



NOTE

All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters. Unless otherwise specified, dimensions have a tolerance of ± 0.13 and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the requirements for application of FAKRA-compliant SMB Gen-4 connector system. This connector system is designed for use on automotive RF applications including AM/FM radio, navigation systems, SDARS, video, and other applications. The system accommodates RG-58, RG-58 LL (low loss), Mini 59, RG-59, RG-62, RG-62U/M, RG-71, RG-71U/M, RG-174, RG-174 LL, RG-316, RG-179, 1.5 DS-QFB, 2DS-PPFW(TA) and RTK031 coaxial cable. The connector system consists of a jack assembly (male connector) and a plug assembly (female connector); available in 1 position, 2 positions, and 2-position hybrid SMB/power.

Each connector consists of a housing and lock, subassembly and spacer (if required), ferrule (straight or right-angle), and pin contact (for the jack assembly) and socket contact (for the plug assembly). Each component is available separately. When assembled, the lock secures the terminated subassembly inside the housing. Each connector has a locking feature (Jack has locking tab and plug has locking latch) to ensure full mating. The plug assembly has integral keys, and the jack assembly has integral keying ribs. Keying is used for inadvertent mating of similar connector assemblies. These connectors are terminated using hand or automatic machine crimping tools.

When corresponding with TE Connectivity Personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.

Connectors For RG-174, RG-174 LL, RG-316, RG-179, 1.5 DS-QFB, 2DS-PPFW(TA) and RTK031 Coaxial Cable

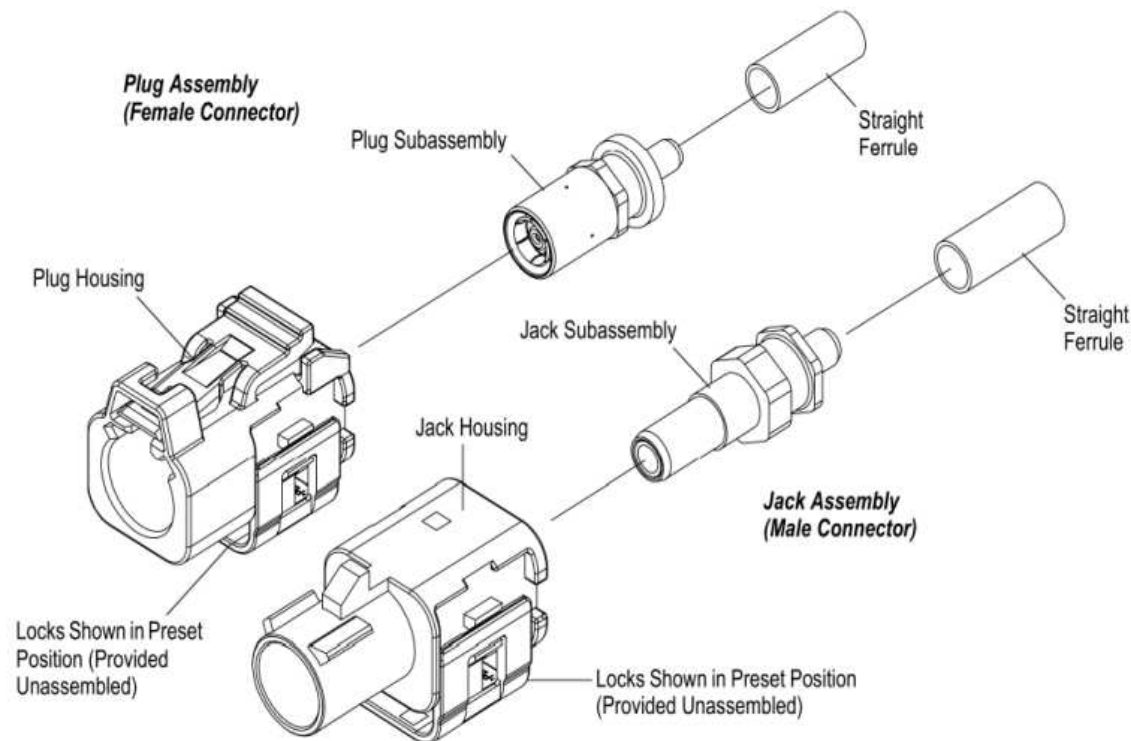
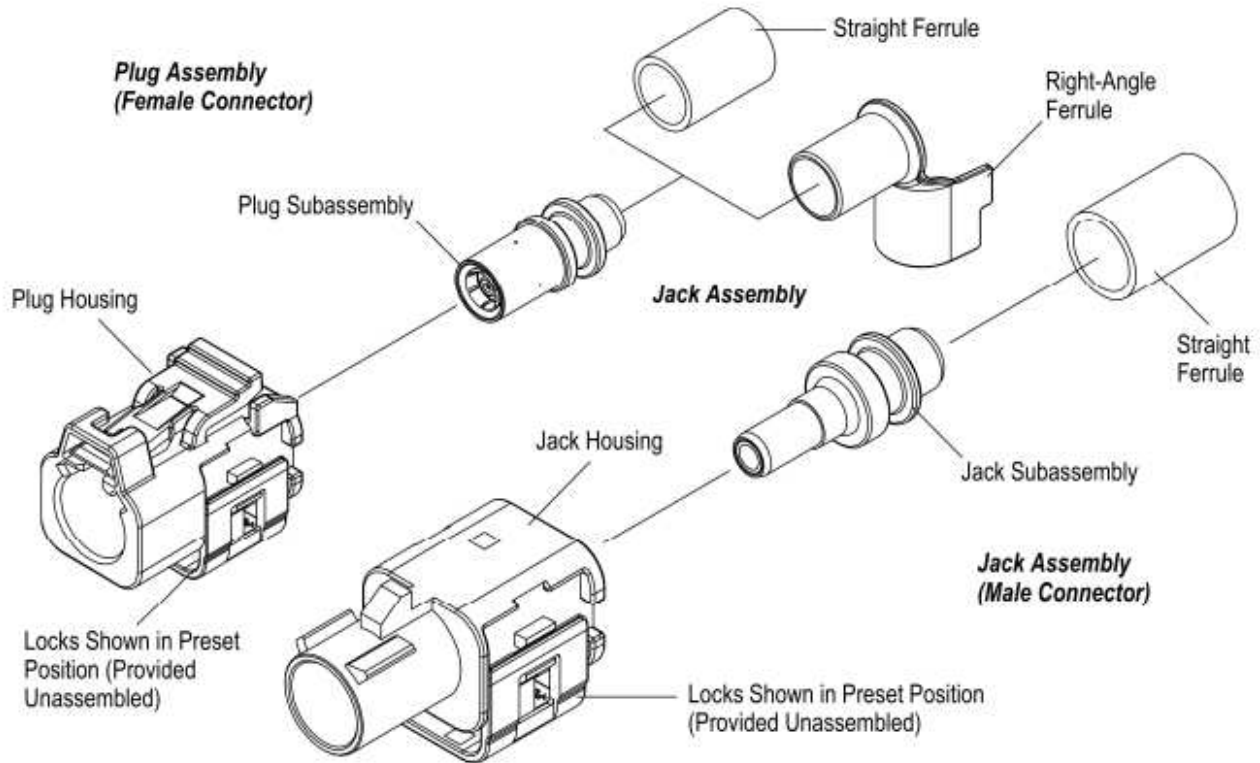


Figure 1 (Cont'd)

FAKRA is the DIN Standardization Committee of Motor Vehicles 70010.

Connectors for RG-58, RG-58 LL, Mini 59, and 4mm Coaxial Cable



Connectors for RG-59, RG-62, and RG-71 Coaxial Cable

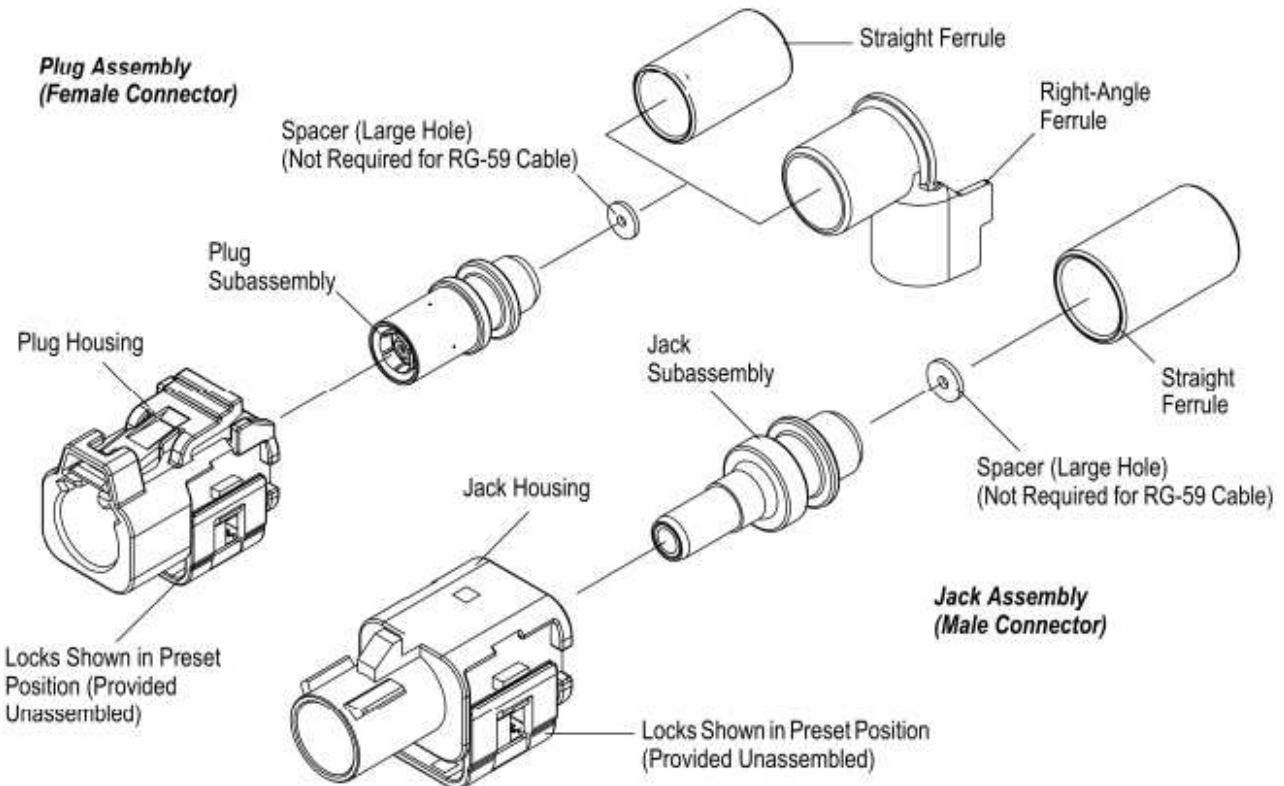
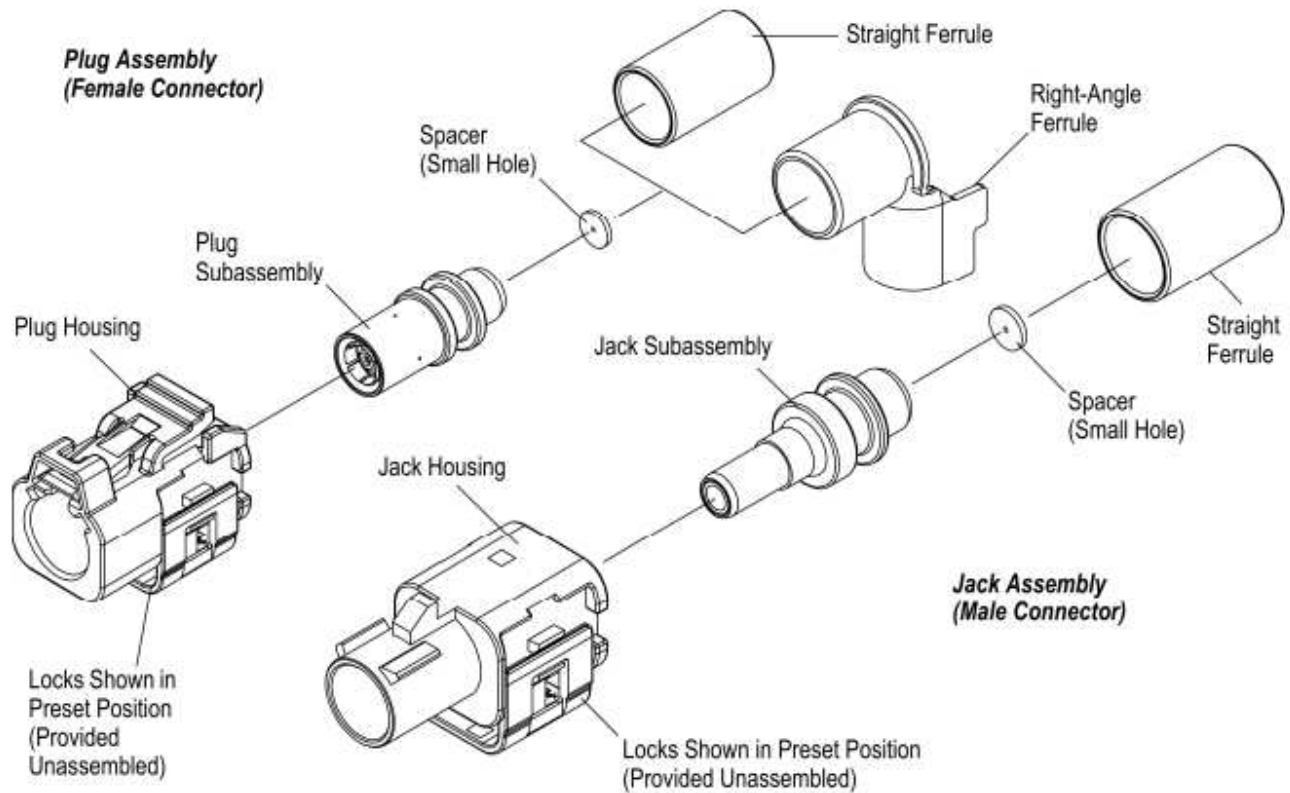


