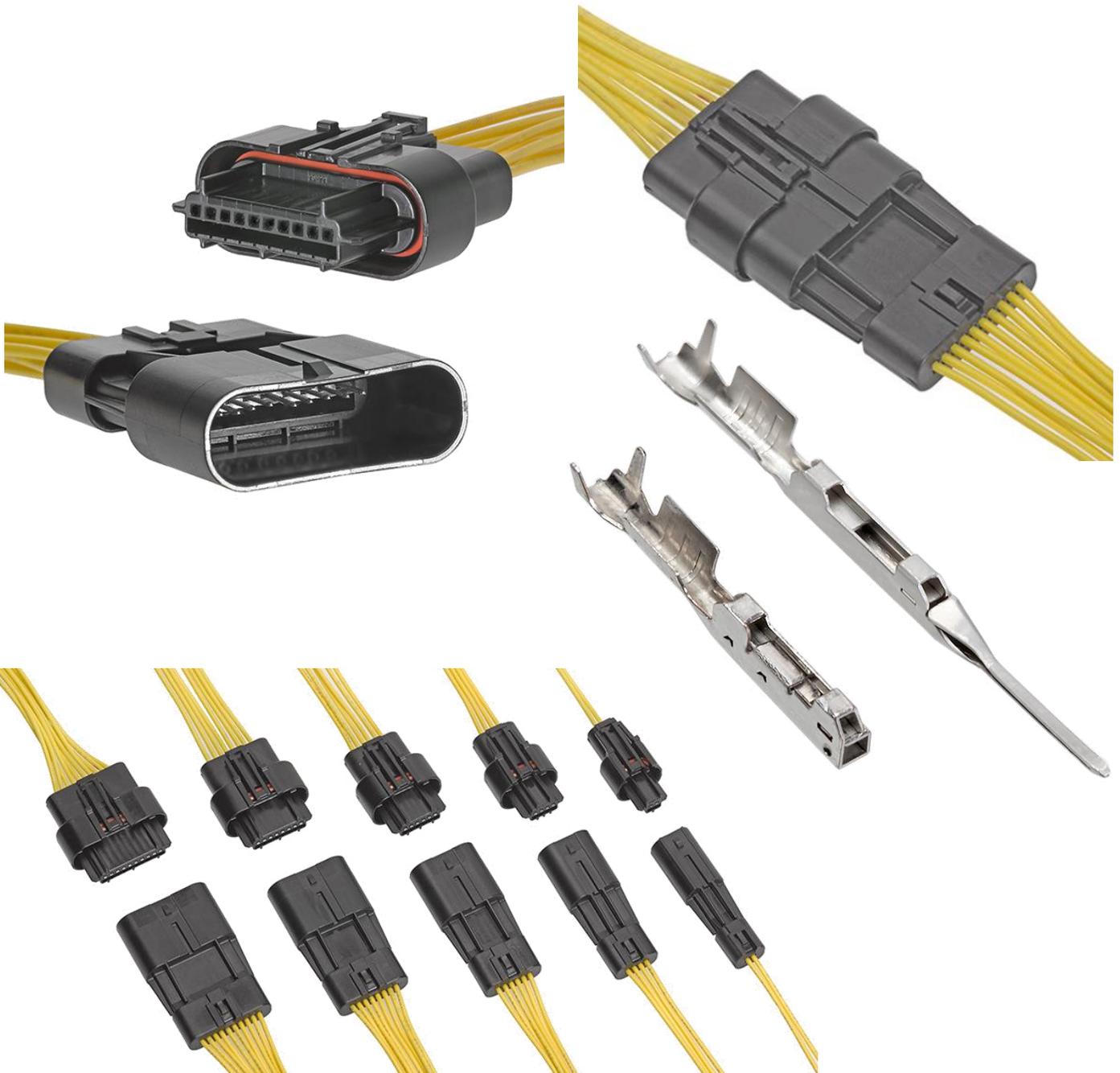




APPLICATION SPECIFICATION

Squba 1.8 INTERCONNECT SYSTEMS



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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 IP67 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
Hand Tool Crimp Specification.....	2002180400

