
C3	2	7	Coax	Rear Release	Figure 11
	1	3			
C8	8	9	Coax	Rear Release	Figure 14
D8	4	1616	-	Crimp, Rear Release	Figure 13
	4	1212	-		

NOTE: Figure 10 through Figure 23 show the rear face of an insert that has socket contacts. The view of the rear face of an insert that has pin contacts is the mirror image of this view.



2443662 S00061547318_V1

INSERT CONFIGURATION C2
Figure 10



2448066 S00061547320_V1

INSERT CONFIGURATION C3
Figure 11

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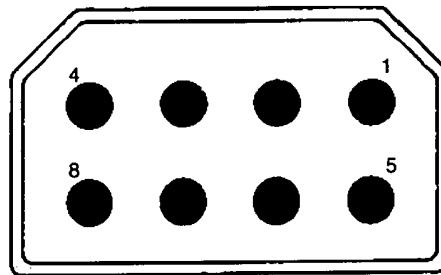
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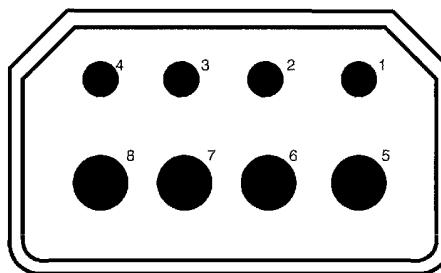
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2446552 S00061547322_V1

INSERT CONFIGURATION 8

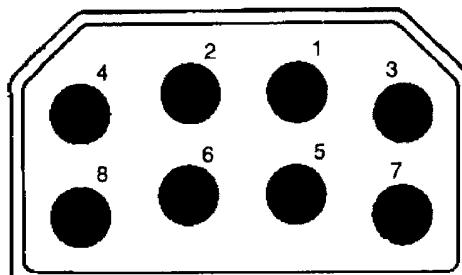
Figure 12



2448065 S00061547323_V1

INSERT CONFIGURATION D8

Figure 13



2446563 S00061547324_V1

INSERT CONFIGURATION C8

Figure 14

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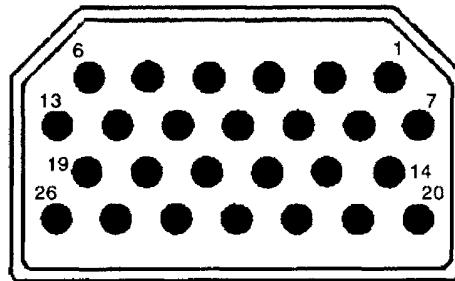
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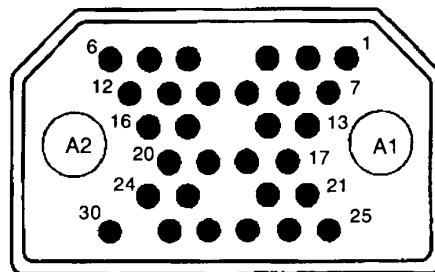
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2446553 S00061547331_V1

INSERT CONFIGURATION 26

Figure 15



2446558 S00061547333_V1

INSERT CONFIGURATION 32C2

Figure 16

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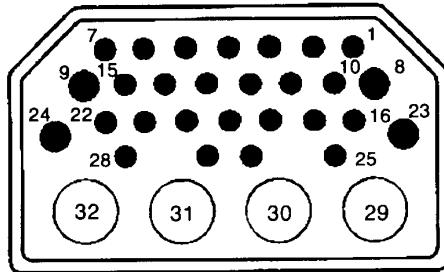
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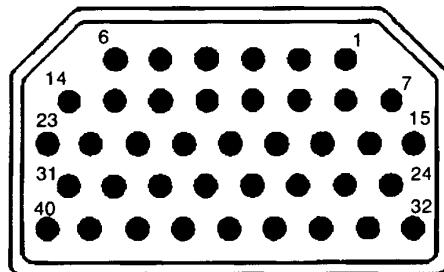
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2446559 S00061547334_V1

INSERT CONFIGURATION 32C4
Figure 17



2446554 S00061547335_V1

INSERT CONFIGURATION 40
Figure 18

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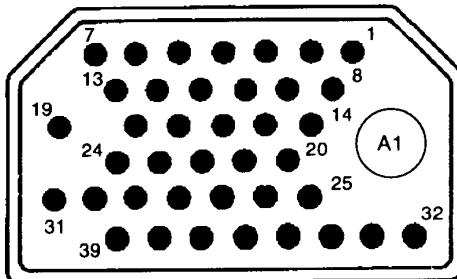
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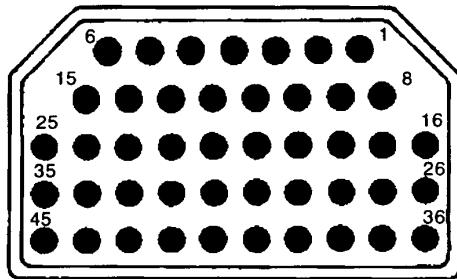
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2446560 S00061547336_V1

INSERT CONFIGURATION 40C1
Figure 19



2446555 S00061547337_V1

INSERT CONFIGURATION 45
Figure 20

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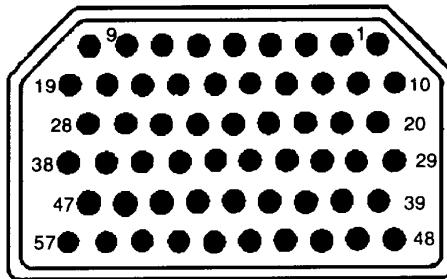
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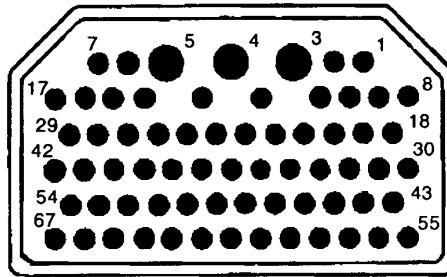
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS



