

MultiCat™ In-line Power Connector System

WIRE-TO-WIRE AND WIRE-TO-BOARD*

1.0 SCOPE

This document contains information pertaining to application requirements of the MultiCat In-line Connector System.

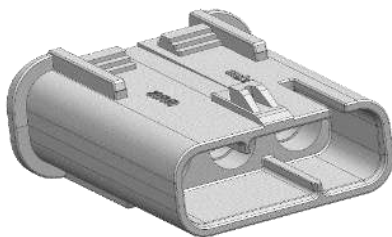
2.0 PRODUCT DESCRIPTION



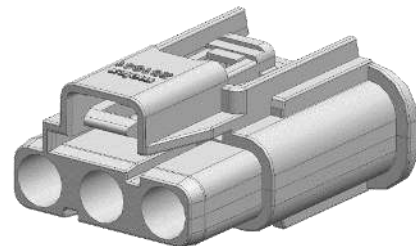
MALE CRIMP CONTACT (201845-00X0)



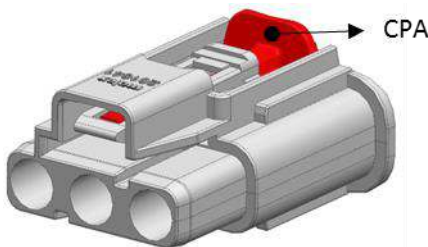
FEMALE CRIMP CONTACT (201846-00X0)



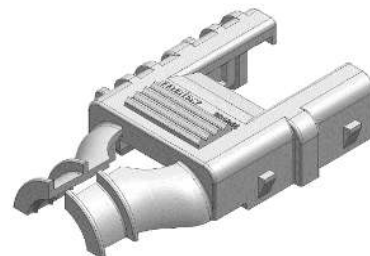
PLUG HOUSING (201840-00XX)



RECEPTACLE HOUSING (201841-00XX)



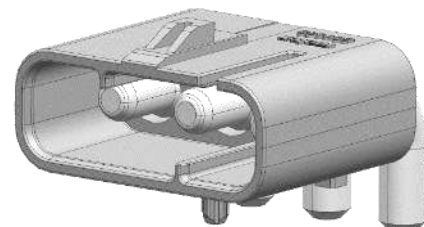
RECEPTACLE HOUSING WITH CPA (201841-01XX)



PLUG / RECEPTACLE BACKSHELL (201844-0XXX)*



VERTICAL HEADER (201842-10XX)*



RIGHT ANGLE HEADER (201843-10XX)*

*UNDER DEVELOPMENT

REVISION: A	ECR/ECN INFORMATION: EC No: 112960 DATE: 2017 / 02 / 02	TITLE: APPLICATION SPECIFICATION FOR MULTICAT™ IN-LINE POWER CONNECTOR SYSTEM (WtW/WtB)	SHEET No. 1 of 5
DOCUMENT NUMBER: 2018400000-AS	CREATED / REVISED BY: NCSR	CHECKED BY: KPRASAD	APPROVED BY: KPRASAD

3.0 REFERENCE DOCUMENTS

See appropriate sales drawings for information on specific part numbers.

Product Specification: 2018400000-PS

Application Specification for MultiCat Circular: 2009140003-AS

4.0 GENERAL NOTES

Appearance: Parts confirm to class “B” requirements of the cosmetic specification PS-45499-002. Refer notes in sales drawing.

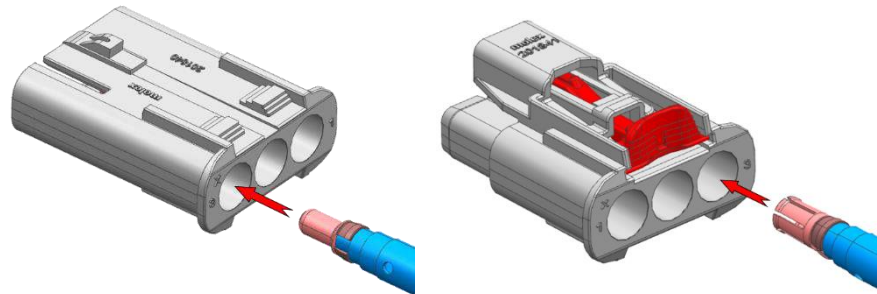
4.1 ASSEMBLY INSTRUCTIONS

Contact/terminal insertion into *Plug housing*

Use only *male* terminals with plug housing. Crimp and poke the contact by gripping the wire appropriately using the orientation shown below picture. Continue inserting until it stops and locks up with an audible click.