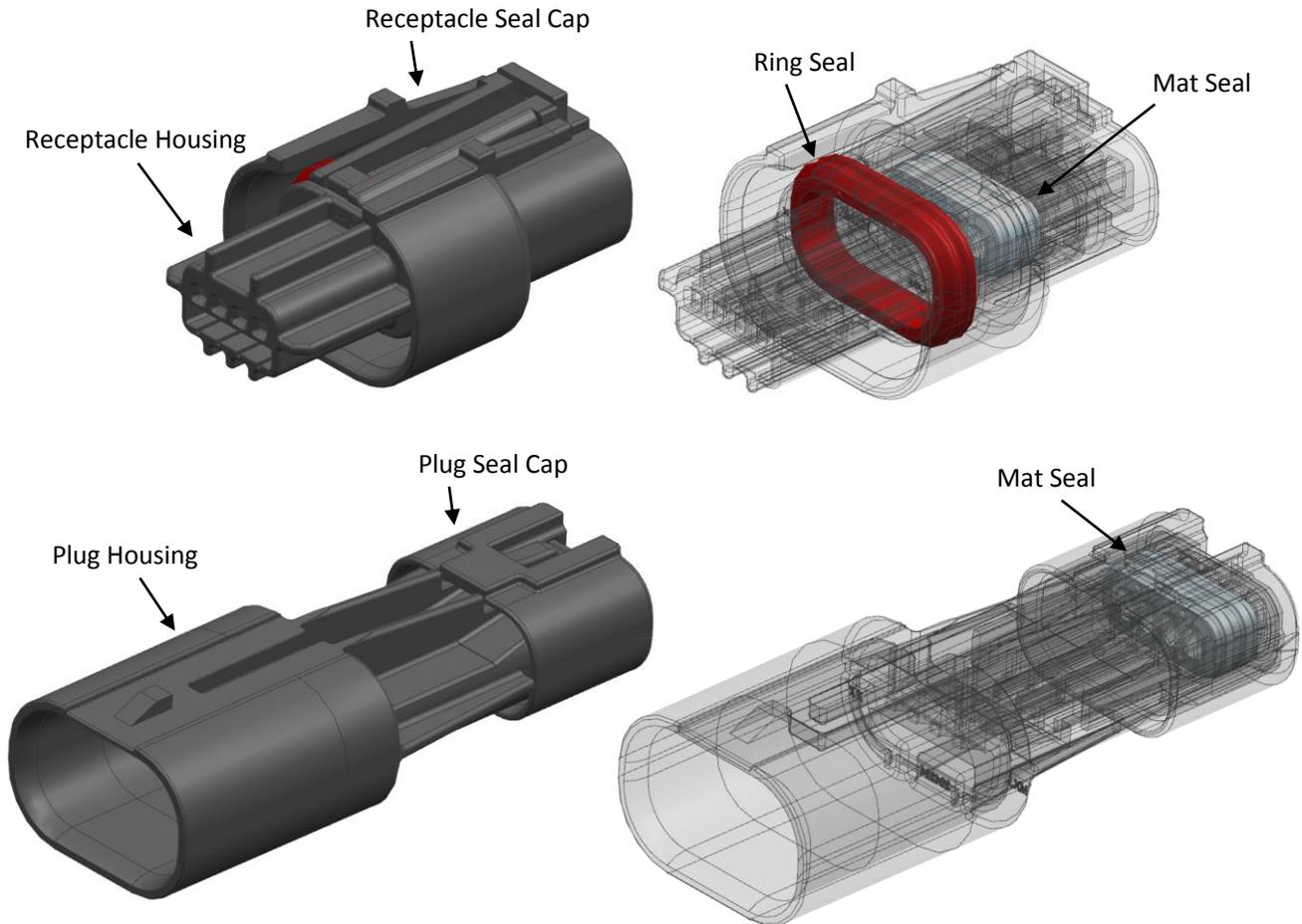
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APPLICATION SPECIFICATION