Figure 1 (Cont'd)

Connectors for RG-62U/M and RG-71U/M Coaxial Cable



Panel Mount Jack Assembly (Male Connector) for RG-174, RG-174 LL, and RG-316 Coaxial Cable

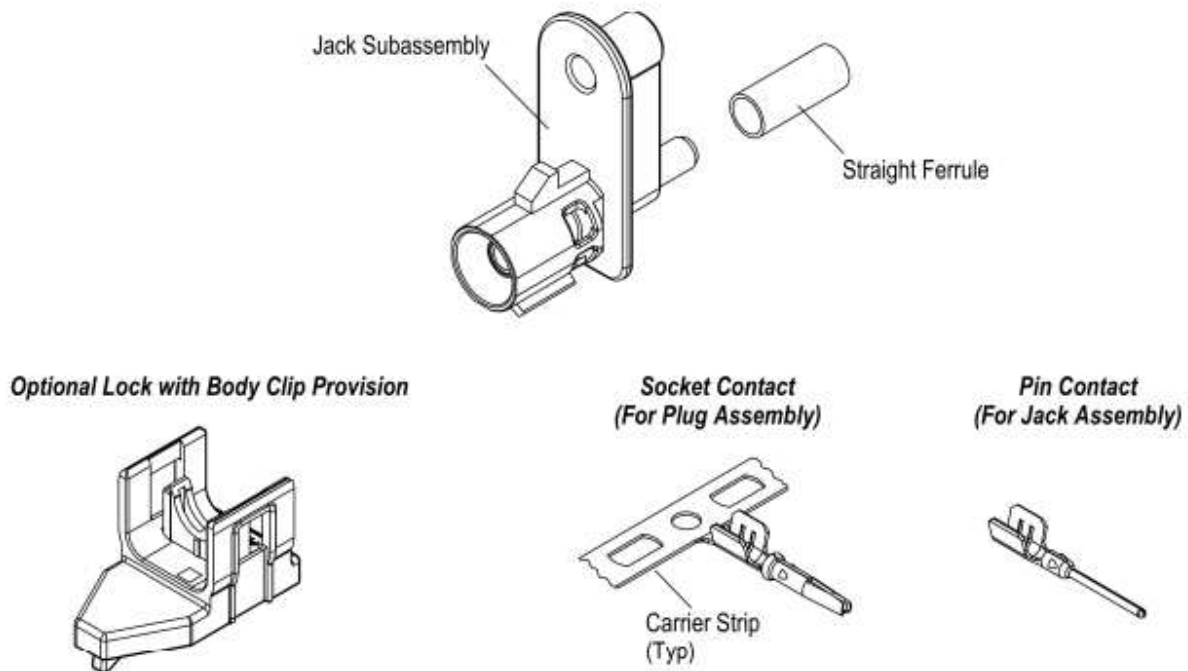
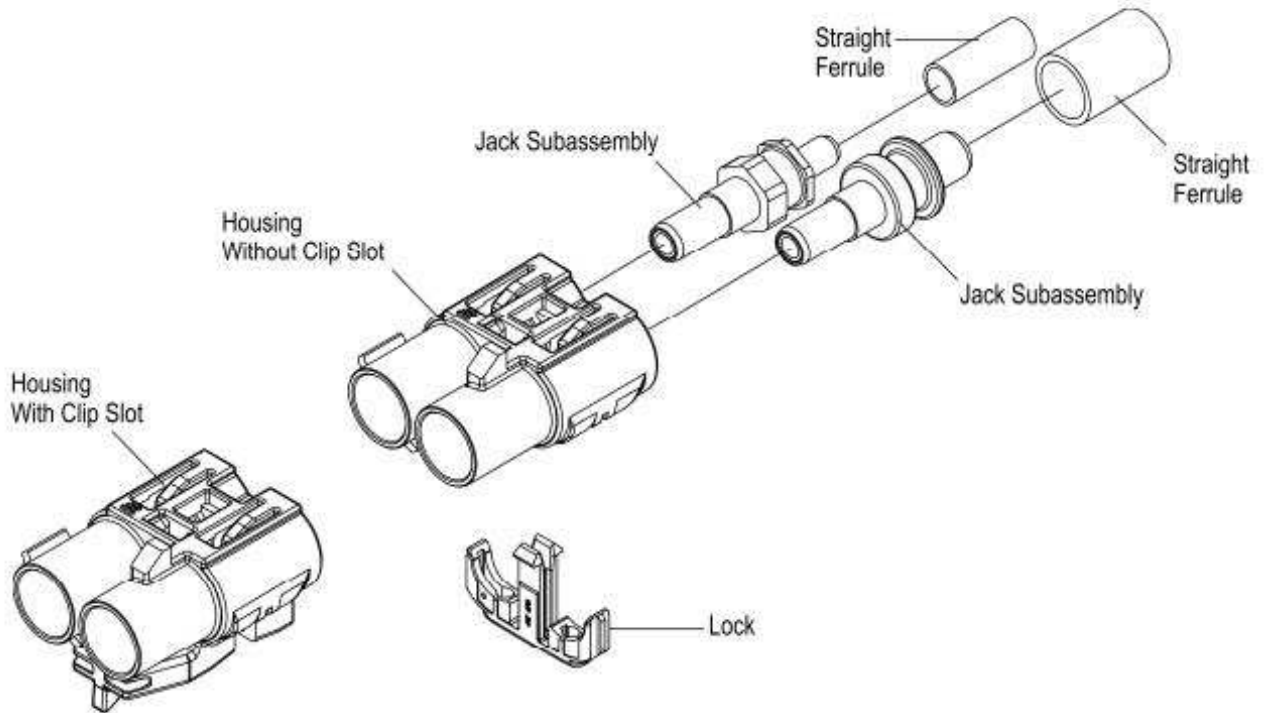


Figure 1 (Cont'd)

2-Position Jack Assembly (Male Connector) for RG-174, RG-58, Mini 59, and 4mm Coaxial Cable



2-Position Jack Assembly (Male Connector) for 1.5DS-QFB Coaxial Cable

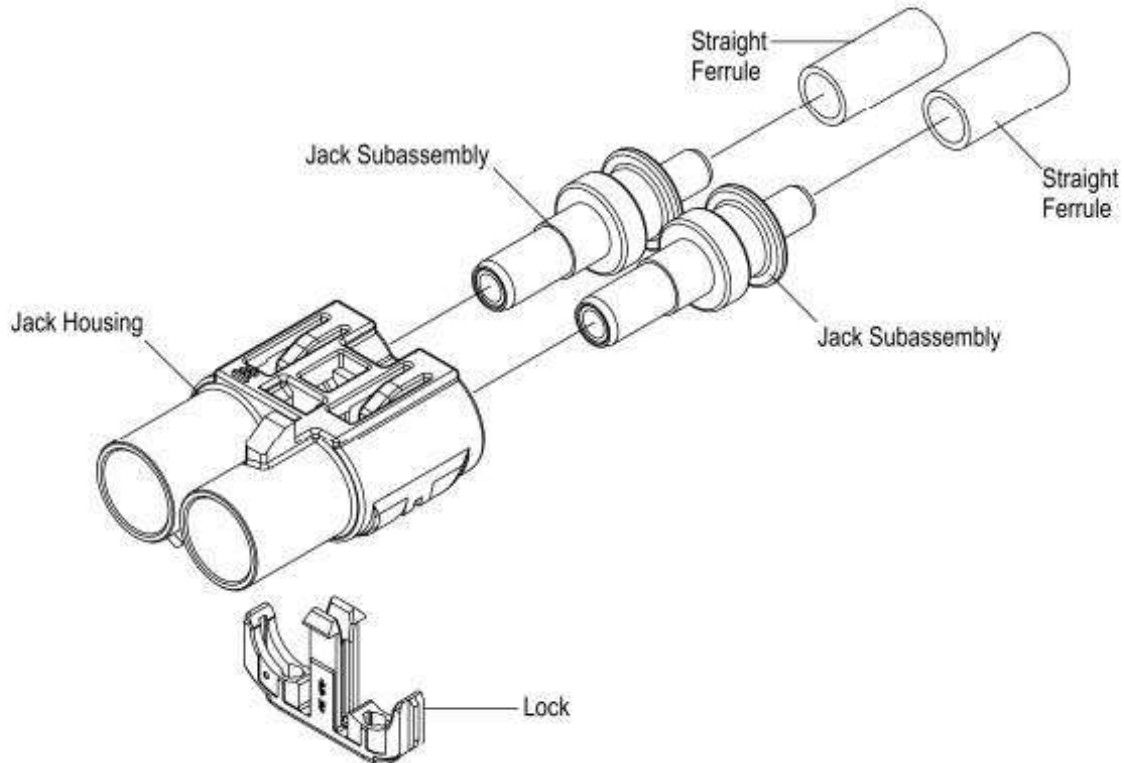
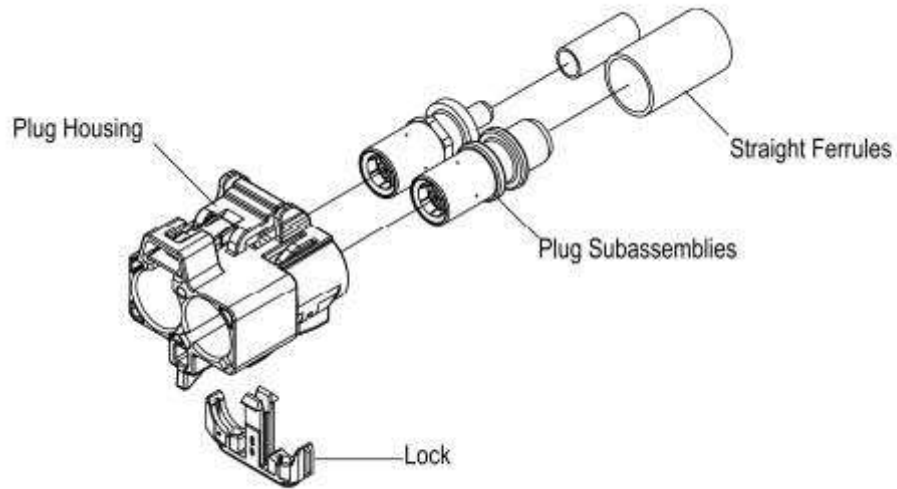
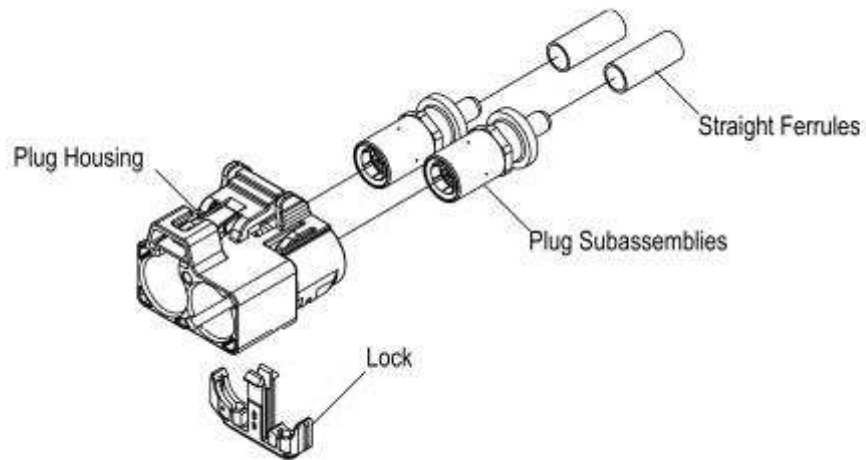


Figure 1 (Cont'd)

2-Position Plug Assembly (Female Connector) for RG-174 and RG-71 U/M Coaxial Cable



2-Position Plug Assembly (Female Connector) for RG-316 and RG-174 Coaxial Cable



2-Position Plug Assembly (Female Connector) for RG-174, RG-58, Mini 59, and 4mm Coaxial Cable

