APTIV

ASSEMBLY MANUAL

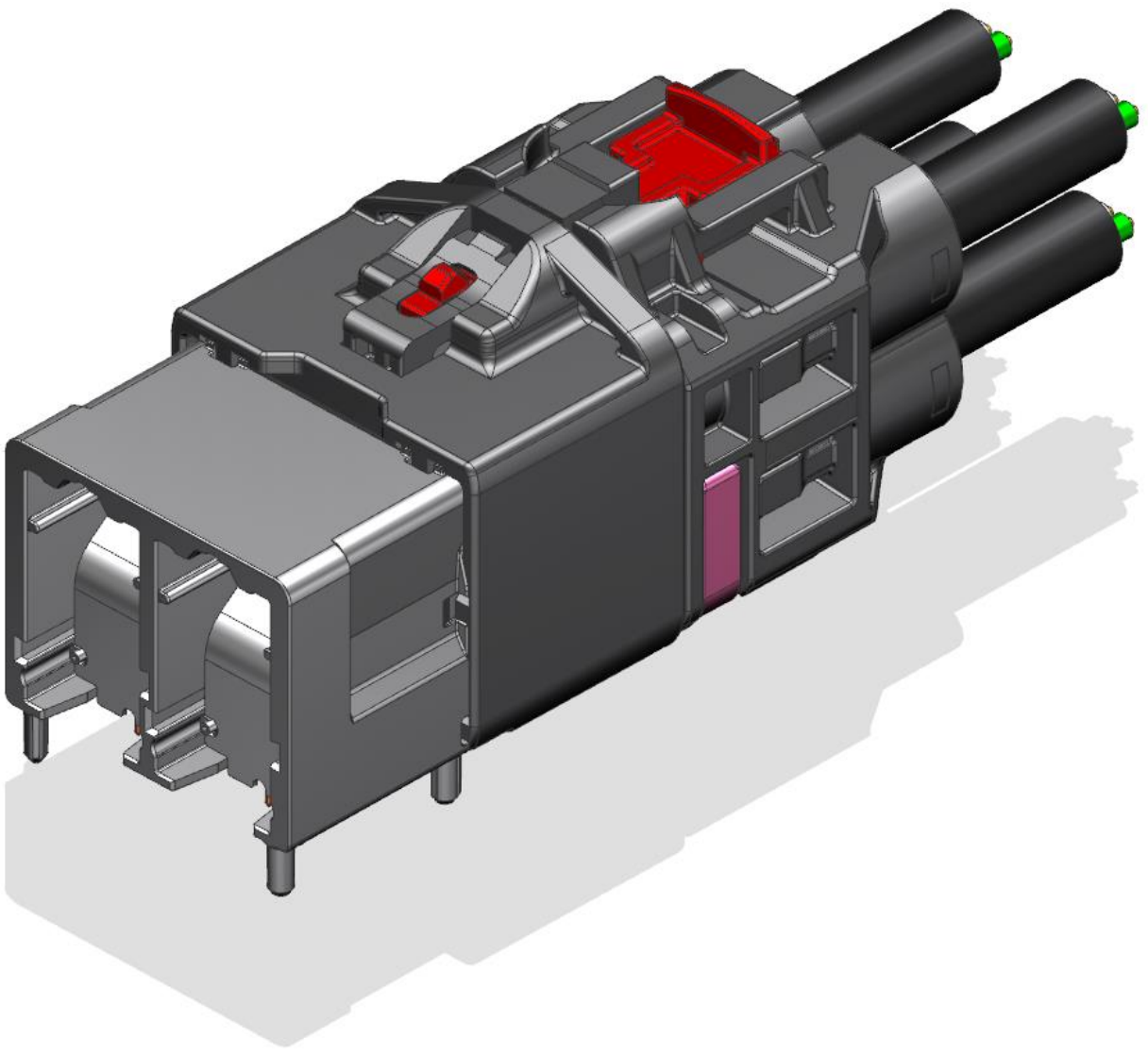
PRE - ASSEMBLY	HARNESS ASSEMBLY	CAR ASSEMBLY

35609375-CUS73-S01 Rev01

4 PORT H-MTD
Female & Male Terminal System
Unsealed

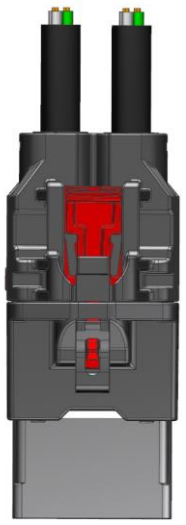
September 2024

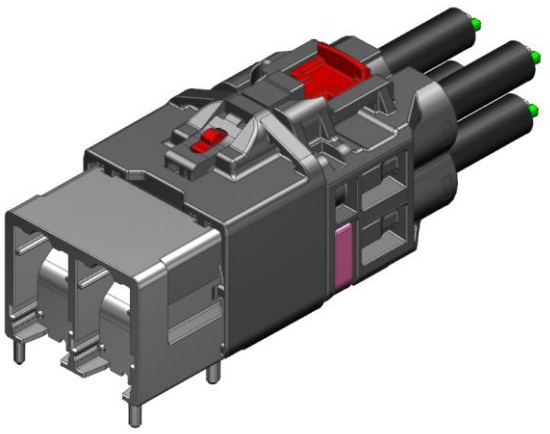
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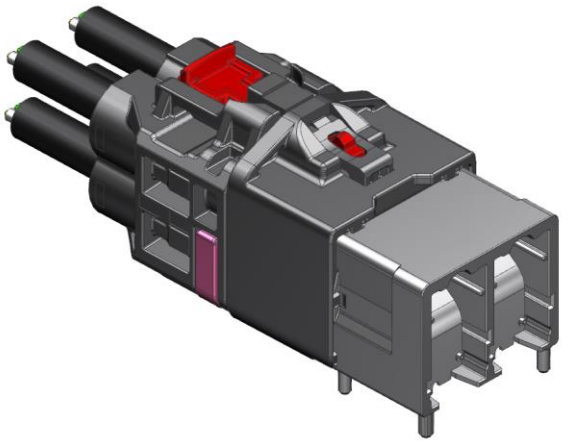


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STC Shanghai, China
CEC Chennai, India

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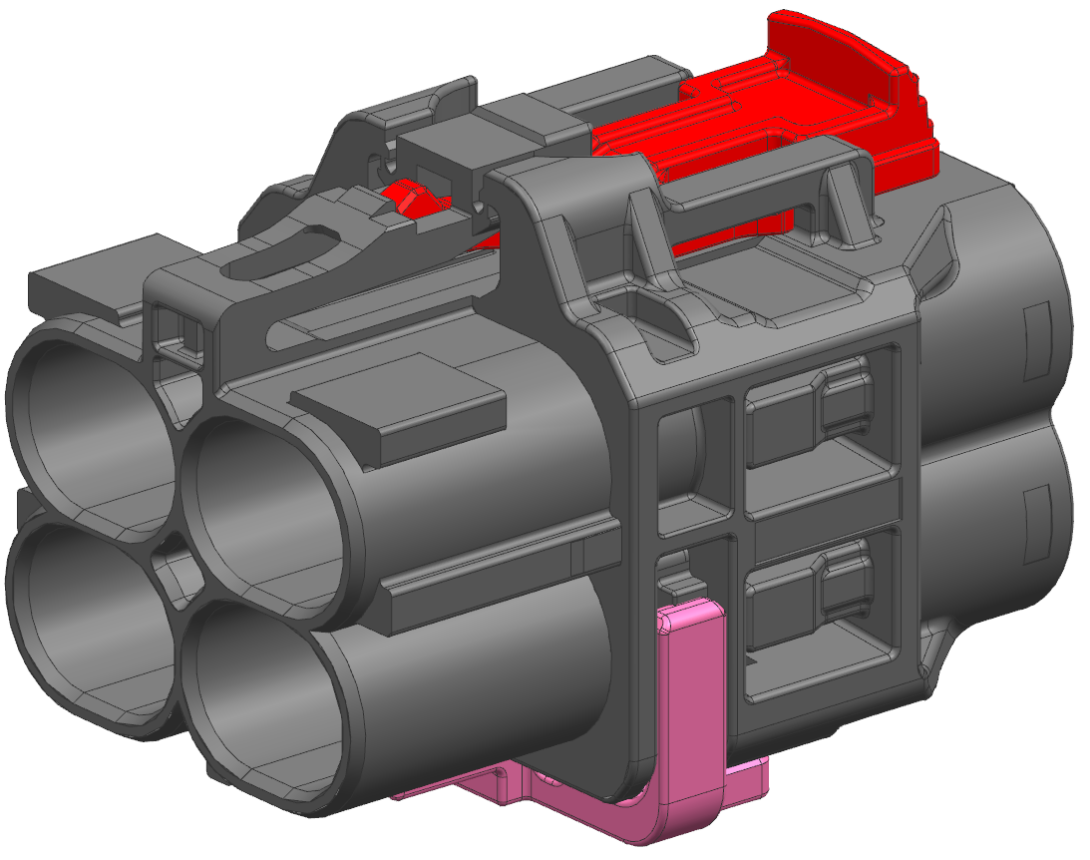
COMPONENT INFORMATION

COMPONENT	KEY OPTION	APTIV PN	AMOUNT
4-PORT HMTD FEMALE CONNECTOR WITHOUT CPA	CODE A	35477104	**1**
	CODE B	35609369	1
	CODE C	35609370	1
	CODE D	35609371	1
	CODE E	35609372	1
	CODE F	35609373	1
	CODE Z	35609374	1
4-PORT HMTD FEMALE CONNECTOR WITH CPA	CODE A	35649946	1
	CODE B	35649947	1
	CODEC	35649948	1
	CODE D	35649949	1
	CODE E	35649950	1
	CODE F	35649951	1
	CODE Z	35649952	1
H-MTD Module	-	35719762/35719737	4

ASSEMBLY OF THE FEMALE CONNECTOR

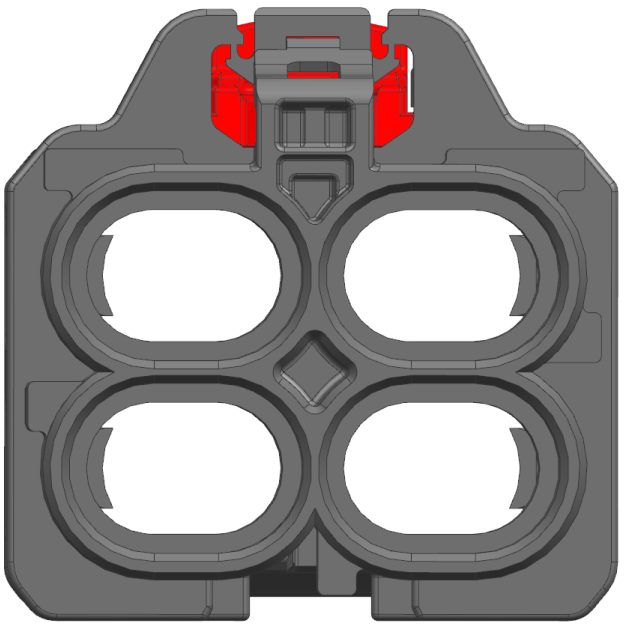
PRE - ASSEMBLY | HARNESS ASSEMBLY | CAR ASSEMBLY

4 PORT H-MTD Unsealed Connector



VIEW OF VERSIONS

4 WAY FEMALE CONNECTOR HOUSING



**TYPE 101 – CODE A
WITH CPA**



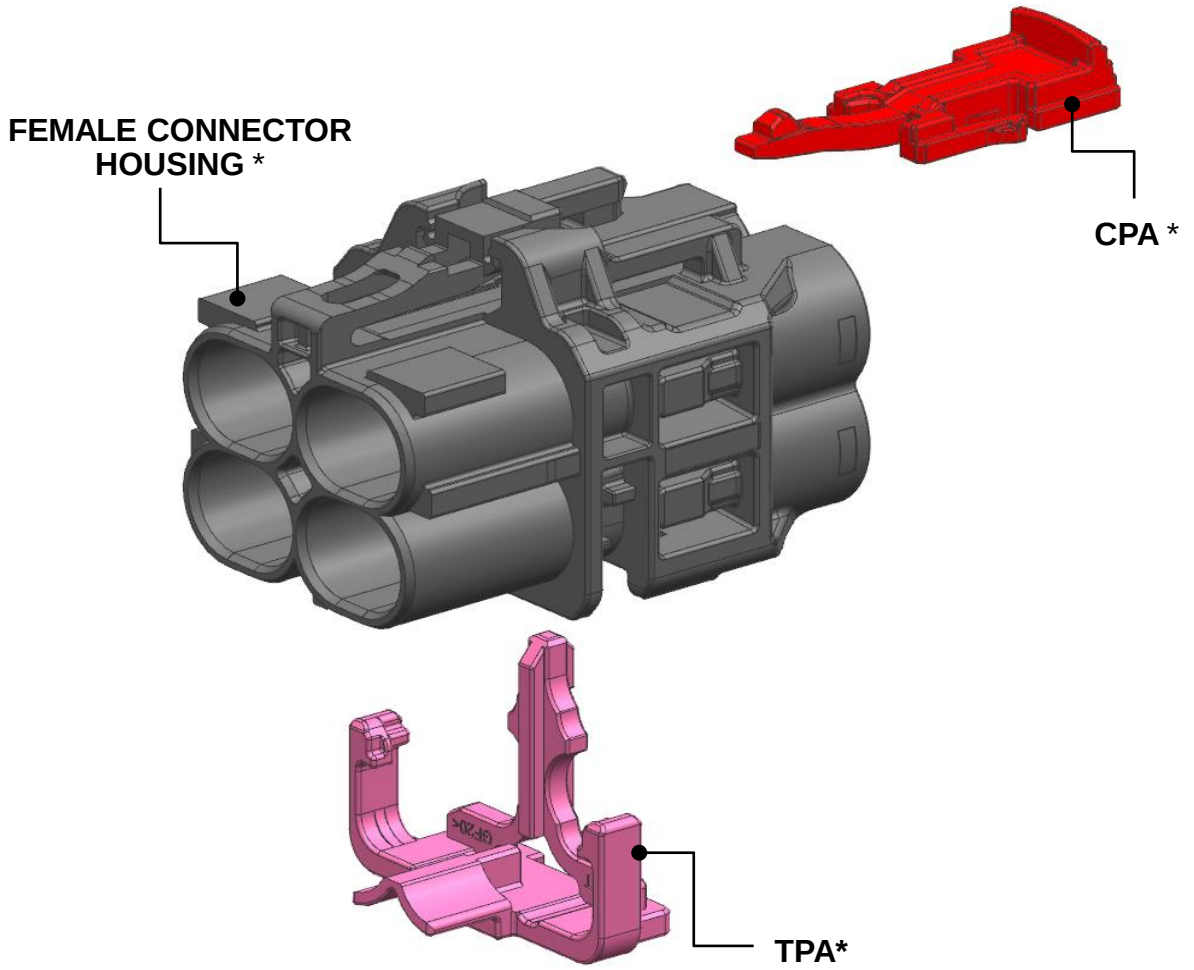
**TYPE 201 – CODE A
WITHOUT CPA**

**THESE CONNECTION SYSTEMS HAVE MULTIPLE CONFIGURATIONS, WHICH DIFFER IN THE INDEXING, CONNECTOR COLOR AND USE OF CPA. THE METHOD OF ASSEMBLY IS THE SAME FOR ALL CONNECTORS REGARDLESS OF SAID DIFFERENCES, UNLESS OTHERWISE SPECIFIED.
REFER TO LATEST ASSEMBLY TAXI DRAWINGS FOR DETAILS AND AVAILABLE OPTIONS.**

LIST OF COMPONENTS & EXPLODED VIEW

QUANTITY	COMPONENTS
1	FEMALE CONNECTOR HOUSING*****
1	CPA (OPTIONAL COMPONENT) *
1	TPA*

ADDITIONAL INFORMATION AND REFERENCE TO ANOTHER DRAWINGS, DOCUMENTS, ETC. FOR EXAMPLE:
REFER TO LATEST DRAWINGS FOR PART NUMBERS AND DETAILS



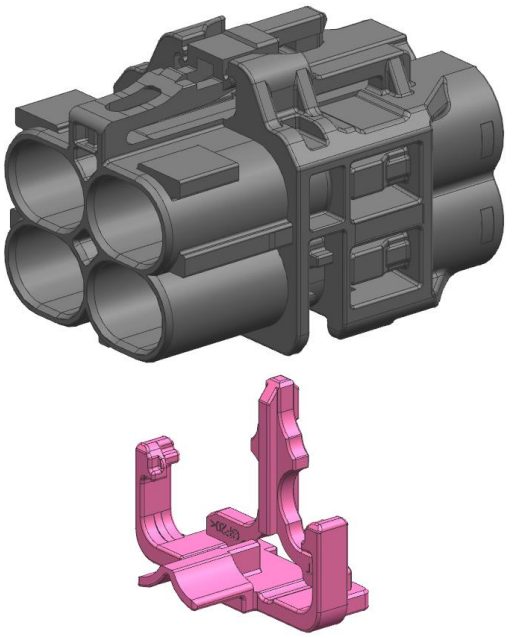
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PERMISSIBLE STORAGE TEMPERATURE: MIN. 10°C, MAX. 45°C & <75% RH.

