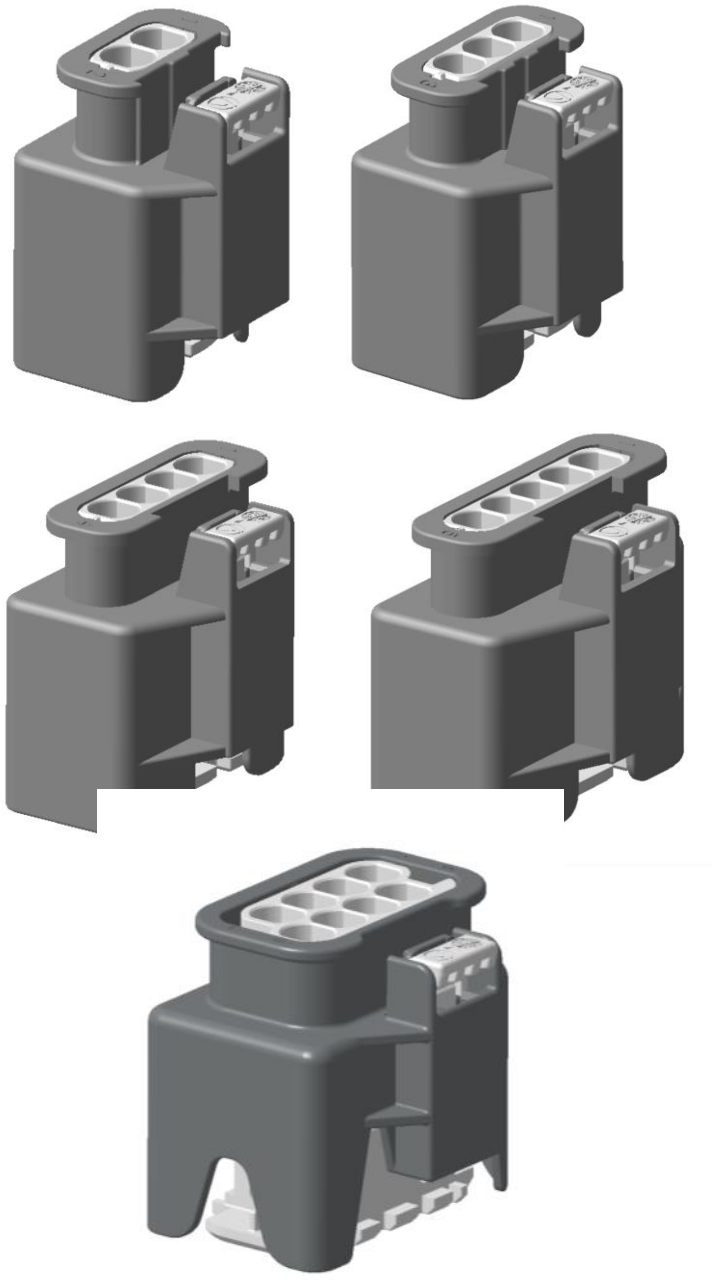
Process Specification

2-way to 8-way Female Connectors
2.8 SealStar



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1. General

1.1. General information and requirements

a. This process specification describes detailed requirements and guidelines of Hirschmann Automotive on how to assemble the 2.8 SealStar Female connectors in order to achieve compliance with the defined product- and process specification.

b. The customer/manufacturer processing the Hirschmann products is responsible for the appropriate processing of the relevant products and also for the compliance of the described process results with this specification.

c. In case of improper or deviating processing through the customer/manufacturer, any complaints need to be declined.

d. During the whole assembly process, individual components and assembly units must not be damaged in any way.

e. Both the named fixture suppliers and equipment in this process specification are not mandatory to use from Hirschmann Automotive point of view. They are only a non-binding reference which supplier and equipment Hirschmann Automotive used for the evaluation, validation and release of this process specification.

f. The customer can define different fixture suppliers and equipment for the assembly process at any time.

g. Additionally, the customer/manufacturer shall validate and release the complete assembly process independently of the chosen equipment supplier.

h. Process parameters (e.g. welding currents, - times etc.) will not be predetermined by Hirschmann Automotive. In fact, the required technical result of this process needs to be specified in the process specification. With this result, the customer will achieve the product specification conformity (e.g. welding knot geometries, min. retention forces and so on).

i. All kind of warranty and liability claims of our customers towards Hirschmann Automotive according to the agreed contractual regulations are only valid with reservation of the compliance with the according process specification.