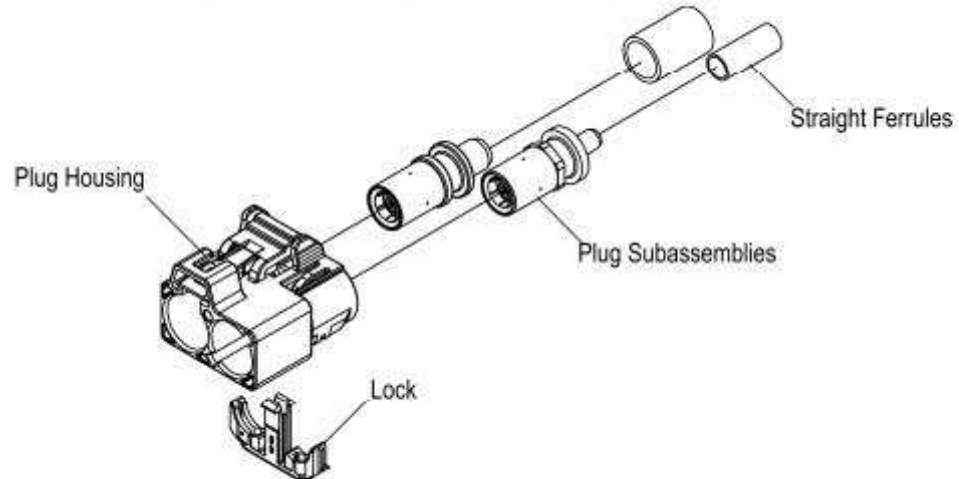
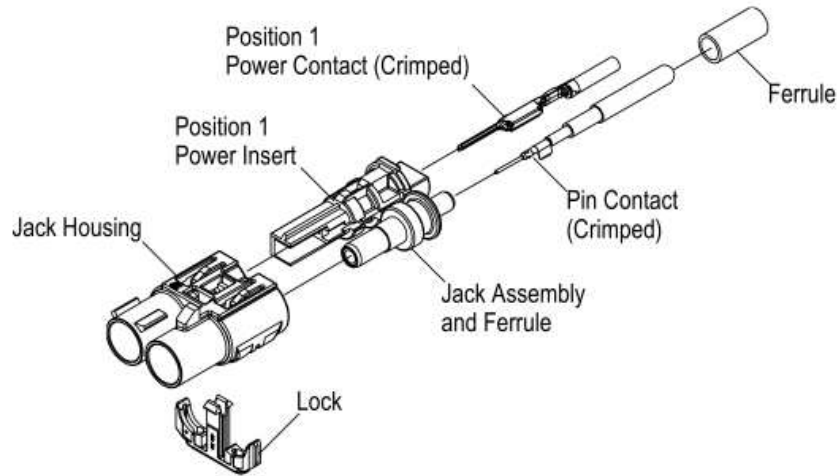


Figure 1 (Cont'd)

2-Position Hybrid SMB/Power Jack Assembly (Male Connector)



2-Position Hybrid SMB/Power Plug Assembly (Female Connector)

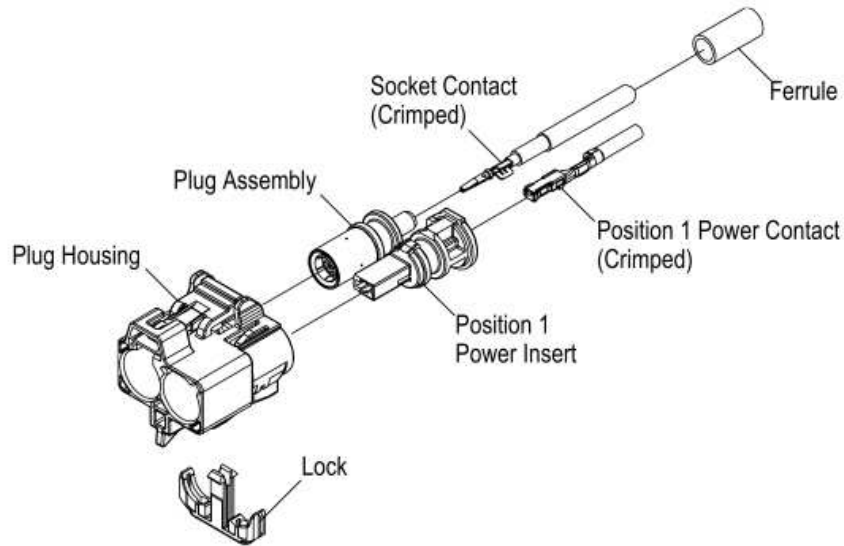


Figure 1 (End)

2. REFERENCE MATERIAL

2.1. Revision Summary

- Added Ferrule “O” crimp information for 2DS-PPFW(TA) from supplier GG to Figures 6, and 9.
- Revision letter updated to Y due to X not acceptable revision letter.

2.2. Customer Assistance

Reference Product Base Part Numbers 1438887, 1438890, 1438910, 1924856, and 2098285 and Product Code W763 are representative of FAKRA-compliant SMB Gen-4 connector system. Use of these numbers will identify the product line and help you to obtain product and tooling information. Such information can be obtained through a local Representative, by visiting our website at www.te.com, or by calling PRODUCT INFORMATION or the TOOLING ASSISTANCE CENTER at the numbers at the bottom of page 1.

2.3. Drawings

Customer Drawings for product part numbers are available from the service network. If there is a conflict between the information contained in the Customer Drawings and this specification or with any other technical documentation supplied, call PRODUCT INFORMATION at the number at the bottom of page 1.

2.4. Specifications

These connectors are compatible with SAE USCAR-17 (Rev. 2, 11/04) and DIN 72594-1 (Rev. 6, 03/06, German Language).

2.5. Instructional Material

Instruction Sheets (408- and 411-series) provide product assembly instructions or tooling setup and operation procedures and Customer Manuals (409- and 412-series) provide machine setup and operating procedures. Documents available that pertain to this product are:

408-2498	Crimping Head Cross Reference for Pneumatic Tools
408-3295	Preparing Reel of Contacts for Application Tooling
408-4070	Pneumatic Head Assembly 679304-1
408-4303	Pneumatic CERTI-CRIMP* Tool Holder Assemblies 356302-1 and 356303-1
408-7424	Checking Terminal Crimp Height or Gaging Die Closure
408-8040	Heavy Duty Miniature Quick-Change Applicators (Side-Feed Type)
408-8589	Crimping Die Assembly 1338120-1
408-8590	Crimping Die Assembly 1338650-1
408-8851	SDE PEW 12 Hand Crimping Tool Frame Assembly 9-1478240-0
408-9657	75-Ohm Hex Crimp Die Assemblies 58425 and 58436
408-9816	Handling of Reeled Products
408-9830	PRO-CRIMPER* III Hand Tool Assembly 58499-1 with Die Assembly 58483-1
408-9930	PRO-CRIMPER III Hand Crimping Tool Frame Assembly 354940-1
408-10028	FAKRA-Compliant SMB Gen-4 Connector System
408-10058	Tooling Die Assemblies 1901262- [] for FAKRA-Compliant SMB Gen-4 Connectors
408-10064	SDE Die Assembly 1901280-1
408-10435	Hex Die Assembly 2161306-1
409-5842	AMP-0-LECTRIC* Model "G" Terminating Machines 354500- []
409-5862	626 Pneumatic Tooling Assemblies 189721-[] and 189722-[]
409-10027	Stripping Module 1490502-[], 1490500- [], and 1725910-[]
409-10029	Stripping Module 1490503-[] and 1490501-[]
409-10047	AMP 3K* Terminating Machines 1725950-[] and AMP 5K* Terminating Machines 1725900-[]
409-10052	SDE Electric Bench Terminator 1490076-2
409-10065	SDE Closed Head Battery Powered Crimp Tool Kit 1213890-[]
411-18087	ERGO CRIMP* Crimp Hand Tool 539635-1
411-18272	ERGO CRIMP Hexagonal Die Assembly 1-1579001-1
412-18876	Pneumatic Crimp Machine AT-SC 528050-1

3. REQUIREMENTS

3.1. Safety

Do not stack product shipping containers so high that the containers buckle or deform.

3.2. Limitations

The connectors are designed to operate in a temperature range of -40 to 100 °C [-40 to 212 °F].



NOTE

Temperature rating of the coaxial cable must be considered when determining operating temperature of the connector and cable assembly.

3.3. Material

A. Jack Assembly

The lock, housing, and dielectrics are made of polybutylene terephthalate (PBT), the shell of the subassembly is made of zinc plated with tin over nickel over copper flash. The pin contact is made of brass plated with gold over nickel at the interface, and tin over nickel in the crimp barrel. The ferrule is made of copper over nickel. Spacers are required for RG-62, RG-62U/M, RG-71, and RG-71U/M. The spacer and power insert material is nylon.

B. Plug Assembly

The lock, housing, and dielectrics are made of polybutylene terephthalate (PBT), the shell of the subassembly is made of zinc plated with tin over nickel over copper flash. The outer contact is made of copper, nickel, and silicon plated tin. The retaining ring is brass plated tin over nickel. The socket contact is brass plated with gold over nickel at the interface, and gold over nickel in the wire crimp barrel. The ferrule is copper over nickel. Spacers are required for RG-62, RG-62U/M, RG-71, and RG-71U/M. The spacer and power insert material is nylon.

3.4. Storage

A. Ultraviolet Light

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the connectors.

B. Reeled Contacts

When using tape-mounted reeled contacts, care must be taken to prevent stretching, sagging, or other distortion that would prevent smooth feeding of the reeled product through automatic machine feed mechanisms. Store coil wound reels horizontally and traverse wound reels vertically.

C. Shelf Life

The connectors should remain in the shipping containers until ready for use to prevent deformation to the contacts. The connectors should be used on a first in, first out basis to avoid storage contamination that could adversely affect performance.

D. Chemical Exposure

Do not store connectors near any chemical listed below as they may cause stress corrosion cracking in the contacts.

Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites		Tartrates

3.5. Cable Preparation and Use of Spacer

1. The ferrule must be installed onto the cable.
2. Proper strip length is necessary to properly apply the cable to the contact. See Figure 2.



CAUTION

Reasonable care must be taken not to nick, scrape, or cut any strands during the stripping operation.

3. The cable braid must be flared.
4. If required, the spacer must be slid onto the unterminated stripped center conductor of coaxial cable.

NOTE



It is recommended the use of spacers when terminating the connectors to RG-62, RG-62 U/M, RG-71, and RG-71 U/M coaxial cable. The spacer is required due to the differences observed in the construction of the dielectric used for these types of coaxial cable. Some coaxial cable contains a spiral wrapped dielectric/air core or various consistencies of foam dielectrics. In the event that a customer chooses to eliminate the spacer from their assembly operation, TE will not assume responsibility for any assembled connectors or cable assemblies.

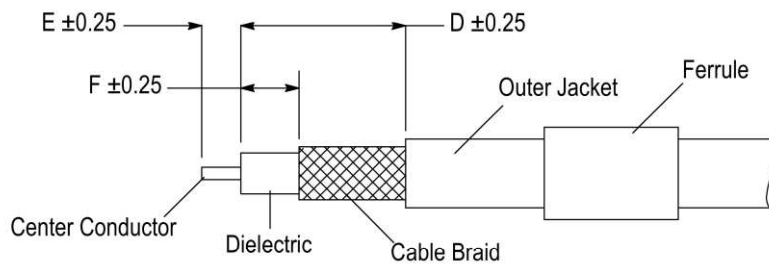
The following procedure is offered as a guide to be used as a starting point for assembling the connectors without spacers.

1. Build 30 jack assemblies with the recommended spacer.

2. Build 30 jack assemblies without the recommended spacer. The center conductor strip length must be changed to 3.11.
3. Subject the 30 samples with the recommended spacers to a pin push-back test. The test shall be performed by pushing with a flat gauge pin on the tip of the pin contact (Jack assembly) until a peak force is observed.
4. Repeat Step 3 using the samples constructed without the recommended spacer.
5. Calculate the average push-back force and standard deviation for both test groups. If the average ± 3 standard deviations for both test groups are within the same range, the spacer can be eliminated for that type of coaxial cable.

OEM approval should be sought before connectors are applied onto cable assembled without the recommended spacer

Cable Stripping Dimensions



Units on this page are mm

CONNECTOR	CABLE SIZE	DIMENSION ± 0.25		
		D	E	F
Plug Assembly (Socket Contact)	RG-62U/M, RG-71U/M	6.84	3.55	1.20
	RG-62, RG-71	6.84	3.55	1.20
	RG-59, Mini 59	7.28	3.11	1.64
	DACAR 462, 1.5 DS-QFB, RG-316, RG-74, RG-174 LL, RG-179	7.28	3.11	1.64
	RG-58, RG-58 LL, RTK031, 2DS-PPFW(TA)	7.53	3.00	1.89
Jack Assembly (Pin Contact)	RG-62U/M, RG-71U/M	9.47	3.55	3.58
	RG-62, RG-71	9.47	3.55	3.58
	RG-59, Mini 59	9.91	3.11	4.02
	DACAR 462, 1.5 DS-QFB, RG-316, RG-174, RG-174 LL, RG-179	9.91	3.11	4.02
	RG-58, RG-58 LL, RTK031, 2DS-PPFW(TA)	10.16	3.00	4.27
Panel Mount Jack Assembly	RG-316, RG-174, RG-174 LL	10.66	3.11	4.77

Figure 2

3.6. Crimped Contact

Crimp the contact onto center conductor of cable (see Figure 3). Refer to instructions packaged with crimp tooling for appropriate procedures.