Pictures used in this Assembly Manual and original parts may differ in some details. These differences have no influence on the assembly process.

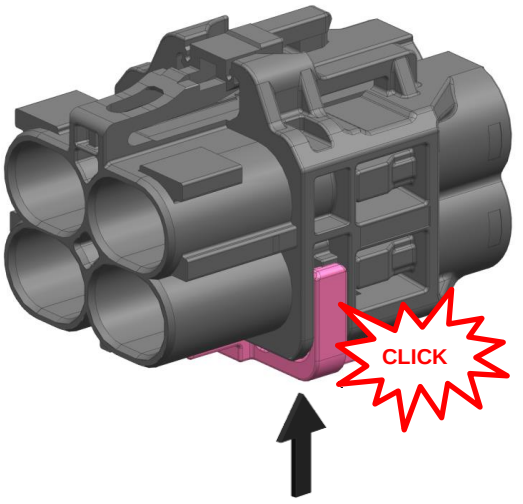
Step-1a Install TPA to Pre-Stage Position

PRE-ASSEMBLY

1 **IDENTIFY THE CORRECT ORIENTATION OF THE TPA AND ALIGN IT WITH THE CONNECTOR HOUSING**



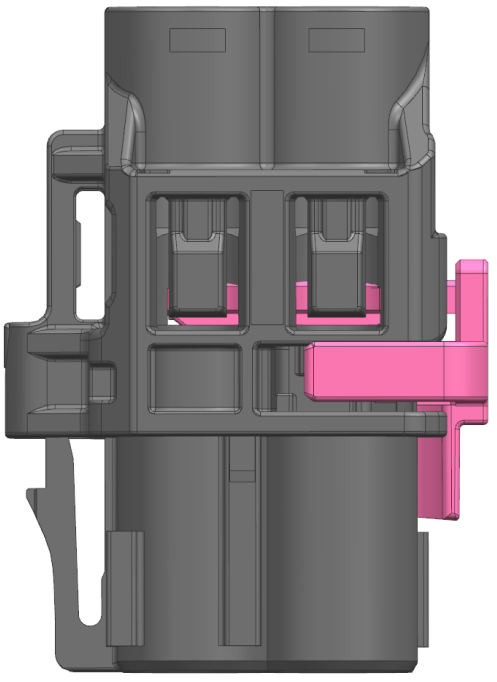
2 **PUSH THE TPA ON TO THE CONNECTOR HOUSING**

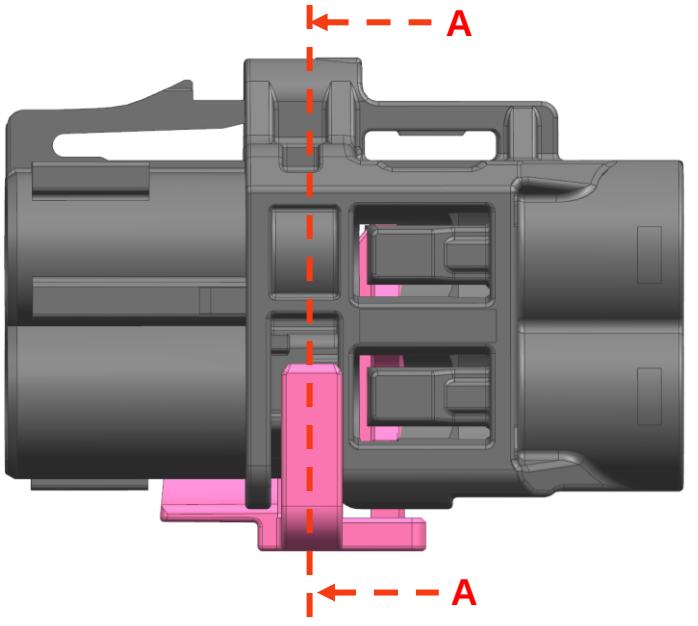


VERIFY AUDIBLE CLICK

STEP 1b – Install TPA to Pre-Stage Position

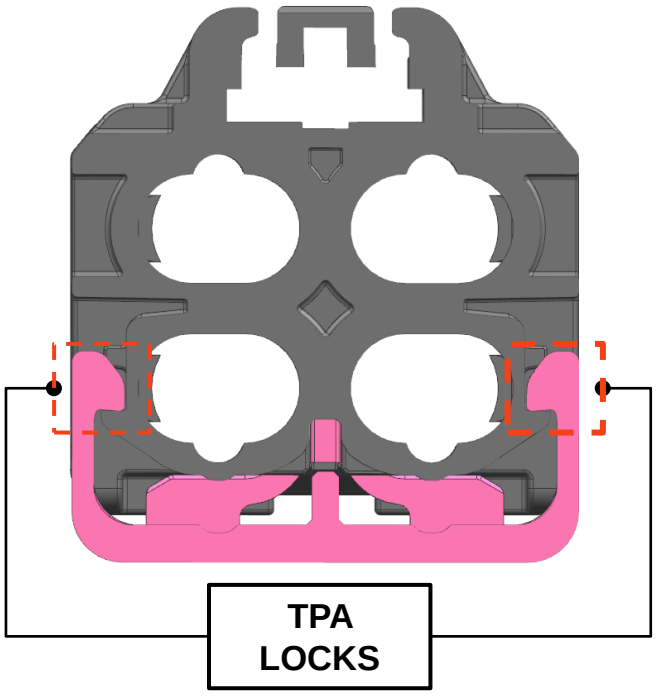
VERIFY THE TPA IS IN PRE-STAGE AND EVENLY LOCKED



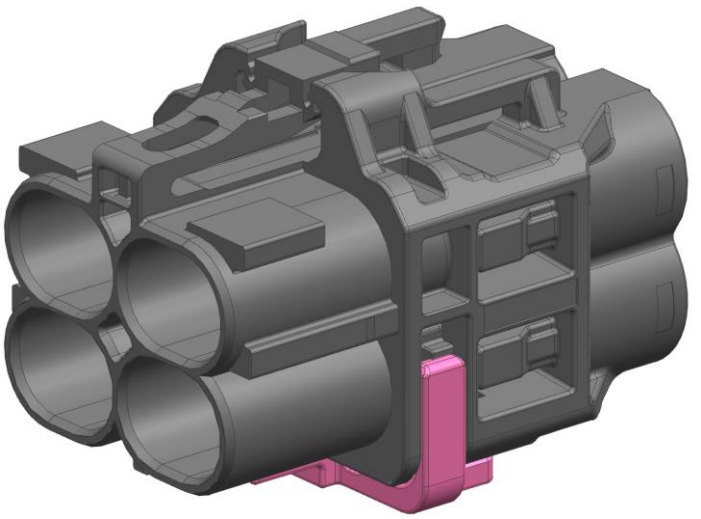


STEP 1c – Install TPA to Pre-Stage Position

THE TPA MUST BE PARALLEL WITH THE CONNECTOR AND LOCKED IN THE FIRST SET OF SLOTS



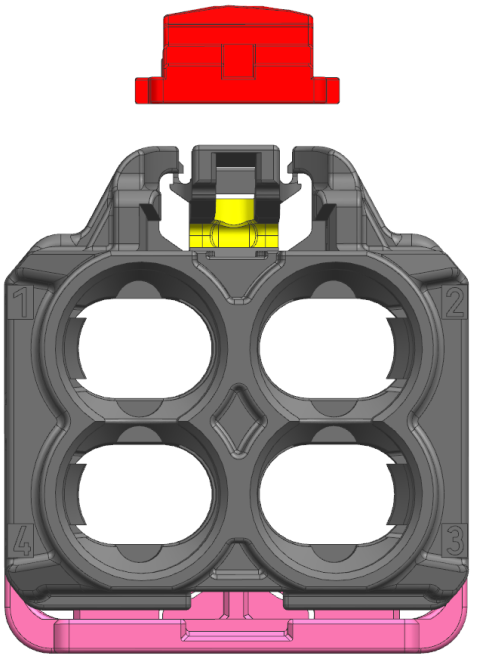
SECTION A-A



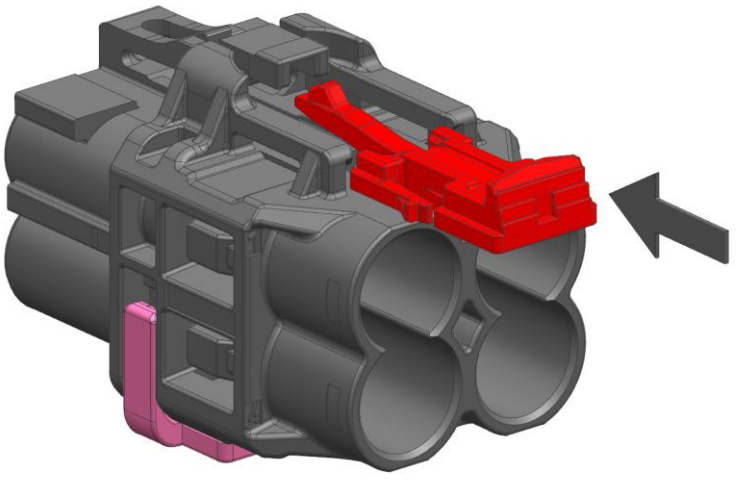
TPA IS NOW IN PRE-STAGE POSITION

STEP 2 – Insert CPA to Pre-Stage Position (Optional Component)

IDENTIFY SLOTS IN CONNECTOR HOUSING AND ORIENT THE CPA IN THE PROPER DIRECTION

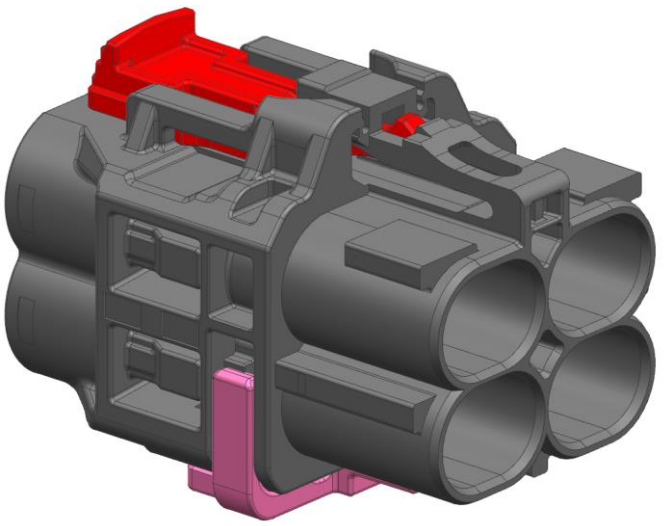


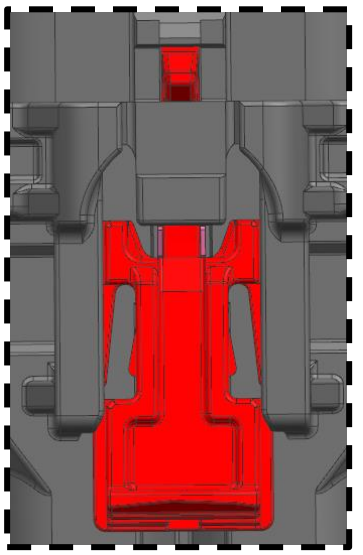
INSERT CPA ONTO CONNECTOR HOUSING BY SLIDING THE CPA RIBS INTO THE CONNECTOR SLOTS