2446556 S00061547338_V1

INSERT CONFIGURATION 57

Figure 21



2446557 S00061547339_V1

INSERT CONFIGURATION 67

Figure 22

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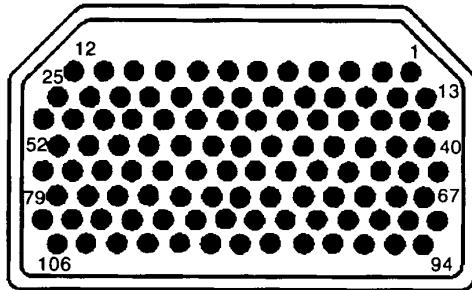
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2446561 S00061547340_V1

INSERT CONFIGURATION 106
Figure 23

3. CONNECTOR DISASSEMBLY

A. Contact Removal

Table 7
CONTACT REMOVAL TOOLS

Contact Size	Removal Tool	Supplier
2222	282880	Radiall
	282890	Radiall
	8660-162	Souriau
	91066-1	AMP
	ATBO2054	Astro
	ATC1054	Astro
	CET-DPXMA-22	ITT Cannon
	CIET-22	ITT Cannon
	CIET-22DPXMA	ITT Cannon
	DRK2663	Daniels
	DRK266J	Daniels
	M81969/1-01	QPL
	MS3156-22	QPL

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Table 7 CONTACT REMOVAL TOOLS (Continued)

Contact Size	Removal Tool	Supplier
2020HD	282 881	Radiall
	282 891	Radiall
	91066-4	AMP
	91067-2	AMP
	ATC2073	Astro
	CET-20D-1	ITT Cannon
	CIET	ITT Cannon
	CIET-20 HDL	ITT Cannon
	DRK145	Daniels
	M81969/1-02	QPL
	M81969/14-10	QPL
	MS3156-20	QPL
1616	ST2220-3-33	Boeing
	282 892	Radiall
	282 929	Radiall
	91066-3	AMP
	CET-16-15	ITT Cannon
	CET-16-9	ITT Cannon
	DRK83-16	Daniels
	M81969/1-03	QPL
	MS3156-16	QPL
	ST2220-3-7	Boeing
1212	282 945	Radiall
	445147-1	AMP
	91078-1	AMP
	CE912-4	ITT Cannon
	CET-12-4	ITT Cannon
	CIET-12	ITT Cannon
	M81969/28-02	QPL
	MS3178-002	QPL

- (1) Make a selection of a contact removal tool from Table 7.
- (2) Put the removal tool on the wire. Refer to Figure 24.

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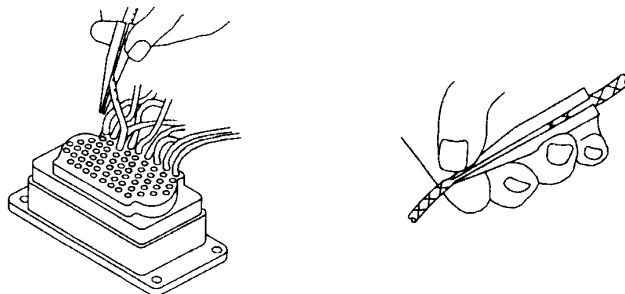
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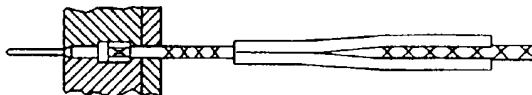


2446564 S00061547724_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE WIRE

Figure 24

- (3) Axially align the tool on the wire with the contact cavity. Refer to Figure 25.



2446565 S00061547725_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE CONTACT CAVITY

Figure 25

- (4) Push the removal tool into the contact cavity until it stops.

Make sure that the tool stays perpendicular to the face of the insert.

Refer to Figure 26.

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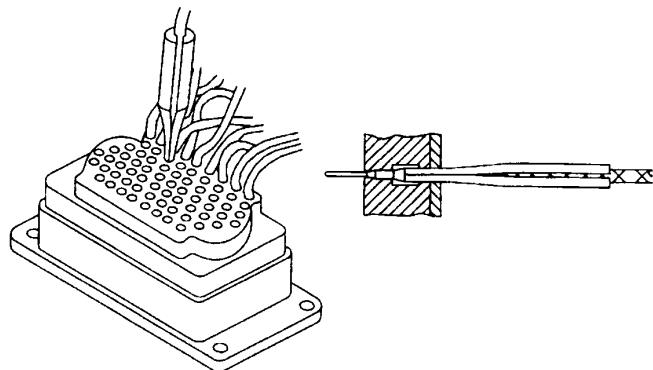
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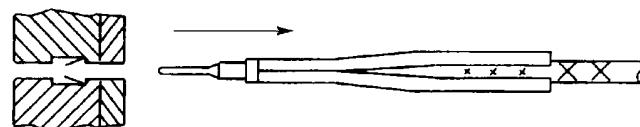


2446386 S00061547726_V1

POSITION OF THE REMOVAL TOOL IN THE CONTACT CAVITY

Figure 26

- (5) Pull the tool and the wire from the contact cavity at the same time. Refer to Figure 27.
Make sure that the tool stays perpendicular to the face of the insert.