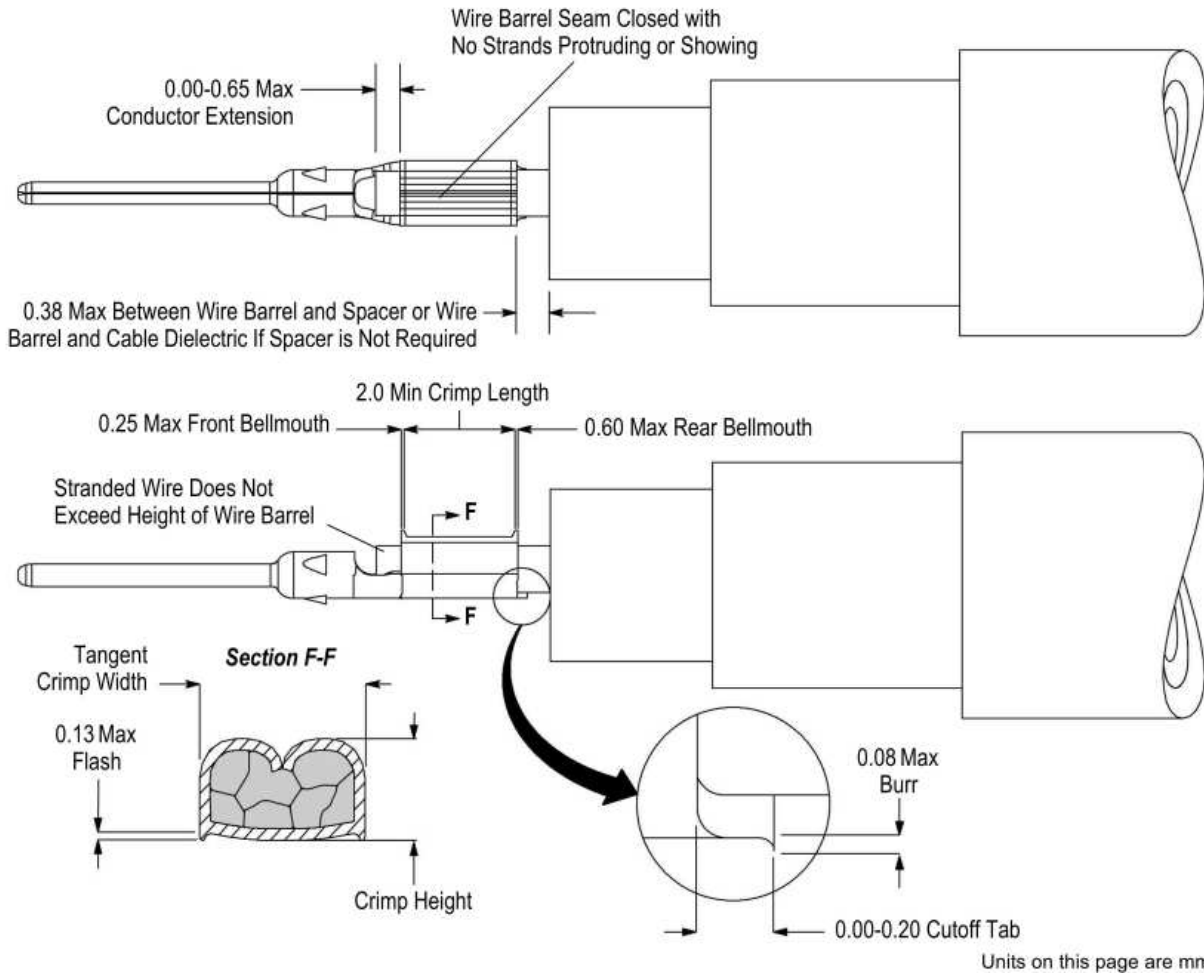


NOTE

For information on crimping power contacts to be used with the hybrid SMB/power connector, refer to Application Specification 114-13183.

A. Wire Barrel Crimp

The crimp applied to the wire barrel is the most compressed area and is most critical in ensuring optimum electrical and mechanical performance of the crimped contact. The contact wire barrel crimp height must be within the dimension provided in Figure 3.



CABLE SIZE	CONTACT WIRE BARREL ("F" CRIMP)	
	CRIMP HEIGHT	TANGENT CRIMP WIDTH (Nominal)
RG-58, RG-58 LL, AMC-4mm, 2DS-PPFW(TA)	0.860 ±0.050	1.57
RG-59, Mini 59	0.860 ±0.050	1.17
RG-62, RG-71	0.965 ±0.050	1.17
RG-179, RG-62U/M, RG-71U/M	0.470 ±0.038	0.84
RG-174, RG-316, DACAR 462	0.740 ±0.038	1.07
RG-174 LL	0.790 ±0.038	1.07
1.5 DS-QFB	0.860 ±0.050	1.07
RTK031	0.830 ±0.038	1.17

Figure 3

B. Effective Crimp Length

For optimum crimp effectiveness, the crimp must be within the area shown in Figure 3. Effective crimp length shall be defined as that portion of the wire barrel, excluding bellmouth(s), fully formed by the crimping tool. Instructions for adjusting, repairing, and inspecting tools are packaged with the tools.

C. Bellmouths

Front and rear bellmouths shall conform to the dimensions given in Figure 3.

D. Cutoff Tab

The cutoff tab shall be cut to the dimensions shown in Figure 3.

E. Burr

The cutoff burr shall not exceed the dimensions shown in Figure 3.

F. Wire Barrel Flash

The wire barrel flash shall not exceed the dimensions shown in Figure 3.

G. Conductor Extension

The conductor must extend beyond the wire barrel, but less than the maximum shown.

H. Wire Barrel Seam

The wire barrel seam must be closed with no evidence of wire visible in the seam.

I. Twist and Roll

There shall be no twist, roll, deformation or other damage to the mating portion of the crimped contact that will impair usage of the contact.

J. Straightness

The force applied during crimping may cause some bending between the crimped wire barrel and the mating portion of the contact or between the crimped wire barrel and the cable dielectric. Such deformation is acceptable within the limits provided in Figure 4.

1. The side-to-side bend of the contact may not exceed the limits provided.
2. The up and down bend of the crimped contact, including cutoff tab and burr, shall not be bent above or below the datum line more than the amount given.

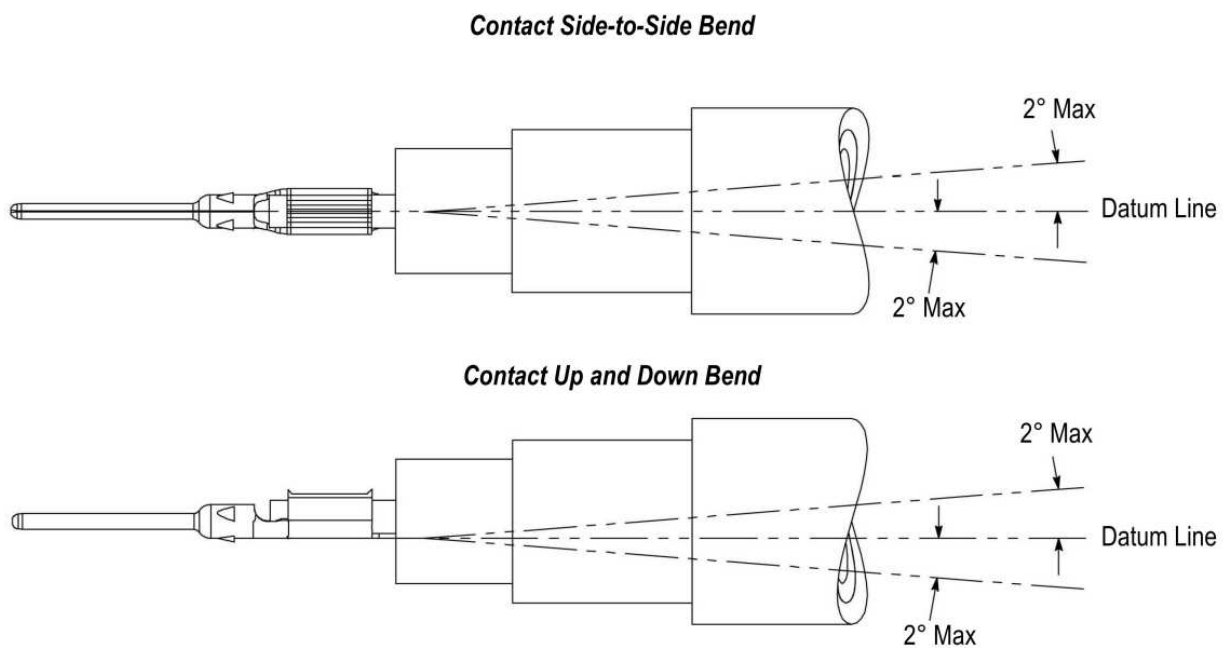


Figure 4

3.7. Contact Assembled to Connector Subassembly

After the contact is crimped onto the cable center conductor, the cable braid must be flared outward away from the coaxial cable dielectric. The contact must be pushed into the cable end of the connector subassembly. The contact must be inserted over a detent feature of the dielectric. The contact must be gently pushed forward until it is firmly seated against the dielectric. The ferrule must be slid until it bottoms against the shoulder of the connector subassembly. See Figure 5.



NOTE

When the cable incorporates a foil wrap, it is recommended to be positioned over the tail end of the subassembly (between the cable braid and the subassembly) prior to sliding the ferrule in place.



NOTE

When assembling female socket into connector subassembly, visually inspect the mating end of the subassembly to ensure that both socket beams are visible in the opening. Excessive contact bending during crimping could cause only one beam to be visible. To correct this condition, rotate the subassembly while holding the cable and socket contact steady until both beams become visible. Visual representations of beam locations are shown in Figure 5.

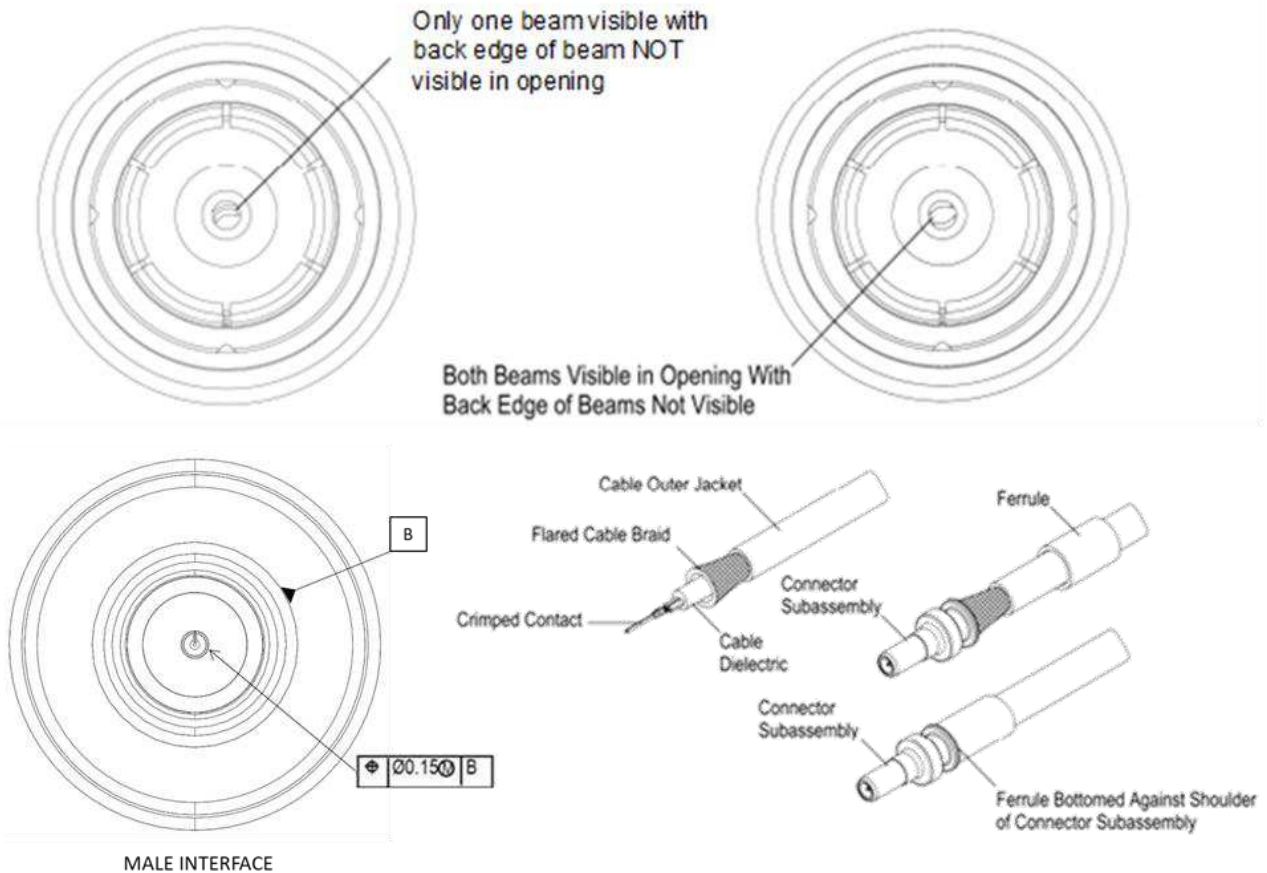


Figure 5

3.8. Crimped Ferrule

The ferrule must be crimped to the cable braid and connector subassembly according to the instructions packaged with the applicable tooling. The crimped ferrule must meet the following requirements.