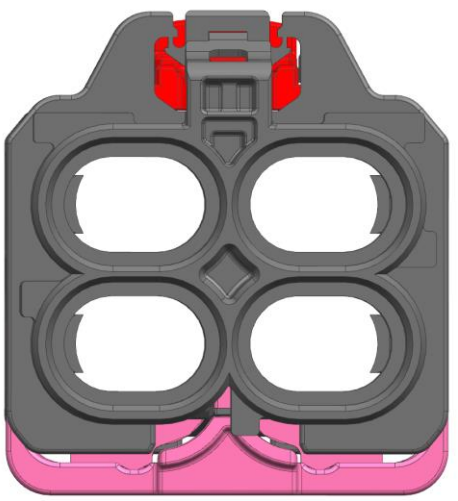


FEMALE CONNECTOR PRE-ASSEMBLY – COMPLETED

VERIFY AUDIBLE CLICK





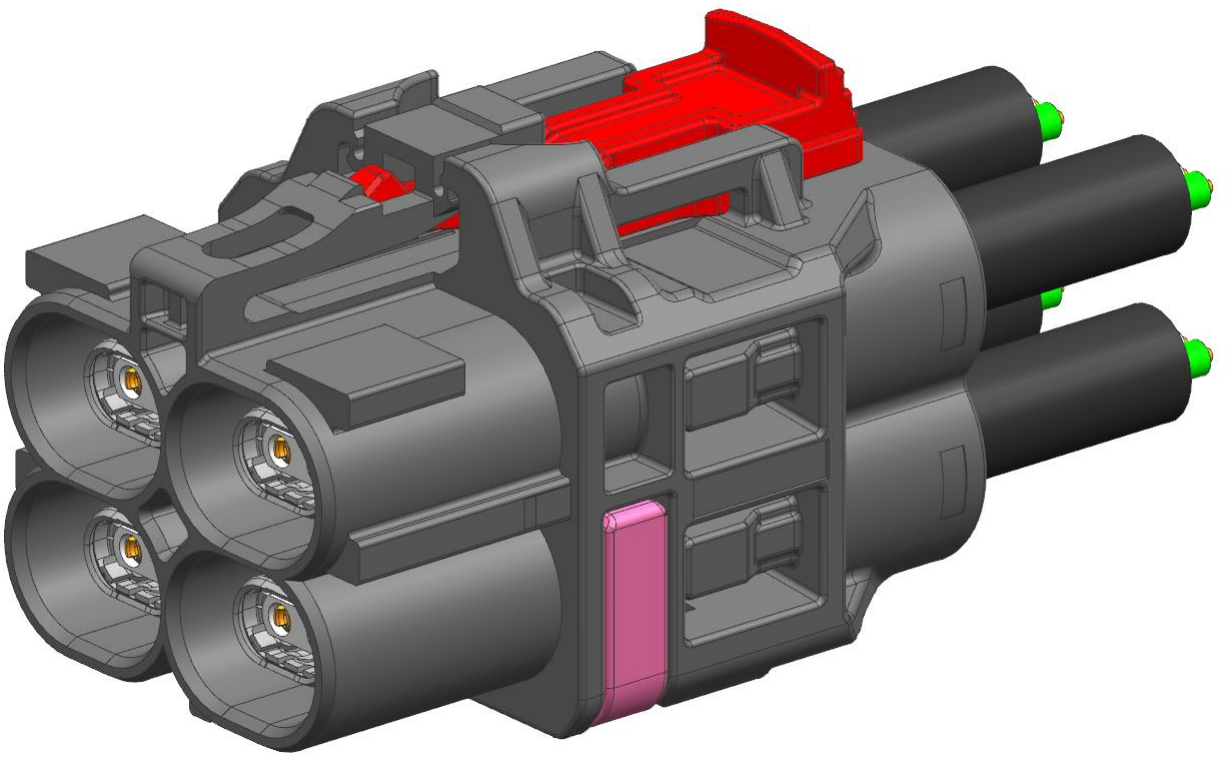


CPA IS NOW IN PRE-STAGE POSITION

ASSEMBLY OF THE FEMALE HARNESS ASSEMBLY

PRE - ASSEMBLY | **HARNESS ASSEMBLY** | CAR ASSEMBLY

4 PORT H-MTD Unsealed Connector

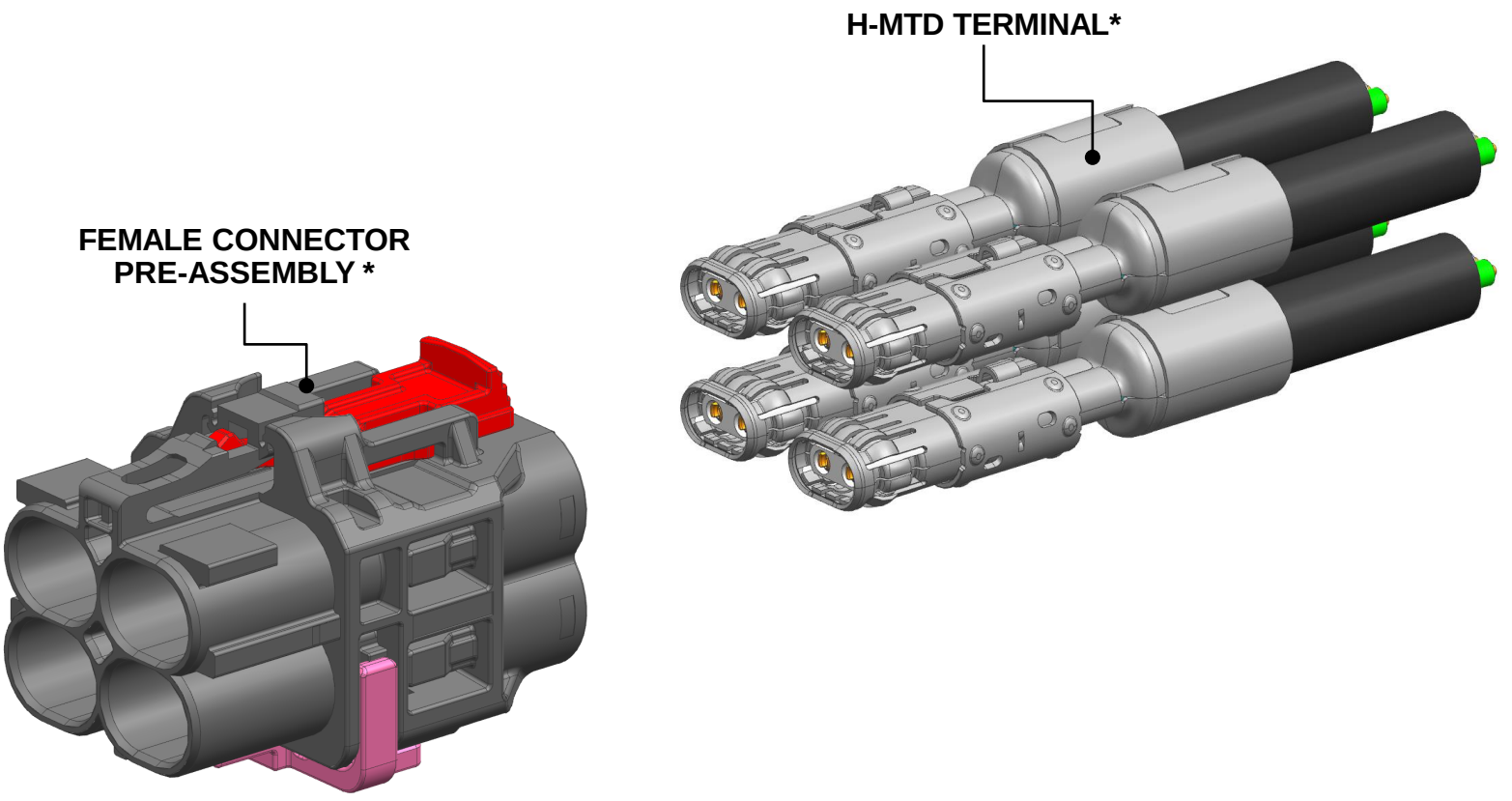


ASSEMBLY

LIST OF COMPONENTS & EXPLODED VIEW

QUANTITY	COMPONENTS
1	FEMALE CONNECTOR PRE-ASSEMBLY *
4	H-MTD TERMINAL*

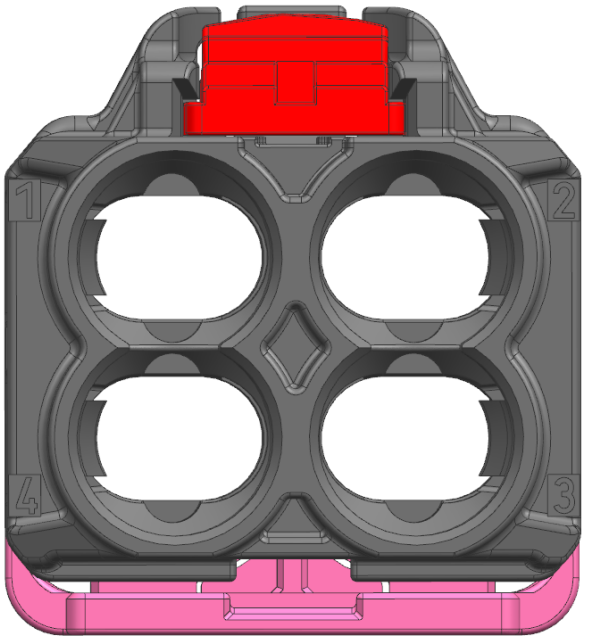
ADDITIONAL INFORMATION AND REFERENCE TO ANOTHER DRAWINGS, DOCUMENTS, ETC. FOR EXAMPLE: REFER TO LATEST DRAWINGS FOR PART NUMBERS AND DETAILS



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PERMISSIBLE STORAGE TEMPERATURE: MIN. 10°C, MAX. 45°C & <75% RH.

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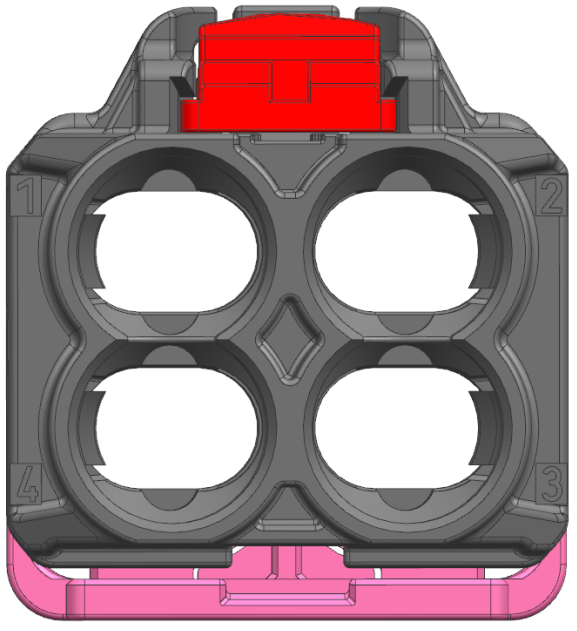
STEP 1a – Identify Cavities & Align Female H-MTD Terminals

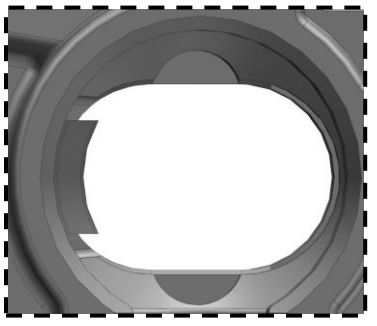


CAVITY ID NUMBERS LOCATED AT THE BACK OF THE CONNECTOR HOUSING

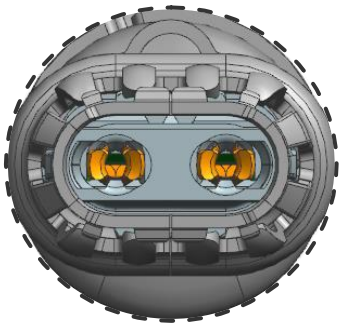
STEP 1b – Identify Cavities & Align Female H-MTD Terminals

INSERT FEMALE TERMINALS INTO RECEPTACLE HOUSING ACCORDING TO INSERTION PLAN





BACK VIEW

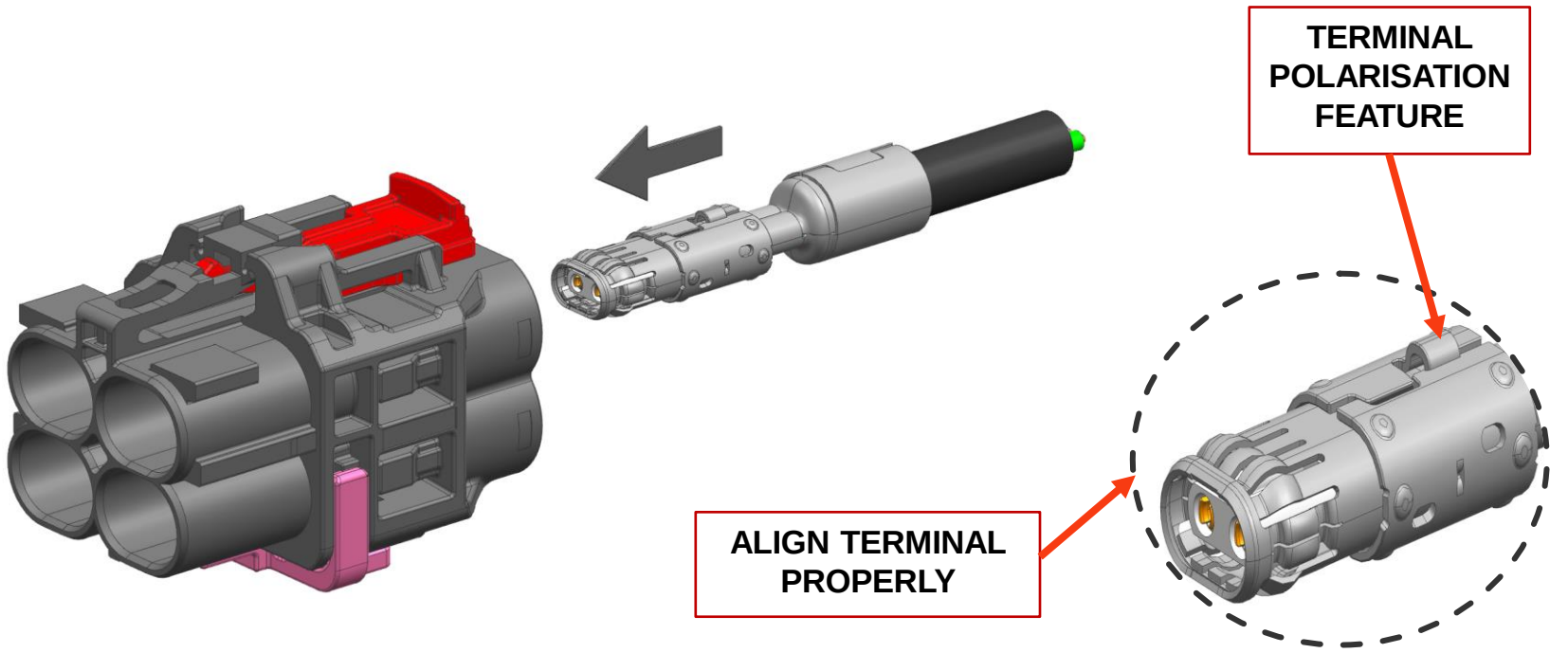


FRONT VIEW

STEP 2a– Insert Female H-MTD Terminals

1

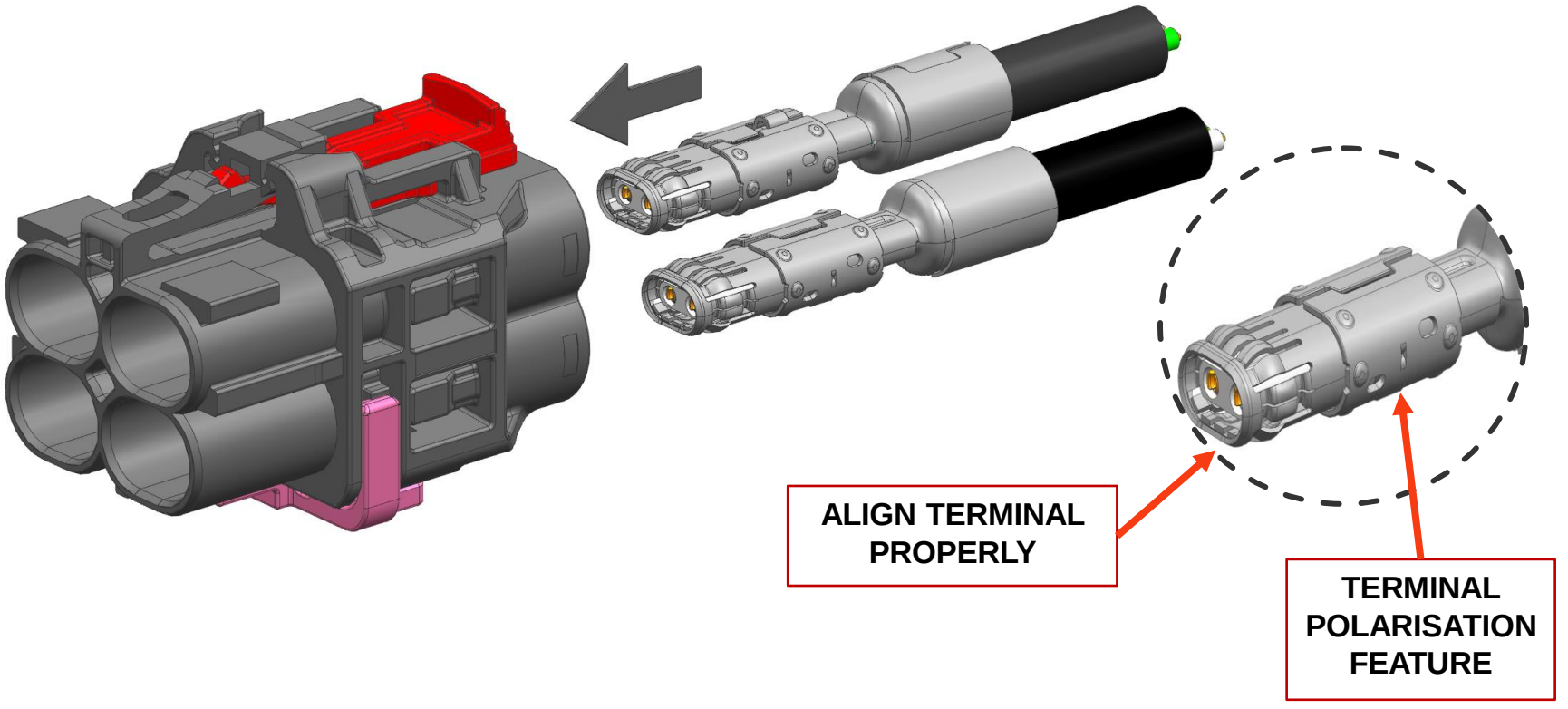
IDENTIFY THE CORRECT ORIENTATION OF THE TERMINAL AND ALIGN IT WITH THE CONNECTOR PRE-ASSEMBLY



