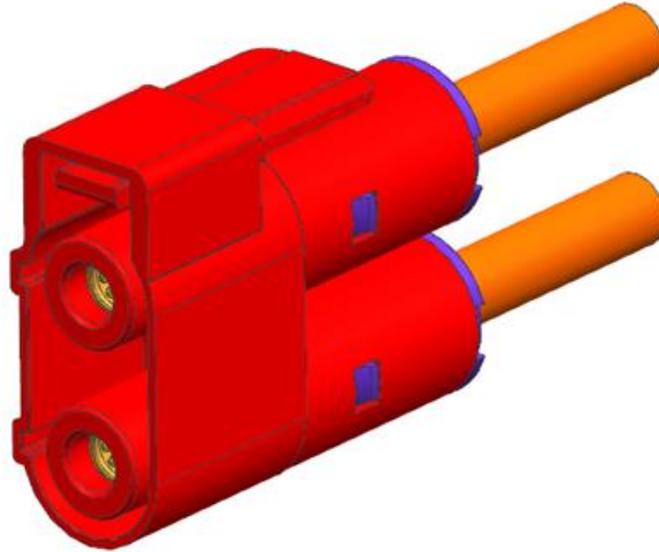


# APPLICATION SPECIFICATION

## 2 CKT 6MM CST WIRE TO BOARD POWER CONNECTOR SYSTEM

### HARNESS ASSEMBLY SPECIFICATION



#### 1.0 SCOPE

This specification applies to the series 211945, 211948, 211941 and 211937 2CKT 6mm CST Power connector products.

#### 2.0 PRODUCT DESCRIPTION

This specification covers the harness assembly preparation and requirements for the following products listed by series numbers:

211945-XXXX	2CKT 6mm CST single ended harness assembly
211948-XXXX	2CKT 6mm CST double ended harness assembly
211941-XXXX	2CKT 6mm CST harness kit

#### 3.0 REFERENCE DOCUMENTS

3.1 Refer to the appropriate sales or manufacturing drawing for information on dimensions, materials, plating, and markings.

3.2 211941-0001-PS Product Specification.

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# APPLICATION SPECIFICATION

## 4.0 CABLE STRIP PREPARATION

### 4.1 Single ended harness with "L" length extension.

4.1.1 Refer to the illustration below. An extra 30.25mm cable is the portion inside the connector for crimping and holding.