A. Braid Distribution

The braid must be evenly distributed over the tail end of the subassembly.

B. Ferrule Position

The ferrule must be positioned over the braid and bottomed against the shoulder of the subassembly. A gap is allowed between the ferrule and shell not exceeding the dimension given in Figure 6, Detail A.

C. Front Bellmouth

The front bellmouth shall conform to the dimensions given in Figure 6, Detail A.

D. Crimp Height

The crimp applied to the ferrule is the most compressed area and is most critical in ensuring optimum electrical and mechanical performance of the crimped ferrule. The crimp height must be within the dimensions provided in Figure 6, Detail B.



NOTE

Ferrule crimping of certain cable sizes have resulted in extrusion of the braid and jacket beneath the ferrule crimp. This extrusion causes the contact to pull away from the dielectric seating surface. The contact must be held in place by applying an axial force to the coaxial cable during the crimping of the ferrule to ensure that the contact is located according to the allowable dimensions given in Figure 6, Detail C.

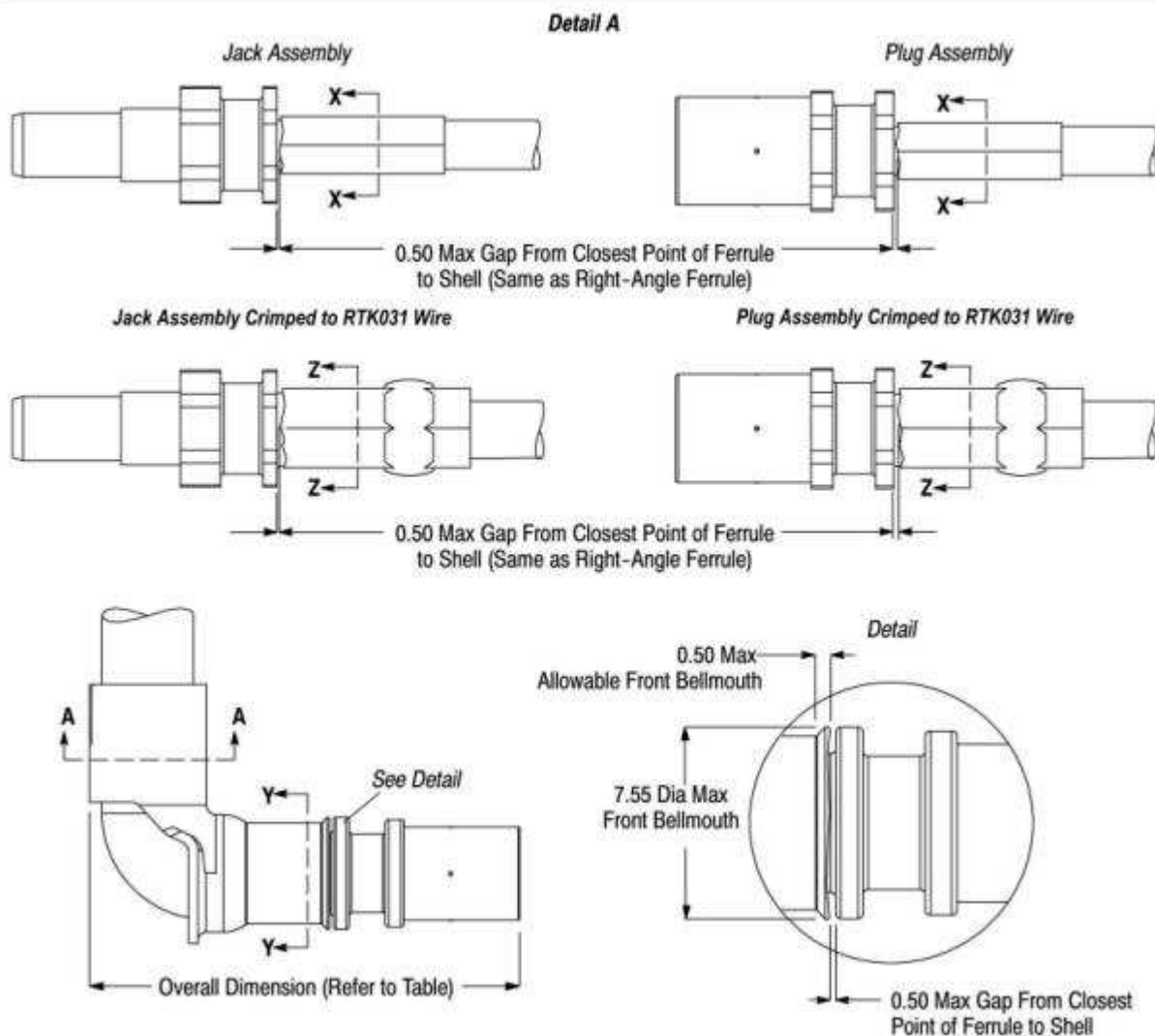
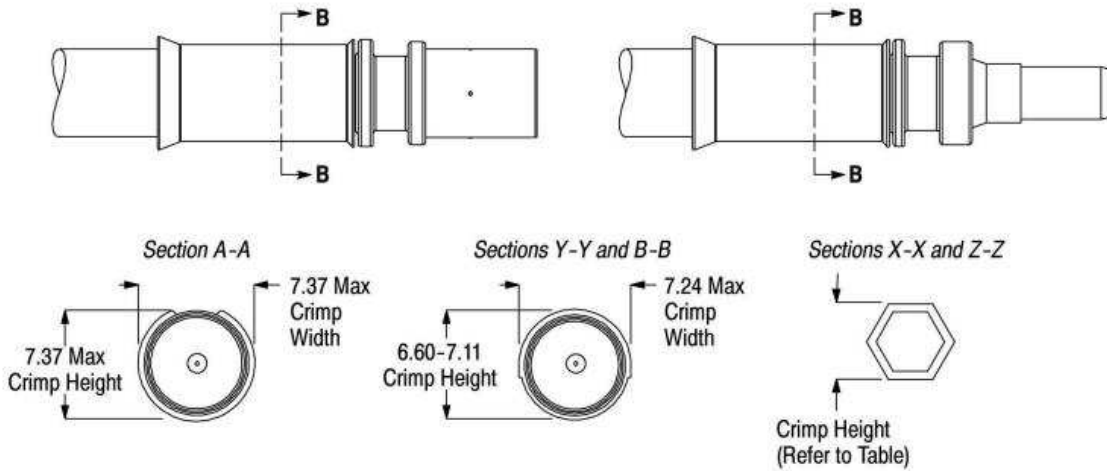
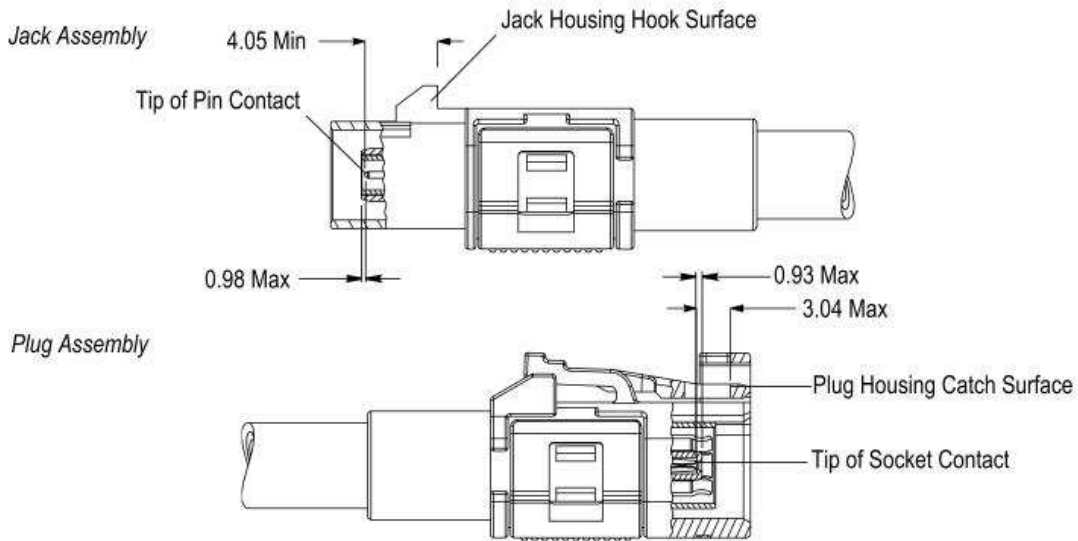


Figure 6 (Cont'd)

Detail B



Detail C



Units on this page are mm

CABLE SIZE	FERRULE CRIMP					
	TYPE	STRAIGHT		RIGHT-ANGLE		
		Height	Width	Section A-A Height and Width	Section Y-Y	
				Height	Width	
RG-58, RG-58 LL, Mini 59	Hex	5.41+0.10/-0.05	—	—	5.41±0.10	5.41±0.10
	"O"	—	—	7.37 Max	—	—
RG-59, RG-62, RG-62U/M, RG-71, RG-71U/M	"O"	6.60-7.11	7.24 Max	7.37 Max	6.60-7.11	7.24 Max
DACAR 462, RG-179, RG-174, RG-174 LL, RG-316	Hex	3.25+0.10/-0.05	—	—	—	—
1.5 DS-QFB	Hex	3.84+0.10/-0.05				
RTK031	Hex	4.10±0.05	—	—	—	—
(4mm) AMC-4mm	Hex	6.00 Max				
2DS-PPFW(TA) (Shikoku)	Step "O"	Conn Side 4.6-4.8 Cable Side 5.2-5.4	—	—	—	—
2DS-PPFW(TA) (GG)	Hex	5.41+0.10/-0.05				
	"O"	5.30+/-0.15	5.50±0.15	—	-	-

3.9. Lock and Housing Assembly

The terminated connector subassembly must be installed into the housing, and the lock must be assembled onto the housing. The assembled connector must meet the following requirements. See Figure 7.

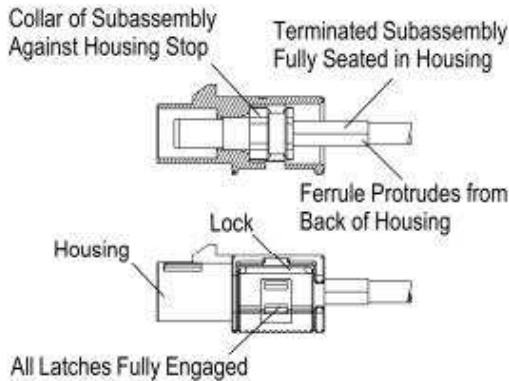
- The terminated subassembly must be fully seated in the housing.
- The collar of the subassembly must bottom on the stop in the housing.
- The ferrule will protrude from the back of the housing.
- For dual and hybrid SMB/power, it is recommended to load both positions and insert the lock in one assembly process. For the hybrid SMB/power, the power insert will only fit in position one of the housings. It is recommended that the crimped contact be inserted into the power insert and then the subassembly of the contact and insert be inserted into the housing.

Additional requirements are needed to build the 90-degree plug assembly for RG-174, RG-174 LL, and RG-316:

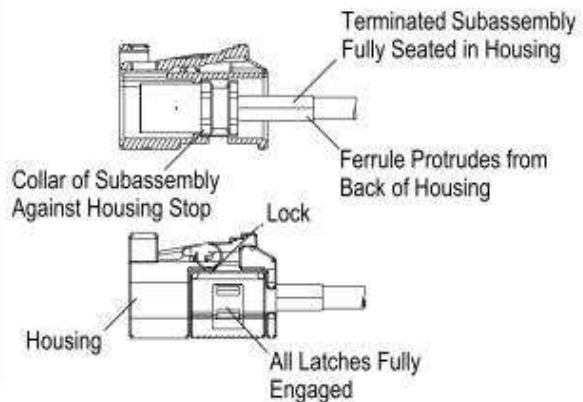
- Pre-bend the cable 90 degrees. Bend the cable toward the hook or catch of the connector housing.
- Align the ring of the 90-degree end cap with the slot of lock and orient the open side of 90-degree cap over the pre-bent cable. Press the 90-degree end cap into the lock until the 90-degree end cap is fully seated. The 90-degree end cap will snap into place and will be able to be rotated 360°. Slight rotation of the 90-degree end cap while pressing parts together will aid in the assembly process.

