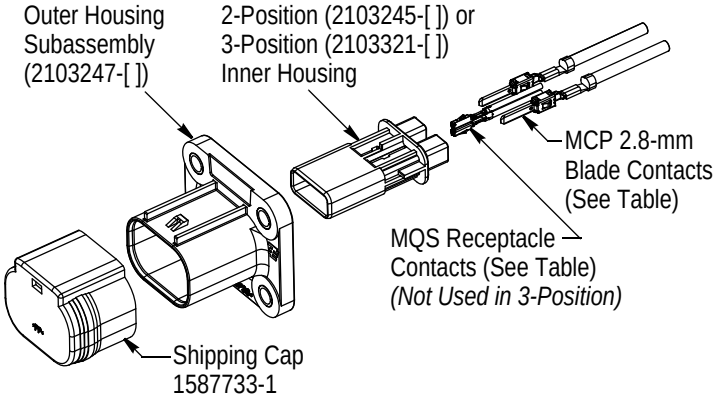
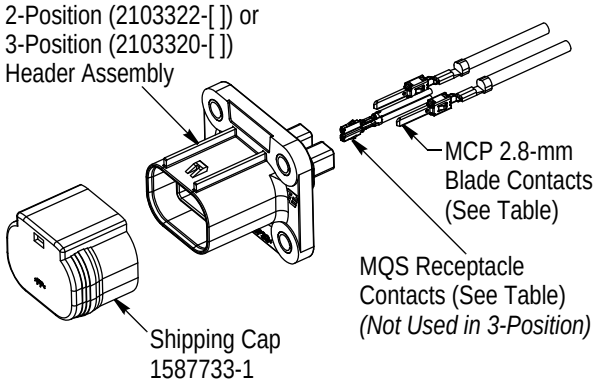
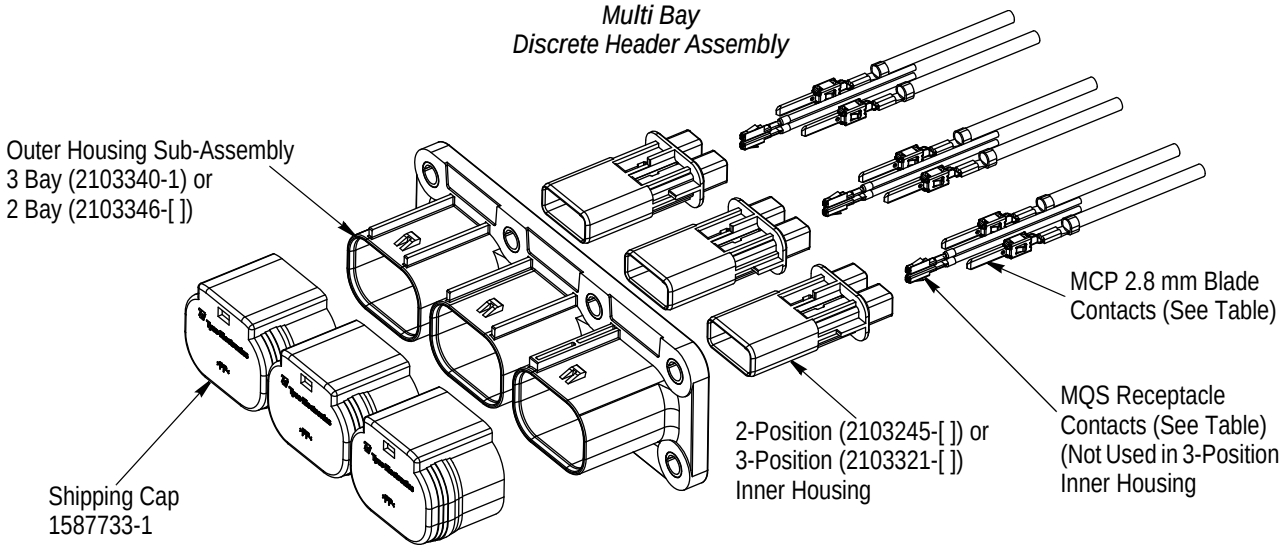
Single Bay Discrete Header Assembly
Option 1



Single Bay Discrete Header Assembly
Option 2 (For Single Bay Only)



Multi Bay
Discrete Header Assembly



MCP 2.8-mm Blade Contact For 2- and 3-Position Discrete Header Assemblies	MQS Receptacle Contact For 2-Position Discrete Header Assembly
2-2141598-2 or 2-2141600-2	928999-5, 928999-6, 963715-5, or 963715-6

Figure 1

1. INTRODUCTION

2- and 3-position AMP+HVA280 discrete header assemblies (option 1 and option 2) accept the contacts shown in Figure 1 and are designed to be mounted to a device. These discrete header assemblies mate with same-position HVA280 high-voltage plug assemblies.