4.1.2 Recommended strip length is 15.4mm.

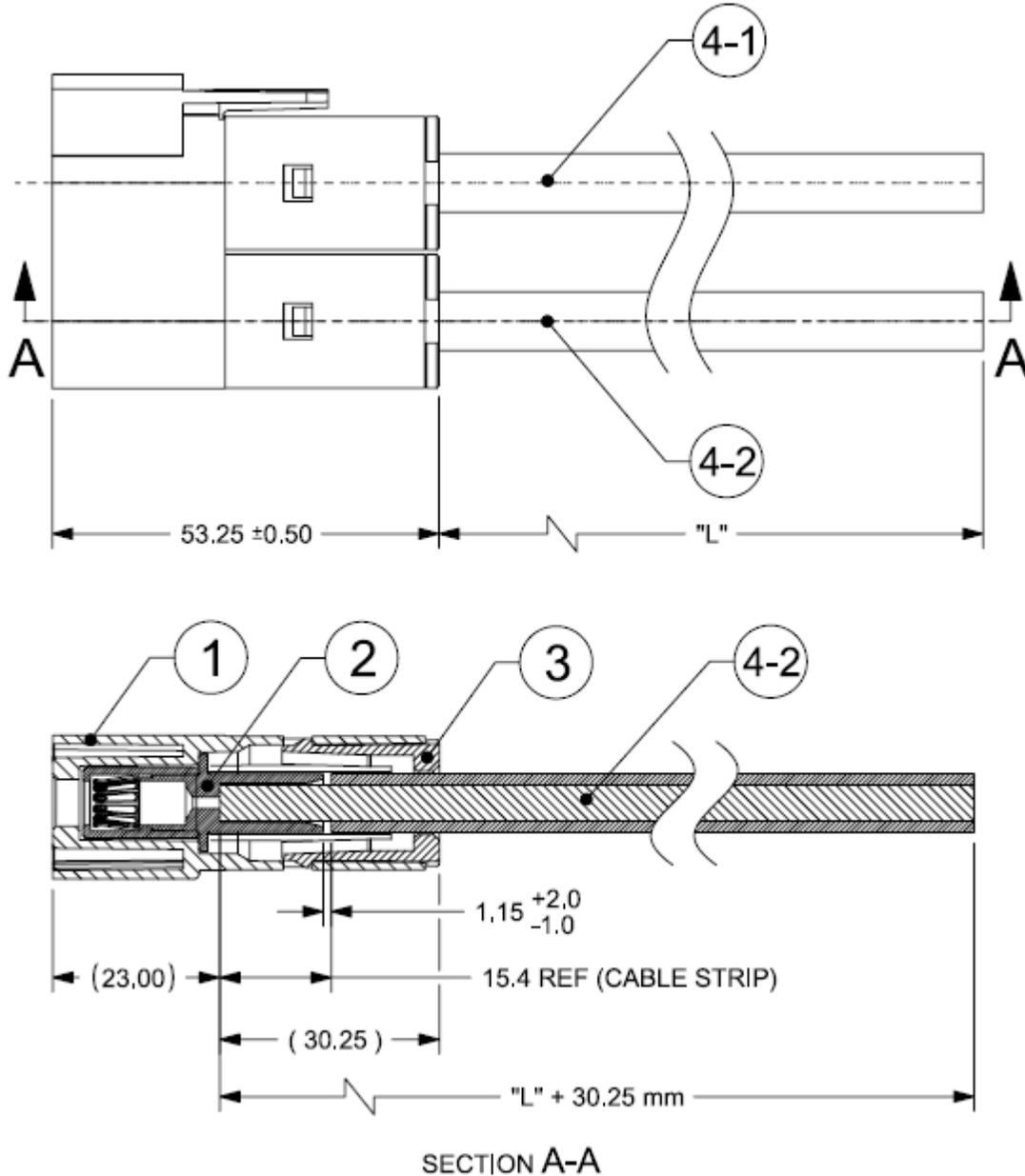


Figure 4.1  
SINGLE ENDED HARNESS

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## 4.2 Double ended harness "L" length between connectors

4.2.1 Refer to the illustration below. An extra 60.5mm cable is the portion inside the connectors for crimping and holding.