4.0 PRODUCT DEFINITION

4.1 CONNECTOR ASSEMBLIES (4 CKT CONNECTORS SHOWN)

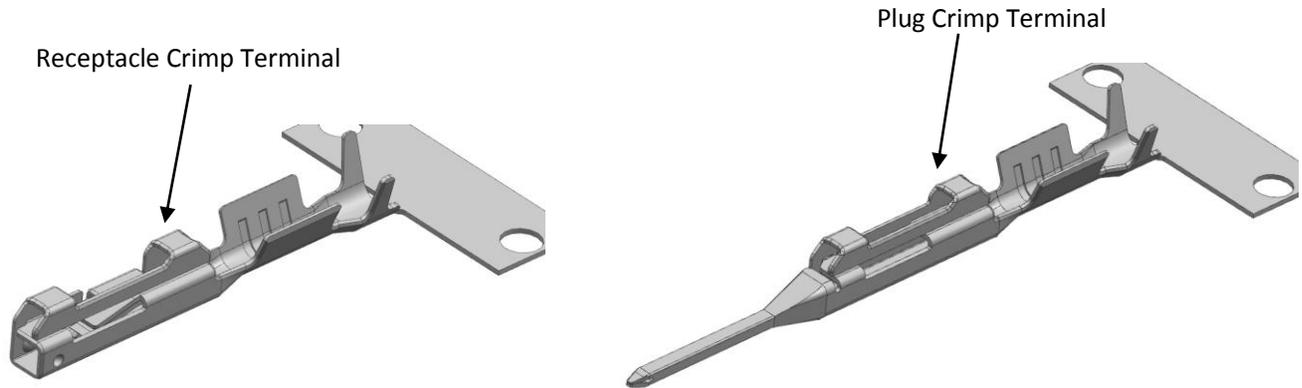


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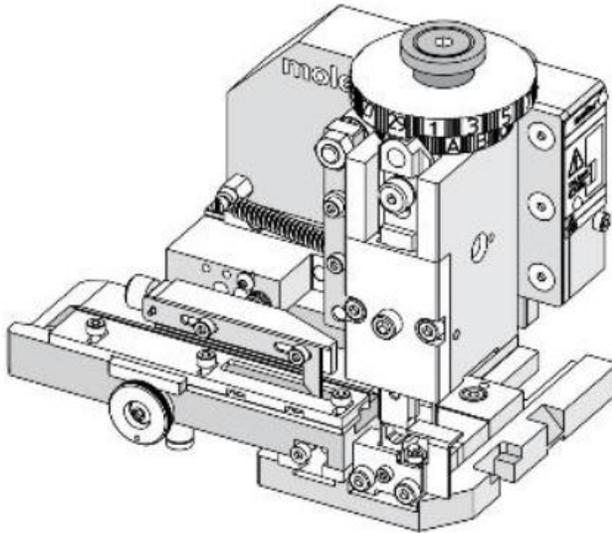
4.2 CRIMP TERMINALS



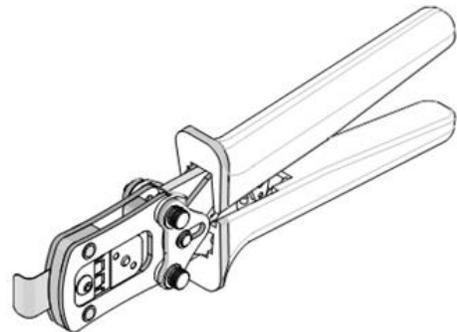
Description	Order Number	Crimp Spec Document Number
Crimp Applicator	638083700	638083700
Crimp Hand Tool	2002180400	2002180400

NOTE: Same crimp applicator and hand tool is used for both Receptacle and Plug crimp terminals

Crimp Applicator



Hand Tool



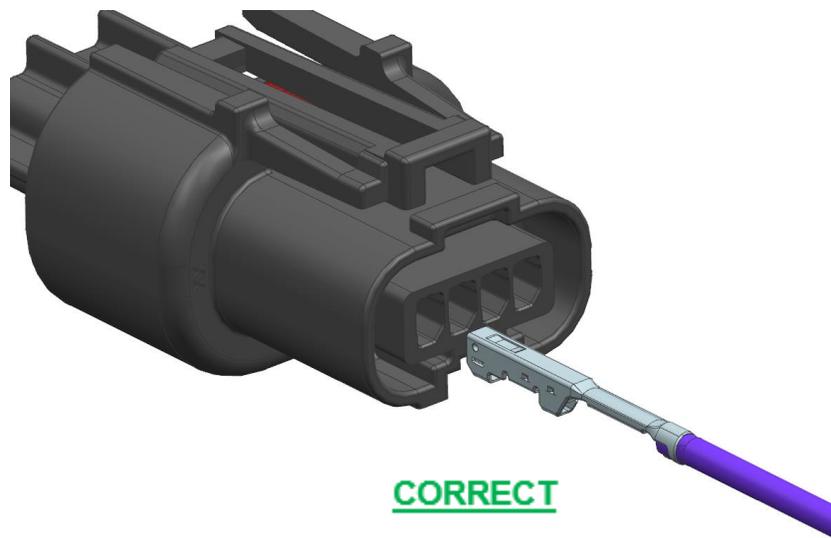
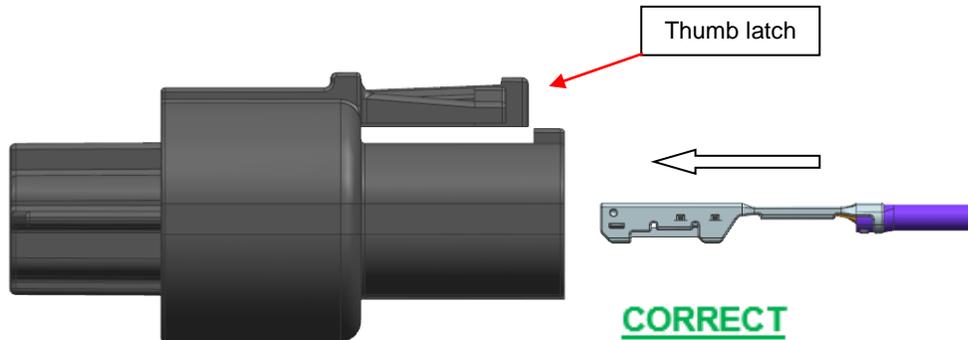
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APPLICATION SPECIFICATION