STEP 2b – Insert Female H-MTD Terminals

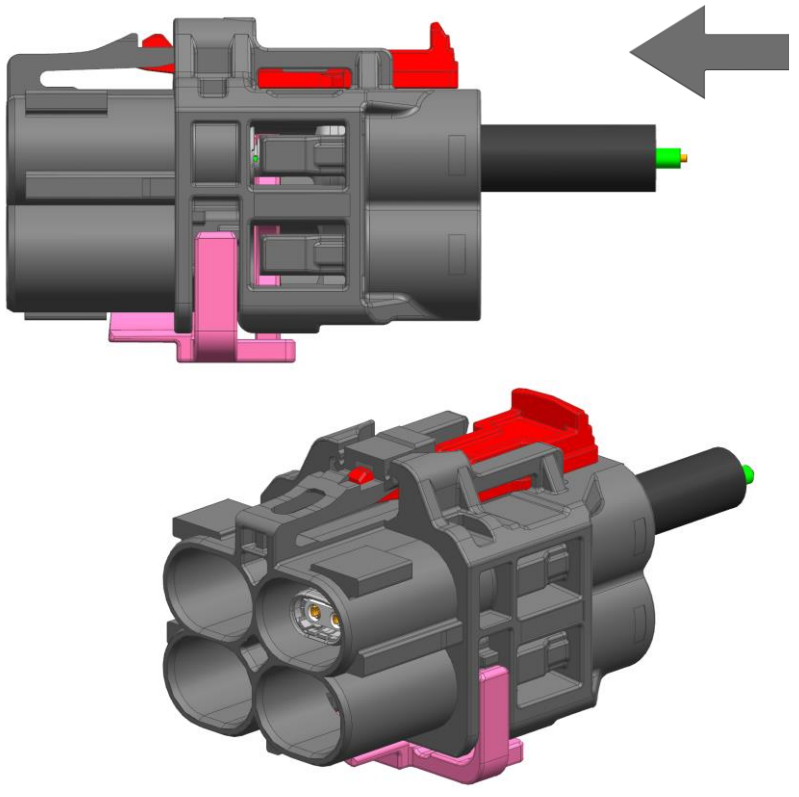
2

IDENTIFY THE CORRECT ORIENTATION OF THE TERMINAL AND ALIGN IT WITH THE CONNECTOR PRE-ASSEMBLY



STEP 2c– Insert Female H-MTD Terminals

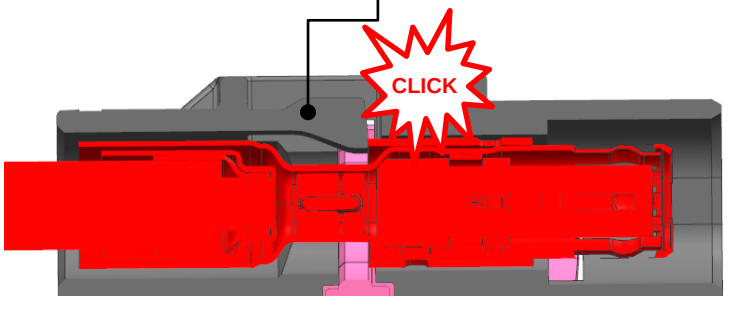
3 **PUSH THE TERMINAL STRAIGHT INTO THE CAVITY**



VERIFY AUDIBLE CLICK

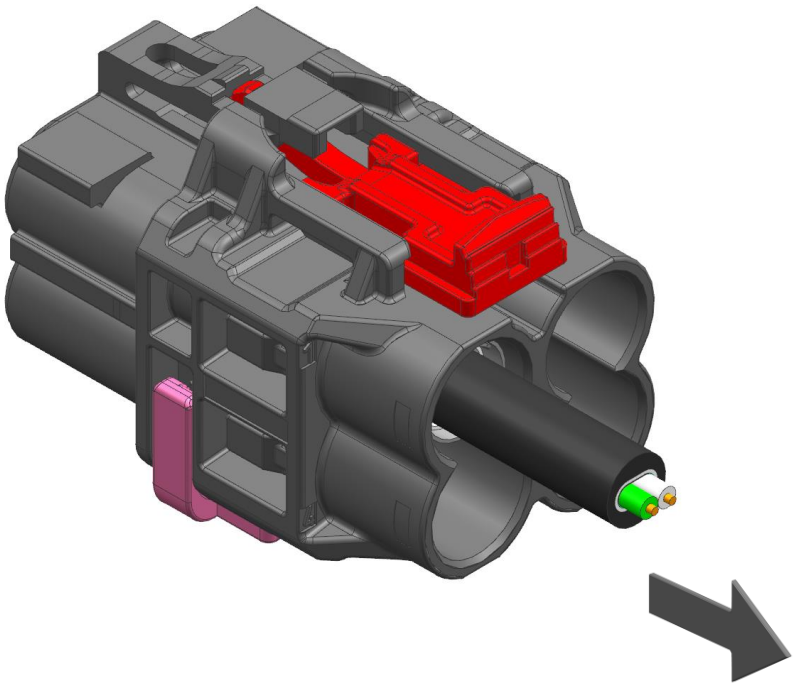


TERMINAL FULLY ENGAGED UNDER FLEX LOCK

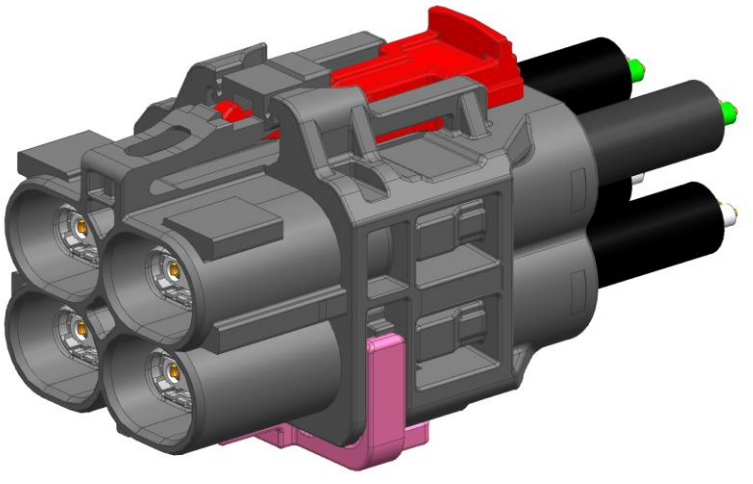


STEP 2d – Insert Female H-MTD Terminals

4 **GENTLY PULL THE CABLE TO VERIFY THE LOCK SYSTEM**

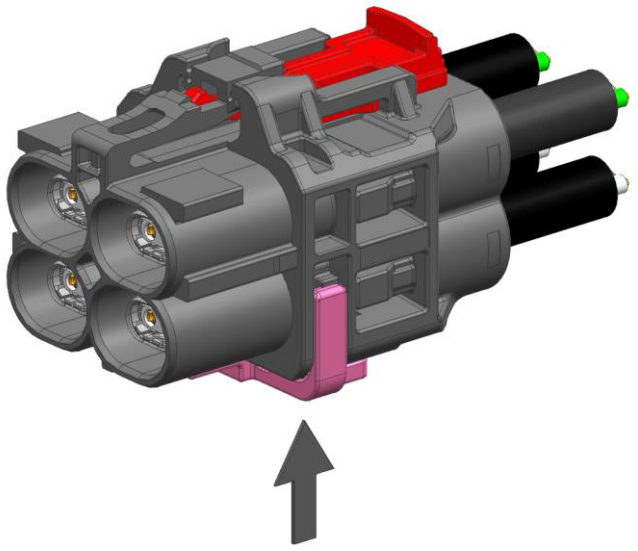


5 **REPEAT THE SAME PROCEDURE TO INSERT THE REMAINING TERIMINALS**

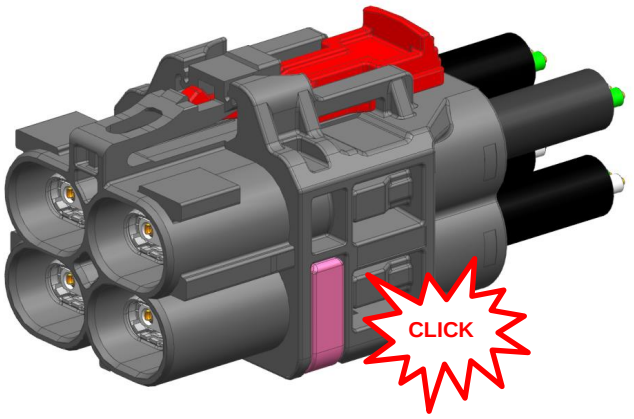


Step 3a – Lock TPA to Full Stage Position

1 **PUSH THE TPA FORWARD TO FULLY SEAT**



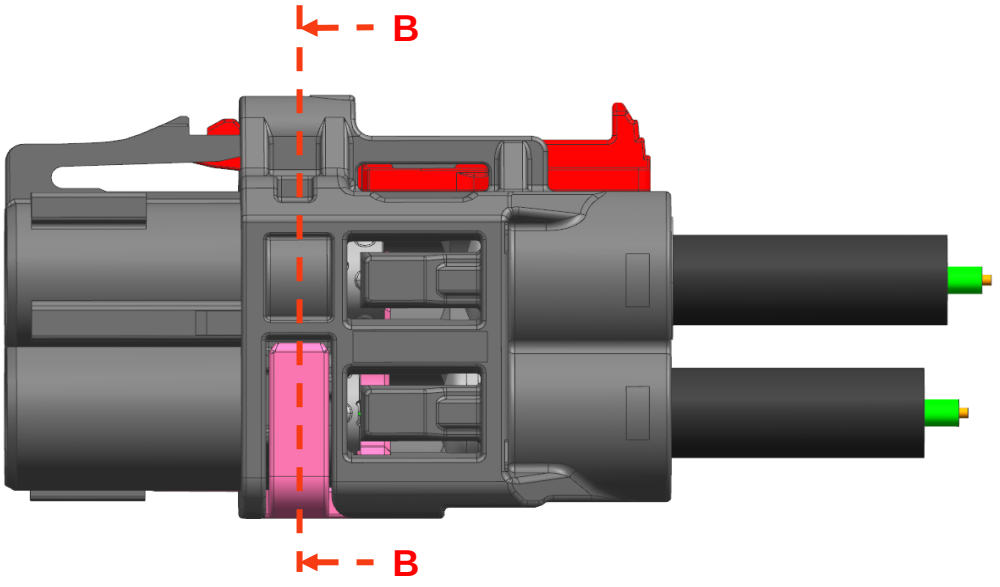
2 **THE TPA MUST BE PARALLEL WITH THE CONNECTOR AND LOCKED IN THE SECOND SET OF SLOTS**

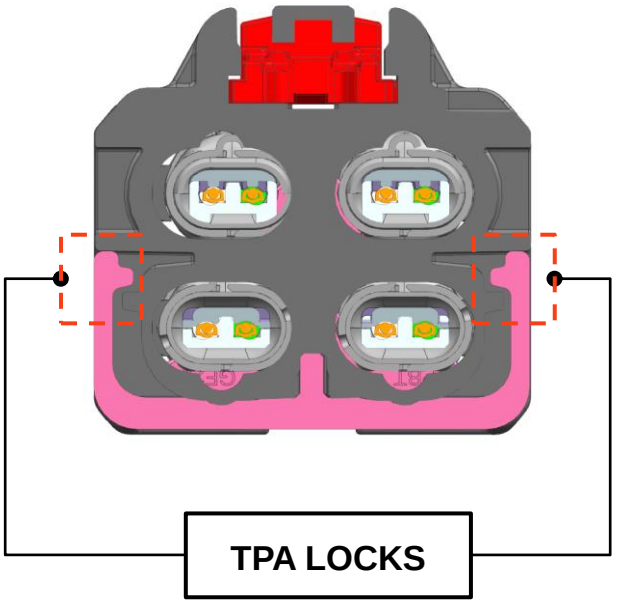


VERIFY AUDIBLE CLICK

***DO NOT FORCE THE TPA, IF IT CANNOT BE LOCKED, REVIEW IF TERMINALS ARE FULLY SEATED**

Step 3b – Lock TPA to Full Stage Position

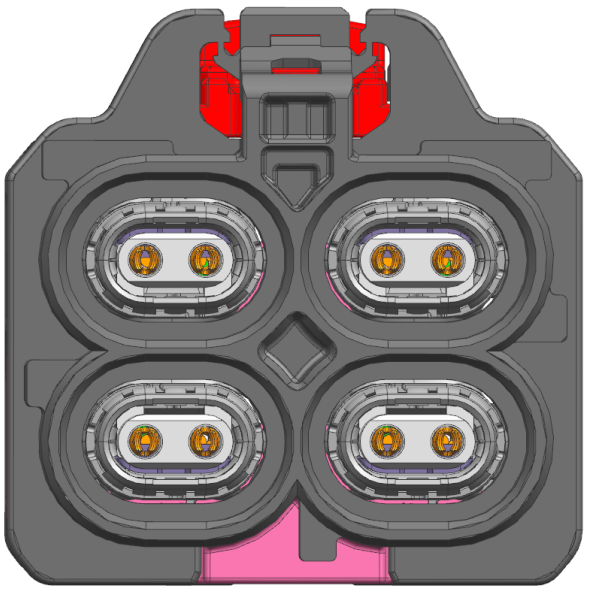


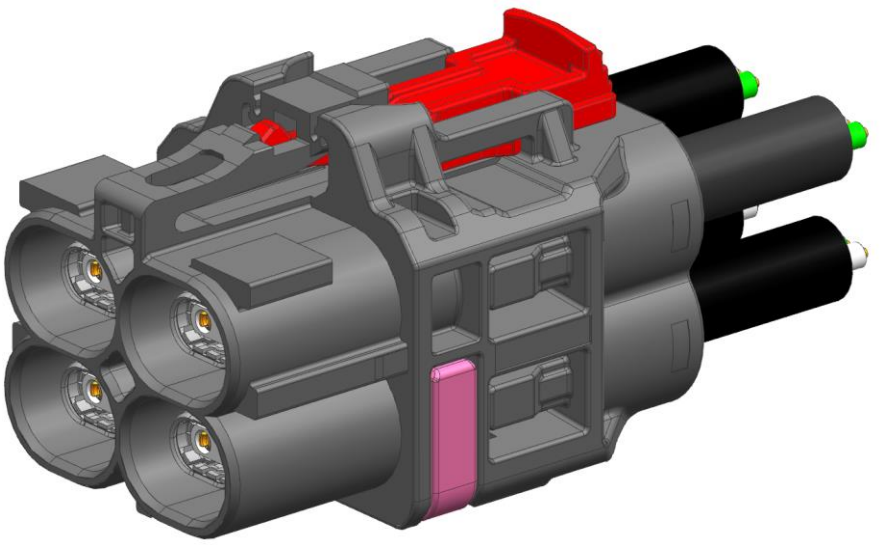


SECTION B-B

TPA IS NOW IN FINAL STAGE POSITION

FEMALE HARNESS ASSEMBLY – COMPLETED



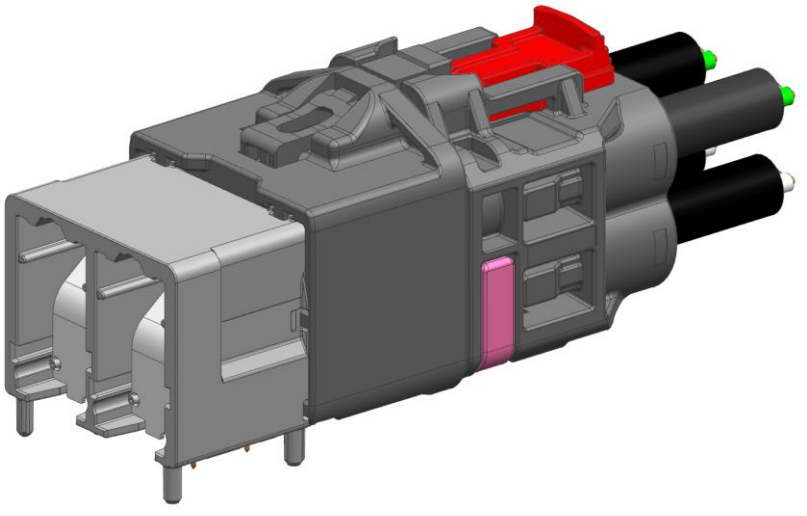


PERFORM TESTS, APPLY COVERINGS AS REQUIRED. INSPECT THE ASSEMBLY.