4.2.2 Recommended strip length is 15.4mm (one end).

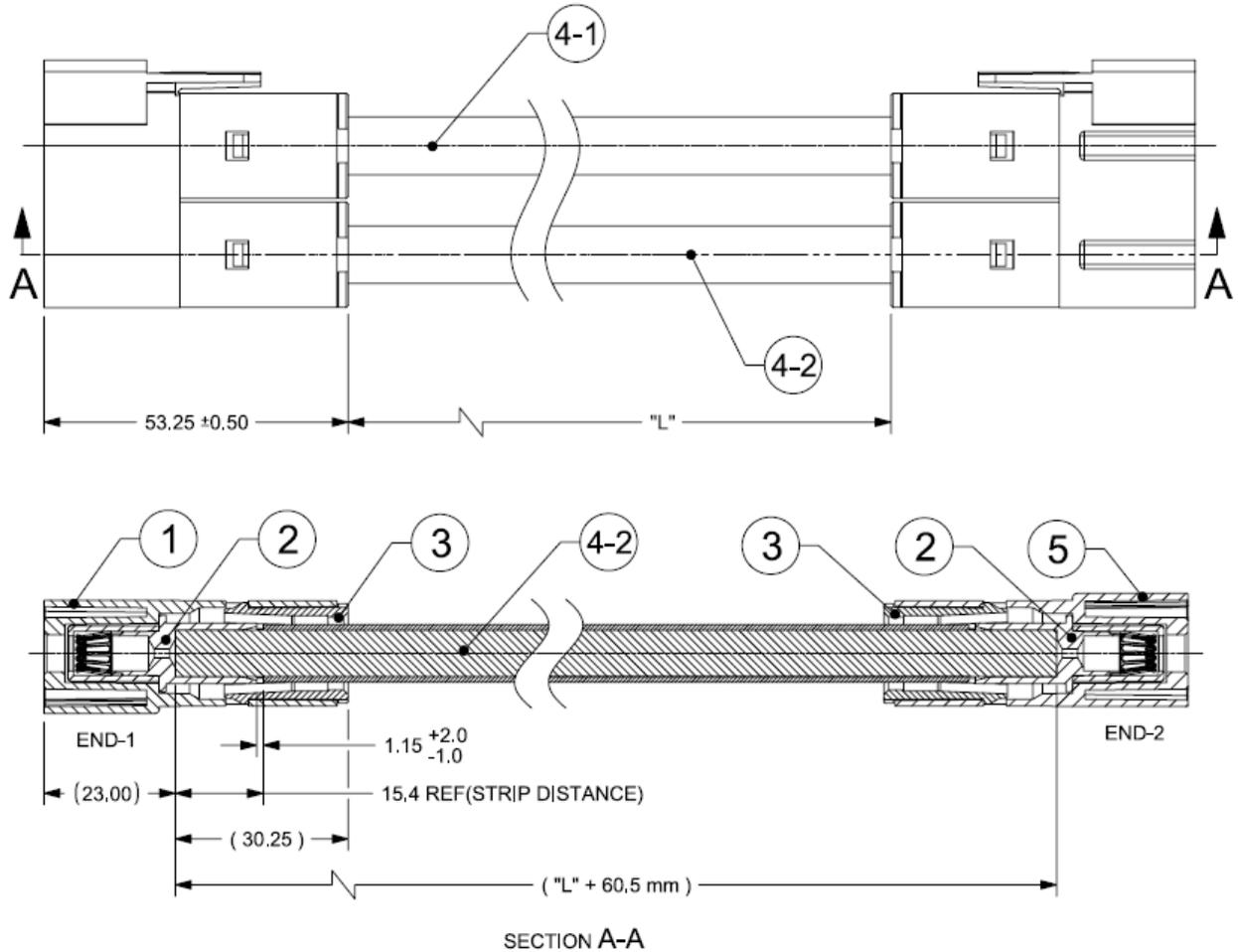


Figure 4.2  
DUAL ENDED HARNESS

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# APPLICATION SPECIFICATION

## 5.0 TERMINAL CRIMPING STEPS

5.1 Refer to section 4. Cut proper length of cable and get end(s) striped (Retain the cut jacket with conductor. Remove it before crimp).