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REMOVAL OF THE WIRED CONTACT

Figure 27

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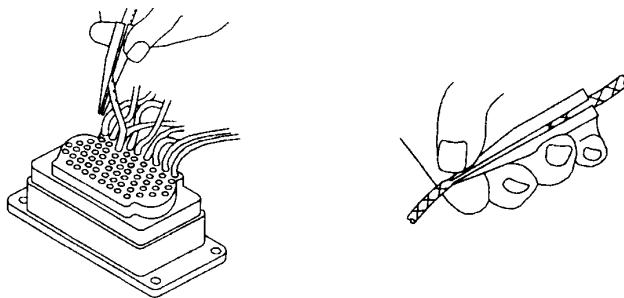
ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

B. Coax Contact Removal

Table 8
COAX CONTACT REMOVAL TOOLS

Contact Size	Removal Tool	Supplier
9	91074-1	AMP
5	91074-1	AMP

- (1) Make a selection of a coax contact removal tool from Table 8.
- (2) Put the removal tool on the wire. Refer to Figure 28.

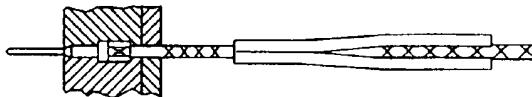


2446564 S00061547724_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE WIRE

Figure 28

- (3) Axially align the tool on the wire with the contact cavity. Refer to Figure 29.



2446565 S00061547725_V1

ALIGNMENT OF THE REMOVAL TOOL AND THE CONTACT CAVITY

Figure 29

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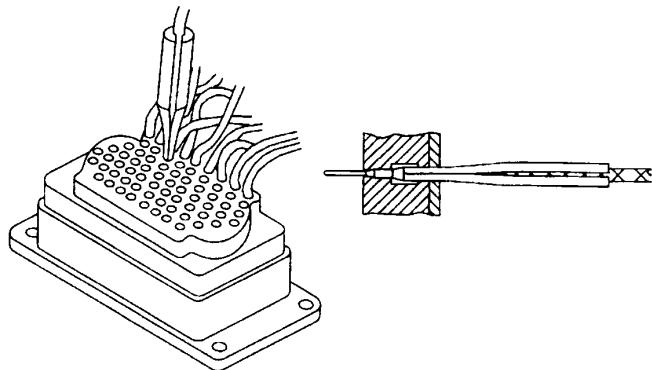
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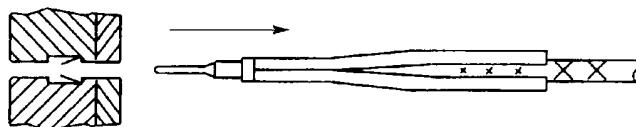
- (4) Push the removal tool into the contact cavity until it stops. Refer to Figure 30.
Make sure that the removal tool stays perpendicular to the face of the insert.



2446386 S00061547726_V1

POSITION OF THE REMOVAL TOOL IN THE CONTACT CAVITY
Figure 30

- (5) Axially pull the tool and the wire from the contact cavity at the same time. Refer to Figure 31.
Make sure that the removal tool stays perpendicular to the face of the insert.



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REMOVAL OF THE WIRED CONTACT
Figure 31

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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

4. CONNECTOR ASSEMBLY

A. Assembly of Size 2222, 2020HD, 1616, and 1212 Contacts

Table 9
INSULATION REMOVAL LENGTH

Wire Size (AWG)	Contact Size	Removal Length L (inch)		Special Instructions
		Target	Tolerance	
26	2222	0.19	±0.03	-
	2020HD	0.38	±0.03	Fold the conductor back
24	2222	0.19	±0.03	-
	2020HD	0.19	±0.03	-
	1616	0.56	±0.03	Fold the conductor back
22	2222	0.19	±0.03	-
	2020HD	0.19	±0.03	-
	1616	0.56	±0.03	Fold the conductor back
20	2020HD	0.19	±0.03	-
	1616	0.28	±0.03	-
18	1616	0.28	±0.03	-
16	1616	0.28	±0.03	-
	1212	0.28	±0.03	-
14	1212	0.28	±0.03	-
12	1212	0.28	±0.03	-

Table 10
CONTACT CRIMP TOOLS

Wire Size (AWG)	Contact Size	Crimp Tool					
		Basic Unit			Locator		
		Part Number	Setting	Supplier	Part Number	Color	Supplier
26	2222	M22520/2-01	3	QPL	M22520/2-23	-	QPL
	2020HD	M22520/2-01	5	QPL	M22520/2-08	-	QPL
		MS3191-1	-	QPL	P20-3191-1	-	ITT Cannon
24	2222	M22520/2-01	3	QPL	M22520/2-23	-	QPL
	2020HD	M22520/2-01	5	QPL	M22520/2-08	-	QPL
		MS3191-1	-	QPL	P20-3191-1	-	ITT Cannon
	1616	11148	-	Buchanan	-	Blue	-
		M22520/1-01	2	QPL	M22520/1-02	Blue	QPL
		MS3191-1	-	QPL	MS3191-16()	-	QPL

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Table 10 CONTACT CRIMP TOOLS (Continued)

Wire Size (AWG)	Contact Size	Crimp Tool					
		Basic Unit			Locator		
		Part Number	Setting	Supplier	Part Number	Color	Supplier
22	2222	M22520/2-01	4	QPL	M22520/2-23	-	QPL
	2020HD	M22520/2-01	6	QPL	M22520/2-08	-	QPL
		MS3191-1	-	QPL	P20-3191-1	-	ITT Cannon
	1616	11148	-	Buchanan	-	Blue	-
		M22520/1-01	4	QPL	M22520/1-02	Blue	QPL
		MS3191-1	-	QPL	MS3191-16()	-	QPL
20	2020HD	M22520/2-01	7	QPL	M22520/2-08	-	QPL
		MS3191-1	-	QPL	P20-3191-1	-	ITT Cannon
	1616	11148	-	Buchanan	-	Blue	-
		M22520/1-01	4	QPL	M22520/1-02	Blue	QPL
		MS3191-1	-	QPL	MS3191-16()	-	QPL
18	1616	11148	-	Buchanan	-	Blue	-
		M22520/1-01	5	QPL	M22520/1-02	Blue	QPL
		MS3191-1	-	QPL	MS3191-16()	-	QPL
16	1616	11148	-	Buchanan	-	Blue	-
		M22520/1-01	6	QPL	M22520/1-02	Blue	QPL
		MS3191-1	-	QPL	MS3191-16()	-	QPL
	1212	M22520/1-01	6	QPL	M22520/1-02	Yellow	QPL
		MS3191-1	-	QPL	-	Yellow	-
14	1212	M22520/1-01	7	QPL	M22520/1-02	Yellow	QPL
		MS3191-1	-	QPL	-	Yellow	-
12	1212	M22520/1-01	8	QPL	M22520/1-02	Yellow	QPL
		MS3191-1	-	QPL	-	Yellow	-