1.2. Applicable Specification and Documentation

„Deutsche Norm“ DIN EN 60352-2	Solder-Free Electrical Connection Part 2: Crimp Connection
Product Group Drawing for AMP MCP.28	C-1355036
Application Specification AMP MCP2.8	114-18464

2. Delivery Condition / Product Components

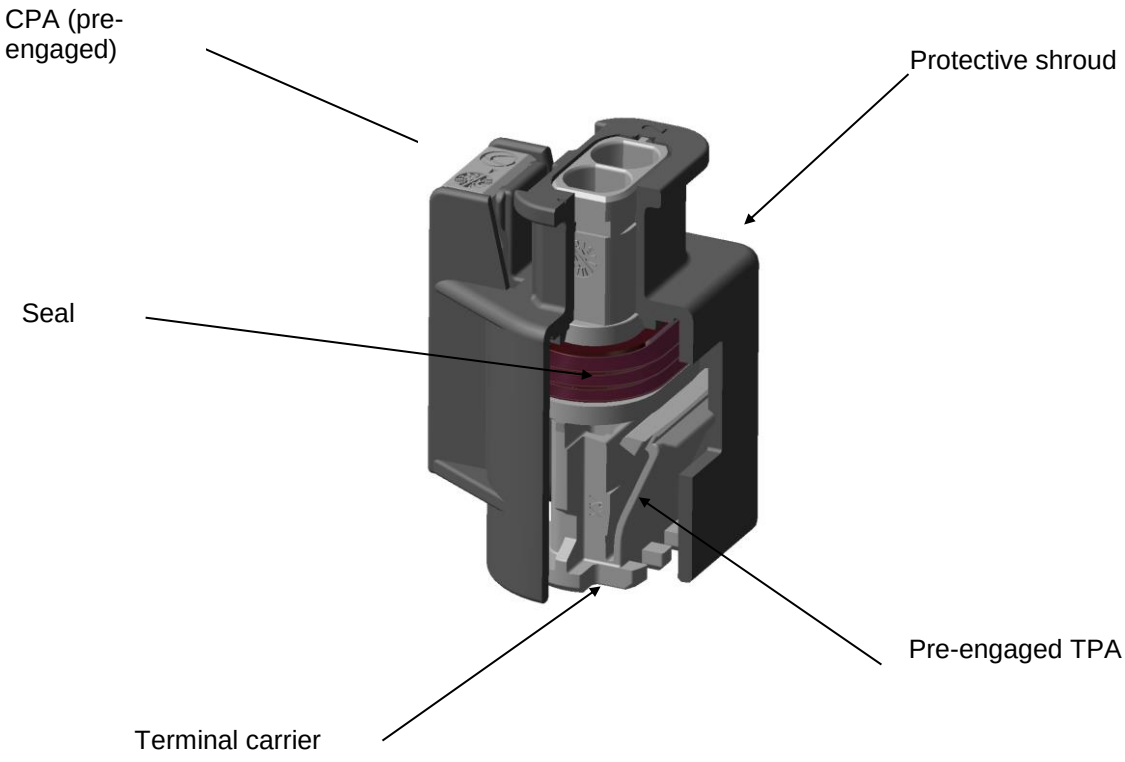
The housings are generally packaged and delivered as bulk goods.
In very rare cases, it may occur that the CPA or the TPA moves into the engaged condition.

In case that the TPA is engaged, it can be set to the pre-engaged state according to 5.2
If the CPA is locked, it can be set to the pre-engaged delivery state according to 6.2

2.1. Delivery Condition housing

The connector consists of a protective shroud, a seal, a terminal carrier with TPA and an CPA. The terminal carrier is pre-assembled in the shroud, the TPA is open and the CPA pre-engaged.

To connect a dress cover a defined contour is provided.



3. Terminals

Contact system: see the customer drawing for the applicable terminals

Please see terminal manufacturer drawing for processing requirements

To guarantee the required sealing performance the terminals and seals must fit the wire and all open cavities must be plugged with cavity plugs (except if the cavity is pre-flashed).
Crimp tools, e.g. applicators, hand crimp tools and removal tools please see process specification of the terminal manufacturer.

Only terminals released by the OEM's may be used in the connector. It's the manufacturers duty to clarify this in advance.

4. Suitable dress covers, delete caps or transport caps

Appropriate mounting parts are available for the housings.
Details on the availability can be found in the customer's drawing or clarified with the respective manufacturers.

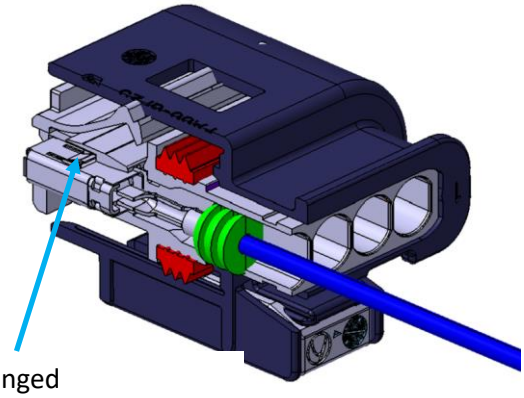
5. Insertion and Removal of the 2.8 terminals

5.1. Insertion

5.1.1. Primary lock

The connector is delivered ready for assembly. The terminals set with an audible click.
As the terminals are not encoded, they may also be inserted 180° turned.

