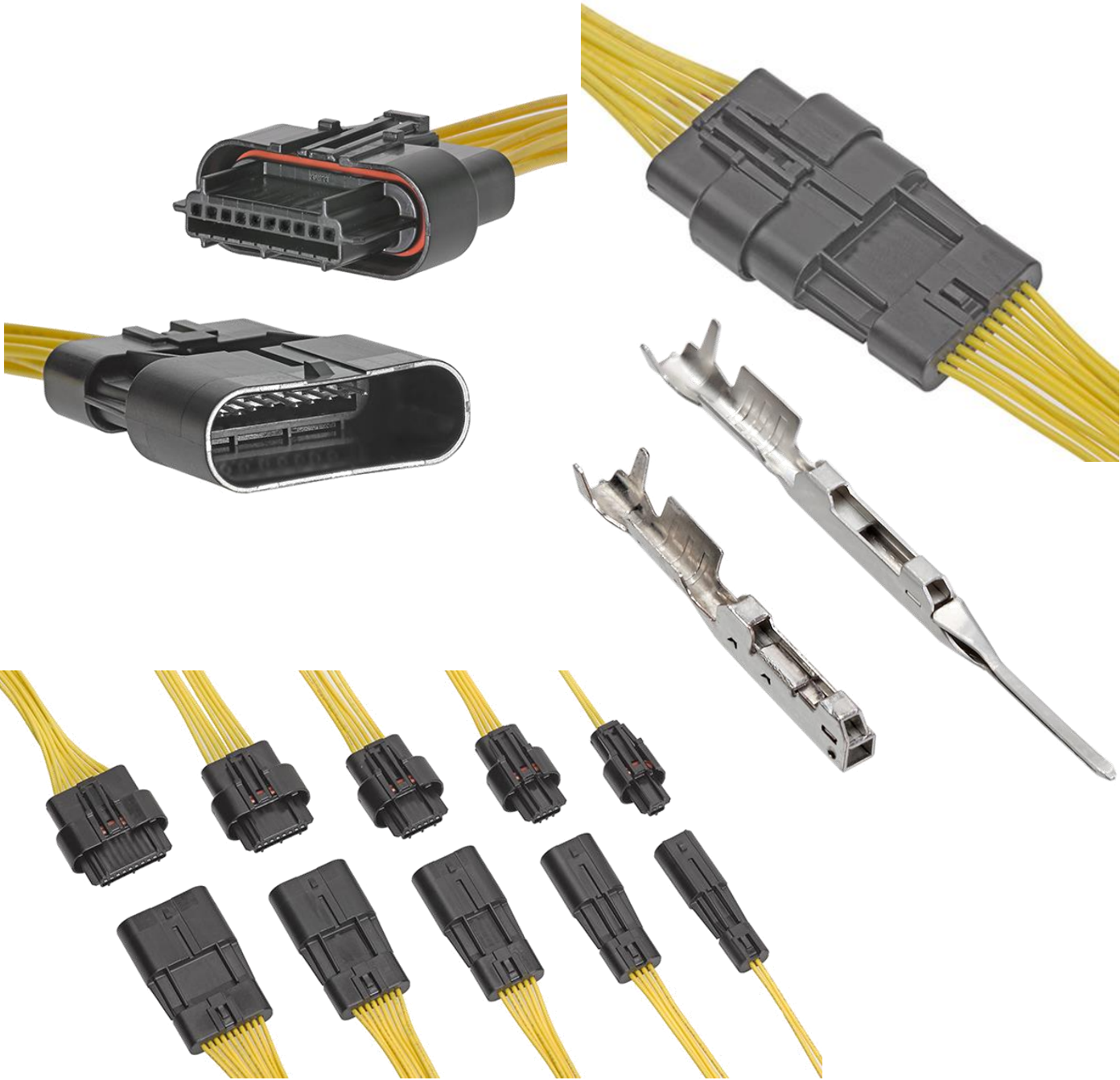




APPLICATION SPECIFICATION

Squba 1.8

INTERCONNECT SYSTEMS



REVISION: A2	ADD MATING LENGTH EC No: 603198 DATE: 2018/08/20 KSS	TITLE: APPLICATION SPECIFICATION Squba 1.8 Interconnect System	SHEET No. 1 of 12
DOCUMENT NUMBER: 2042200000-AS	CREATED BY: TGREGORI	CHECKED BY: RHODGE	APPROVED BY: RHODGE
TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC			



APPLICATION SPECIFICATION

1.0 SCOPE

This Application Specification covers the application and end-usage requirements for the Squba 1.8 Sealed Wire-To-Wire, 1.80mm pitch single row connector series which uses copper terminals with tin plated contact interface terminated with 22 to 24 AWG wire using Molex crimp technology. The mated system meets IP68 requirements.

2.0 PRODUCT DESCRIPTION

2.1 NAMES AND SERIES NUMBER(S)

Description	Series Number
Squba 1.8, Receptacle Assembly	204220
Squba 1.8, Plug Assembly	204223
Squba 1.8, Receptacle Crimp Terminal	204301
Squba 1.8, Plug Crimp Terminal	204226

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate sales drawings for the information on dimensions, materials, platings and markings.