- (1) Make a selection of a crimp tool from Table 10.
- (2) Remove the necessary length of insulation from the end of the wire.

Refer to:

- Figure 32
- Table 9 for the insulation removal length
- Subject 20-10-15 for the insulation removal procedures.

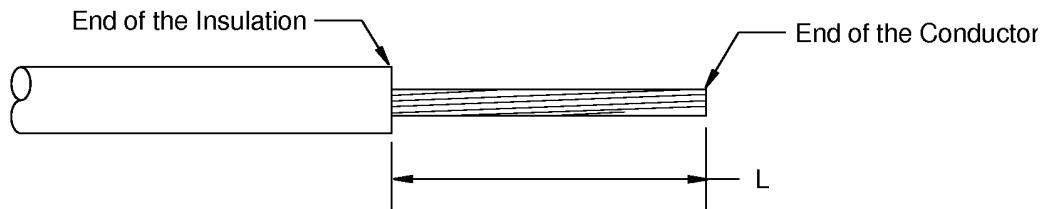
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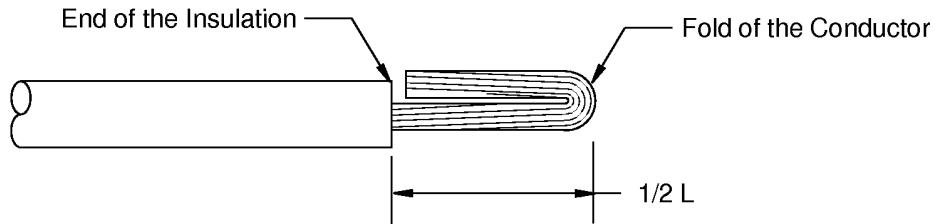


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INSULATION REMOVAL LENGTH

Figure 32

- (3) If it is necessary, fold the conductor back. Refer to Figure 33.



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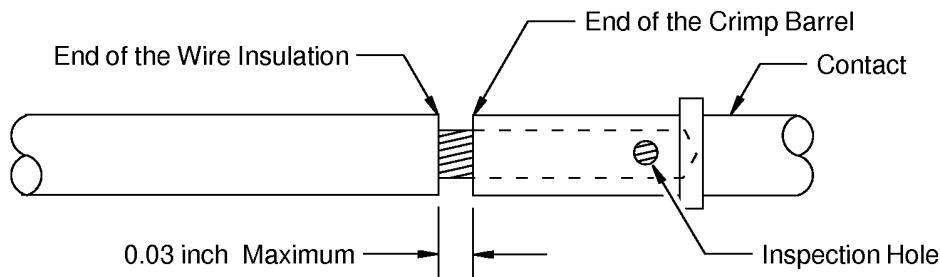
FOLDED BACK CONDUCTOR

Figure 33

- (4) Put the end of the wire in the crimp barrel of the contact. Refer to Figure 34.

Make sure that:

- All of the strands of the conductor are in the crimp barrel
- The conductor can be seen in the inspection hole
- The distance from the end of the insulation to the crimp barrel is not more than 0.03 inch.



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POSITION OF THE WIRE IN THE CONTACT CRIMP BARREL

Figure 34

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(5) Crimp the contact.

B. Assembly of Coax Contacts

Table 11
CABLE TRIM DIMENSIONS

Contact				Removal Length (inch) (Refer to Figure 36)			
Contact Size	Part Number	Supplier	Boeing Standard	A ± 0.02	B ± 0.02	C ± 0.02	D ± 0.02
5	225790-1	AMP	-	0.44	0.22	0.13	0.31
5	225791-1	AMP	BACC47EU1	0.44	0.22	0.13	0.31
5	225791-3	AMP	-	0.44	0.22	0.13	0.31
3	225792-1	AMP	-	1.19	0.69	0.50	0.69
-	225796-1	AMP	-	0.62	0.34	0.22	0.41
9	225936-2	AMP	-	0.44	0.22	0.13	0.31
9	225936-3	AMP	-	0.41	0.20	0.13	0.29
5	620020	Radiall	BACC47EU1	0.47	0.24	0.16	0.31
5	620120	Radiall	BACC47EV1	0.47	0.24	0.16	0.31
5	8660-2294	Souriau	BACC47EV2	0.60	0.35	0.18	0.42
5	8660-2480	Souriau	BACC47EV1	0.60	0.35	0.18	0.42
5	8660-2485	Souriau	BACC47EU1	0.60	0.35	0.18	0.42
5	8660-2298D	Souriau	BACC47EU2	0.56	0.30	0.17	0.39
5	8660-2298E	Souriau		0.56	0.30	0.17	0.39
5	CC5791-3	Cory/Tri-Star	-	0.44	0.22	0.13	0.31
5	CC5935-4	Cory/Tri-Star	-	0.41	0.20	0.13	0.29
5	CC5936-3	Cory/Tri-Star	-	0.41	0.20	0.13	0.29