ASSEMBLY OF THE CONNECTION SYSTEM

PRE - ASSEMBLY HARNESS ASSEMBLY **CAR ASSEMBLY**

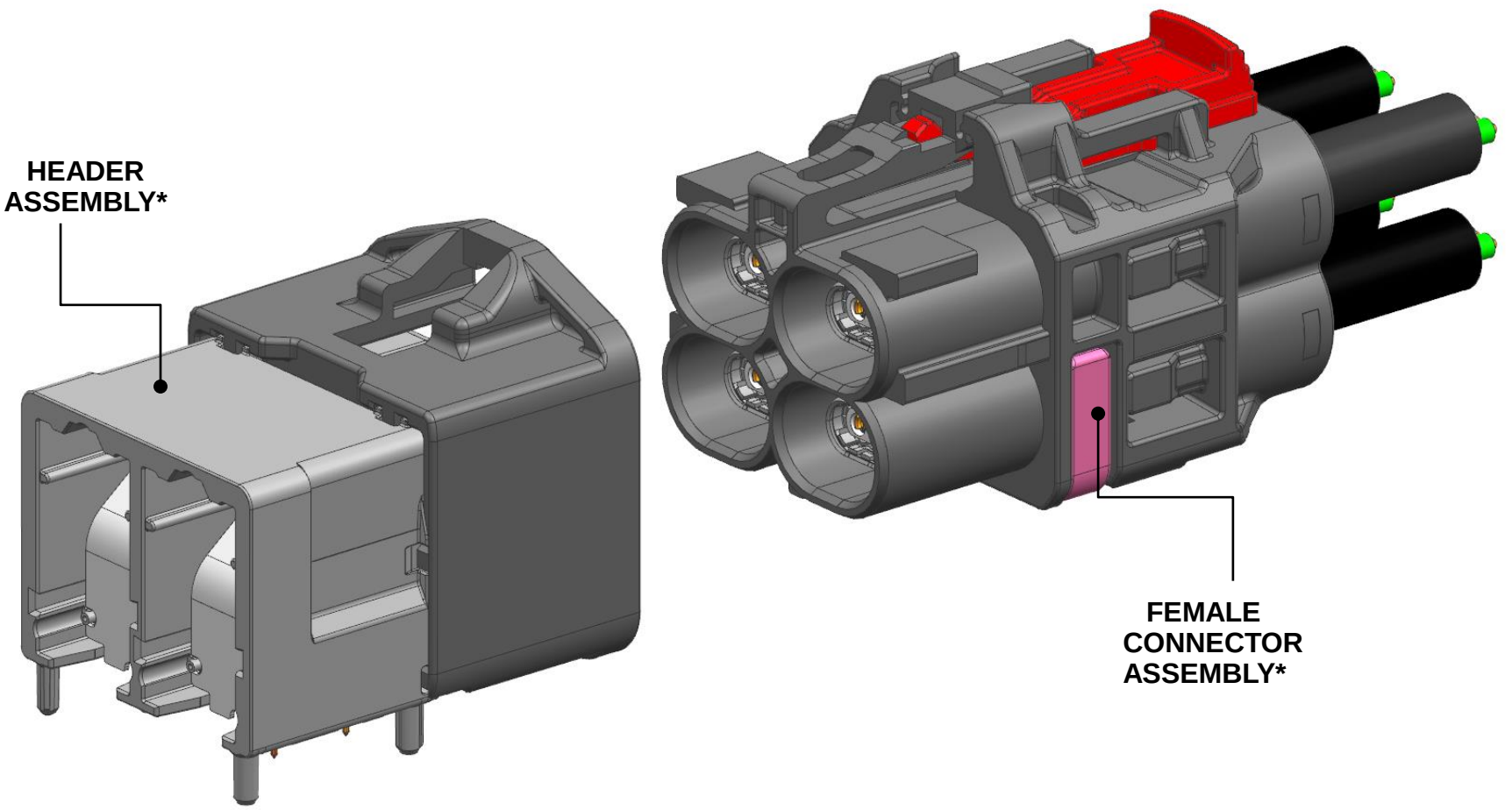
4 PORT H-MTD Unsealed Connector



LIST OF COMPONENTS & EXPLODED VIEW

QUANTITY	COMPONENTS
1	FEMALE CONNECTOR ASSEMBLY*
1	HEADER ASSEMBLY*

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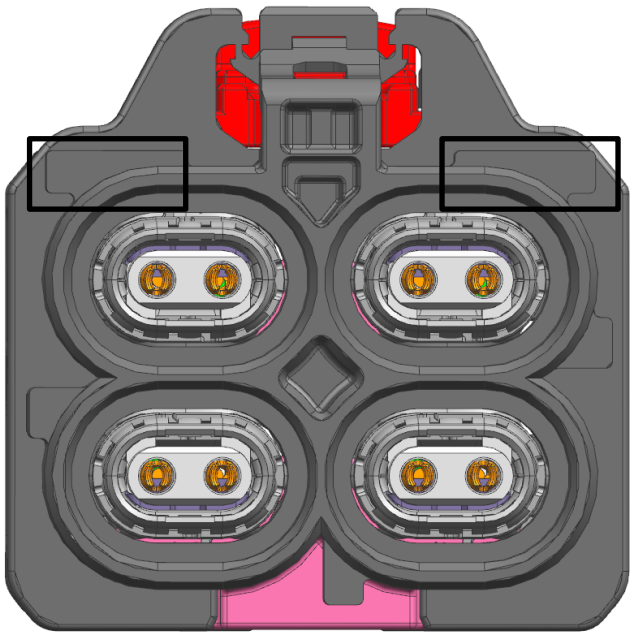


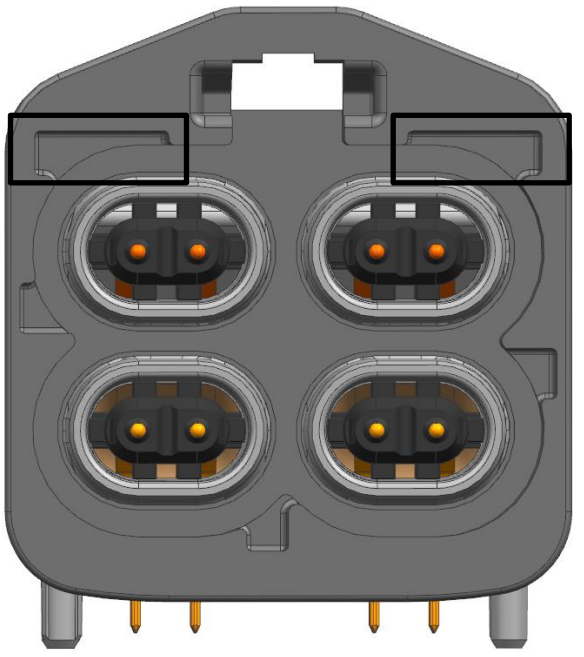
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STEP 1 – Identify Index Features

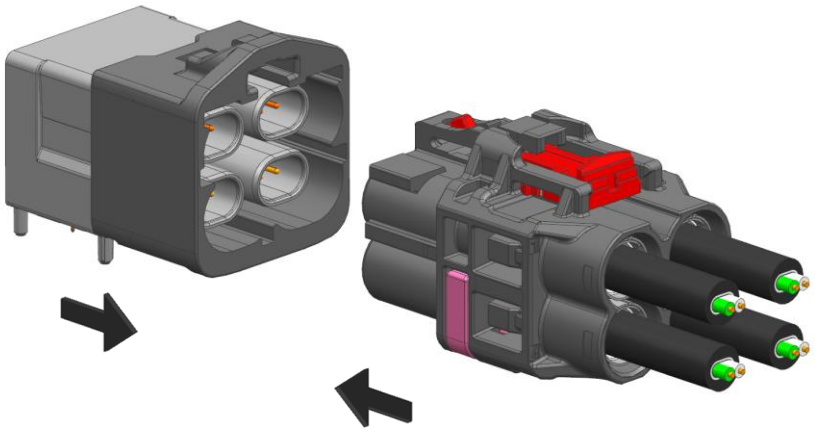
FRONT VIEWS



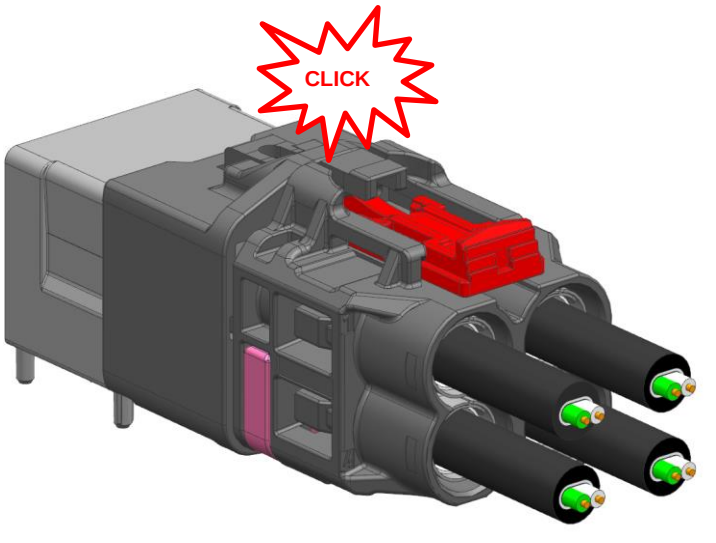


STEP 2 – Align Index Features and Mate Female Assembly and Male Assembly Together

IMPORTANT! IF THE INDEXES DON'T LINE UP DO NOT CONTINUE

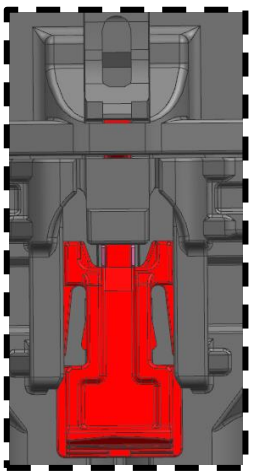


VERIFY AUDIBLE CHECK

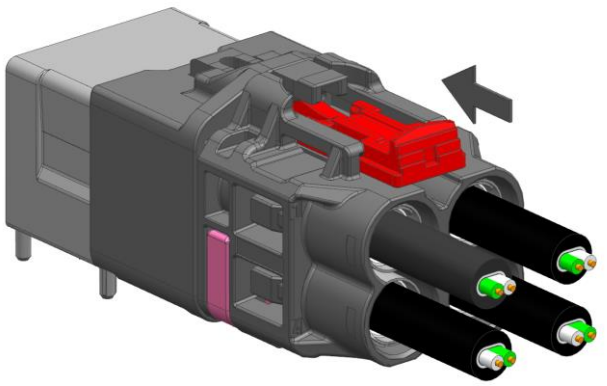


STEP 3 – Lock CPA to Full-Stage Position (Optional Component)