Lock and Housing Assembly

Typical 180-Degree Jack Assembly for All Cable Sizes

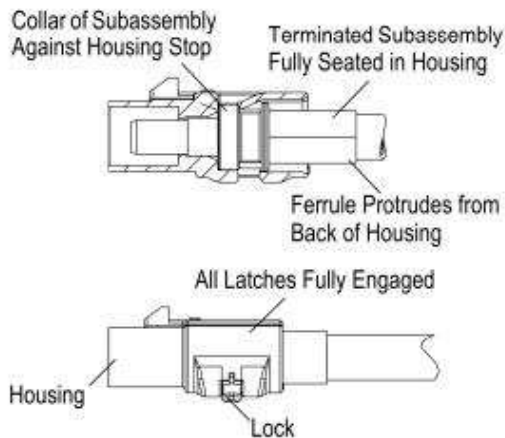


Typical 180-Degree Plug Assembly for All Cable Sizes and 90-Degree Plug Assembly for Cable Sizes RG-59, RG-62, RG-62U/M, RG-71, and RG-71U/M



2-Position Lock and Housing Assembly

Typical 180-Degree 2-Position Jack Assembly for All Cable Sizes



Typical 180-Degree 2-Position Plug Assembly for All Cable Sizes

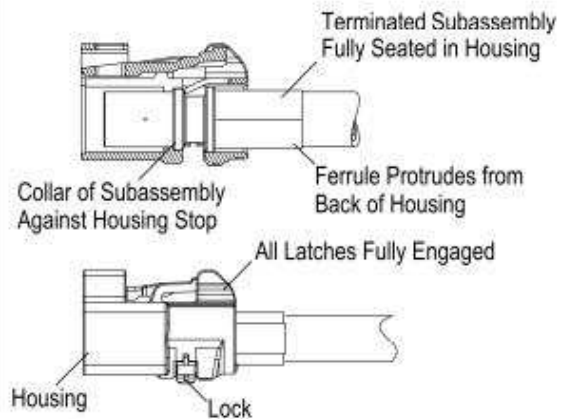


Figure 7 (Cont'd)

Typical 90-Degree Plug Assembly for Cable Sizes RG-174, RG-316, and RG-174 LL

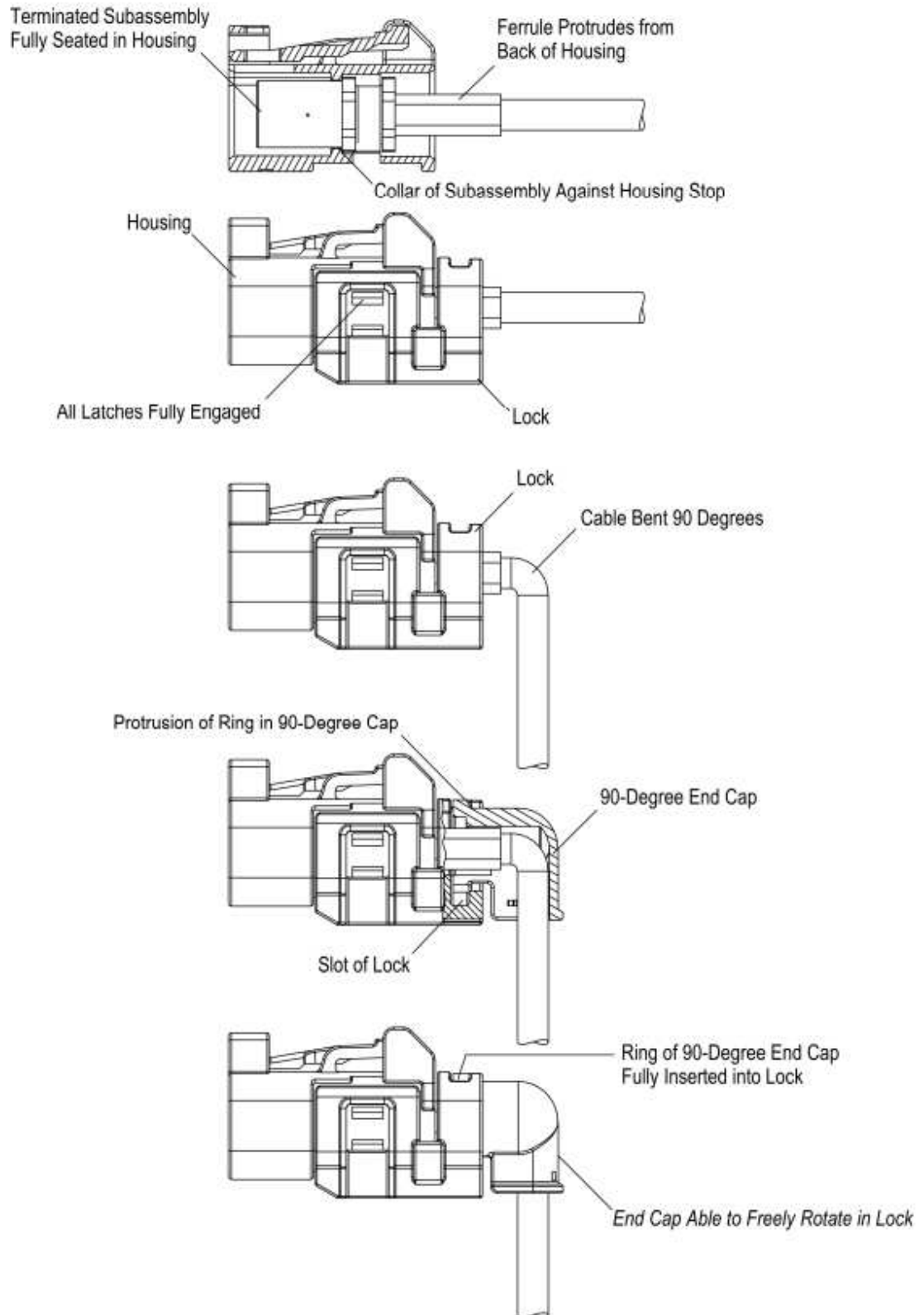
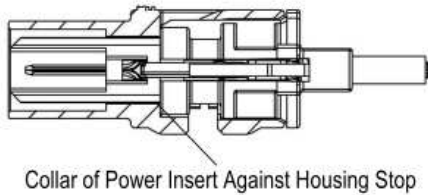


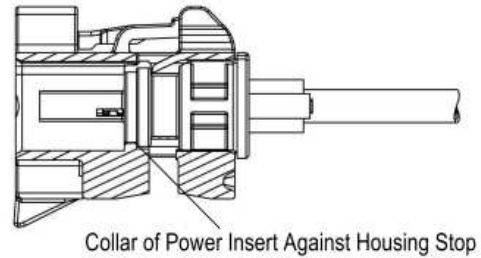
Figure 7 (Cont'd)

2-Position Hybrid SMB/Power Connector

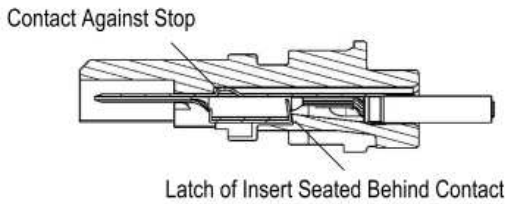
Typical 180-Degree Hybrid SMB/Power Jack Insert Assembly for All Cable Sizes



Typical 180-Degree Hybrid SMB/Power Plug Insert Assembly for All Cable Sizes



Plug Power Contact in Insert



Jack Power Contact in Insert

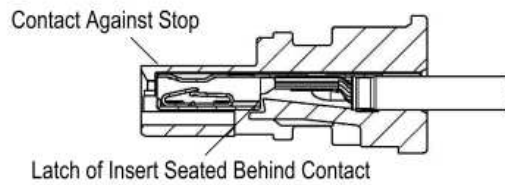


Figure 7 (End)

3.10. Keying

Keying prevents inadvertent mating of similar assemblies. The keying rib position Jack assembly} must be compatible with the key position (plug assembly). The quantity and position of the keying combinations varies. Keying information is defined on the customer drawing for the specific connector.

3.11. Mating Connectors

After mating, the plug assembly locking latch must be latched and fully seated on the jack assembly locking tab.

3.12. Cable Routing and Strain Relief

When bending or forming cable, the cable bundle must be held at least 6.35mm beyond the back of the housing before bending in any direction. If the installation is to be subject to bending forces, strain relief should be provided on the cable bundle approximately 25.4mm from the back of the housing.



CAUTION

Unsupported cable must NOT be bent as this may cause strain on the contact inside the subassembly.



CAUTION

To ensure optimum performance, routing of cable and/or the strain relief must not bias or reduce the float of the subassembly inside the housing.

3.13. Repair and Replacement

These connector components are not repairable. Any damaged components must be replaced. Terminated contacts, ferrules, or subassemblies must NOT be re-used by removing the cable.

4. QUALIFICATIONS

FAKRA-compliant SMB Gen-4 connectors are not required to be agency approved.

5. TOOLING

The contacts and ferrules can be terminated to the cable using hand, semi-automatic, or automatic crimping tools. Recommended tooling is provided in Figure 8.

Two crimping tools are required for crimping the right-angle ferrule to RG-59, RG-62, RG62U/M, RG-58, RG-71, and RG-71U/M cable. The straight ferrule requires one crimp tool. An aid for a correlation between application tooling and the crimp required for separate sections of the ferrule is given in Figure 9.



NOTE

Machines for a variety of application requirements are available. For assistance in setting up prototype and production line equipment, contact your local representative or call the TOOLING ASSISTANCE CENTER at the number at the bottom of page 1.

5.1. Hand Crimping Tool

Hand crimping tools that accommodate the full cable size range are designed for prototype and low-volume applications.

5.2. Applicator

Applicators are designed for the full cable size range of strip-fed, precision formed contacts, and provide for high volume, heavy duty, production requirements. The applicators can be used in bench or floor model power units.



NOTE

Some changes may have to be made to the applicators to run in all related power units. Contact the TOOLING ASSISTANCE CENTER number located at the bottom of page 1 for specific changes.

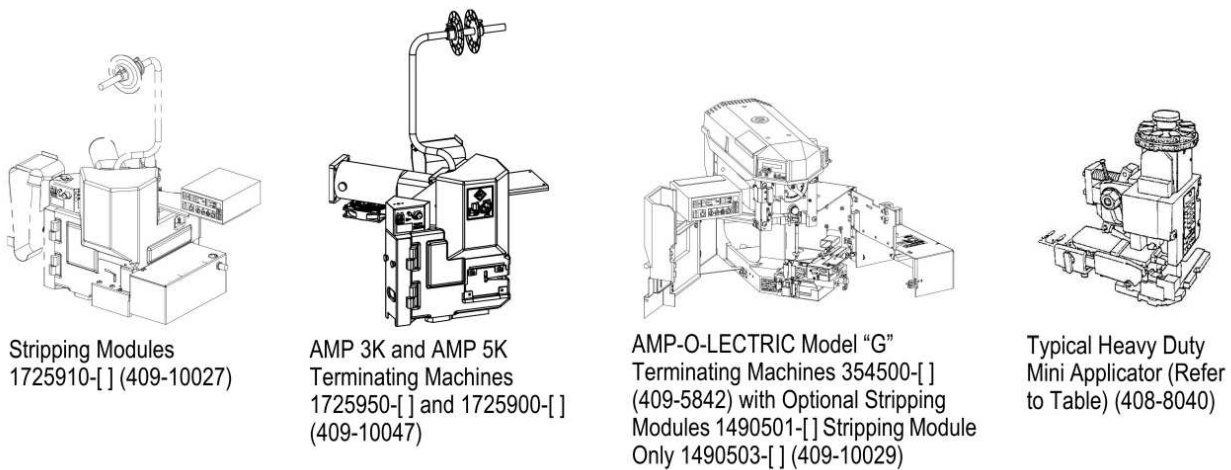
5.3. Power Unit

A power unit is an automatic or semi-automatic device used to assist in the application of a product. The power unit includes the source used to supply the force or power to an applicator.

5.4. Die Assembly

Die assemblies for crimping the contacts are available for the full cable size range. They are designed for installation in hand crimping tool frames and applicators.