5.0 TERMINAL ORIENTATION DURING INSERTION INTO HOUSING

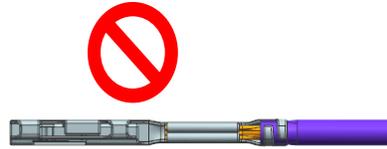
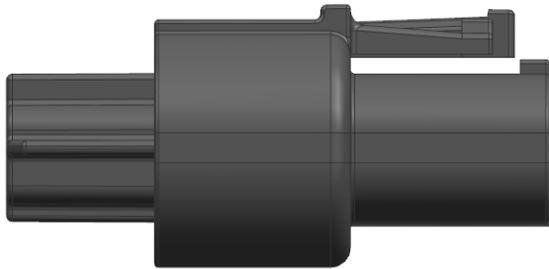
Terminals are to be inserted in the housings as shown below on sheet 5-8. Notice the orientation of the terminal body relative to the receptacle thumb latch and plug thumb latch hook. Notice the orientation of the terminal body relative to the latch hook. Do not force terminals into the housing cavity. 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.



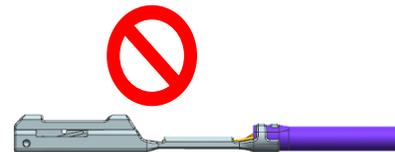
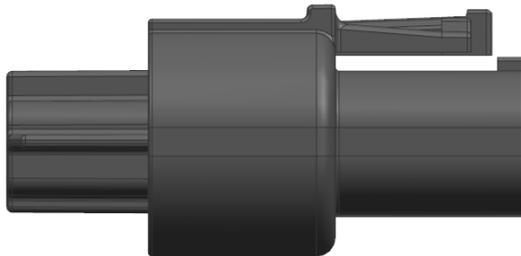
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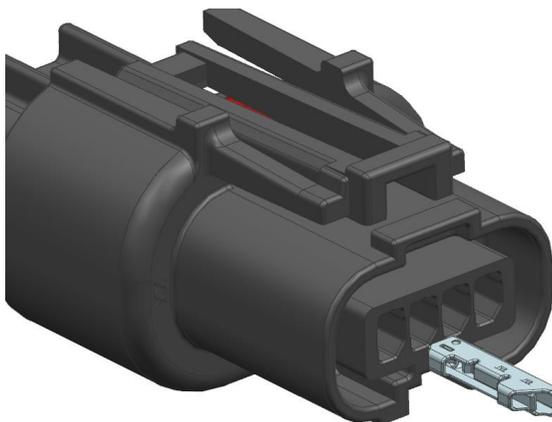
APPLICATION SPECIFICATION