Figure 5.1  
STRIP AND RETAIN THE CUT JACKET WITH CONDUCTOR

5.2 Insert a proper size cable retainer (Molex P/N: 211888 series) into cable.

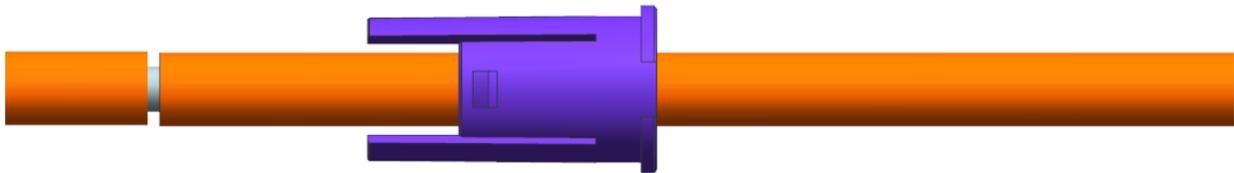


Figure 5.2  
INSERT THE RETAINER INTO CABLE

5.3 Remove cut jacket

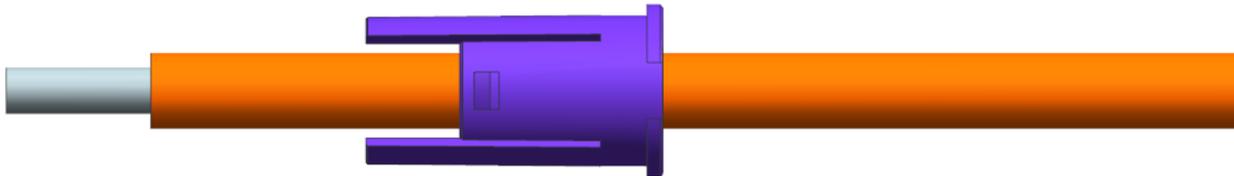


Figure 5.3  
REMOVE CUT JACKET

5.4 Fully insert stripped conduct against the back end of crimp terminal barrel.

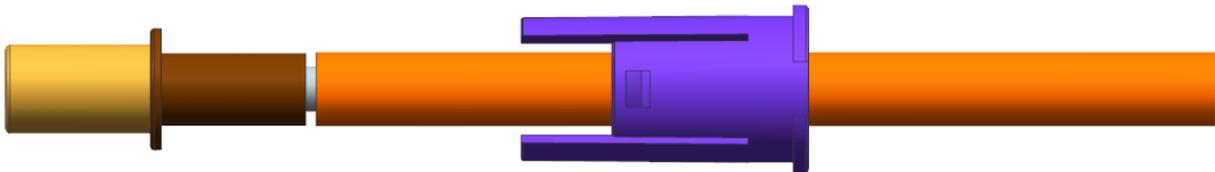


Figure 5.4  
FULLY INSERT STRIPED CONDUCT INTO TERMINAL BARREL

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# APPLICATION SPECIFICATION

## 5.5 Crimp.

### 5.4.1 Using Molex suggested crimp tool.

#### 5.4.1.1 Molex crimping tool.

5.4.1.1.1 Hydraulic battery power crimp hand tool (P/N:63816-1000)

5.4.1.1.2 Adaptor (P/N: 63816-1100)

#### 5.4.1.1.3 Die set

5.4.1.1.3.1 For 10 AWG (P/N: 213938-0010)

5.4.1.1.3.2 For 8 AWG (P/N: 213938-0020)

5.4.1.1.3.3 For 6 AWG (P/N: 213938-0030)

5.4.1.1.3.4 For 4 AWG (P/N: 213938-0040)

5.4.1.1.3.5 For 2 AWG(P/N: 213938-0050)

### 5.4.1.2 Daniels Manufacturing Corporation (DMC) crimp tool.

5.4.1.2.1 WA23 Heavy duty pneumatic crimp tool (M22520/23-01).

5.4.1.2.2 Locator, spring loaded (WA23-495SLL).

#### 5.4.1.2.3 Die set.

5.4.1.2.3.1 WA23-140DA (For 6 AWG wire).

5.4.1.2.3.2 WA23-04 (For 2 and 4 AWG wires).

5.4.1.2.3.3 WA23-103DA (For 8 and 10 AWG wires).

5.4.1.2.3.4 For the best crimp performance result, consult with DMC for die set choice. Since each type of wire has its own total strands and strand size(AWG), crimping result may vary.