Application Tooling for Crimping Pin and Socket Contact



Stripping Modules
1725910-[] (409-10027)

AMP 3K and AMP 5K
Terminating Machines
1725950-[] and 1725900-[]
(409-10047)

AMP-O-ELECTRIC Model "G"
Terminating Machines 354500-[]
(409-5842) with Optional Stripping
Modules 1490501-[] Stripping Module
Only 1490503-[] (409-10029)

Typical Heavy Duty
Mini Applicator (Refer
to Table) (408-8040)

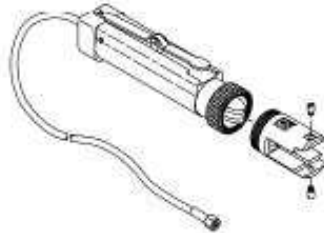
CABLE	APPLICATOR	POWER UNIT
RG58, RG-58 LL, AMC-4mm, 2DS-PPFW(TA)	1385456-3, 2266736-1	
RG-59, RG-62, RG-71, Mini 59	1385623-3	0354500-[]
RG-179, RG-62U/M, RG-71U/M	1385624-3	1490501-[]
RG-174, RG-316, DACAR 462	1385675-3, 2151839-1	1725910-[]
1.5 DS-QFB, RG-174 LL	1385675-3, 2151839-1	1725950-[]
RTK031	2266332-1	1725900-[]

Figure 8 (Cont'd)

Application Tooling For Crimping Ferrule



Pneumatic Foot Assembly
189722-1 (409-5862)



626 Pneumatic Tooling Assemblies
189721-1, 2 and 189722-2 (409-5862)



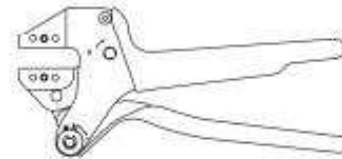
Pneumatic Tool Holder Assembly
189767-1 (408-2498) and
Pneumatic Head Assembly
679304-1 (408-4070)



PRO-CRIMPER III Hand Tool Frame
354940-1 (408-9930) Frame With Die
Assembly 58483-1 (408-9830)



SDE Closed Head Battery
Powered Crimp Tool Kit
1213890-1 (409-10065)



SDE PEW 12 Hand Crimping Tool Frame
Assembly 9-1478240-0 (408-8851)



Pneumatic CERTI-CRIMP Tool Holder
Assemblies 356302-1 and 356303-1
(Refer to Table) (408-4303)



Typical Die Assembly
(Refer to Table and
Paragraph 2.5)



SDE Electric Bench Terminating
Machine 1490076-2 (409-10052)



ERGOCRIMP Crimp Hand Tool
539635-1 (411-18087)



Pneumatic Crimp Machine AT-SC
528050-1 (412-18876)

DIE ASSEMBLY	REQUIRED FERRULE CRIMP (See Figure 6)
1338650-1	A-A
1338120-1 1901262-2 220189-1 318452-2	B-B
58436-1 58483-1 2161306-1	X-X
1901262-1 1901280-1 2161306-1	Y-Y
1-1579001-1 2217611-1 2844485-1	Z-Z

Figure 8 (End)

Aid for Correlation Between Application Tooling and Separate Sections of Ferrule Crimp

FERRULE TYPE	CABLE SIZE	APPLICATION TOOLING								BATTERY AND PNEUMATIC HAND TOOLS	BENCH MACHINE
		DIE ASSEMBLY	MANUAL	PNEUMATIC ASSEMBLY							
			Hand Tool Frame and Arbor Frame	Hand	Foot	TOOL HOLDER		Head			
					Ratchet	Non-Ratchet					
Straight	RG-58 Mini 59	58436-1 2161306-1	354940-1 1213745-1 9-1478240-0	189721-1	189722-1	356302-1	189767-1	679304-1	1213855-1 1213890-1 1213890-2 1583034-1 1583034-2	1490076-2 528050-1	
	RG-58LL 2DS-PPFW(GG)	2161306-1 220189-1		189721-2							
	AMC-4mm	2844485-1		189722-2							
	2DS-PPFW (Shikoku)	318452-2									
Right-Angle Straight Portion of Crimp	RG-58 RG-58 LL Mini 59	2161306-1	354940-1 1213745-1 9-1478240-0	189721-1 189721-2 189722-2	189722-1	356302-1	189767-1	679304-1	1213855-1 1213890-1 1213890-2 1583034-1 1583034-2	1490076-2 528050-1	
Straight Not Preferred	RG-59 RG-62 RG-62UIM RG-71 RG-71UIM	1338120-1	354940-1 1213745-1 9-1478240-0	189721-1 189722-2	189722-1	356302-1	189767-1	679304-1	1213855-1 1213890-1 1213890-2 1583034-1 1583034-2	1490076-2 528050-1	
Right-Angle Straight Portion of Crimp	RG-59 RG-62 RG-62UIM RG-71 RG-71UIM	1901262-1	Commercially Available Arbor Frame	—	—	—	—	—	—	—	
Straight	RG-59 RG-62 RG-62UIM RG-71 RG-71UIM	1901262-2;j	Commercially Available Arbor Frame	—	—	—	—	—	—	—	
		1901280-1	354940-1 9-1478240-0	—	—	—	—	—	1725837-1 1725837-2	1490076-2 528050-1	
Right-Angle Portion After 90 Degree Bend in Ferrule	RG-58 Mini 59 RG-59 RG-62 RG-62UIM RG-71 RG-71UIM	1338650-1	354940-1 9-1478240-0	189721-1 189721-2 189722-2	189722-1	356302-1	189767-1	679304-1	1213855-1 1213890-1 1213890-2 1583034-1 1583034-2	1490076-2 528050-1	
Straight	RG-179 RG-174 RG-316 DACAR 462 RG-174 LL 1.5 DS-QFB	58483-1	354940-1 1213745-1 9-1478240-0	—	—	—	—	—	1213890-1 1213890-2 1583034-1 1583034-2	1490076-2 528050-1	
	RTK031	2217611-1	354940-1 9-1478240-0	—	—	—	—	—	—	528050-1	
		1-1579001-1*	539635-1	—	—	—	—	—	—		

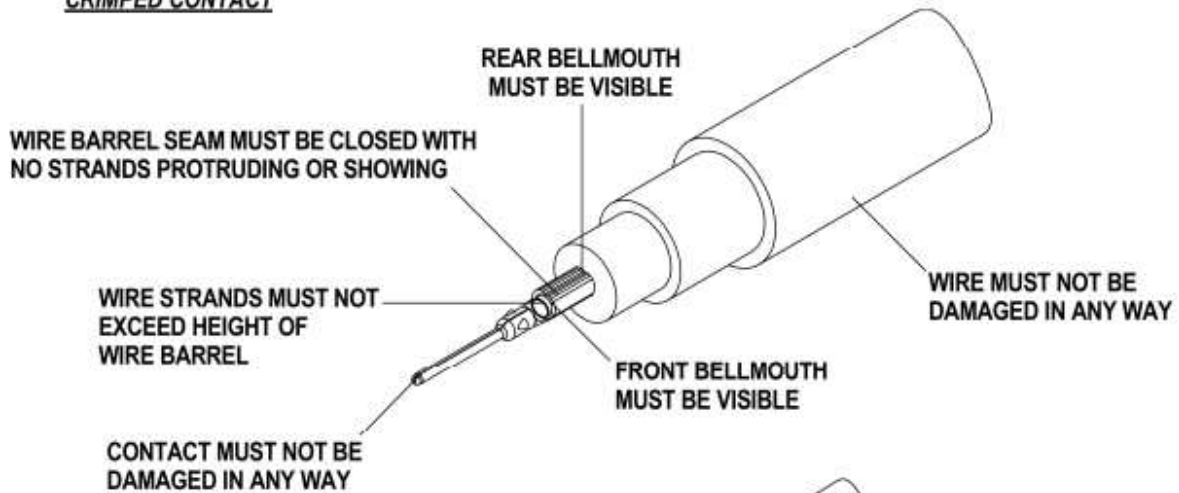
NOTE: *1-1579001-1 requires the use of Ergocrimp die adapter (pn 1-528051-6) to mount in Bench Machine (pn 528050-1). Alternate Bench Machine (pn 528050-8) can be used without adapter. j: Refer to Figure 6 of this document and refer to Instruction Sheet 408-10058.

Figure 9

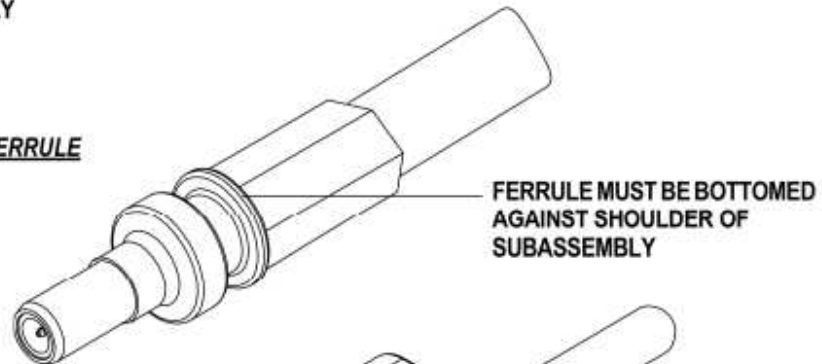
6. VISUAL AID

The illustration below shows a typical application of this product. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product or tooling.

CRIMPED CONTACT



CRIMPED FERRULE



LOCK AND HOUSING

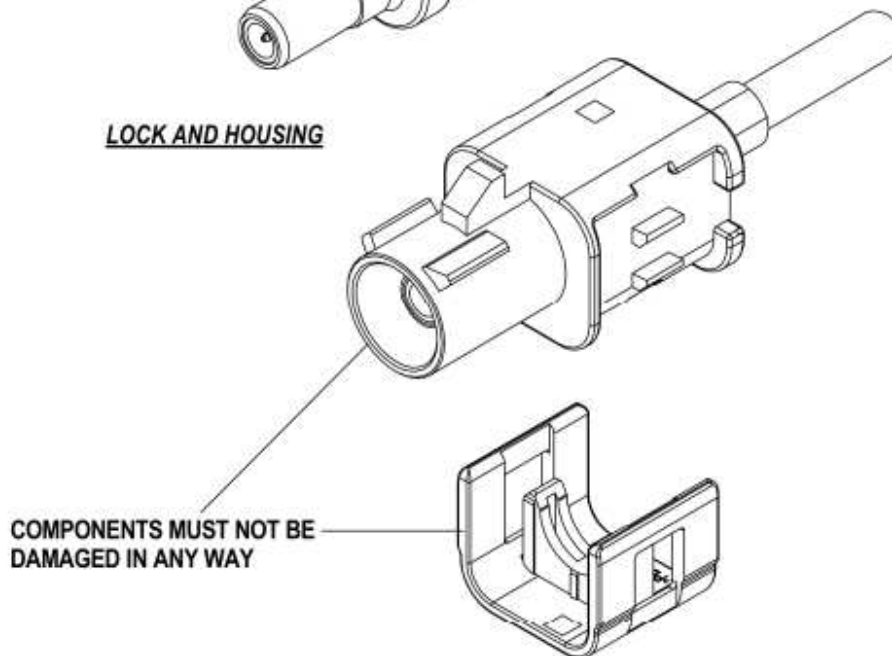
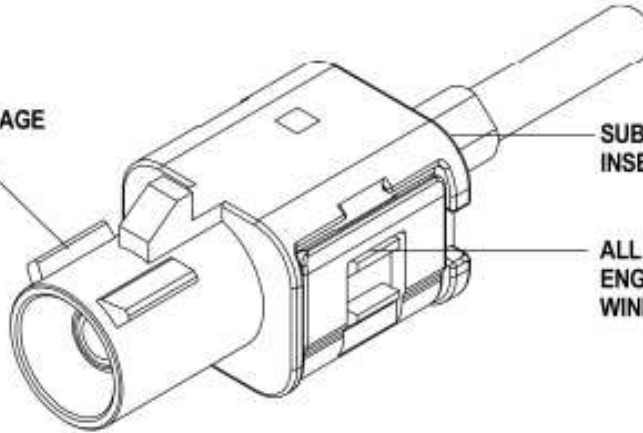


FIGURE 10. VISUAL AID (CONT'D)

JACK ASSEMBLY

THERE MUST BE NO DAMAGE TO HOUSING OR LOCK



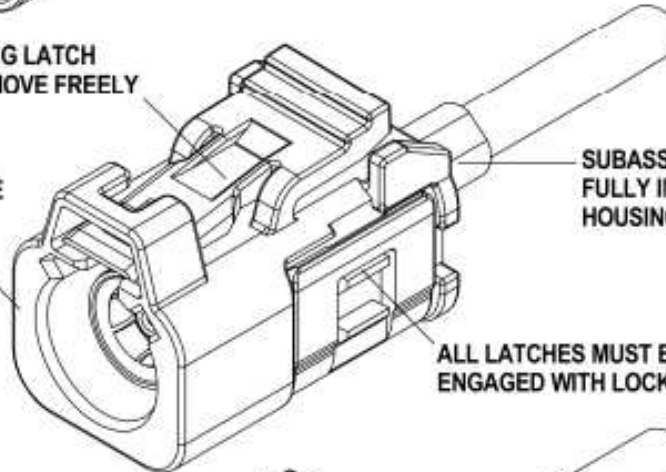
SUBASSEMBLY MUST BE FULLY INSERTED INTO HOUSING