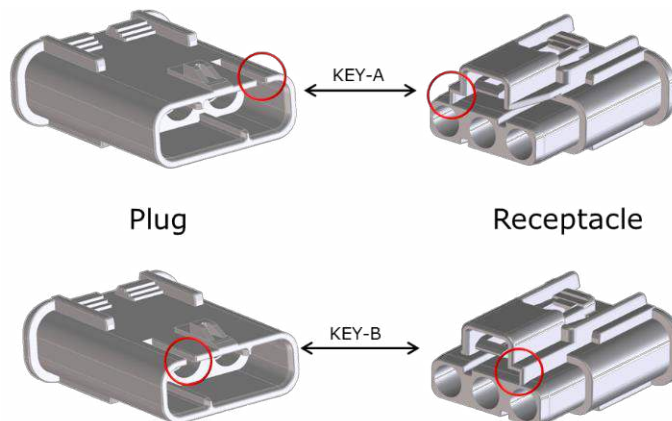
Contact/terminal insertion into *Receptacle housing*

Use only *female* terminals with receptacle housing. Crimp and poke the contact by gripping the wire appropriately using the orientation shown below picture. Continue inserting until it stops and locks up with an audible click.



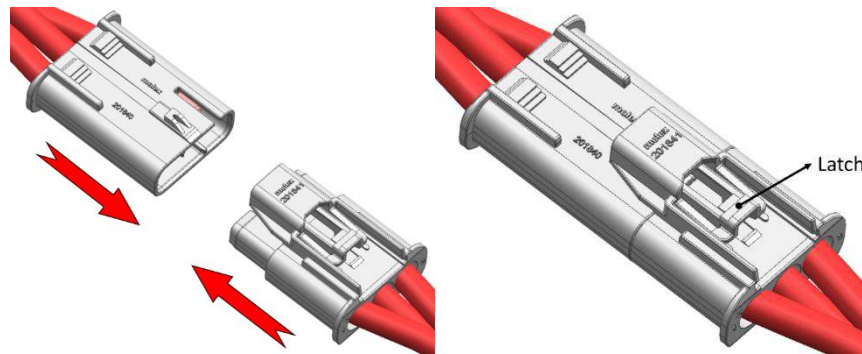
Connector mating

MultiCat Plugs and Receptacles are available in 2 keying options- A and B. It is visually easy to identify them as Key-A housings are *Black* and Key-B housings are *Gray* in color. Match the key/color to effectively mate the connector assemblies.



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Continue to slide the connector assemblies into each other until it bottoms and stops. The mating is accomplished with a clear audible click of the latch.

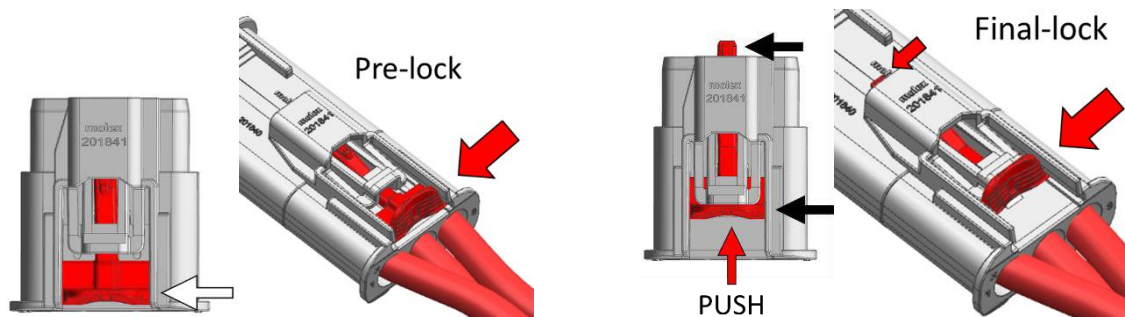


Connector Position Assurance (CPA)

MultiCat receptacle housing is also available with a CPA part for added mate assurance and secure locking. The CPA is shipped in “pre-lock” condition with these receptacle housings.

Activating the CPA

Once the plug and receptacle is fully mated, simply push the CPA from “pre-lock” to “final-lock” position until you see/feel positive engagement. Note that the CPA can be effortlessly pushed only when the connector assemblies is completely mated.



Deactivating the CPA

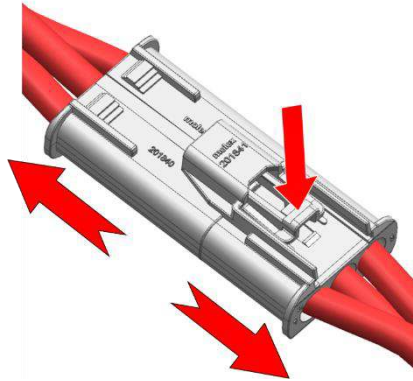
In order to operate the latch or unmate the connector, the CPA must be deactivated. Pull the CPA from “final-lock” condition to “pre-lock” condition with your finger. This sequence shall deactivate the CPA, allowing the user to operate the latches and proceed with the unmating sequence.



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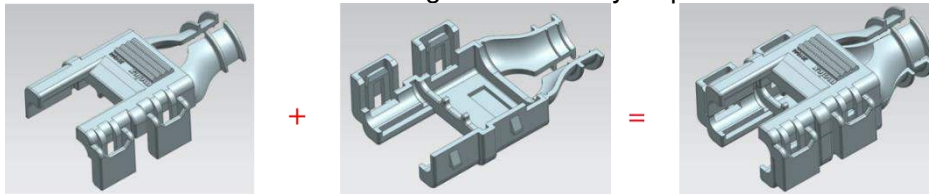
Connector unmating

To unmate the connectors, deactivate the CPA (in case your receptacle has a CPA). Grip the mated assembly firmly. Push the connectors together to unload the latch system. Depress the latch with your thumb. With the latch completely depressed, gently pull apart the connector assemblies.