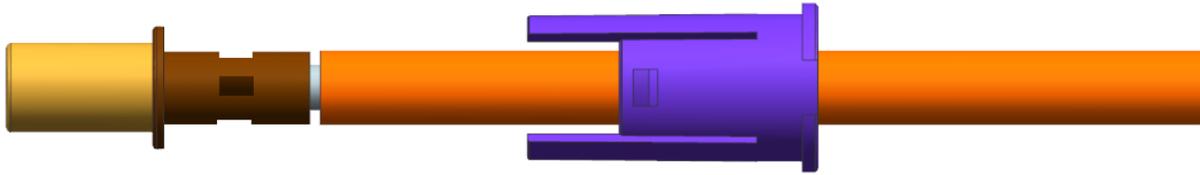


Figure 5.5  
CRIMP

## 5.6 No more than 3.0mm of the wire strands showing between the wire insulation and the back of the terminal.

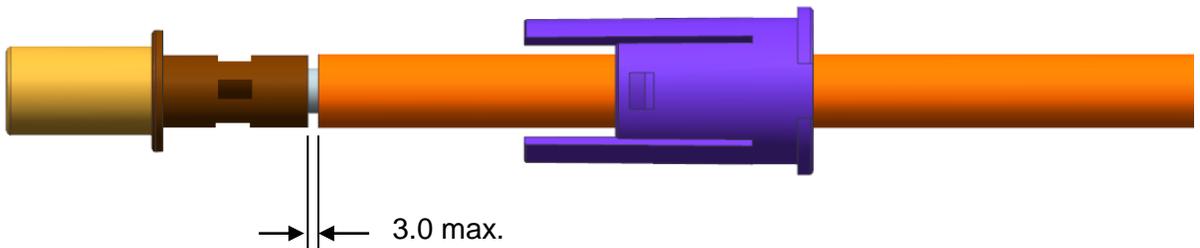


Figure 5.6  
CHECK

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# APPLICATION SPECIFICATION

## 6.0 HARNESS ASSEMBLY

6.1 Insert crimped terminal into the cavity at back end of harness housing.

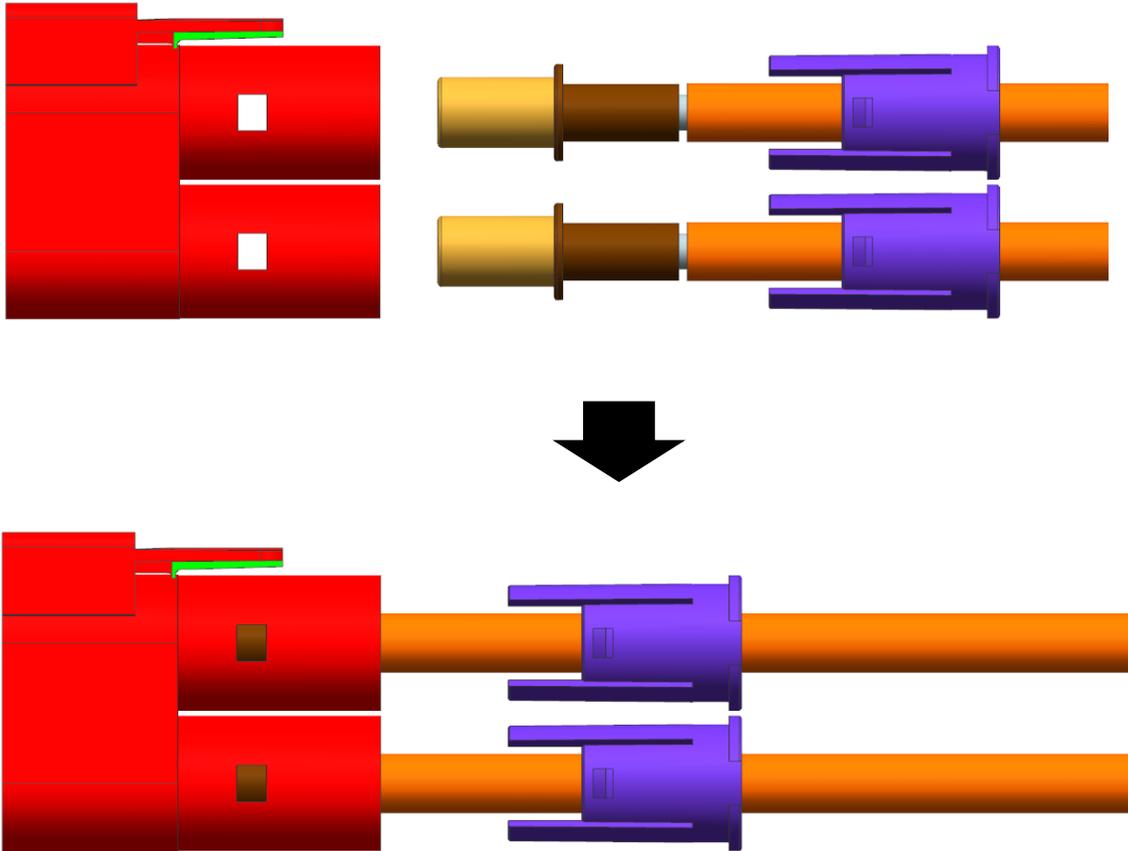


Figure 6.1  
INSERT CRIMPED TERMINAL INTO THE CAVITY AT BACK END OF RECEPTACLE HOUSING

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# APPLICATION SPECIFICATION

6.2 Push the retainer forward until latch is engaged and lock.

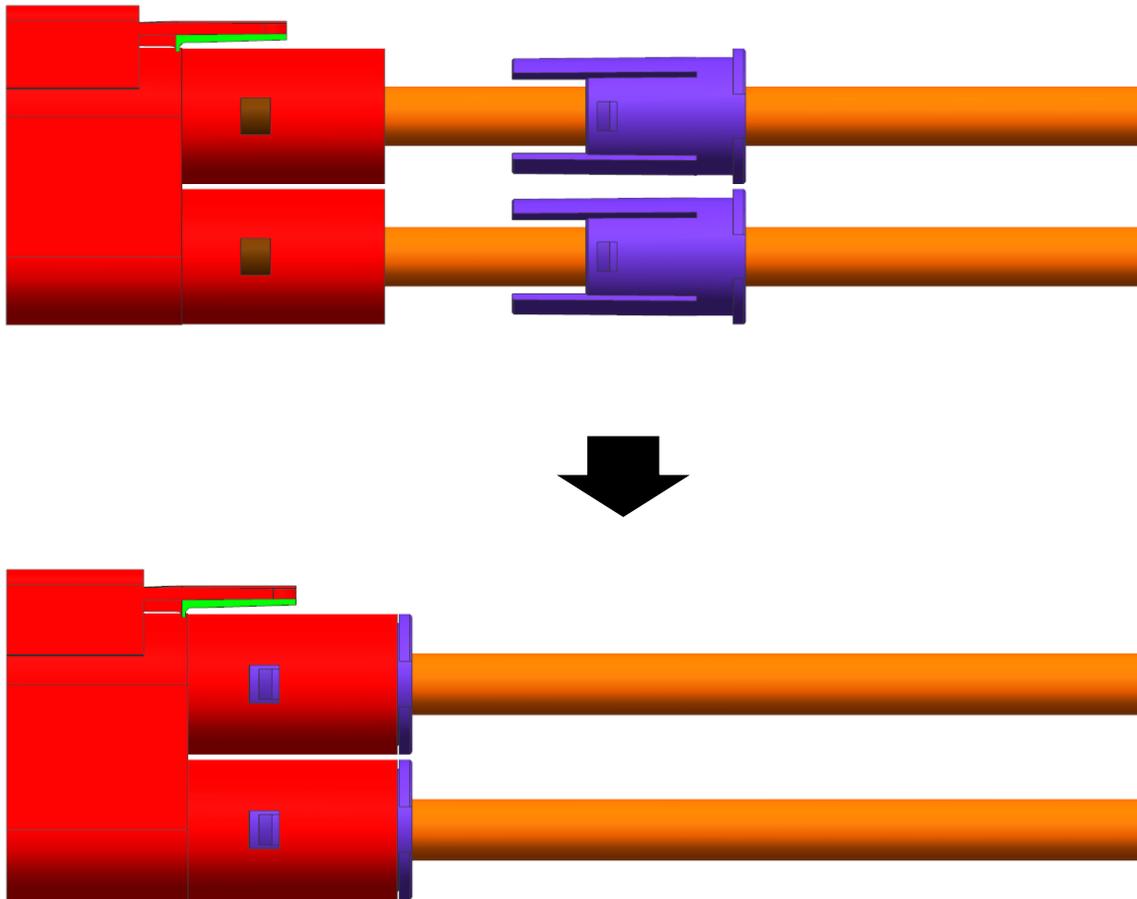


Figure 6.2  