PUSH THE CPA ONTO CONNECTOR HOUSING BY SLIDING THE CPA RIBS INTO THE CONNECTOR SLOTS

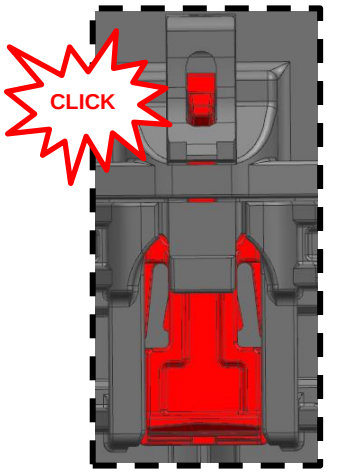


DETAIL

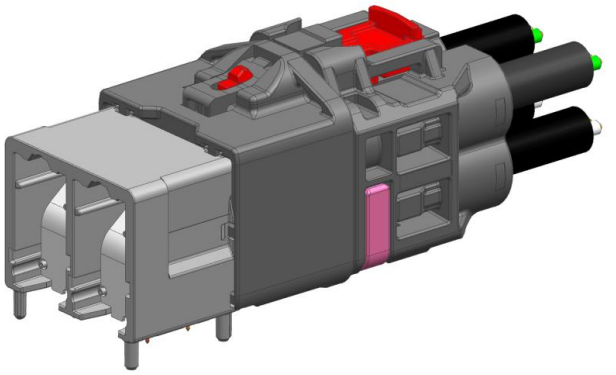


CPA IS NOW IN FULL-STAGE POSITION

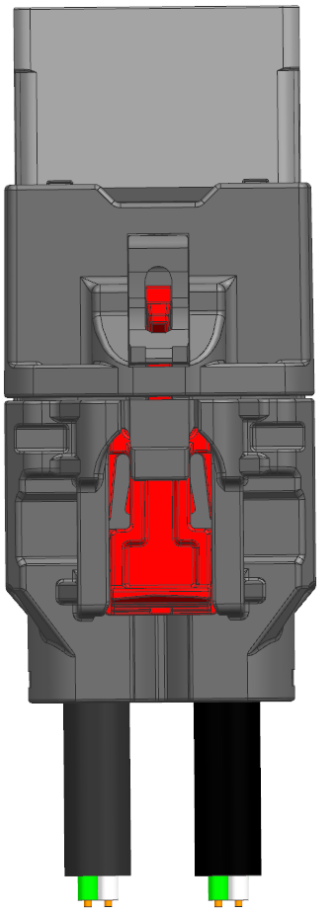
VERIFY AUDIBLE CLICK

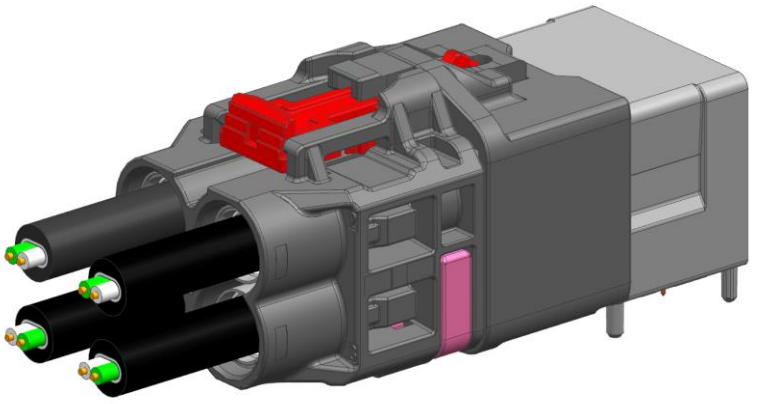


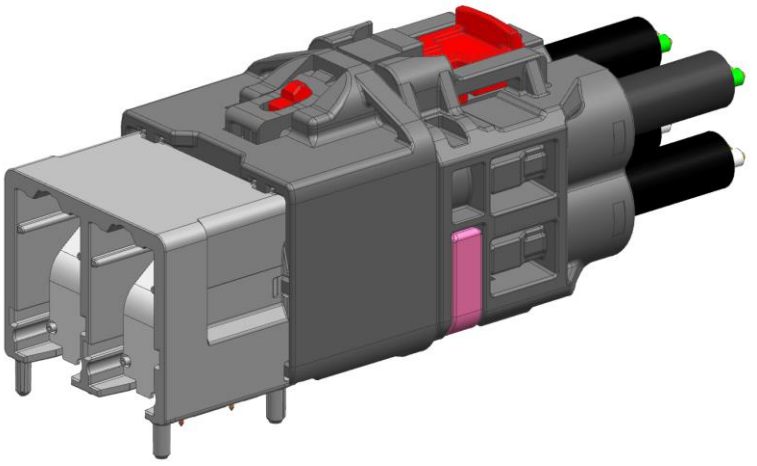
DETAIL



CONNECTION SYSTEM ASSEMBLY – COMPLETED

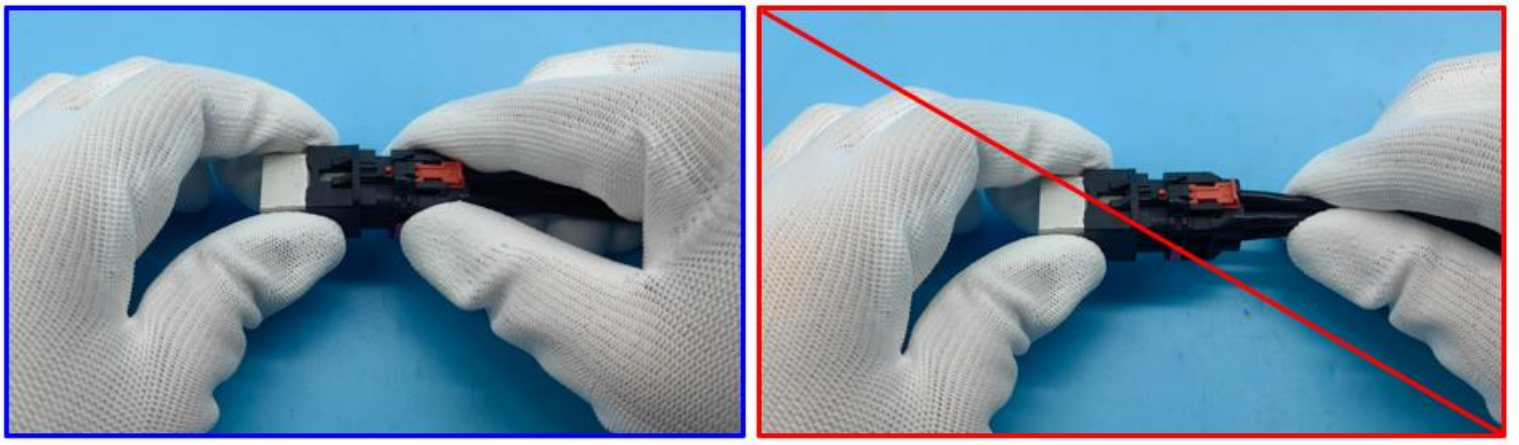






MATING PROCESS

1 **THE PLASTIC HOUSING SHOULD BE HELD IN HAND DURING MATING AND PULLING OUT, NOT THE WIRING HARNESS.**



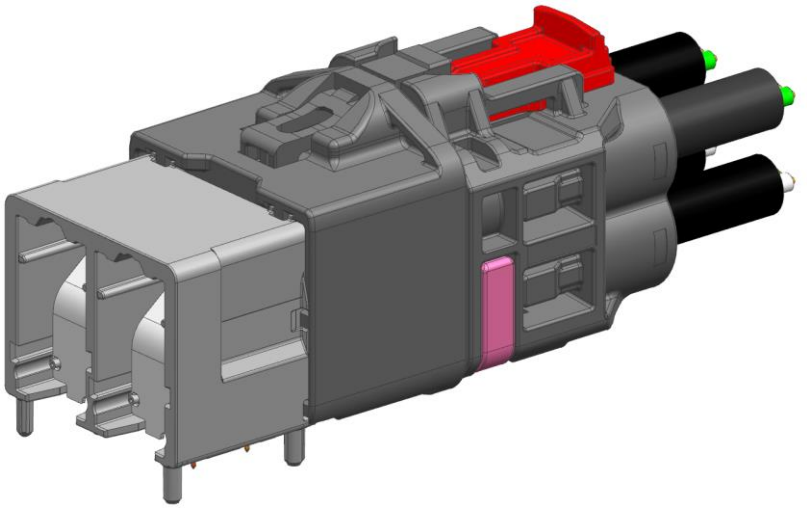
2 **ACCORDING TO APTIV DESIGN, THE CPA CAN BE PUSHED IN AND OUT BY HAND.**



DISASSEMBLY OF THE CONNECTION SYSTEM

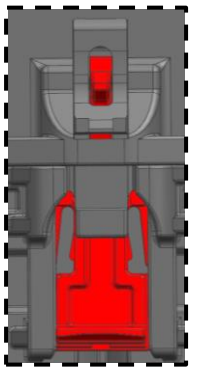
PRE - ASSEMBLY HARNESS ASSEMBLY **CAR ASSEMBLY**

4 PORT H-MTD Unsealed Connector



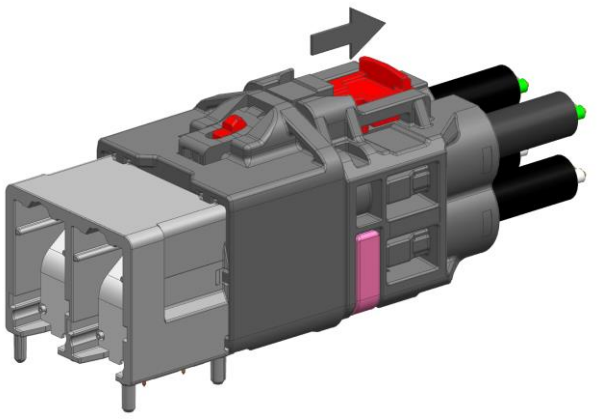
DISASSEMBLY

STEP 1 – Move CPA to Pre-Stage Position (Optional Component)

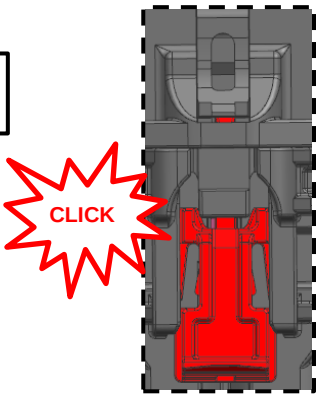


DETAIL

HOLD THE CPA AND SLIDE TO BACK SIDE OF CONNECTOR

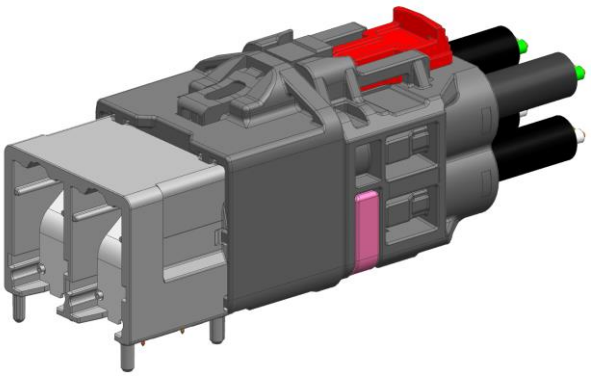


CPA IS NOW IN PRE-STAGE POSITION



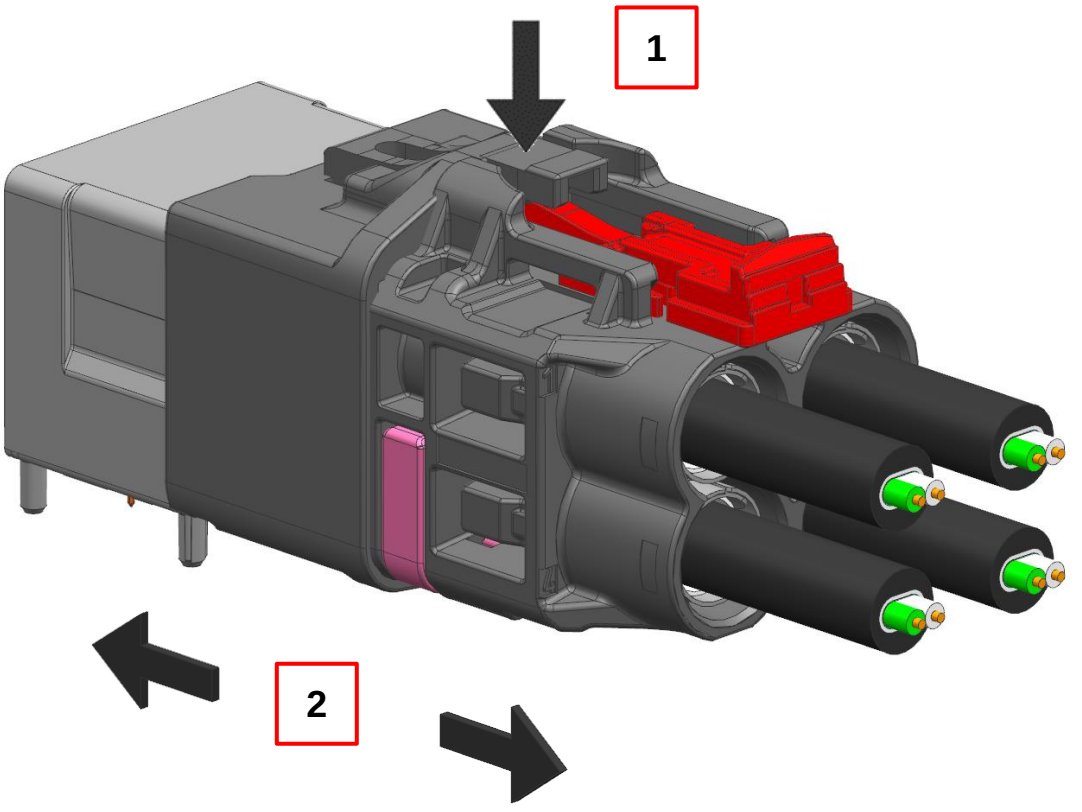
DETAIL

VERIFY AUDIBLE CLICK

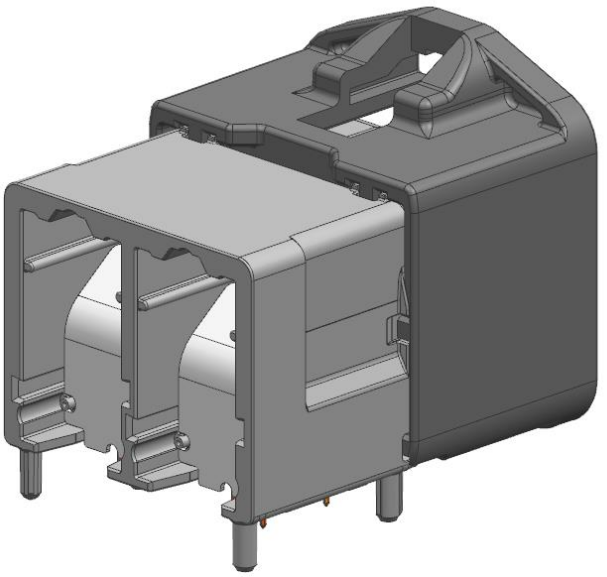


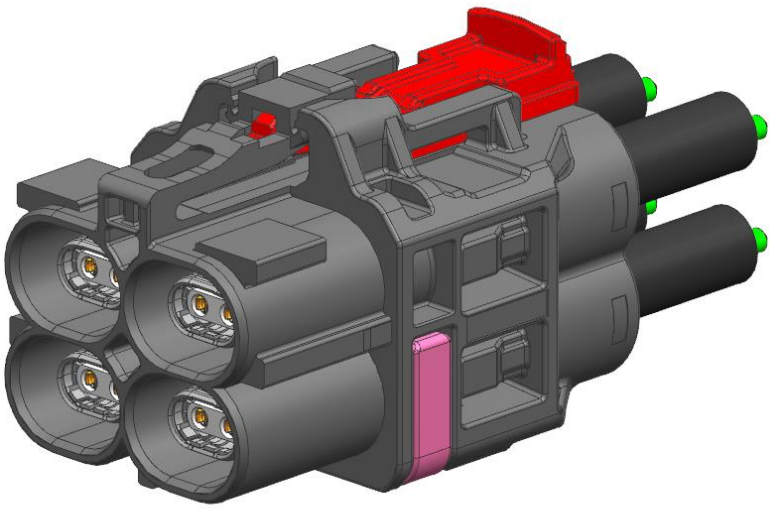
STEP 2 – Disconnect

LOCATE AND PRESS DOWN THE CONNECTOR LOCK (1)
WITH THE LOCK DEFLECTED, DISENGAGE THE CONNECTOR ASSEMBLIES (2)



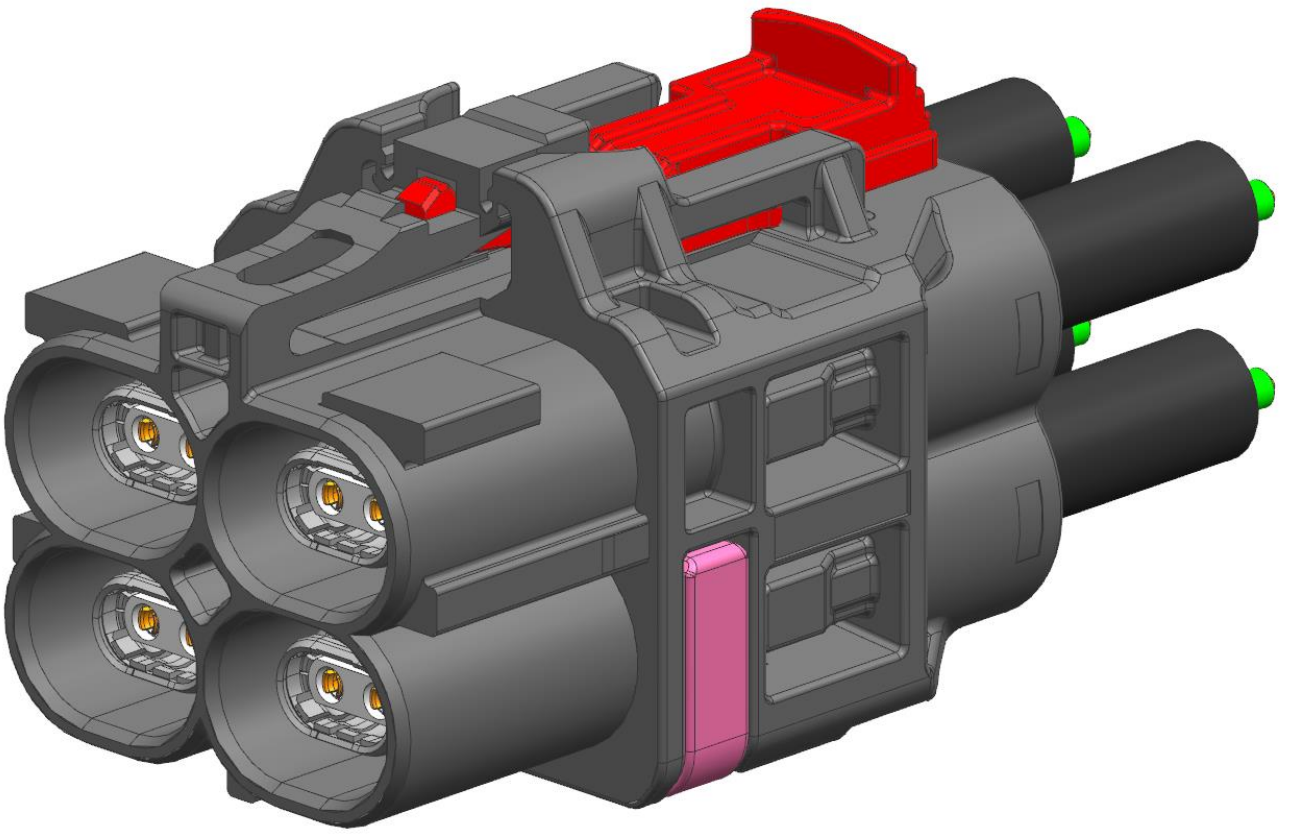
CONNECTION SYSTEM DISASSEMBLY COMPLETED



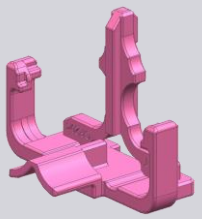
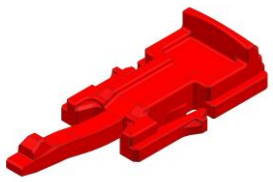
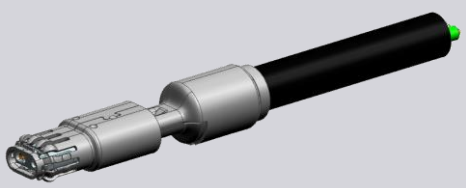