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

Product Specification.....	2042200000-PS
Receptacle Assembly sales drawing.....	2042200000-SD
Plug Assembly sales drawing.....	2042230000-SD
Receptacle Crimp Terminal sales drawing.....	2043010000-SD
Plug Crimp Terminal sales drawing.....	2042260000-SD
Test Summary.....	2042200000-TS
Receptacle Assembly Packaging Specification.....	2042200000-PK
Plug Assembly Packaging Specification.....	2042230000-PK
Receptacle Crimp Terminal Packaging Specification.....	2042200000-PK
Plug Crimp Terminal Packaging Specification.....	2042230000-PK
Applicator Tool Crimp Specification.....	638083700, 2130690500
Hand Tool Crimp Specification.....	2002180400

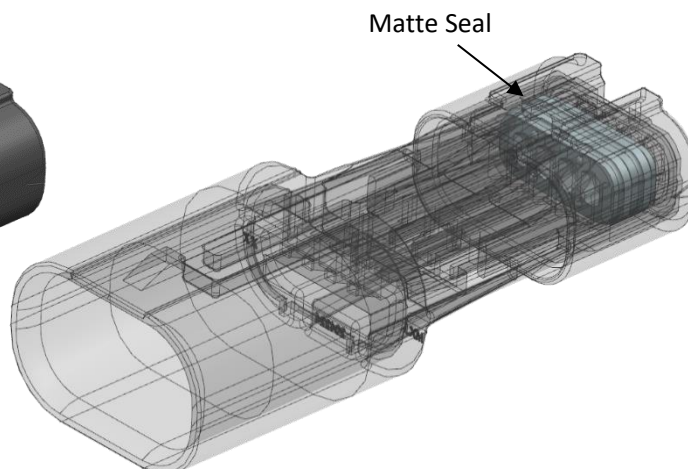
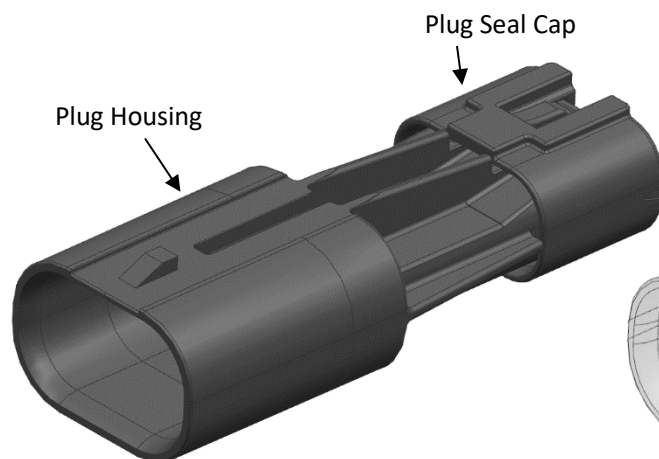
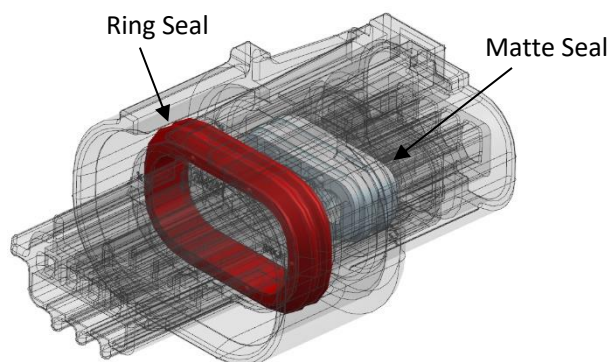
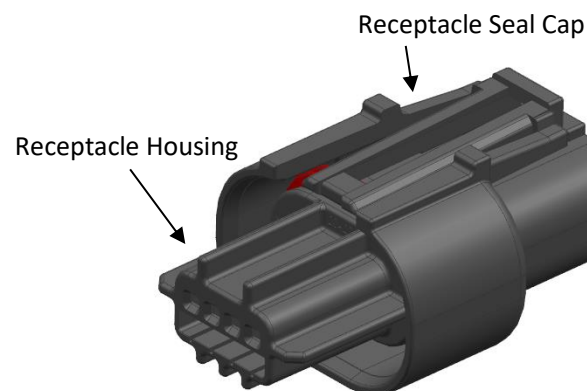
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A2	EC No: 603198 DATE: 2018/08/20 KSS	APPLICATION SPECIFICATION Squba 1.8 Interconnect System	2 of 12
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE



APPLICATION SPECIFICATION

4.0 PRODUCT DEFINITION

4.1 CONNECTOR ASSEMBLIES (4 CKT CONNECTORS SHOWN)

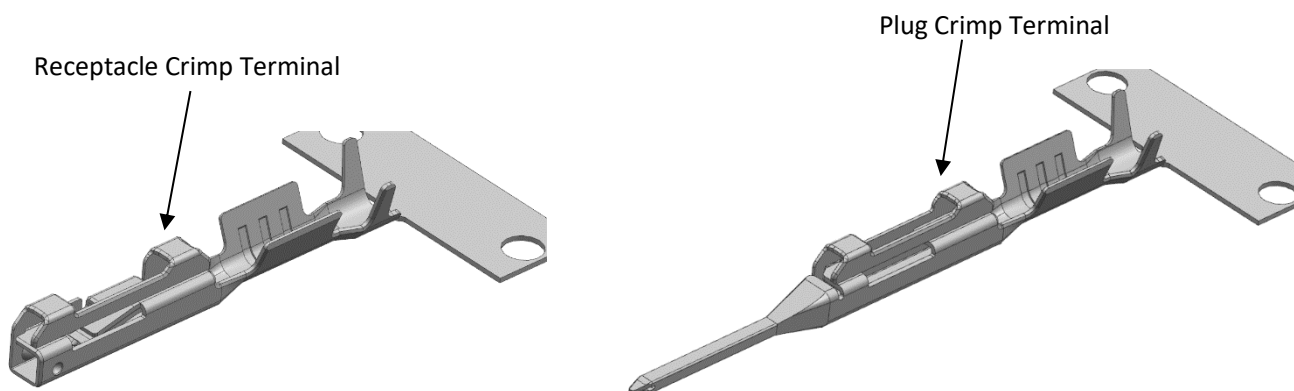


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A2	EC No: 603198	APPLICATION SPECIFICATION Squba 1.8 Interconnect System	3 of 12
	DATE: 2018/08/20 KSS		
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE
TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC			



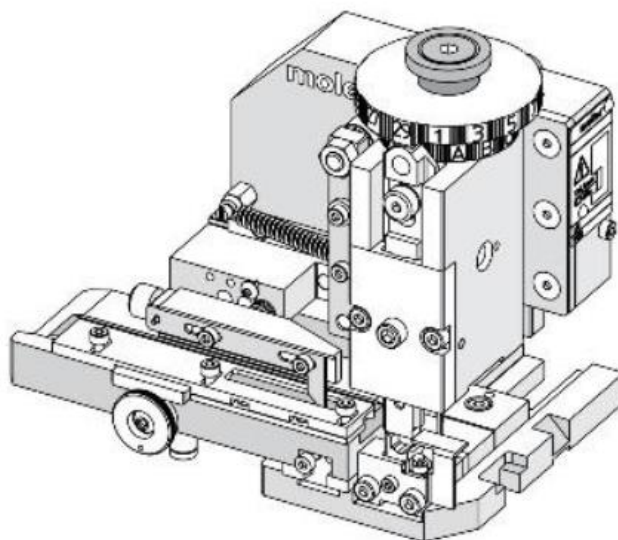
APPLICATION SPECIFICATION

4.2 CRIMP TERMINALS

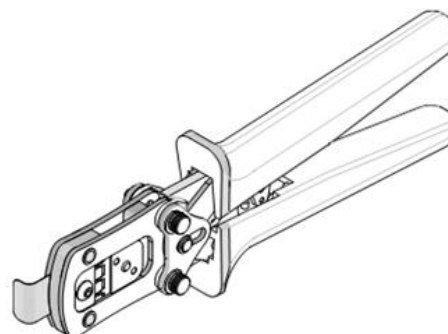


Description	Order Number	Crimp Spec Document Number
Crimp Applicator for Receptacle Terminal	638083700	638083700
Crimp Applicator for Plug Terminal	2130690500	2130690500
Crimp Hand Tool for Plug and Receptacle Terminals	2002180400	2002180400

Crimp Applicator



Hand Tool



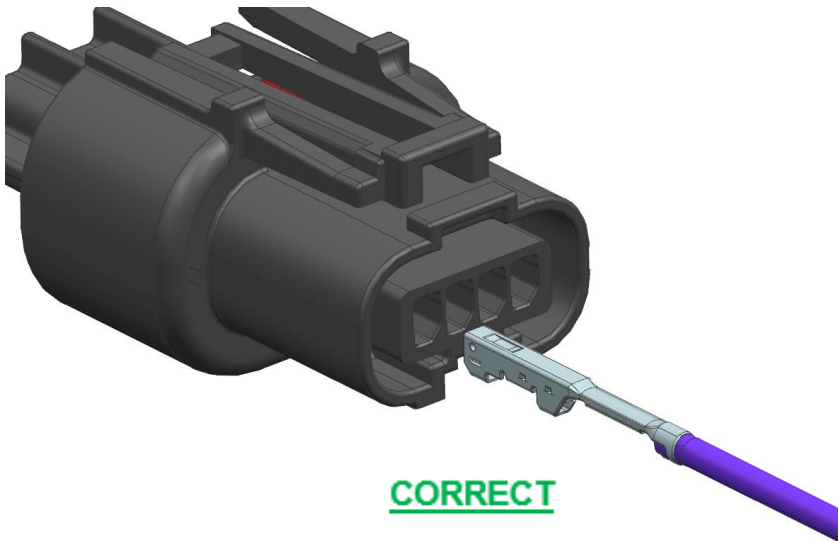
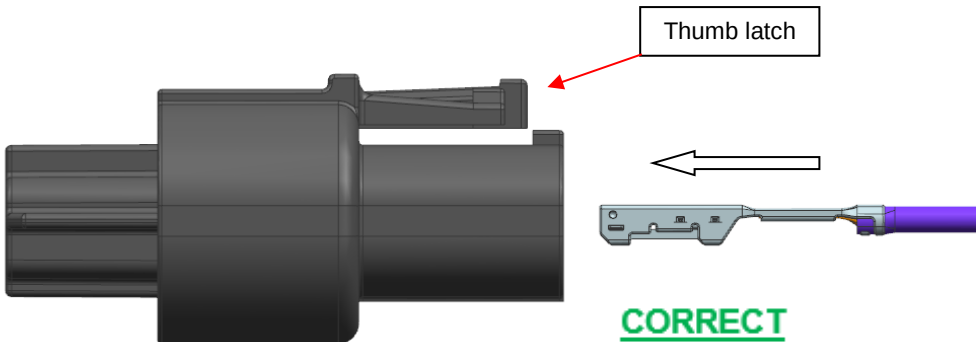
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A2	EC No: 603198	APPLICATION SPECIFICATION Squba 1.8 Interconnect System	4 of 12
	DATE: 2018/08/20 KSS		
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE



APPLICATION SPECIFICATION

5.0 TERMINAL ORIENTATION DURING INSERTION INTO HOUSING

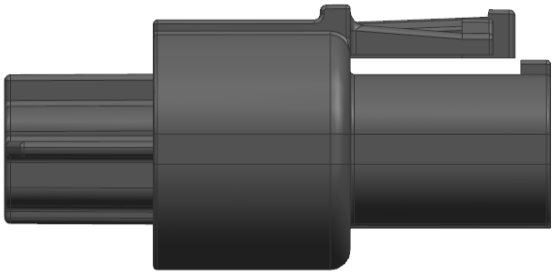
Terminals are to be inserted in the housings as shown below on sheet 5-8. Notice the orientation of the terminal body relative to the receptacle thumb latch and plug thumb latch hook. Notice the orientation of the terminal body relative to the latch hook. Do not force terminals into the housing cavity. The terminal and housing are designed with silicon seals and other features that will provide some light resistance during insertion as well as retention after insertion but if excessive resistance is felt during insertion pull terminal back out and double check that the terminal orientation per sheets 5-8. Terminals are to be inserted until they are fully seated, and audible click is heard. The housing provides a stopping surface, and the housing lock finger provides terminal retention and a light audible click to indicate a fully inserted terminal. You can use the PUSH → CLICK → PULL method (sheet 10) during terminal insertion to ensure fully seated terminal.



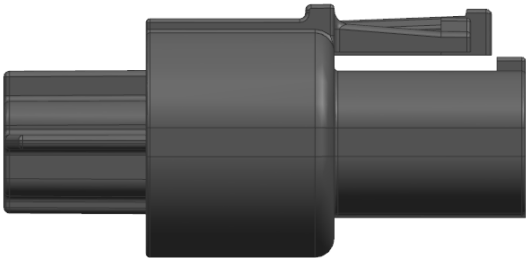
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A2	EC No: 603198	APPLICATION SPECIFICATION	5 of 12
	DATE: 2018/08/20 KSS	Squba 1.8 Interconnect System	
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE
TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC			