PUSH THE RENTATINER FORWARD UNTIL IT ENGAGED AND LOCKED

## 7.0 INSPECTION

- 7.1 The entire connector should have NO scratch.
- 7.2 Check the housing open window. Retainer latch should be fully engaged.

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# APPLICATION SPECIFICATION

## APPENDIX -1

If there is a difficulty to insert striped wire into terminal barrel, use robber bend or rubber thread to facilitate to tie them tight together before insert.



Striped cable  
Figure A1.1

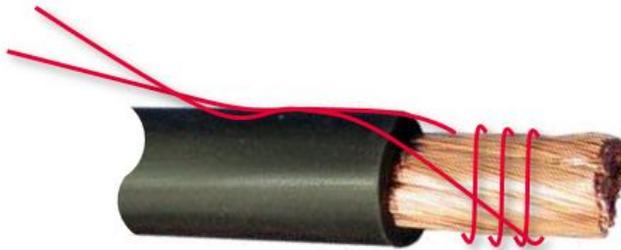


Figure A1.2  
Use rubber bend/thread to tie all strands/wires tight together

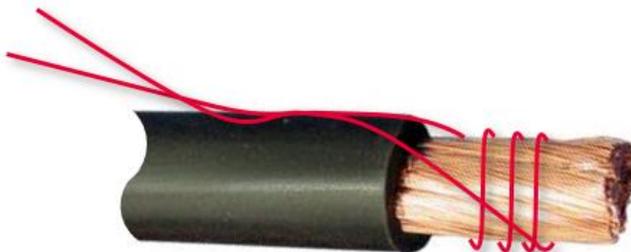


Figure A1.3  
Align the terminal axis with wires axis

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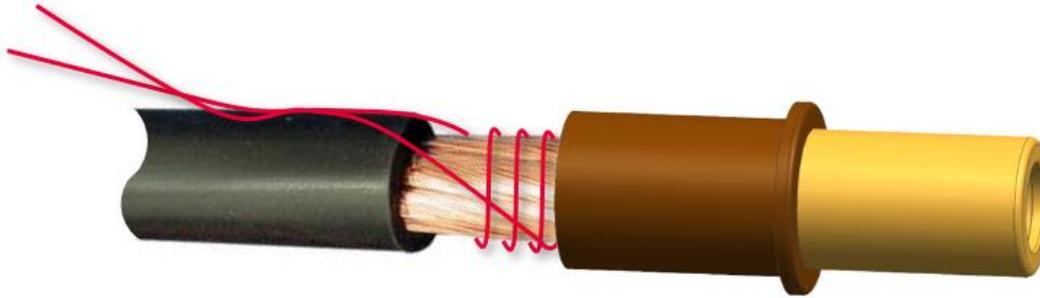