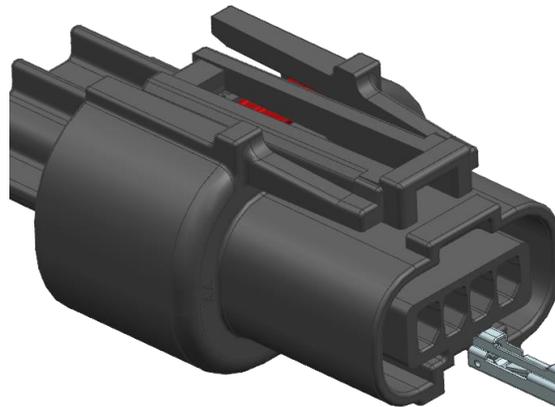
INCORRECT



INCORRECT



INCORRECT



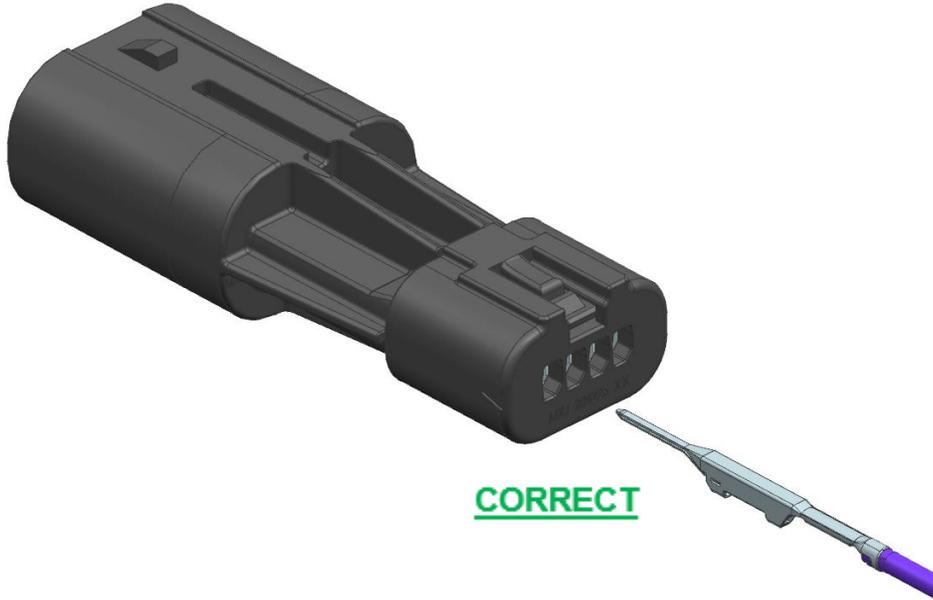
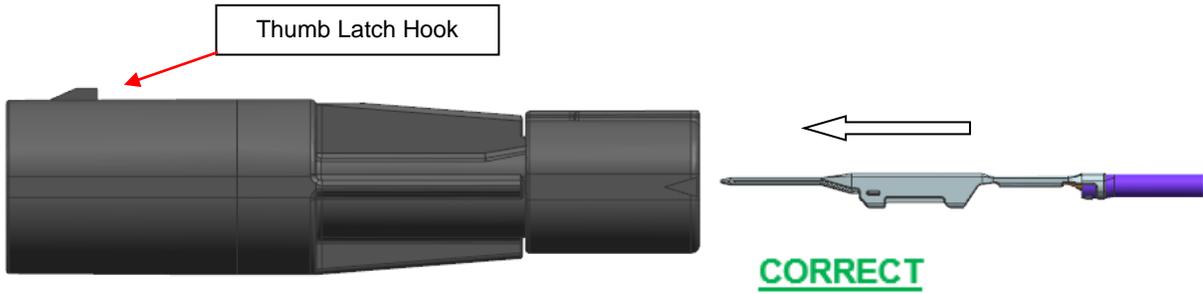
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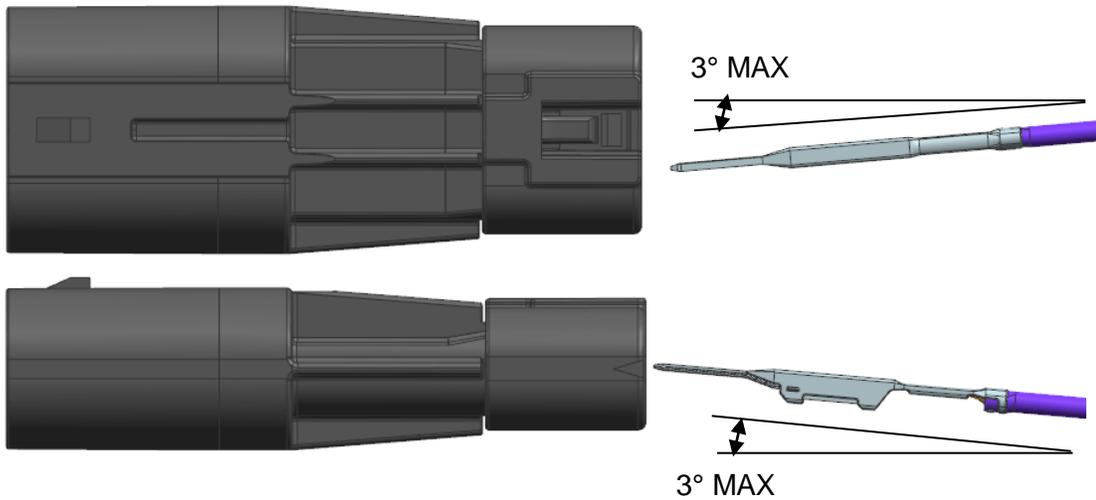
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APPLICATION SPECIFICATION