Read these instructions carefully before attempting to assemble the discrete header assembly.

NOTE
Dimensions in this instruction sheet are in metric units [with U.S. customary units in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

2. DESCRIPTION

Discrete header assembly option 1 consists of a keyed outer housing subassembly and inner housing. Discrete header assembly option 2 is a keyed one-piece assembly. A shipping cap is available for both options. See Figure 1.

3. ASSEMBLY

NOTE
The single bay 2-position discrete header assembly is shown in all figures; however, the same instructions apply to the single bay 3-position and multi bay assemblies.

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3.1. Preparation

— Refer to Application Specification 114-18021 (MQS) and 114-18051-1 (MCP) for wire-to-contact cross-reference. Only wire that meets the requirements in the specification and the contacts listed in Figure 1 can be used. *Note* that the MQS receptacle must be specified based on the mating plug used.

DANGER
Using contacts other than those listed in Figure 1 could result in hazardous conditions.

— Crimp the contacts according to 114-18051-1 (MCP) and 114-18021 (MQS) using the tools listed in the specification.

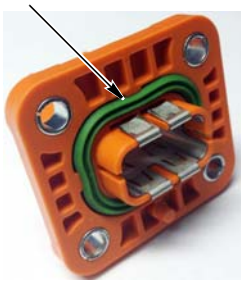
— Refer to customer drawing 2103247, 2103322 or 2103320 for requirements for the single bay device mounting interface.

— Refer to customer drawing 2103346 or 2103340 for requirements for the multi bay mounting interface.

— Check the outer housing subassembly (option 1) or header assembly (option 2) to make sure that the seal is in place. See Figure 2.

Option 1

Ensure Seal is in Place



Option 2

Ensure Seal is in Place

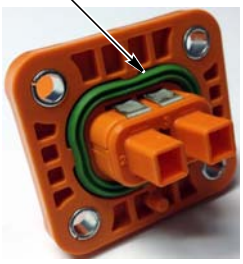


Figure 2

3.2. Installation

A. Option 1 (Single Bay and Multi Bay)

1. Align the polarization post of the outer housing subassembly with the polarization hole of the device, then push the mating interface into the device mounting interface until the mounting flange of the outer housing subassembly is against the device. See Figure 3.

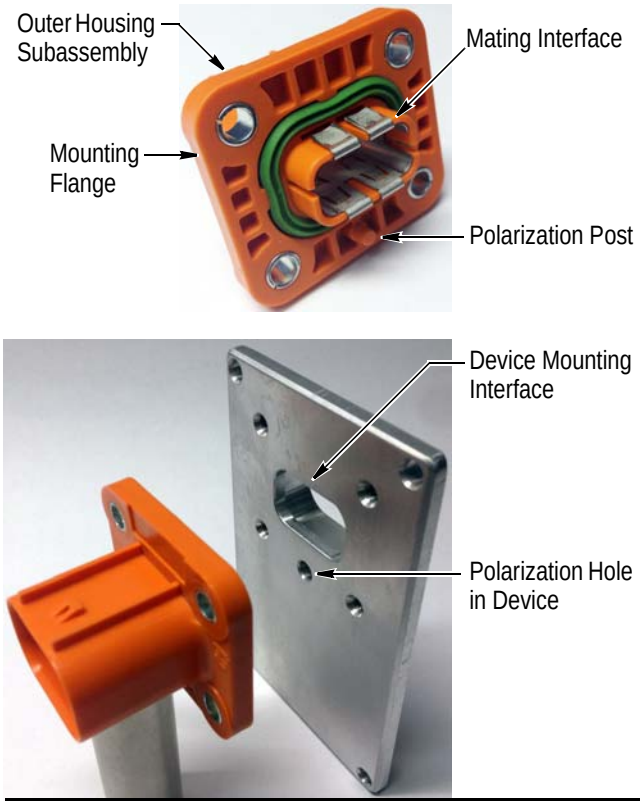


Figure 3

2. Secure the outer housing subassembly to the device using customer-supplied M4 fasteners (with 8.7-mm maximum head diameter) as shown in Figure 4. Tighten the fasteners to a torque between 2.0 and 2.5 N-m [17.7 and 22.1 in.-lb].