Table 12
CENTER CONTACT CRIMP TOOLS

Coax Contact Part Number	Crimp Tool				
	Basic Unit			Locator	
	Part Number	Setting or Die Cavity	Supplier	Part Number	Supplier
225790-1	M22520/2-01	5	QPL	K-345	Daniels
225791-1	M22520/2-01	5	QPL	K-345	Daniels
225791-3	M22520/2-01	5	QPL	K-345	Daniels
225792-1	220015-1	A	AMP	-	-
225796-1	M22520/2-01	5	QPL	K-344	Daniels
225936-2	M22520/2-01	5	QPL	K-345	Daniels

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Table 12 CENTER CONTACT CRIMP TOOLS (Continued)

Coax Contact Part Number	Crimp Tool				
	Basic Unit			Locator	
	Part Number	Setting or Die Cavity	Supplier	Part Number	Supplier
225936-3	M22520/2-01	4	QPL	K-345	Daniels
620020	M22520/2-01	5	QPL	K-345	Daniels
620120	M22520/2-01	6	QPL	K-345	Daniels
8660-2294	M22520/2-01	5	QPL	M22520/2-14	QPL
8660-2480	M22520/2-01	5	QPL	M22520/2-14	QPL
8660-2485	M22520/2-01	5	QPL	M22520/2-14	QPL
8660-2298D	M22520/2-01	5	QPL	M22520/2-14	QPL
8660-2298E	M22520/2-01	5	QPL	M22520/2-14	QPL
CC5791-3	M22520/2-01	5	QPL	K-345	Daniels
CC5935-4	M22520/2-01	5	QPL	K-345	Daniels
CC5936-3	M22520/2-01	4	QPL	K-345	Daniels

**Table 13
OUTER CONTACT CRIMP TOOLS**

Coax Contact Part Number	Crimp Tool				
	Basic Unit		Die		
	Part Number	Supplier	Part Number	Cavity	Supplier
225790-1	612648	Buchanan	613365	B	Buchanan
	KTH-1000	Kings	KTH-2221	A	Kings
	M22520/5-01	QPL	M22520/5-45	A	QPL
	ST2966M	Boeing	ST2966M-7	-	Boeing
	ST965-4	Boeing	-	C	-
	WT201-03-10	Thomas and Betts	-	-	-
225791-1	69710	AMP	220066-1	B	AMP
	M22520/5-01	QPL	Y586	B	Daniels
225791-3	69710	AMP	220066-1	A	AMP
	M22520/5-01	QPL	Y586	C	Daniels
225792-1	220015-1	AMP	-	B	-
225796-1	69710	AMP	220066-1	B	AMP
	M22520/5-01	QPL	Y586	B	Daniels
225936-2	69710	AMP	220066-1	B	AMP
	M22520/5-01	QPL	Y586	B	Daniels

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Table 13 OUTER CONTACT CRIMP TOOLS (Continued)

Coax Contact Part Number	Crimp Tool				
	Basic Unit		Die		
	Part Number	Supplier	Part Number	Cavity	Supplier
225936-3	69710	AMP	220066-1	A	AMP
	M22520/5-01	QPL	Y586	C	Daniels
620020	227-956-6	Amphenol	-	A	-
	M22520/5-01	QPL	M22520/5-6	A	QPL
620120	227-956-6	Amphenol	-	A	-
	M22520/5-01	QPL	M22520/5-6	A	QPL
8660-2294	612648	Buchanan	612971	B	Buchanan
	KTH-1000	Kings	KTH-2221	B	Kings
	M22520/10-01	QPL	M22520/10-23	A	QPL
	M22520/5-01	QPL	M22520/5-45	B	QPL
8660-2480	612648	Buchanan	612971	B	Buchanan
	KTH-1000	Kings	KTH-2221	B	Kings
	M22520/10-01	QPL	M22520/10-23	A	QPL
	M22520/5-01	QPL	M22520/5-45	B	QPL
8660-2485	612648	Buchanan	612971	B	Buchanan
	KTH-1000	Kings	KTH-2221	B	Kings
	M22520/10-01	QPL	M22520/10-23	A	QPL
	M22520/5-01	QPL	M22520/5-45	B	QPL
8660-2298D	612648	Buchanan	612971	B	Buchanan
	KTH-1000	Kings	KTH-2221	B	Kings
	M22520/10-01	QPL	M22520/10-23	A	QPL
	M22520/5-01	QPL	M22520/5-45	B	QPL
8660-2298E	612648	Buchanan	612971	B	Buchanan
	KTH-1000	Kings	KTH-2221	B	Kings
	M22520/10-01	QPL	M22520/10-23	A	QPL
	M22520/5-01	QPL	M22520/5-45	B	QPL
CC5791-3	69710	AMP	220066-1	A	AMP
	M22520/5-01	QPL	Y586	C	Daniels
CC5935-4	69710	AMP	220066-1	A	AMP
	M22520/5-01	QPL	Y586	C	Daniels
CC5936-3	69710	AMP	220066-1	A	AMP
	M22520/5-01	QPL	Y586	C	Daniels

(1) Make a selection of a center contact crimp tool from Table 12.

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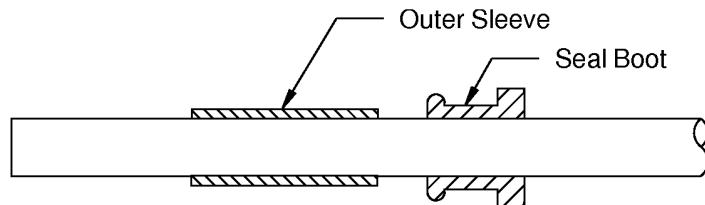


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- (2) Make a selection of an outer contact crimp tool from Table 13.
- (3) In this order, put these components on the cable:
 - The seal boot
 - The outer sleeve.