INSERTION SKEW



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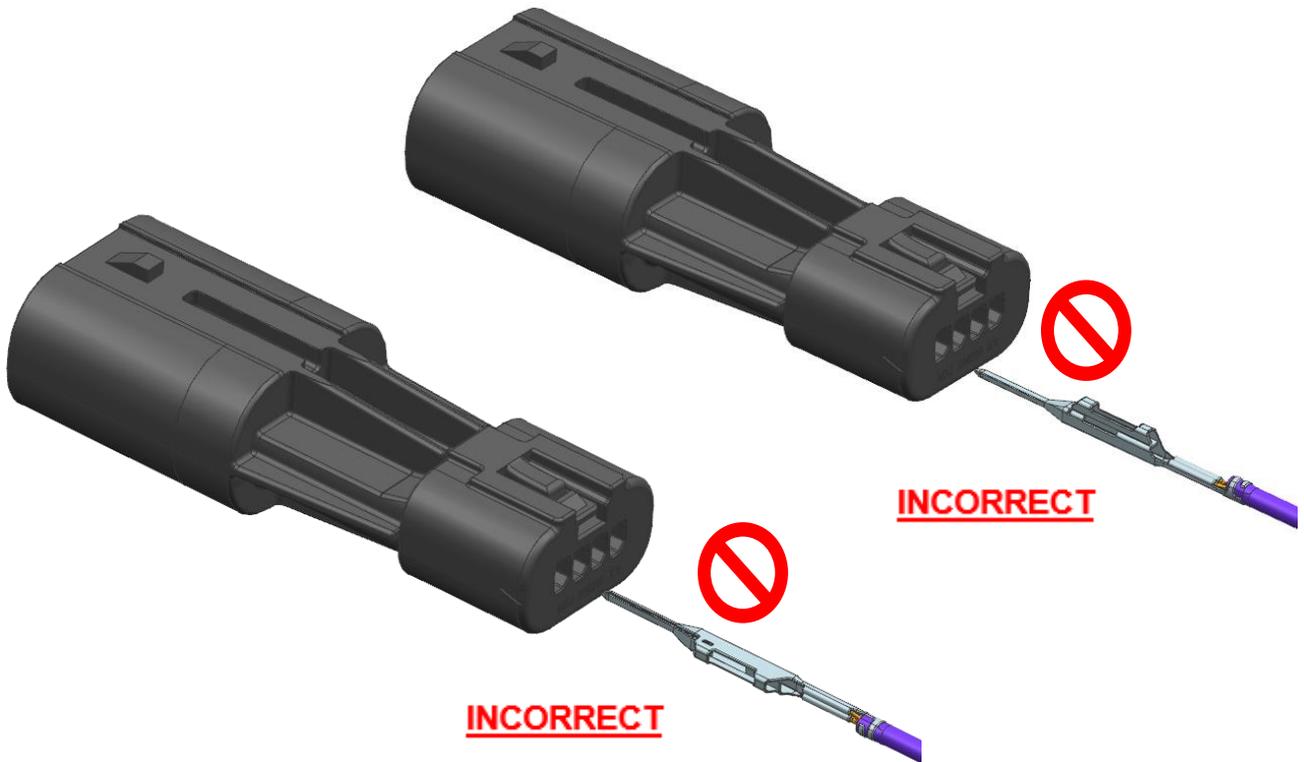
APPLICATION SPECIFICATION