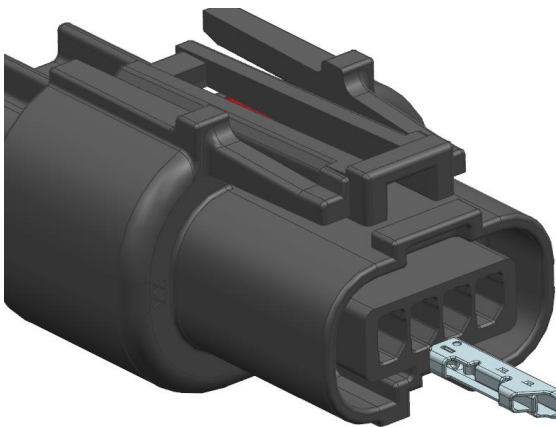
APPLICATION SPECIFICATION



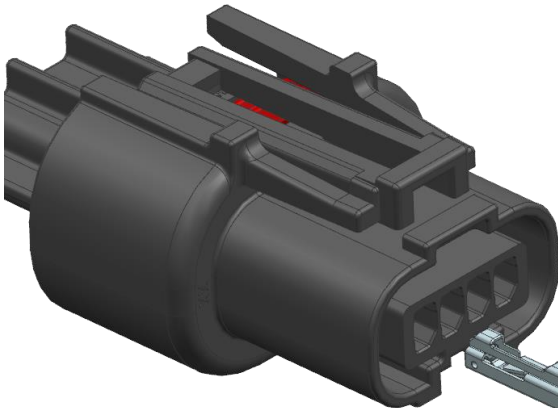
INCORRECT



INCORRECT



INCORRECT

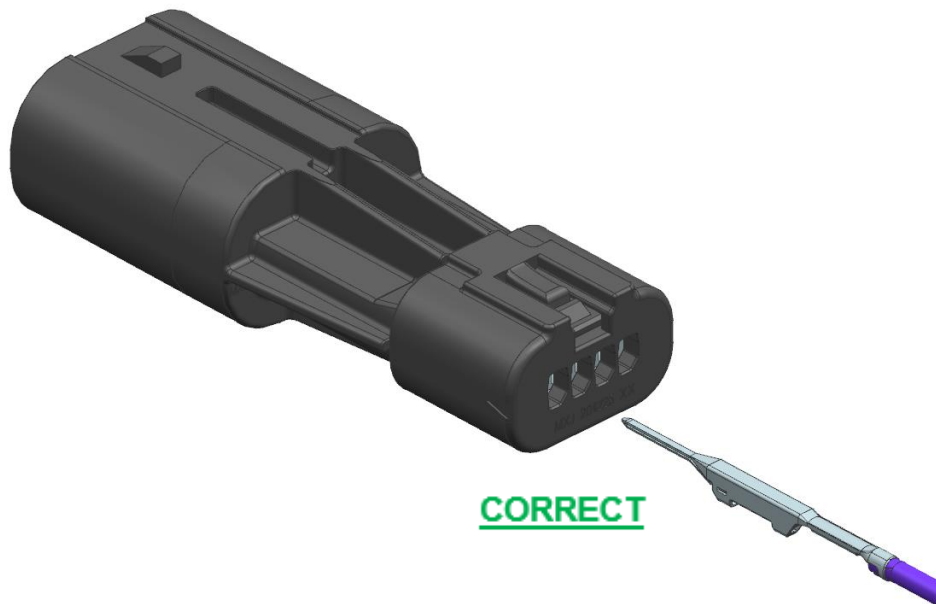
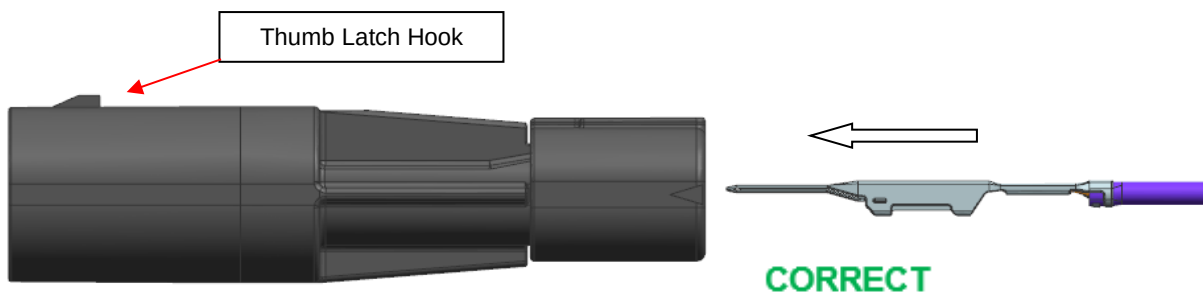


INCORRECT

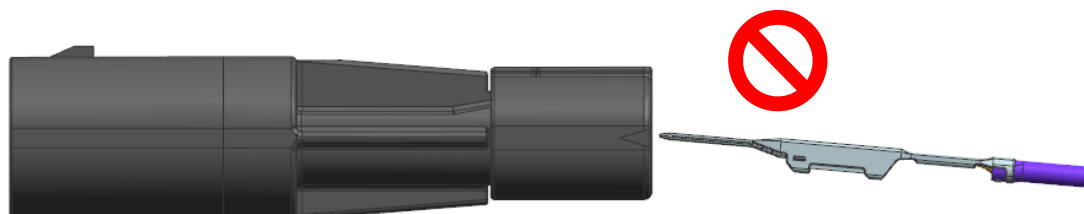
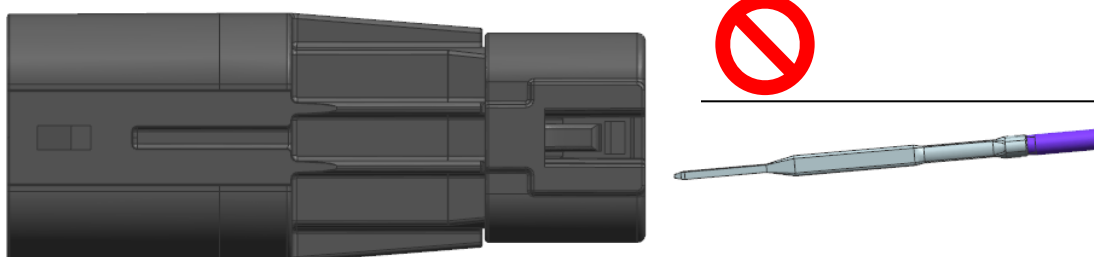
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A2	EC No: 603198	APPLICATION SPECIFICATION	6 of 12
	DATE: 2018/08/20 KSS	Squba 1.8 Interconnect System	
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE
TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC			



APPLICATION SPECIFICATION



INSERTION SKEW

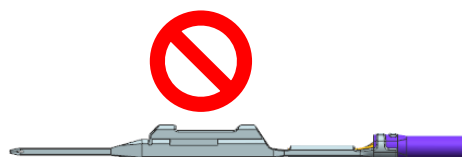
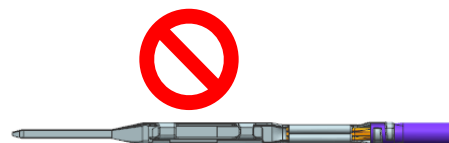


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A2	EC No: 603198	APPLICATION SPECIFICATION Squba 1.8 Interconnect System	7 of 12
	DATE: 2018/08/20 KSS		
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE

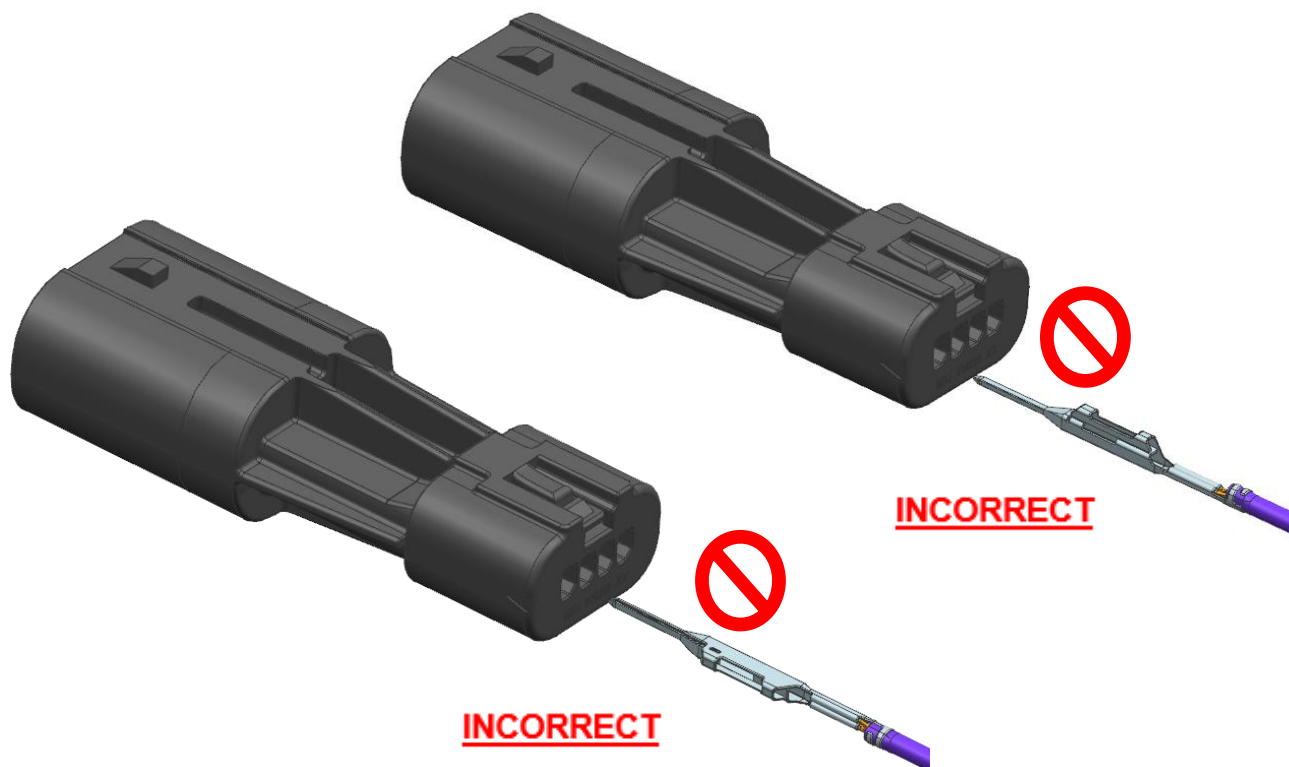


APPLICATION SPECIFICATION

Care must be taken while handling plug terminals. Terminal skew in any direction must be avoided while terminal insertion into plug housing.



INCORRECT

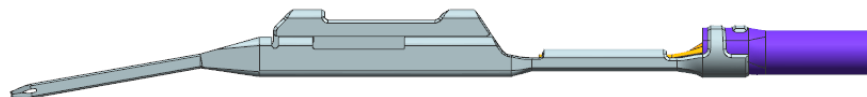
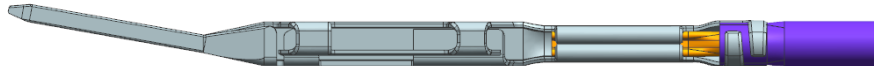
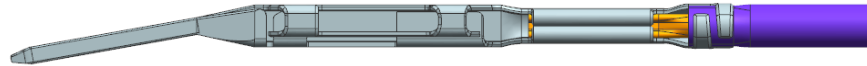


REVISION:	ADD MATING LENGTH	TITLE:	SHEET No.
A2	EC No: 603198	APPLICATION SPECIFICATION	8 of 12
DOCUMENT NUMBER:	DATE: 2018/08/20 KSS	CREATED BY:	CHECKED BY:
2042200000-AS		TGREGORI	RHODGE
		APPROVED BY:	
		RHODGE	