CAUTION
Ensure that the fasteners are compatible with the header assembly and are capable of meeting the required torque.

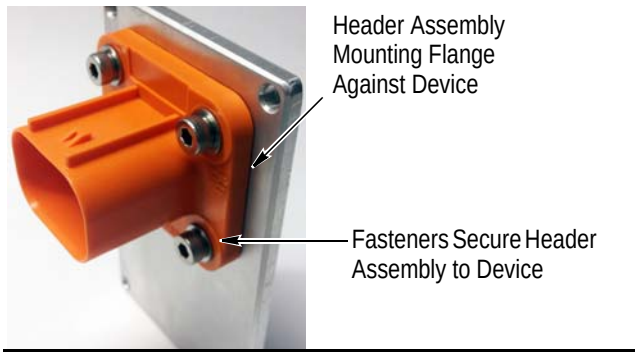
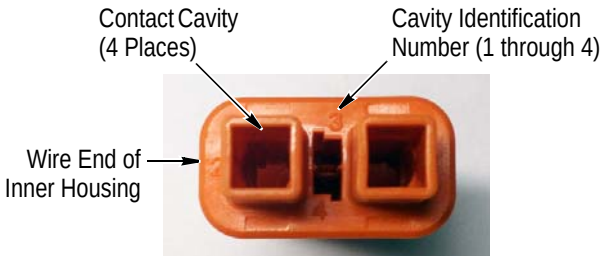


Figure 4

3. Insert each contact into the appropriate contact cavity of the inner housing, taking note of the cavity identification numbers marked on the wire end of the inner housing. Ensure correct inner housing key is used for intended outer housing. See Figure 5. Gently pull back on each wire to ensure that the contacts are fully seated. See Figure 6.



Contacts Aligned with Contact Cavities of Inner Housing

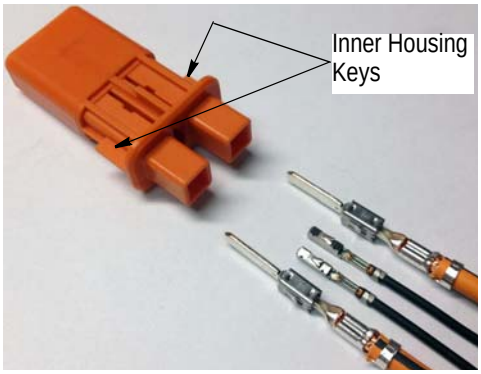


Figure 5

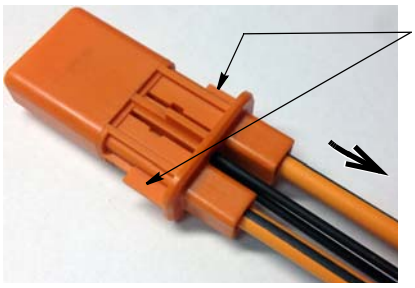


Figure 6

4. Insert the inner housing (with the contacts) into the outer housing subassembly until there is an audible or tactile “click”. See Figure 7.

NOTE
The inner housing is keyed to the outer housing subassembly and can be inserted in only one orientation.

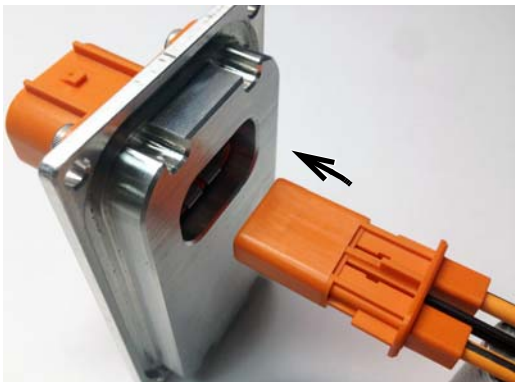


Figure 7

The option 1 receptacle assembly is now ready for use in its intended application.

B. Option 2 (For Single Bay Only)

1. Align the polarization post of header assembly with the polarization hole of the device, then push the mating interface into the device mounting interface until the mounting flange of the header assembly is against the device. See Figure 8.