Refer to Figure 35.



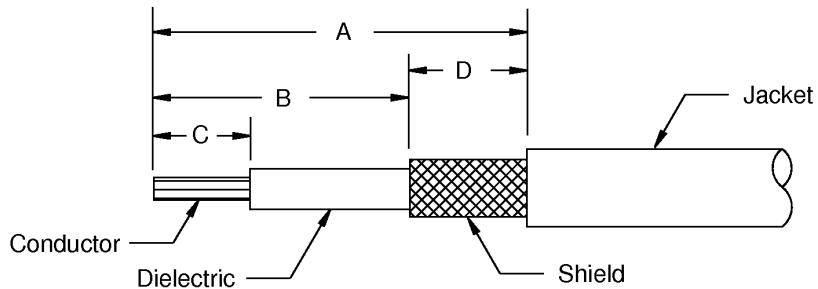
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OUTER SLEEVE AND SEAL BOOT ON THE CABLE

Figure 35

- (4) Prepare the cable. Refer to Figure 36.

Refer to Table 11 for the trim dimensions.



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COAX CABLE TRIM DIMENSIONS

Figure 36

- (a) Cut the cable to make its end perpendicular to its longitudinal axis.

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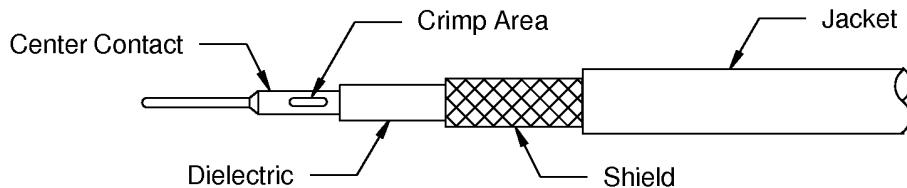
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- (b) Remove the necessary length of the jacket from the end of the cable to make the distance from the end of the jacket to the end of the cable equal to Dimension A.
 - (c) Remove the necessary length of the shield to make the distance from the end of the cable jacket to the end of the shield equal to Dimension D.
Make sure that the distance from the end of the shield to the end of the cable is Dimension B.
 - (d) Remove the necessary length of the dielectric to make the distance from the end of the dielectric to the end of the conductor equal to Dimension C.
- (5) Put the center conductor in the crimp barrel of the center contact. Refer to Figure 37.
Make sure that:
- The rear end of the contact is against the end of the dielectric
 - All of the strands of the conductor are in the crimp barrel
 - The conductor can be seen in the inspection hole of the contact.



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CENTER CONTACT ASSEMBLY

Figure 37

- (6) Crimp the center contact.
- (7) Move the strands of the shield to increase the diameter of the shield approximately 50 percent at end of the shield.
- (8) Push the center contact assembly into rear of the outer contact.
Make sure that the rear end of the outer contact is between the shield and the dielectric.
- (9) Push the outer contact rearward until it stops. Refer to Figure 38.
Make sure that the shield is equal and symmetrical around the circumference of the outer contact.

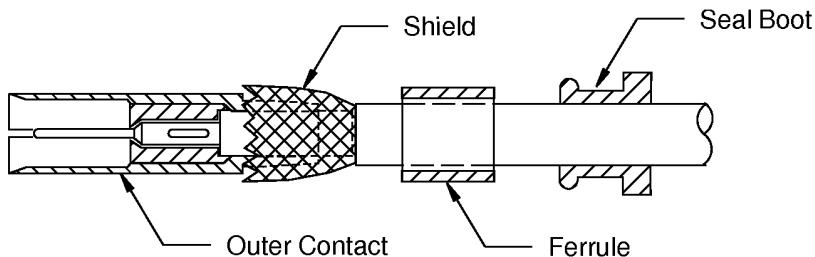
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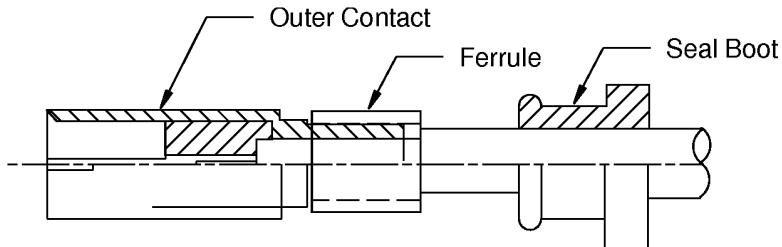


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POSITION OF THE OUTER CONTACT ON THE CENTER CONTACT ASSEMBLY

Figure 38

- (10) Push the ferrule forward until the forward edge of the ferrule is against the rear shoulder of the outer contact. Refer to Figure 39.



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OUTER CONTACT ASSEMBLY

Figure 39

- (11) Remove the unwanted length of the shield from the forward end of the ferrule.
Make sure that the end of the shield is aligned with the forward end of the ferrule.
- (12) Crimp the ferrule on the outer contact.
- (13) Push the seal boot toward the end of the cable until the forward edge of the boot is against the rear shoulder of the outer contact.

C. Contact Insertion

For coax contact insertion, refer to Paragraph 4.D..