APPLICATION SPECIFICATION

CARE MUST BE TAKEN WHEN HANDLING THE TERMINAL PINS.
DO NOT USE OR TRY TO ATTEMPT TO REWORK BENT OR DAMAGED TERMINAL PINS



6.0 TERMINAL REMOVAL FROM THE HOUSING

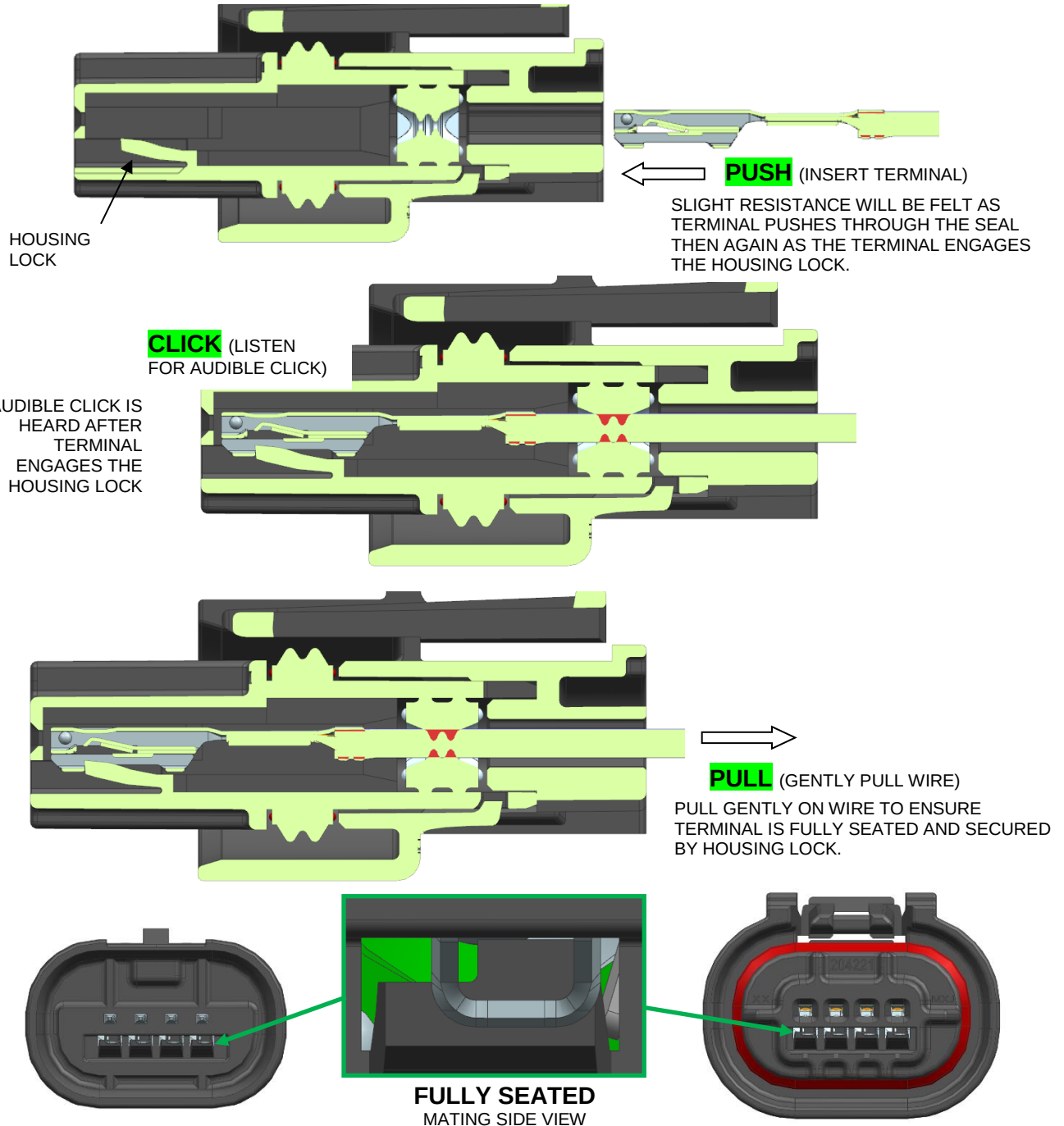
Terminals are NOT intended to be removed from housings to prevent seal damage. Be sure terminals are not damaged and are being inserted into the correct circuit before terminals are inserted.

REVISION:	ADD MATING LENGTH	TITLE:	SHEET No.
A2	EC No: 603198 DATE: 2018/08/20 KSS	APPLICATION SPECIFICATION Squba 1.8 Interconnect System	9 of 12
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APPLICATION SPECIFICATION

PUSH → CLICK → PULL
(APPLIES TO BOTH RECEPTACLE AND PLUG)



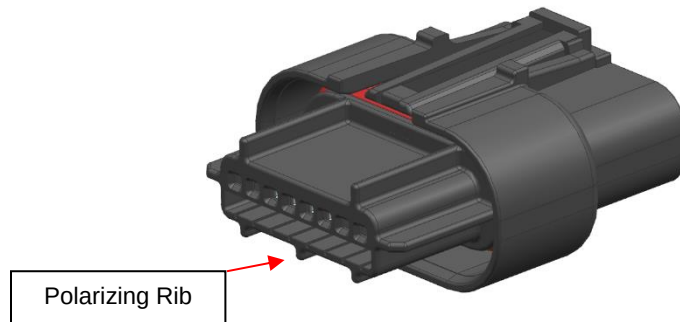
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A2	EC No: 603198	APPLICATION SPECIFICATION	10 of 12
DOCUMENT NUMBER:	DATE: 2018/08/20 KSS	CREATED BY:	CHECKED BY:
2042200000-AS		TGREGORI	RHODGE
APPROVED BY:			
RHODGE			



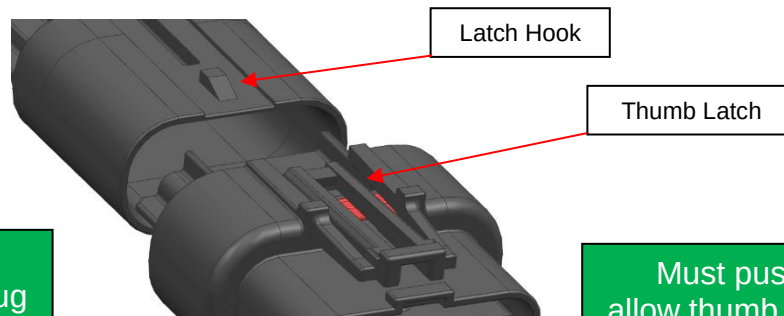
APPLICATION SPECIFICATION

7.0 MATING AND UN-MATING

This product contains a polarization feature to ensure proper orientation during mating. This rib feature is shown below. When mated in the improper orientation this rib feature will not allow the product to be mated.