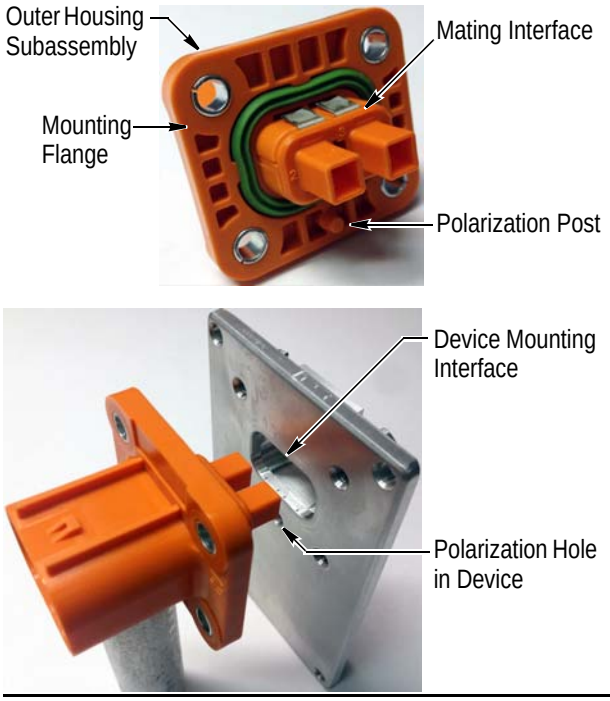


Figure 8

2. Secure the header assembly to the device using the customer-supplied M4 fasteners (with 8.7-mm maximum head diameter) as shown in Figure 9. Tighten the fasteners to a torque between 2.0 and 2.5 N-m [17.7 and 22.1 in.-lb].

CAUTION
Ensure that the fasteners are compatible with the header assembly and are capable of meeting the required torque.



Figure 9

3. Insert each contact into the appropriate contact cavity of the inner housing, taking note of the cavity identification numbers marked on the wire end of the inner housing. See Figure 10. Gently pull back on each wire to ensure that the contacts are fully seated. See Figure 10.

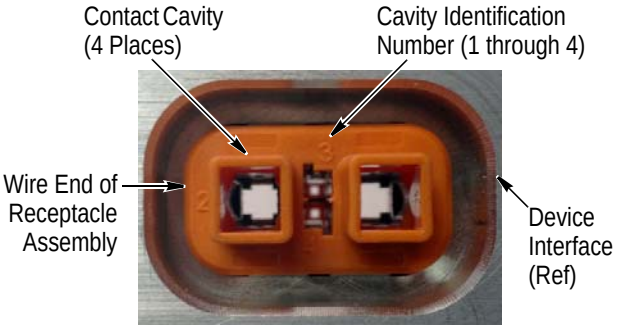


Figure 10

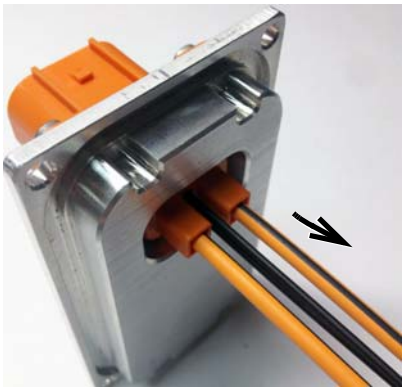


Figure 11

The option 2 receptacle assembly is now ready for use in its intended application.

3.3. Shipping Cap

If desired, push the shipping cap onto the mating face of the receptacle assembly until it snaps into place. See Figure 12.

NOTE
The shipping cap is not intended to provide protection against liquid of any kind. It is only intended to protect the contacts from damage or contamination during shipping.

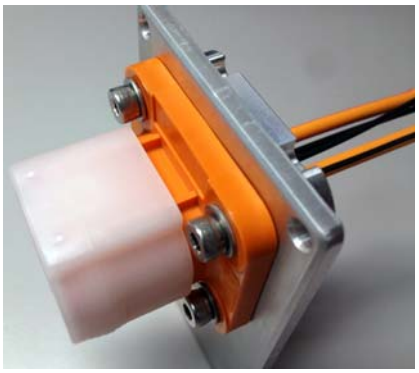


Figure 12

3.4. Testing

Contact probing is not recommended on the header assembly due to the possible presence of high-voltage power. If continuity checks are necessary, disable the high-voltage power.