INCORRECT



INCORRECT



INCORRECT

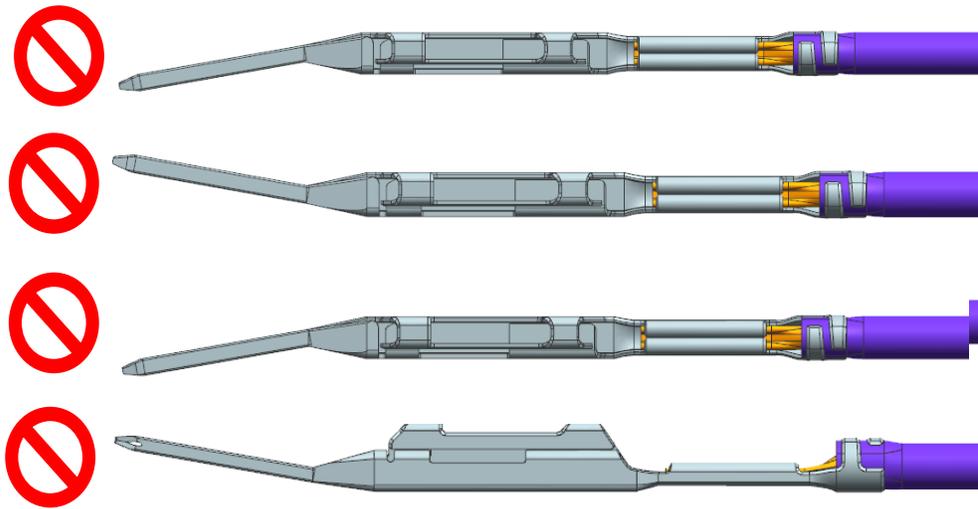
INCORRECT

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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