Figure A1.4  
Pre-insert wires into terminal barrel

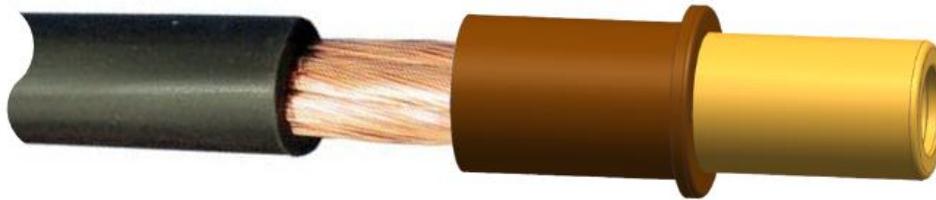


Figure A1.5  
Remove rubber thread



Figure A1.6  
Push terminal all the way down

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# APPLICATION SPECIFICATION

## APPENDIX -2

When there is a need to remove the wire from receptacle housing, follow the instruction below.

Step 1: Slide retainer removal tool(Molex P/N:2119530001) over receptacle housing in the location as shown below. Align the two front extrusion teeth into the windows on the receptacle housing.

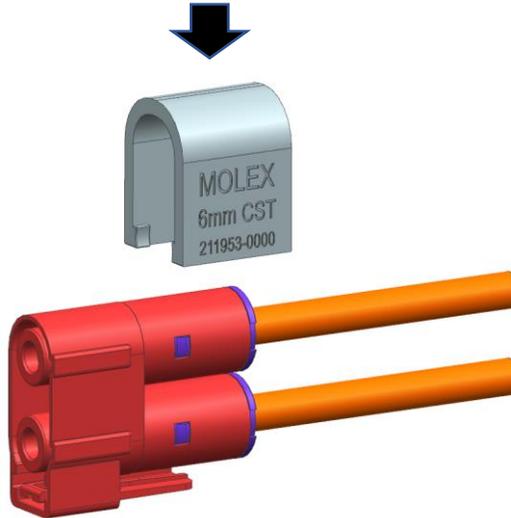
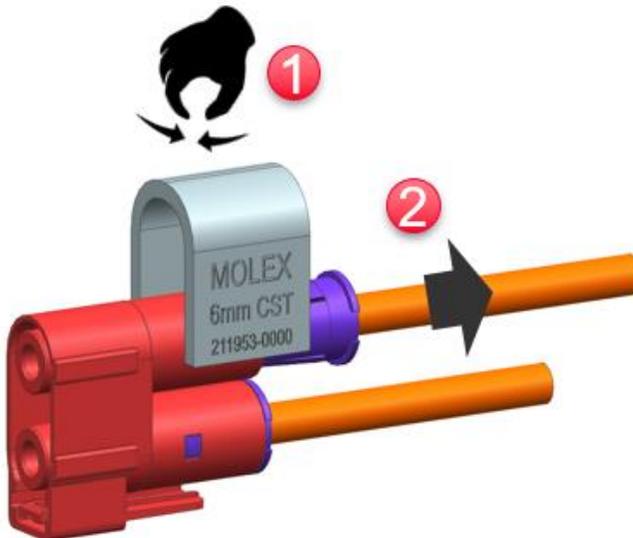


Figure A2.1

Step 2: Pinch the removal tool on the top of extrusion teeth to unlock retainer and then pull the cable out of receptacle housing.

In the incident of the cable is blocked by removal tool and not able to be completely extracted, go to next step(remove the removal tool) and then remove cable.