CAUTION
To avoid damage to the header assembly, ensure that the high-voltage power is disabled before conducting any continuity checks.

CAUTION
Avoid any probing that could damage the contacts or contact plating.

3.5. Mating

NOTE
For mating with plug assemblies 1587714-[ ], refer to 114-13253 for specific mating instructions.

1. If installed, remove the shipping cap by pulling the shipping cap away from the header assembly. Discard the shipping cap in a safe manner.

2. Align the mating faces of the header assembly and plug assembly. See Figure 13, Detail A.

3. Push the assemblies together until the primary latch and secondary latch engage. Note that there are two latches; therefore, there will be two audible “clicks” when the assemblies are fully mated. See Figure 13, Detail B.

CAUTION
If the assemblies are not fully mated, the HVIL circuit could open, and shut down the electrical system.

If the assemblies do not fit together easily, check the following:

— the keying of the header assembly matches the keying of the plug assembly

— the header assembly and plug assembly are oriented 180 degrees

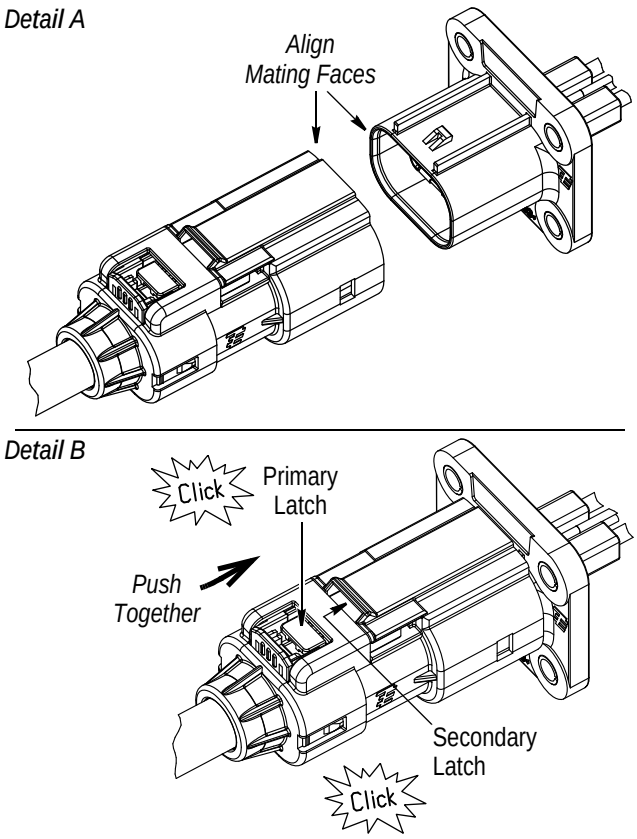


Figure 13

4. Pull lightly on the plug assembly to ensure that the assemblies are fully mated.

5. Seat the plug assembly CPA (if present) by pushing it toward the header assembly. See Figure 13, Detail C.

The assemblies are now fully mated and functional.

4. UNMATING

NOTE
For unmating from plug assemblies 1587714-[ ], refer to 114-13253 for specific unmating instructions.

1. Disable the high-power voltage power.

DANGER
To avoid personal injury, exercise extreme caution to verify that the high-voltage power is disabled before unmating the header assembly and plug assembly.

2. Open the plug assembly CPA (if present) by pulling it away from the header assembly. See Figure 14.

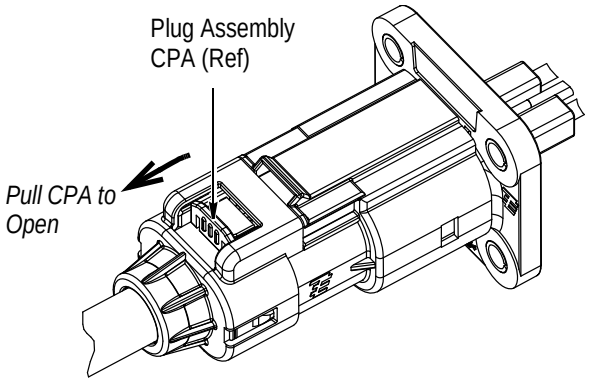


Figure 14

3. Depress the primary latch (located at the back of the plug assembly), and simultaneously pull the plug assembly straight away from the receptacle assembly until it stops. DO NOT pull the cable or cable seal retainer. DO NOT force the assemblies apart as the assemblies are not yet fully unmated. See Figure 15, Detail A.