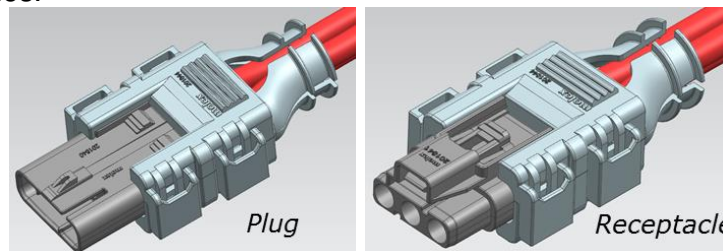


Hermaphroditic Backshell

The backshell is designed for cable strain relief and must be used with a cable tie. It can be used directly with wire bundle or wire bundle sheathing. An assembly requires use of 2 backshells.

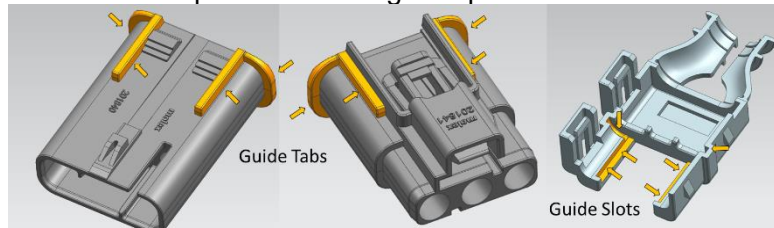


The same Backshell (part number) is used with Plug as well as Receptacle housing. Backshells are not designed for re-use. If backshells are dis-assembled for any reason then replace both backshells with new ones.

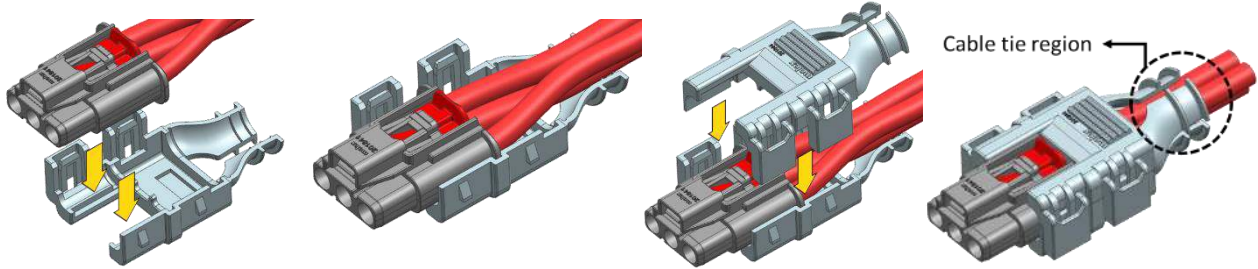


Backshell Assembly

- I. Load the plug/receptacle housing with crimped terminals.
- II. Use the *guide tabs* in the housing and *guide slots* in the backshell for location and guiding during the assembly.
- III. Place the housing into the backshell cavity.
- IV. Place the second backshell on top of the housing and press to lock the assembly.

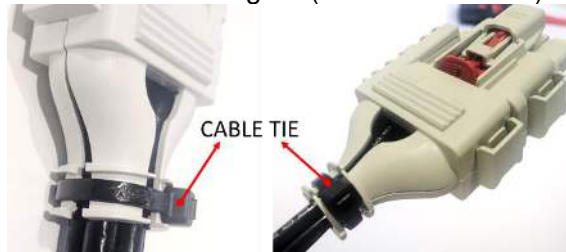


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Above illustration shows the assembly with Receptacle housing and backshells. Same applies to Plug housing.

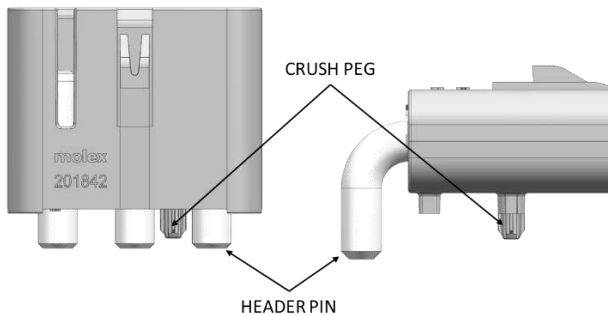
- V. Wrap *cable tie* around the cable tie region (between the ribs) and secure.



Note: Molex Cable Tie Tool, Part Number 19294-0002 used to tighten cable tie.

Header Assembly to Board

Headers are designed with press fit pegs (crush pegs) and must be pushed into the circuit board. Solder process temperature for wave soldering is 265 °C Max.



4.2 CONTACT/TERMINAL EXTRACT TOOL

Refer 2009140003-AS regarding the use of contact/terminal extractor tool.

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