ALL LATCHES MUST BE FULLY ENGAGED WITH LOCKING WINDOWS

PLUG ASSEMBLY

LOCKING LATCH MUST MOVE FREELY

THERE MUST BE NO DAMAGE TO HOUSING OR LOCK

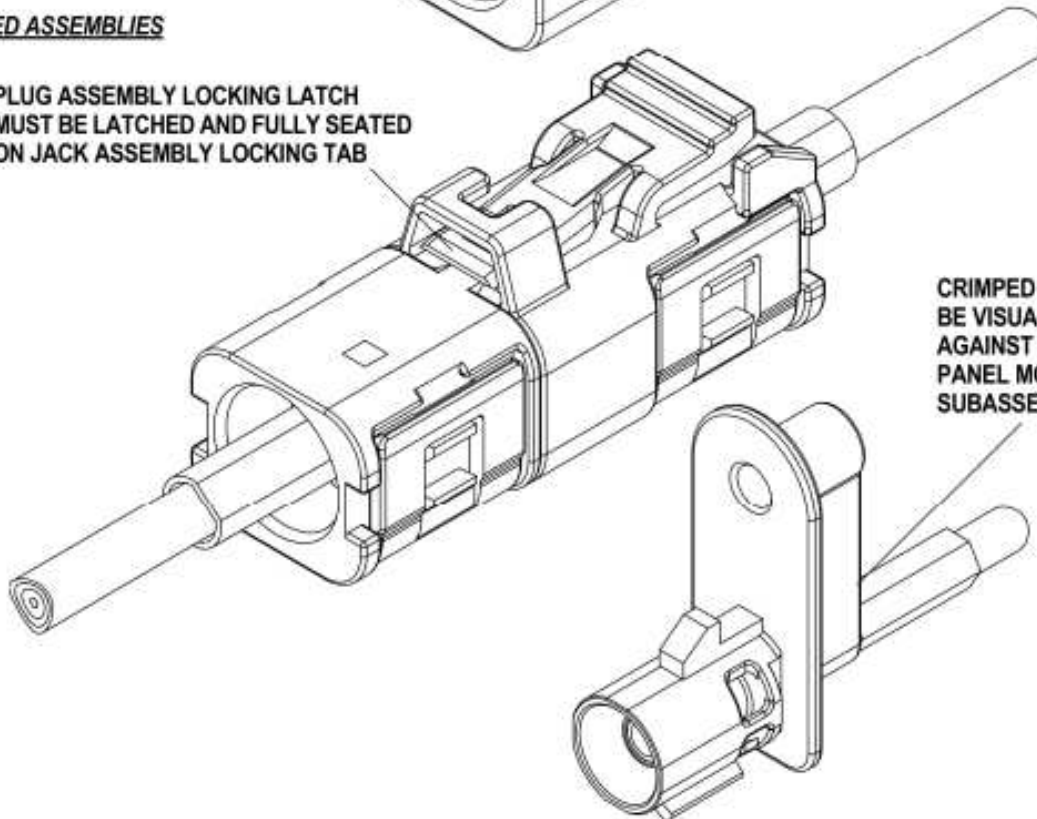


SUBASSEMBLY MUST BE FULLY INSERTED INTO HOUSING

ALL LATCHES MUST BE FULLY ENGAGED WITH LOCKING WINDOWS

MATED ASSEMBLIES

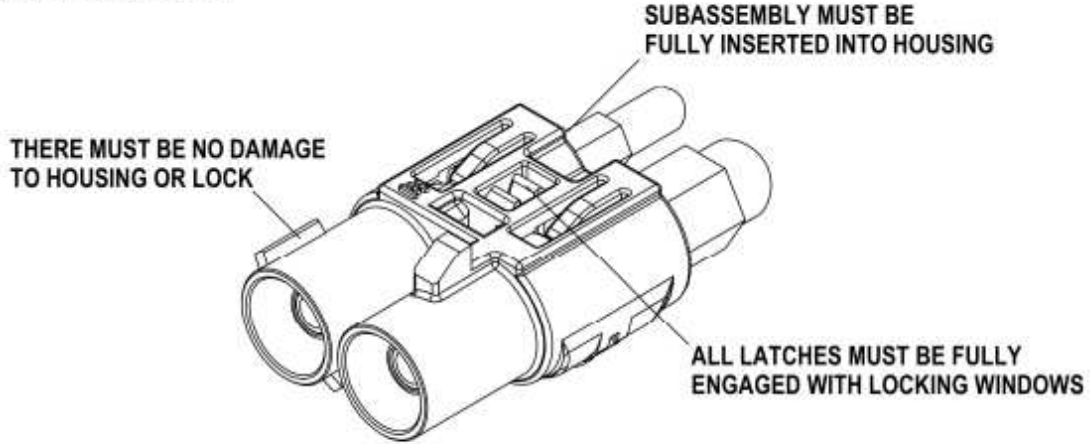
PLUG ASSEMBLY LOCKING LATCH MUST BE LATCHED AND FULLY SEATED ON JACK ASSEMBLY LOCKING TAB



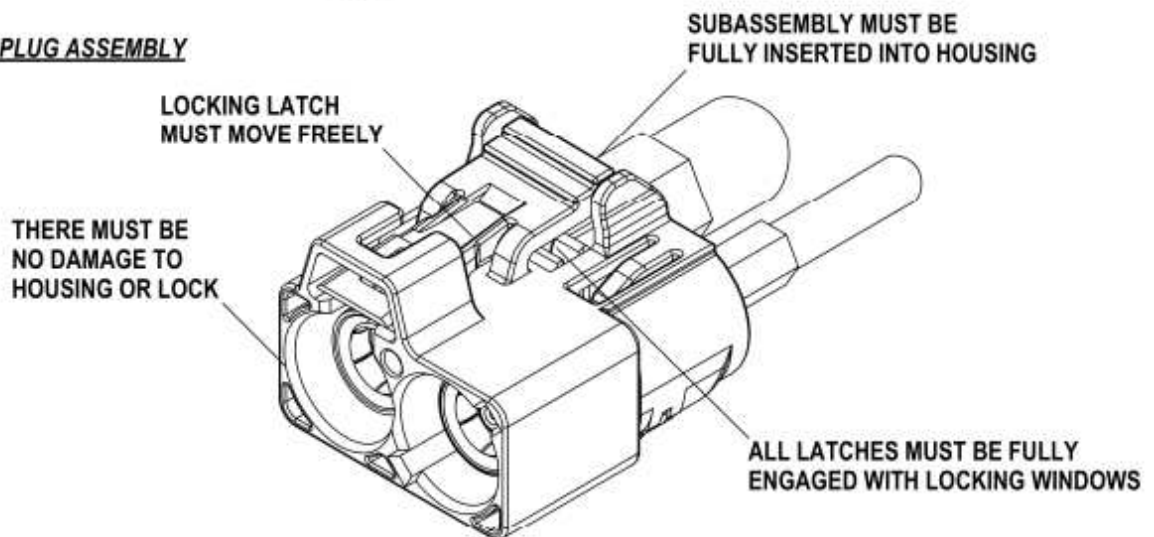
CRIMPED FERRULE MUST BE VISUALLY BOTTOMED AGAINST SHOULDER OF PANEL MOUNT SUBASSEMBLY

FIGURE 10. VISUAL AID (CONT'D)

2-POSITION JACK ASSEMBLY



2-POSITION PLUG ASSEMBLY



MATED ASSEMBLIES

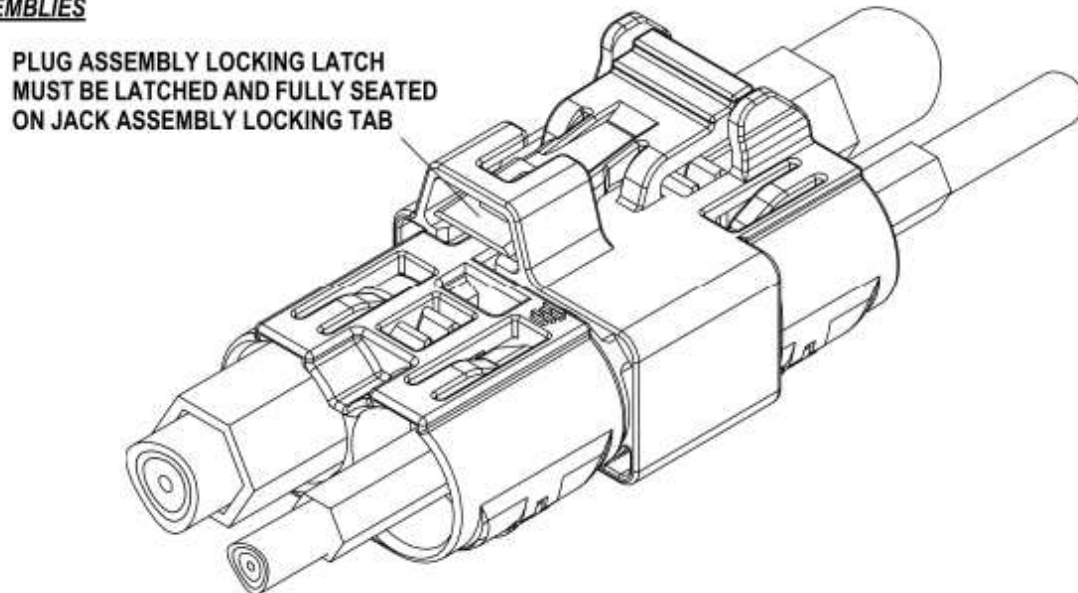
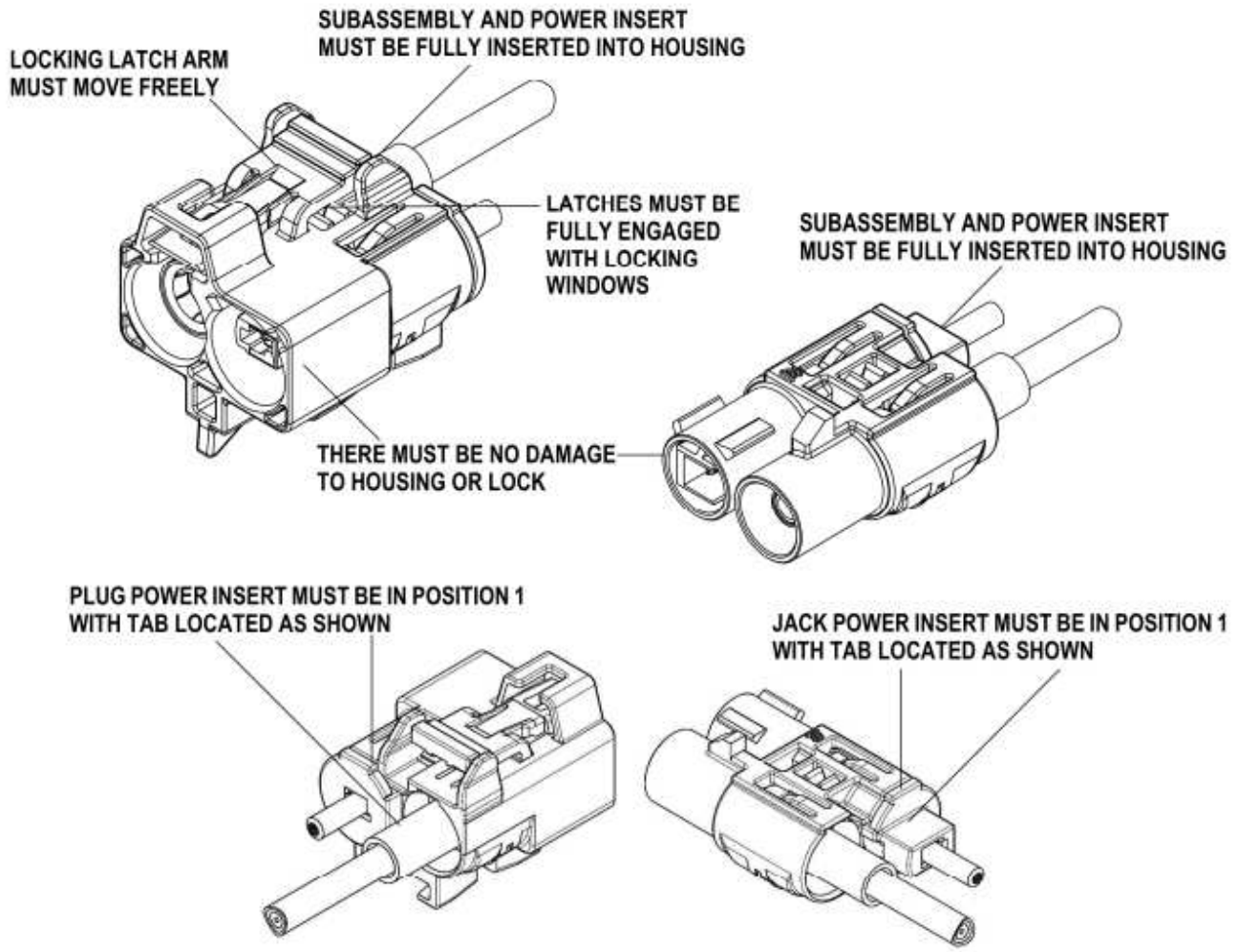


FIGURE 10. VISUAL AID (CONT'D)

2-POSITION HYBRID SMB/POWER PLUG ASSEMBLY

2-POSITION HYBRID SMB/POWER JACK ASSEMBLY



MATED HYBRID SMB/POWER ASSEMBLIES

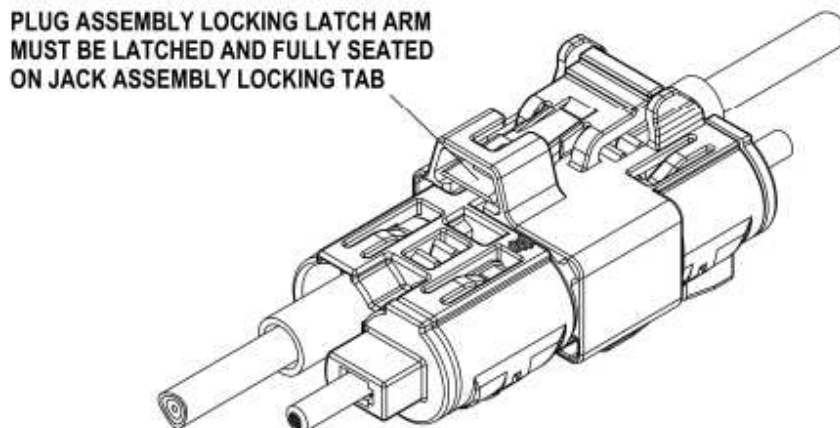


FIGURE 10. VISUAL AID (END)