Table 14
CONTACT INSERTION TOOLS

Contact Size	Insertion Tool	Supplier
2222	282 880	Radiall
	90166-1	AMP
	M81969/1-01	QPL
	MS3156-22	QPL

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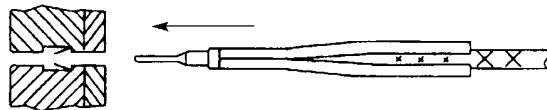


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Table 14 CONTACT INSERTION TOOLS (Continued)

Contact Size	Insertion Tool	Supplier
2020HD	282 881	Radiall
	91067-2	AMP
	M81969/1-02	QPL
	MS3156-20	QPL
1616	282 929	Radiall
	91066-3	AMP
	M81969/1-03	QPL
	MS3156-16	QPL
1212	282 945	Radiall
	445147-1	AMP
	M81969/28-02	QPL
	MS3178-002	QPL



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**INSERTION OF THE CONTACT
Figure 40**

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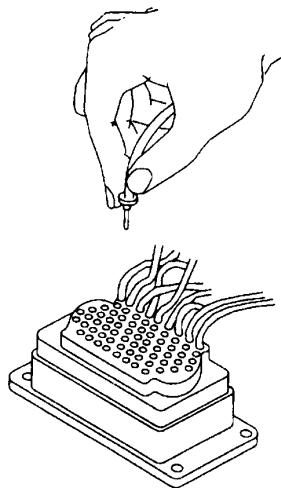
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CONTACT INSERTION WITHOUT A TOOL

Figure 41

Refer to Figure 40 and Figure 41.

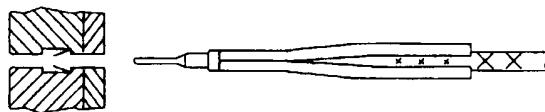
- (1) Make a selection of an insertion tool from Table 14.

NOTE: Contact insertion without a tool is a satisfactory alternative for contact insertion with a tool.

- (2) Put the wired contact in the end of the insertion tool.

Make sure that the end of the tool is against the shoulder of the contact.

- (3) Axially align the tool and the contact with the contact cavity at the rear of the connector. Refer to Figure 42.



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ALIGNMENT OF THE INSERTION TOOL AND THE CONTACT CAVITY

Figure 42

- (4) Push the tool straight into the contact cavity until it stops. Refer to Figure 40.

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CAUTION: MAKE SURE THAT THE TOOL AND THE CONTACT ARE PUSHED STRAIGHT INTO THE CONTACT CAVITY TO PREVENT DAMAGE TO THE CONNECTOR.

- (5) Carefully remove the tool from the contact cavity.
- (6) Lightly pull the wire to make sure that the contact is locked in the contact cavity.

CAUTION: DO NOT PULL THE WIRE WITH A STRONG OR A SUDDEN FORCE. DAMAGE TO THE CONTACT CAN OCCUR.

CAUTION: DO NOT MAKE A DENT IN THE WIRE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE WIRE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE WIRE.

- (7) If the contact is not locked in the contact cavity:
 - (a) Pull the wired contact out of the cavity.
 - (b) Do Step 4.C.(2) through Step 4.C.(6) again.

D. Coax Contact Insertion

- (1) Axially align the forward end of the coax contact with the contact cavity.
- (2) Push the coax contact into the contact cavity until it stops.
- (3) Lightly pull on the cable to make sure that the contact is locked.

CAUTION: DO NOT PULL THE CABLE WITH A STRONG OR A SUDDEN FORCE. DAMAGE TO THE CONNECTOR OR THE CONTACT CAN OCCUR.

CAUTION: DO NOT MAKE A DENT IN THE CABLE INSULATION WITH THE FINGERNAILS. DAMAGE TO THE CABLE INSULATION CAN CAUSE UNSATISFACTORY PERFORMANCE AND RELIABILITY OF THE WIRE.

- (4) If the contact is not locked in the contact cavity, do Step 4.D.(1) through Step 4.D.(3) again.

5. CONNECTOR POLARIZATION AND THE CONNECTOR PART NUMBER

A. Connector Polarization and the Connector Part Number

NOTE: The polarization code in the connector part number identifies the polarization position of the posts and keys.

- (1) Find the polarization code in the connector part number from the equipment list.
- (2) For that code, find the correct connector polarization for the:
 - Post positions on the plug
 - Key positions on the receptacle.

Refer to Figure 43 and Table 15.

- (3) If the polarization position of the posts and keys on the connector do not agree with the polarization code, put the posts and the keys in the correct position.
Refer to Paragraph 5.C.
- (4) If the polarization code in the part number on the connector does not agree with the polarization positions, change the part number on the connector.

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Refer to Paragraph 5.D.

B. Polarization Post and Key Positions



For the Plug, the Dark Area Shows the Polarization Post

For the Receptacle, the Dark Area Shows the Solid Part of the Polarization Key

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POLARIZATION POSITIONS

Figure 43

Table 15
CONNECTOR POLARIZATION - POST AND KEY POSITION

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
01	4	4	4	1	1	1
02	4	4	3	2	1	1
03	4	4	2	3	1	1
04	4	4	1	4	1	1
05	4	4	6	5	1	1
06	4	4	5	6	1	1
07	5	4	4	1	1	6
08	5	4	3	2	1	6
09	5	4	2	3	1	6
10	5	4	1	4	1	6
11	5	4	6	5	1	6
12	5	4	5	6	1	6
13	6	4	4	1	1	5
14	6	4	3	2	1	5
15	6	4	2	3	1	5
16	6	4	1	4	1	5
17	6	4	6	5	1	5
18	6	4	5	6	1	5
19	1	4	4	1	1	4
20	1	4	3	2	1	4
21	1	4	2	3	1	4