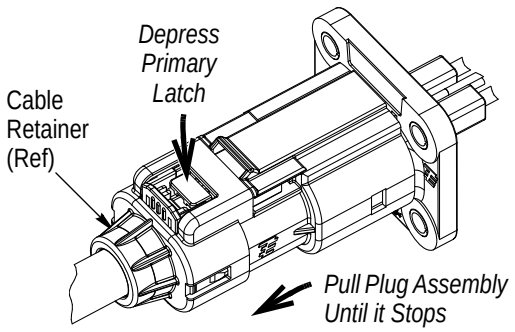
4. Depress the secondary latch (located in the window in front of the primary latch). See Figure 15, Detail B. Depending on the plug assembly style, a small screwdriver is needed to depress the secondary latch. While depressing the secondary latch, pull the plug assembly and header assembly apart. DO NOT pull the cable or cable seal retainer. See Figure 15, Detail B.

The header assembly and plug assembly are now unmated and disconnected as shown in Figure 15, Detail C.

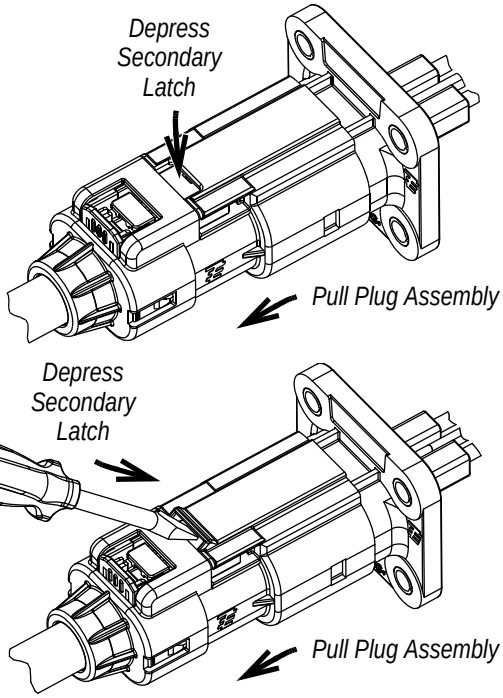
5. REVISION SUMMARY

- Updated document to corporate requirements
- Deleted information from title
- Added new artwork and text to Figure 1
- Added new information to NOTE in Section 3
- Deleted and/or added new information to paragraph 3.1, 3.2.A, 3.2.A.2, 3.2.A.3, and 3.2.B
- Deleted text from callout in Figure 4 and added new callouts to Figures 5 and 6

Detail A



Detail B



Detail C

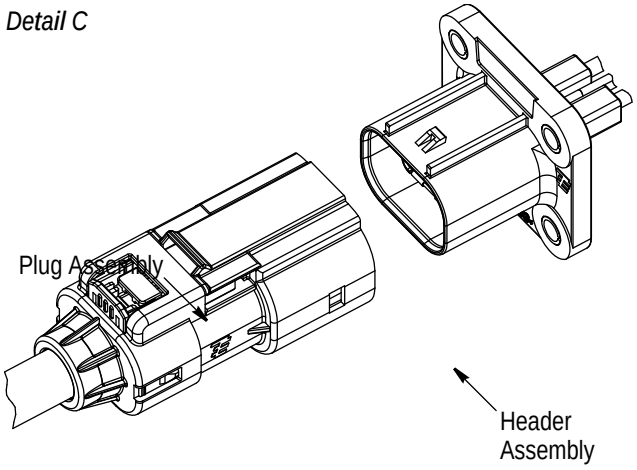


Figure 15

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

TE Connectivity:

1393431-1 1743455-2 175977-2 2005330-1 2834055-1 RH73H2A40MKTN TE50BR39J U5254-000005-030PA 1903112-2 2377783-2 650075-000 SBCHE154R7K SBCHE64R7K 2380312-2 917696-1 MPT100C18RF 141991-2 3430B2F51RTDF CRGCQ2010J3K3 2-292161-3 ROX05SJ18R 1-794222-0 1-962915-1 2310537-1 936348-1 CPF0402B37K4E1 1969656-1 3-1393225-0 3631B101LL SMW73R0JT