REPAIR/REPLACEMENT
OF THE FEMALE ASSEMBLY

4 PORT H-MTD Unsealed Connector

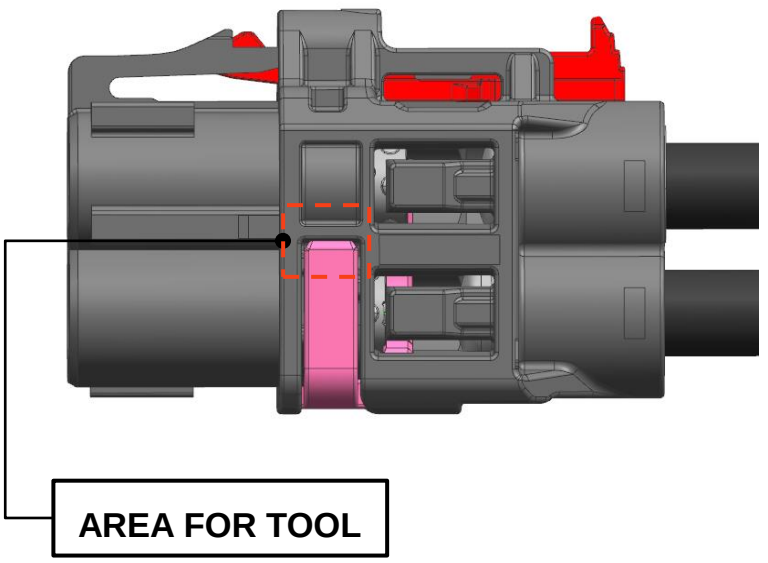


COMPONENT REPAIR/ REUSE CAPABILITIES

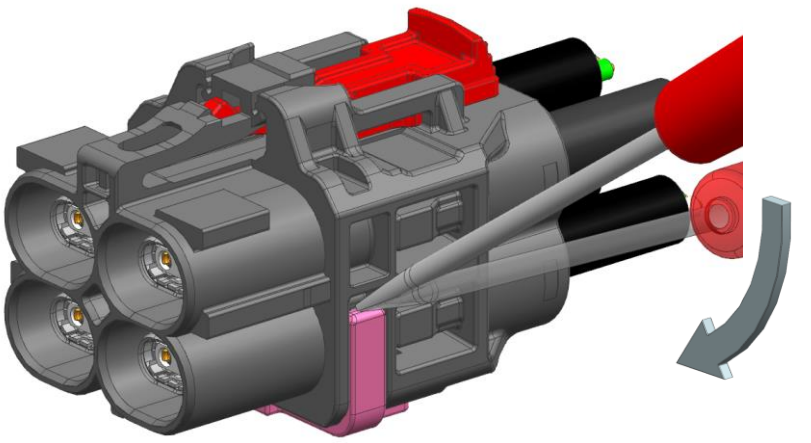
COMPONENT	IS IT REPAIRABLE?/ REUSABLE	COMMENTS
	NO	CONNECTOR HOUSING MUST BE REPLACED
	NO	TPA MUST BE REPLACED
	NO	CPA MUST BE REPLACED
	YES	CRIMPED TERMINAL IS RECOVERABLE; VERIFY ITS CONDITION BEFORE REUSE

STEP 1a - FEMALE H-MTD TERMINAL REPLACEMENT (Remove TPA)

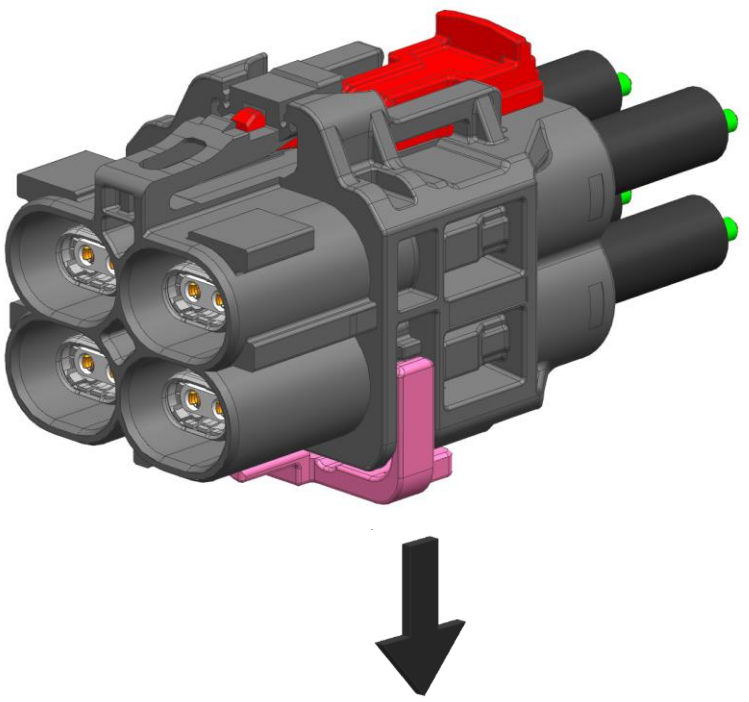
1 **LOCATE THE AREA TO INSERT THE TOOL**



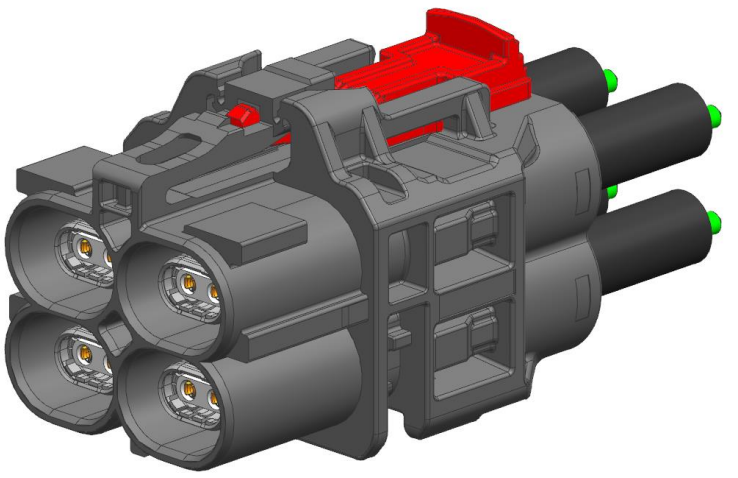
2 **INSERT TIP OF TOOL BETWEEN THE CAP AND CONNECTOR HOUSING. USE THE CONNECTOR AS LEVERAGE TO LIFT AND RELEASE THE TPA FROM IT'S LOCKED POSITION**



STEP 1b - FEMALE H-MTD TERMINAL REPLACEMENT (Remove TPA)



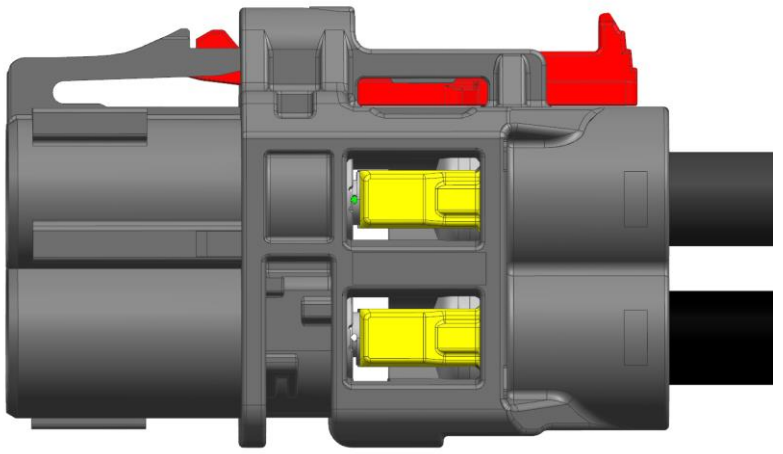
REPEAT THE SAME PROCESS TO RELEASE THE TPA FROM ITS PRE-STAGE POSITION

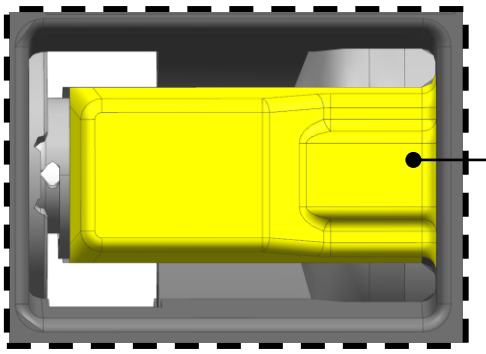


TPA REMOVED

STEP 2a - FEMALE H-MTD TERMINAL REPLACEMENT (Remove Terminal)

LOCATE THE TERMINAL FLEX LOCK (HIGHLIGHTED IN YELLOW)

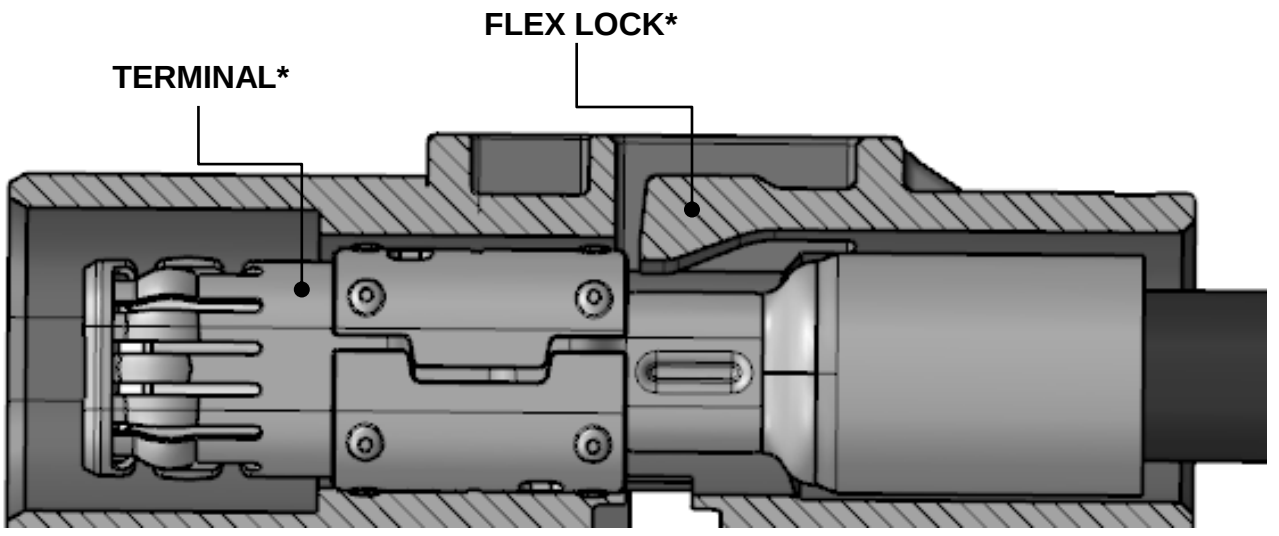




STEP 2b - FEMALE H-MTD TERMINAL REPLACEMENT (Remove Terminal)

REMOVE TERMINALS

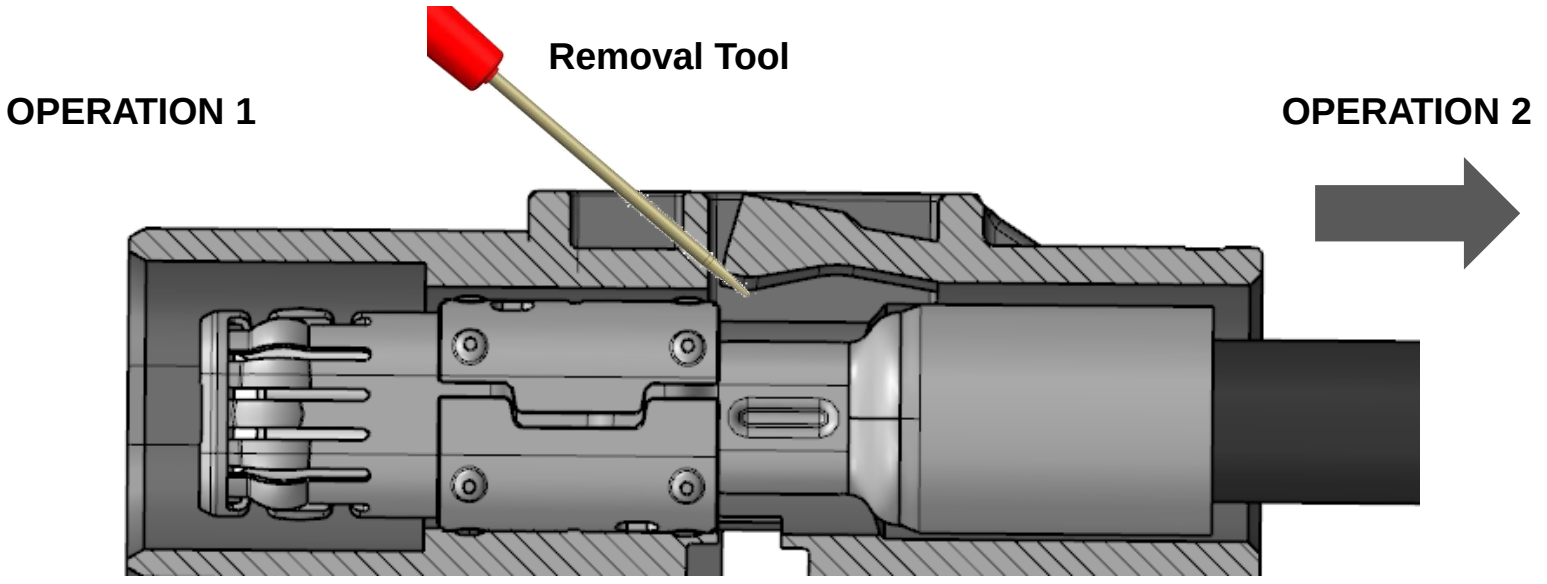
IDENTIFY
Terminal Flex Lock



* This graph just represents how this kind of terminals are removed.

STEP 2c - FEMALE H-MTD TERMINAL REPLACEMENT (Remove Terminal)

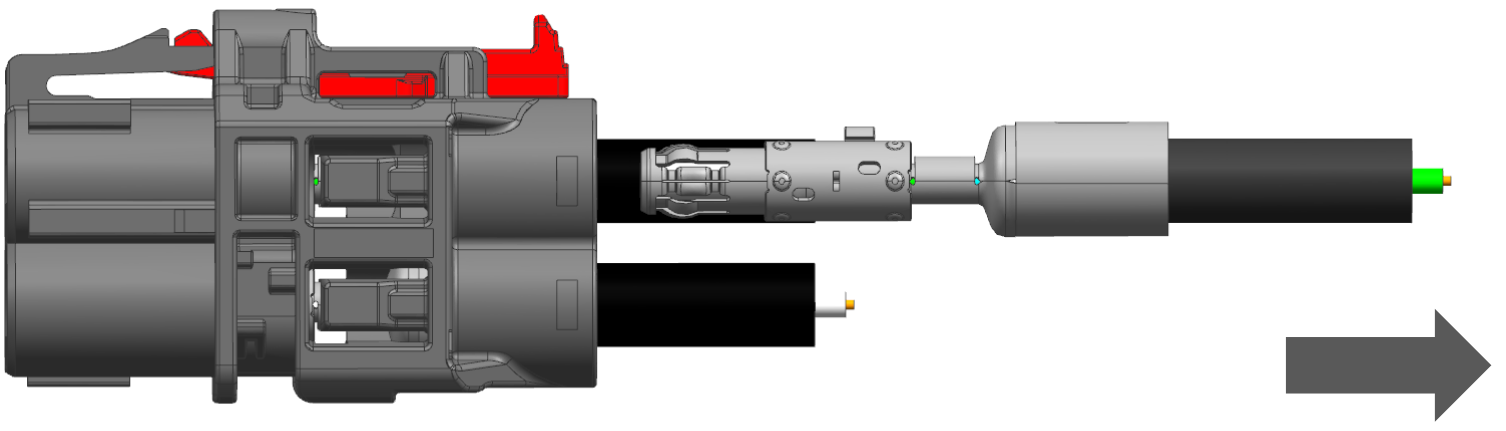
REMOVE TERMINALS



LOCATE FLEX LOCK & INSERT (OPERATION 1) TOOL BETWEEN THE FLEX LOCK AND TERMINAL, DEFLECT THE FLEX LOCK TO UNSEAT THE TERMINAL AND GENTLY PULL ON THE CABLE TO REMOVE (OPERATION 2) THE TERMINAL FROM THE CONNECTOR.