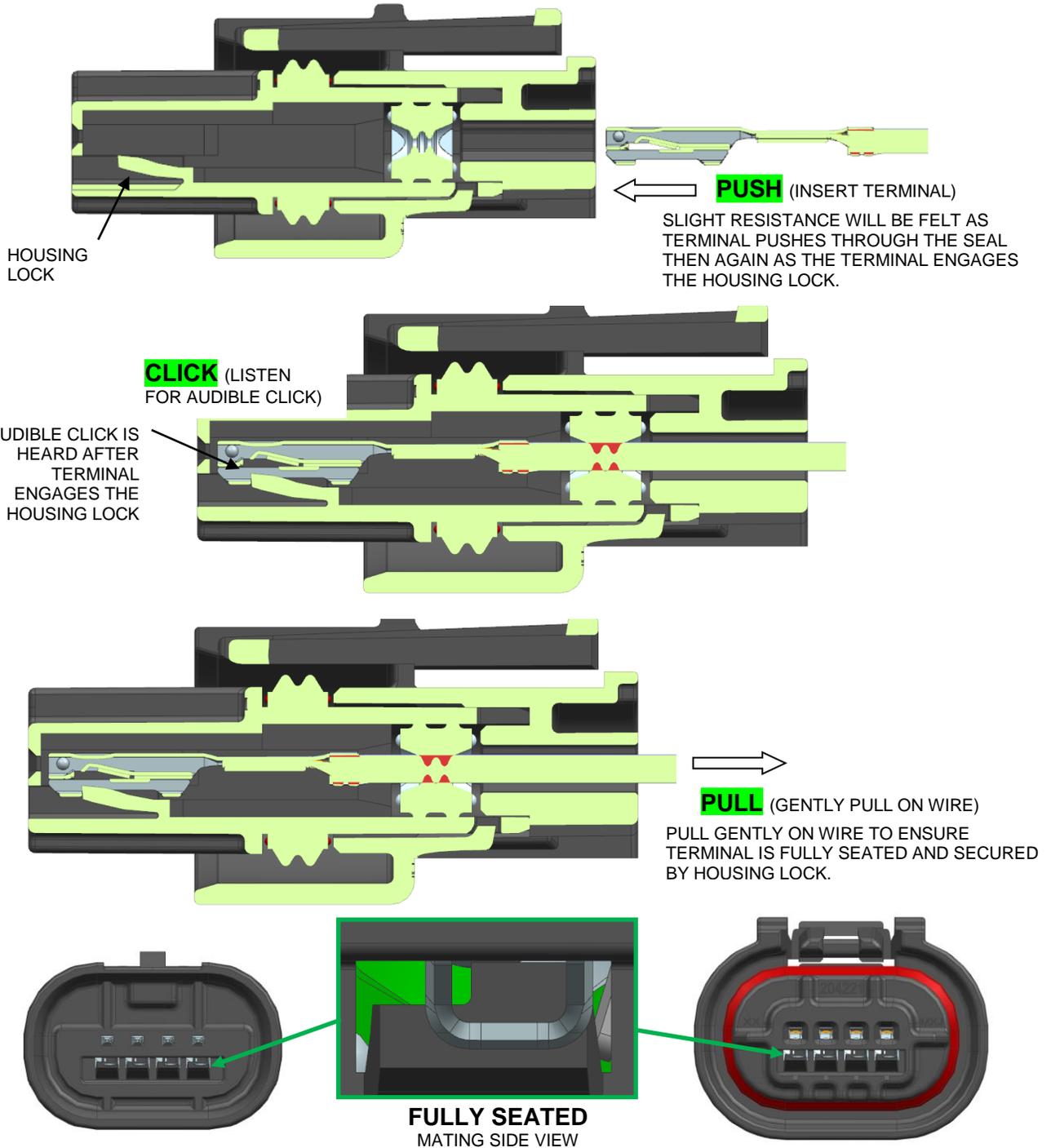


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APPLICATION SPECIFICATION

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



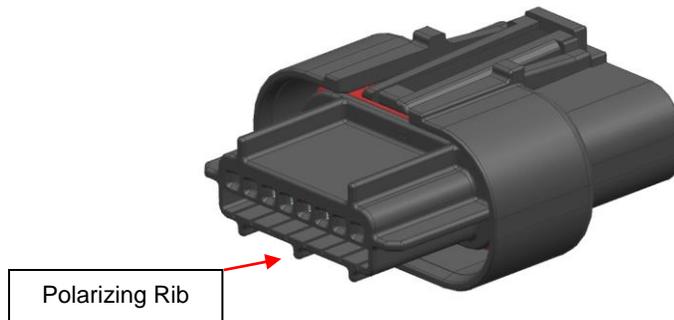
REVISION: A1	ECR/ECN INFORMATION: EC No: 172921 DATE: 2018 / 2 / 28	TITLE: APPLICATION SPECIFICATION Squba 1.8 Interconnect System	SHEET No. 10 of 12
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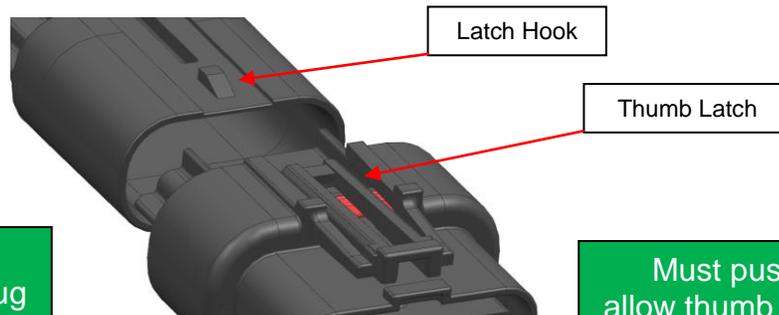
APPLICATION SPECIFICATION

6.0 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.

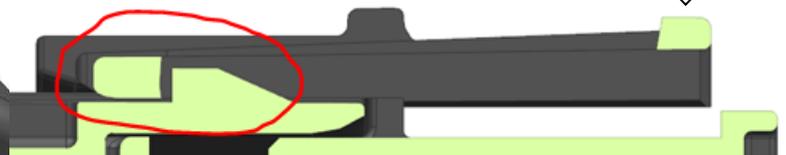
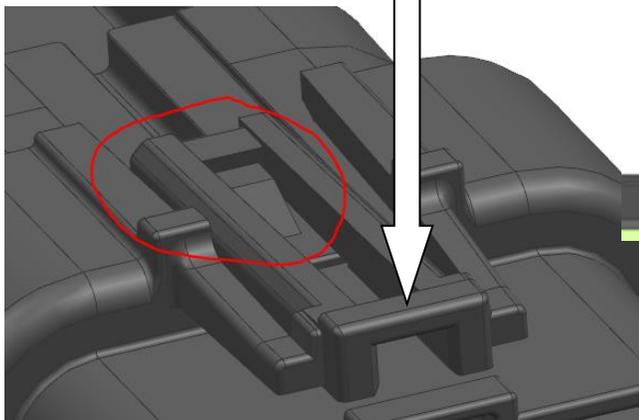


This product also contains a positive locking thumb latch and corresponding latch hook to ensure full mating and prevent accidental un-mating during normal operation. This thumb latch and latch hook features and full mating of the connectors occurs when and after the thumb latch is fully engaged and 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



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APPLICATION SPECIFICATION

7.0 PACKAGING

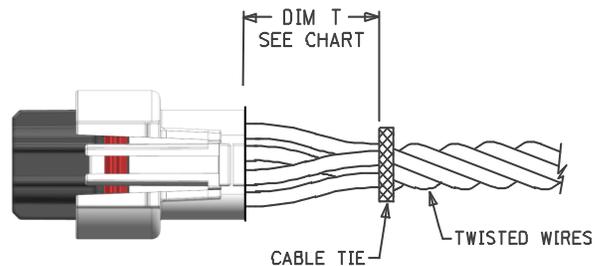
Parts shall be packaged to protect against damage during handling, transit and storage. See packaging specifications listed in section 3.0 (sheet 2).

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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