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Table 15 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
22	1	4	1	4	1	4
23	1	4	6	5	1	4
24	1	4	5	6	1	4
25	2	4	4	1	1	3
26	2	4	3	2	1	3
27	2	4	2	3	1	3
28	2	4	1	4	1	3
29	2	4	6	5	1	3
30	2	4	5	6	1	3
31	3	4	4	1	1	2
32	3	4	3	2	1	2
33	3	4	2	3	1	2
34	3	4	1	4	1	2
35	3	4	6	5	1	2
36	3	4	5	6	1	2
37	4	3	4	1	2	1
38	4	3	3	2	2	1
39	4	3	2	3	2	1
40	4	3	1	4	2	1
41	4	3	6	5	2	1
42	4	3	5	6	2	1
43	5	3	4	1	2	6
44	5	3	3	2	2	6
45	5	3	2	3	2	6
46	5	3	1	4	2	6
47	5	3	6	5	2	6
48	5	3	5	6	2	6
49	6	3	4	1	2	5
50	6	3	3	2	2	5
51	6	3	2	3	2	5
52	6	3	1	4	2	5
53	6	3	6	5	2	5
54	6	3	5	6	2	5
55	1	3	4	1	2	4

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ASSEMBLY OF AMP (TYCO) ARINC 404 AND MIL-C-81659 CONNECTORS

Table 15 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
56	1	3	3	2	2	4
57	1	3	2	3	2	4
58	1	3	1	4	2	4
59	1	3	6	5	2	4
60	1	3	5	6	2	4
61	2	3	4	1	2	3
62	2	3	3	2	2	3
63	2	3	2	3	2	3
64	2	3	1	4	2	3
65	2	3	6	5	2	3
66	2	3	5	6	2	3
67	3	3	4	1	2	2
68	3	3	3	2	2	2
69	3	3	2	3	2	2
70	3	3	1	4	2	2
71	3	3	6	5	2	2
72	3	3	5	6	2	2
73	4	2	4	1	3	1
74	4	2	3	2	3	1
75	4	2	2	3	3	1
76	4	2	1	4	3	1
77	4	2	6	5	3	1
78	4	2	5	6	3	1
79	5	2	4	2	3	6
80	5	2	3	2	3	6
81	5	2	2	3	3	6
82	5	2	1	4	3	6
83	5	2	6	5	3	6
84	5	2	5	6	3	6
85	6	2	4	1	3	5
86	6	2	3	2	3	5
87	6	2	2	3	3	5
88	6	2	1	4	3	5
89	6	2	6	5	3	5

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Table 15 CONNECTOR POLARIZATION - POST AND KEY POSITION (Continued)

Code	Receptacle Shell Key			Plug Shell Post		
	Left	Center	Right	Left	Center	Right
90	6	2	5	6	3	5
91	1	2	4	1	3	4
92	1	2	3	2	3	4
93	1	2	2	3	3	4
94	1	2	1	4	3	4
95	1	2	6	5	3	4
96	1	2	5	6	3	4
97	2	2	4	1	3	3
98	2	2	3	2	3	3
99	2	2	2	3	3	3

C. Change of the Polarization Posts and Keys

- (1) To change the polarization of a post:
 - (a) Remove the nut and washer from the threaded end of the post.
 - (b) Remove the post from the hexagonal hole in the connector shell.
 - (c) Align the post with the correct position.
 - (d) Put the post back into the hexagonal hole.
Make sure that the post is in the correct position.
 - (e) Put the washer and the nut on the threaded end of the post.
 - (f) Tighten the nut.
- (2) To change the polarization of a key:
 - (a) Remove the necessary screws from the connector shell.
 - (b) Remove the key from the hexagonal hole.
 - (c) Align the key with the correct position.
 - (d) Put the key back into the hexagonal hole.
Make sure the key is in the correct position.
 - (e) Install and tighten the screws.

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D. Change of the Polarization Code, Any Part of the Connector Part Number, or the Complete Part Number on the Connector Shell

Table 16
NECESSARY MATERIALS

Material	Part Number	Supplier
Ink	No. 68 Fast Dry	Independent
Ink	No. 73X NW Opaque	Independent
Ink	No. 73X Opaque	Independent
Paint, Clear	683-3-2	Akzo
Paint, Clear	Clear Lacquer	Tartan
Paint, Clear	EC-776	3M
Paint, Clear	EC-776SR	3M
Pen	Permanent Ink Pen, Ultra Fine Point	Sanford Sharpie

Table 17
LOCATION OF CONNECTOR PART NUMBER DATA

Connector	Number of Inserts	Reference
ARINC 404	1	Figure 1
	2	Figure 2
	3	Figure 3
	4	Figure 4
MIL-C-81659	1	Figure 1
	2	Figure 2
	3	Figure 3
	4	Figure 4

- (1) If the part number on the connector does not have a part number or polarization code:
 - (a) Make a selection of these materials from Table 16.
 - An ink or a permanent ink pen
 - A clear paint.
 - (b) Write the part number and the polarization code on the connector shell in the correct position.
Refer to Table 1 and Table 17 for the details of the applicable connector part number.
 - (c) Let the ink dry for a minimum of 10 minutes.
 - (d) Apply a layer of the clear paint on the part number on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

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- (e) Let the paint dry before the connector shell is touched or moved.
- (2) If the part number or polarization code on the connector is incorrect:
 - (a) Apply a layer of ink on the incorrect part number or polarization code on the connector shell.
Make sure that the incorrect part number or polarization code cannot be read.
- (3) Write the part number and the polarization code on the connector shell in the correct position.
 - Adjacent to the location of the incorrect part number and polarization code
 - In the correct position on the connector shell.

Refer to the details of the applicable connector part number:

- Figure 1 for the One Insert Connector
- Figure 2 for the Two Insert Connector
- Figure 3 for the Three Insert Connector
- Figure 4 for the Four Insert Connector

- (4) Let the ink dry for a minimum of 10 minutes.
- (5) Apply a layer of ink on the incorrect code on the connector shell.

CAUTION: DO NOT APPLY PAINT ON THE CONTACTS. PAINT ON THE SURFACE OF A CONTACT CAN CAUSE UNSATISFACTORY ELECTRICAL PERFORMANCE OF THE CONTACT.

- (6) Let the paint dry before the connector shell is touched or moved.

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