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# APPLICATION SPECIFICATION

Figure A2.2

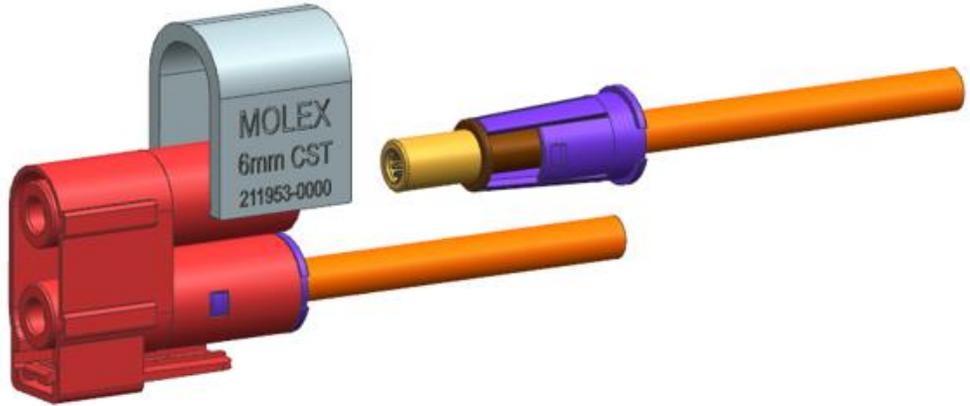
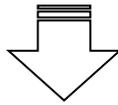


Figure A2.3

Step 3: Open the arms of removal tool and remove it from receptacle housing.

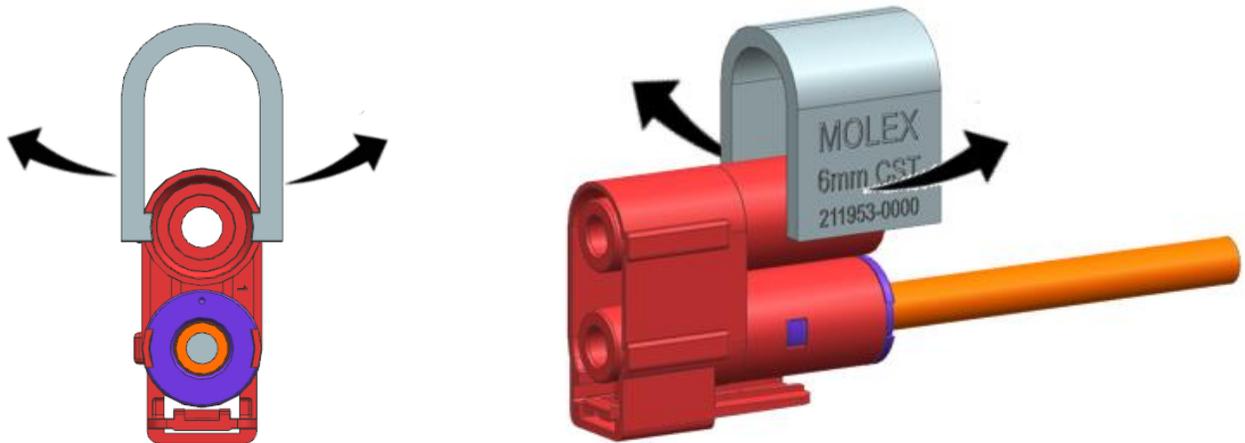


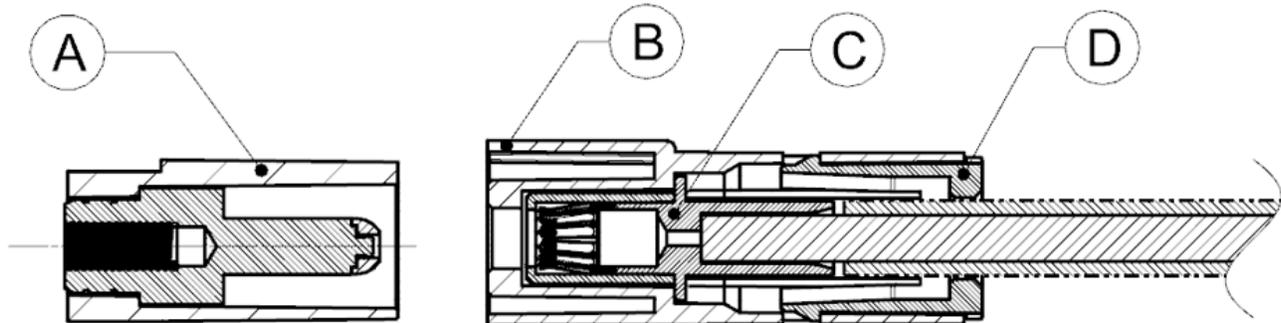
Figure A2.4

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# APPLICATION SPECIFICATION

## APPENDIX -3

Available styles and sizes.



- A. Header: (Refer to sales drawings: 2119370000-SD)
- B. Receptacle Housing: (Refer to sales drawings: 2119420000-SD)
- C. Female terminal: (Refer to sales drawings: 2046080000-SD)
- D. Retainer: (Refer to sales drawings: 2118880000-SD)

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