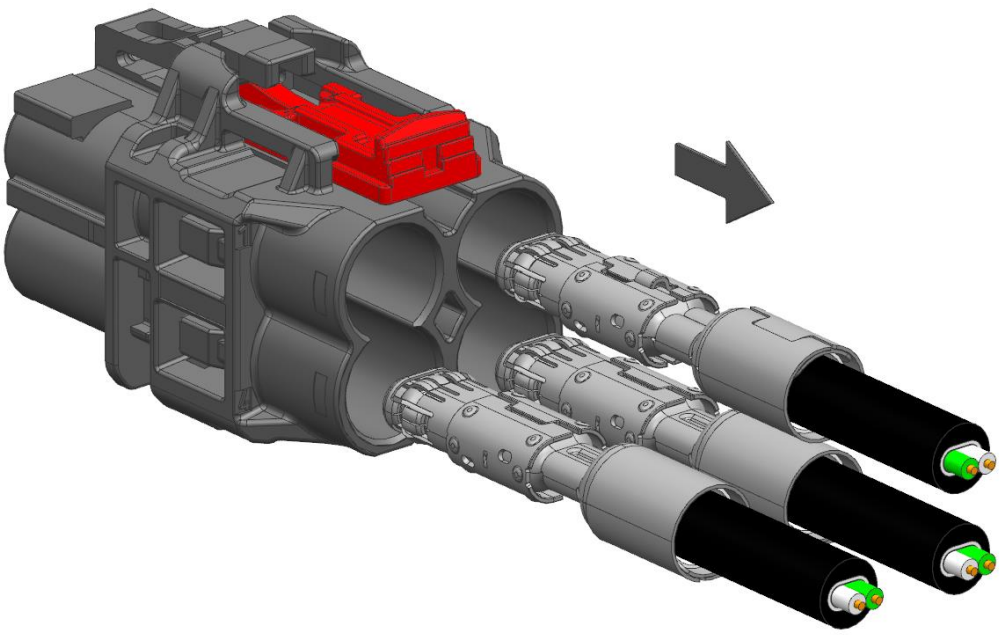
* This graph just represents how this kind of terminals are removed.

STEP 2d - FEMALE H-MTD TERMINAL REPLACEMENT (Remove Terminal)

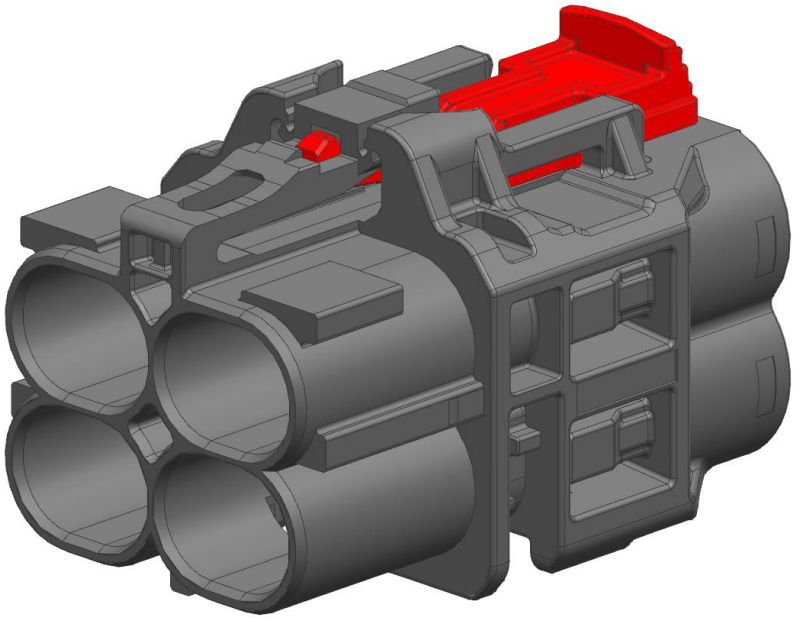


REMOVE THE TERMINAL FROM THE FEMALE CONNECTOR HOUSING

STEP 2e - FEMALE H-MTD TERMINAL REPLACEMENT (Remove Terminal)



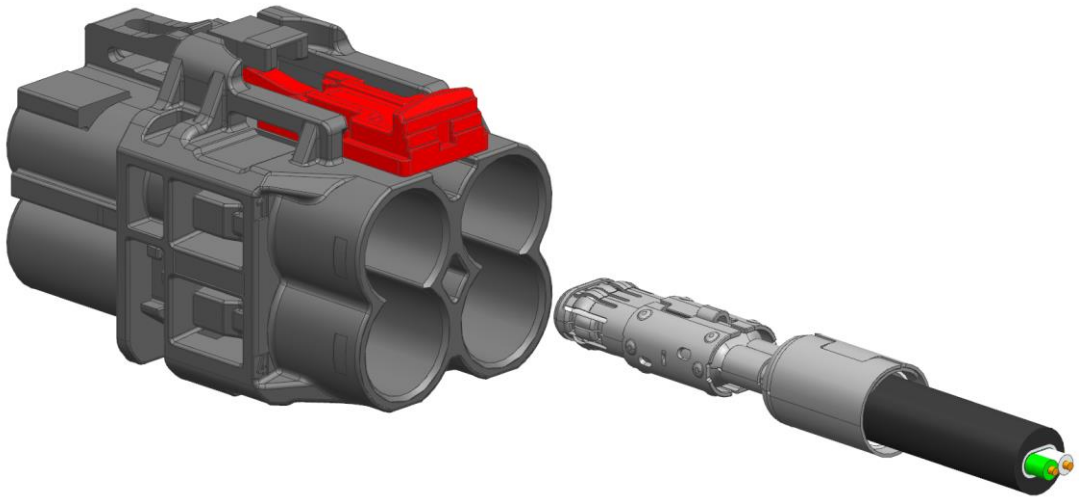
REPEAT THE SAME PROCEDURE TO REMOVE THE REMAINING TERMINALS FROM THE FEMALE CONNECTOR HOUSING

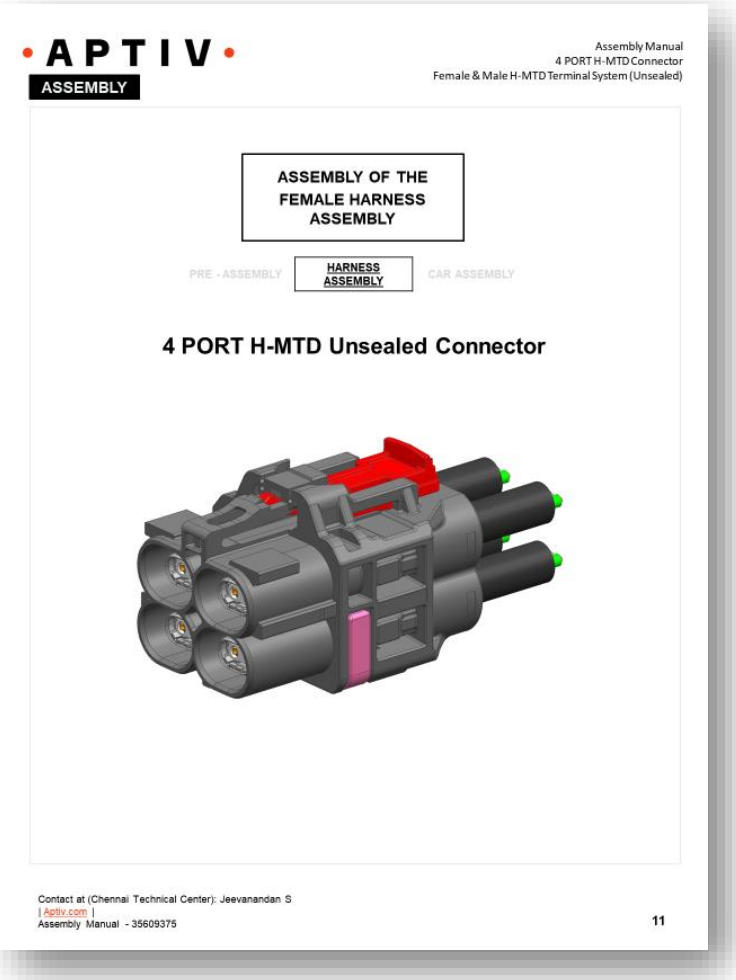


TERMINALS REMOVED

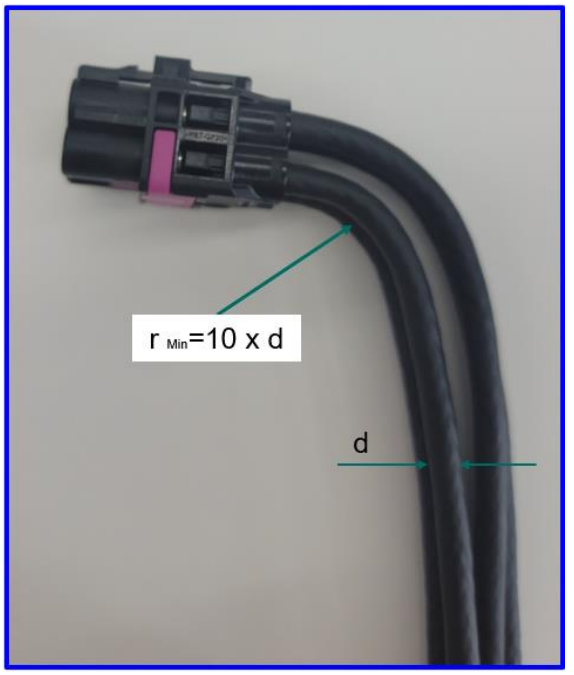
STEP 3- FEMALE H-MTD TERMINAL REPLACEMENT (Insert Terminal)

REFER TO HARNESS ASSEMBLY SECTION





RADIUS BEND



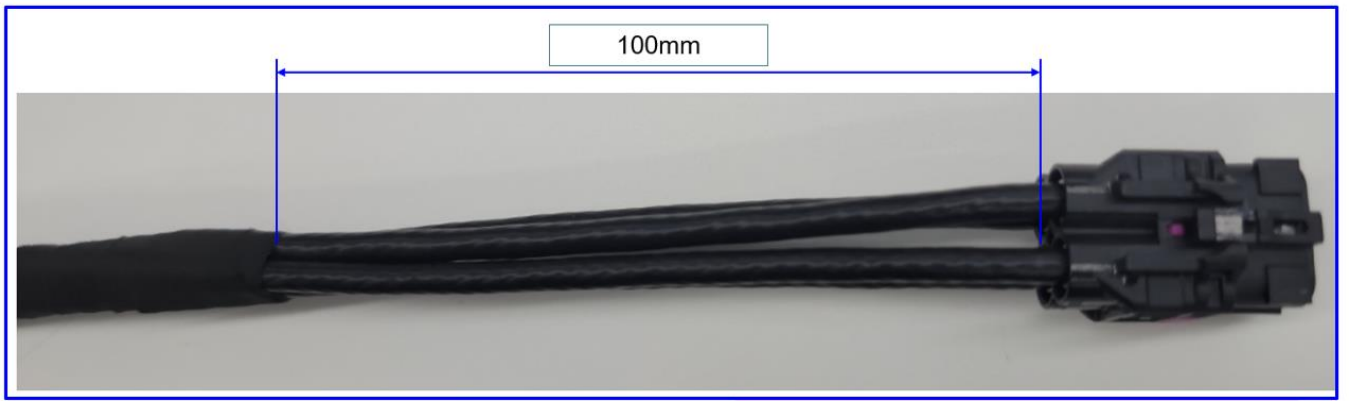


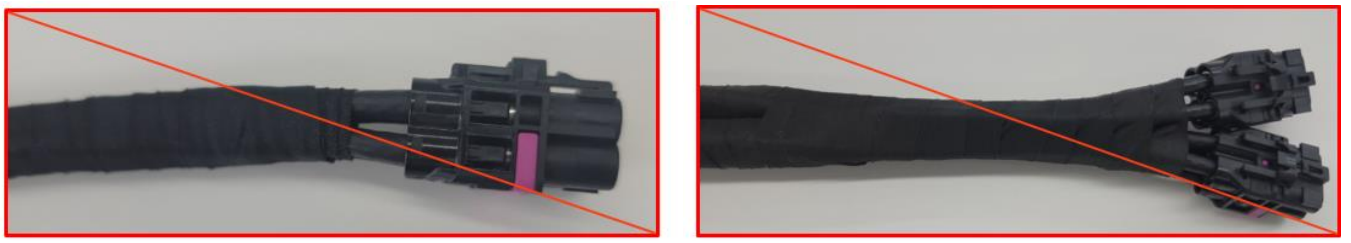
Wire Type	Cable OD
DACAR 647-4	4.1+/-0.2mm

REMARK:

THE MINIMUM BENDING RADIUS IS EQUAL TO 10 TIMES THE WIRE DIAMETER.

BANDAGE







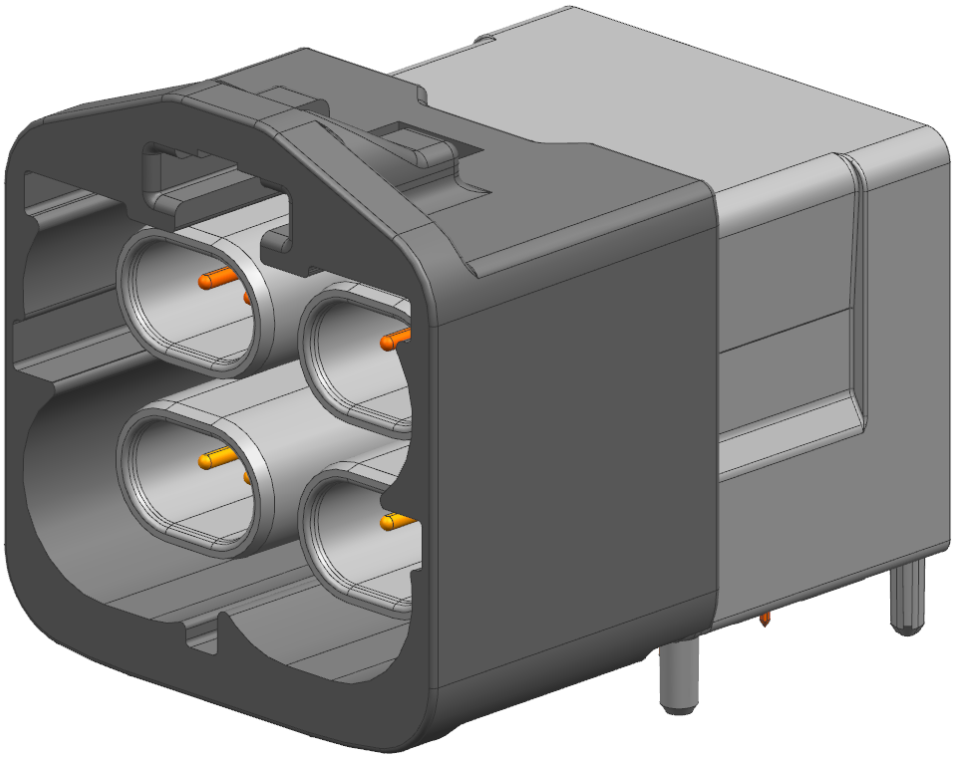


REMARK:

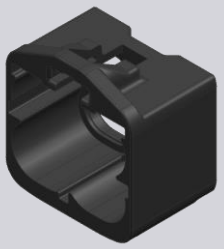
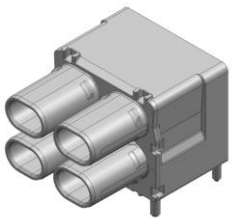
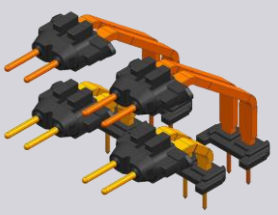
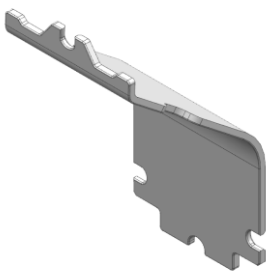
FOR THE MULTIPLE CONNECTION SYSTEM, BANDAGE DISTANCE FROM CONNECTOR 100MM AND CABLE CANNOT BE TWISTED.

REPAIR / REPLACEMENT
OF THE MALE ASSEMBLY

4 PORT H-MTD Unsealed Connector



COMPONENT REPAIR/ REUSE CAPABILITIES

COMPONENT	IS IT REPAIRABLE / REUSABLE?	COMMENTS
	NO	CONNECTOR HOUSING MUST BE REPLACED
	NO	BASE DIE CAST MUST BE REPLACED
	YES	TERMINAL IS RECOVERABLE; VERIFY ITS CONDITION BEFORE REUSE
	YES	COVER SHIELD IS RECOVERABLE; VERIFY ITS CONDITION BEFORE REUSE

RECOMMENDED REPAIR TOOLS

1



ITEM	DESCRIPTION
1	FOR TPA & TERMINAL REMOVAL

REVISIONS

DATE	REV	REVISION HISTORY	AUTH
03SE24	01	INITIAL RELEASE	AS