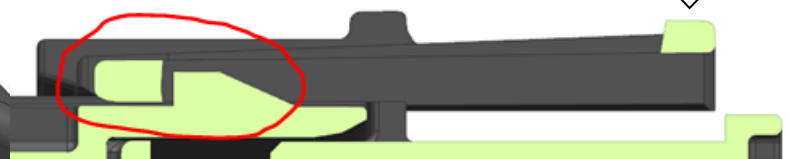
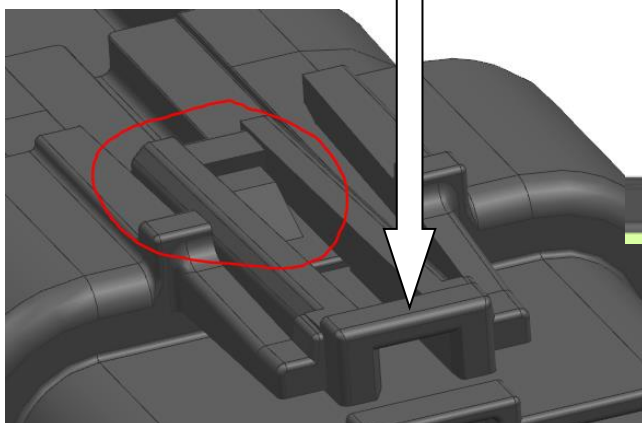


This product also contains a positive locking thumb latch and corresponding latch hook to ensure full mating and prevent accidental un-mating during normal operation. This thumb latch and latch hook features and full mating of the connectors occurs when and after the thumb latch is fully engaged and locked as shown below. A light audible click is heard to indicate fully mated connectors.



Must push here to allow thumb to clear plug hook during un-mating

Must push here to allow thumb to clear plug hook during un-mating

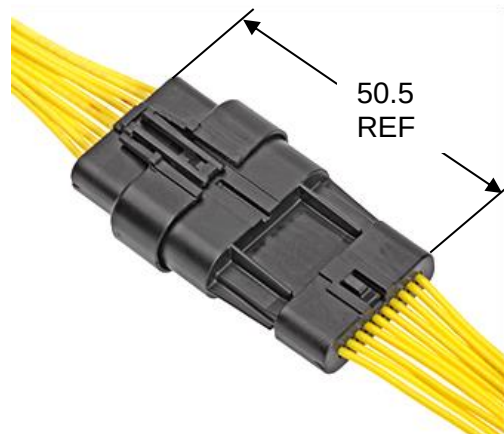


REVISION:	ADD MATING LENGTH	TITLE:	SHEET No.
A2	EC No: 603198	APPLICATION SPECIFICATION	11 of 12
	DATE: 2018/08/20 KSS	Squba 1.8 Interconnect System	
DOCUMENT NUMBER:	CREATED BY:	CHECKED BY:	APPROVED BY:
2042200000-AS	TGREGORI	RHODGE	RHODGE



APPLICATION SPECIFICATION

6.0 MATED LENGTH



7.0 PACKAGING

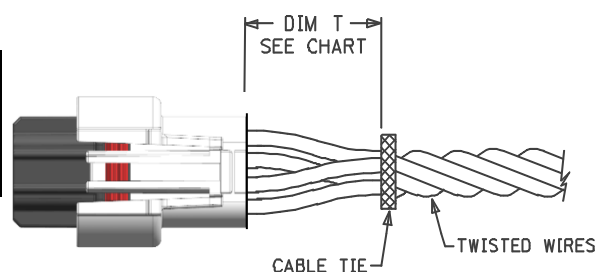
Parts shall be packaged to protect against damage during handling, transit and storage. See packaging specifications listed in section 3.0 (sheet 2).

8.0 OTHER INFORMATION

8.1 CRIMP APPLICATION TOOLING

8.2 CABLE TIE AND OR WIRE TWIST LOCATION

CKT Size	Dim T Min.
2-6	50.8 mm (2.00")
8	76.2 mm (3.00")
10	101.6 mm (4.00")



The "T" dimension defines a "free" length of wire, or a length of wire that is not subject to significant bias by external factors such as a wire tie, wire twisting, or other means of bending or deforming of the wires that repositions them from their natural relaxed state or location where they enter the housing. Wires are to be dressed in such a manner to allow the terminals to float freely in the pocket. This dimension is a general recommendation and may need to be adjusted for different wire gauges and wire type and insulation thickness and insulation material.

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A2	EC No: 603198	APPLICATION SPECIFICATION	12 of 12
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2042200000-AS	TGREGORI	RHODGE	RHODGE