Symbolic presentation



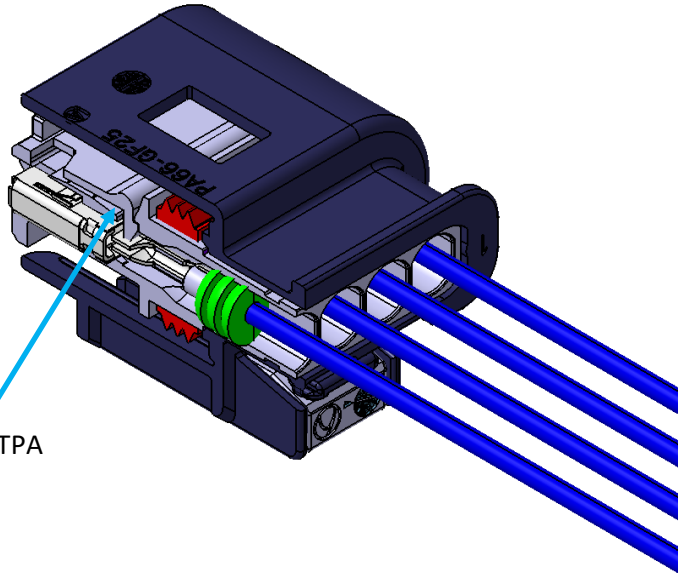
enganged
primary lock

5.1.2. TPA / secondary lock

After the terminals are inserted into the contact carrier (primary lock active), the secondary lock must be activated by pressing the latch. An audible click confirms that the TPA is engaged correctly.

In the area of the TPA latch minor superficial structural changed are acceptable.

Symbolic presentation

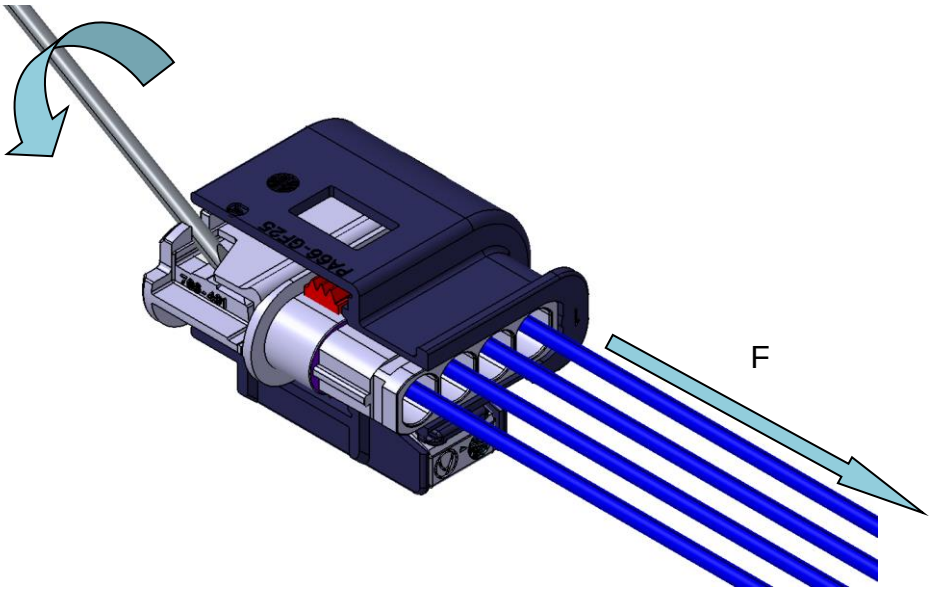


Engaged TPA

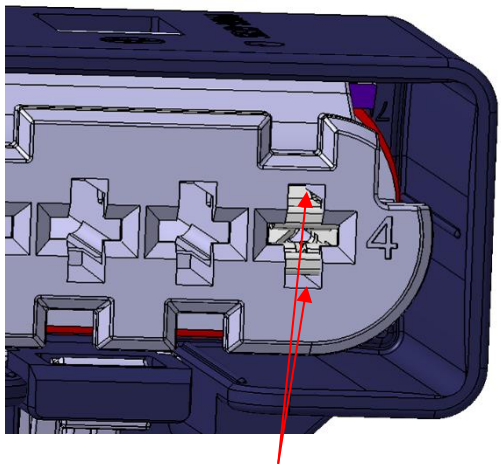
5.2. **Removing of the terminals**

The terminals may be removed for repair purposes.
To disengage the TPA, a small screwdriver e.g.: 2.0x75 can be used. It's applied on the sides of the latch in the intended openings. Next the screwdriver should be turned gently to lift the latch and therefore carefully open the TPA. The latch must not be bent further than in the pre-engaged state and special caution has to be used to avoid damaging the terminals.
After disengaging the TPA, the primary lock can be released according to the processing specification of the terminal manufacturer. Prior to further using, the terminals and especially the contact springs have to be inspected to guarantee that they were not damaged in any way.
The connector must not be used again and has to be replaced!

Symbolic presentation



Symbolic presentation



Openings to disengage the primary lock

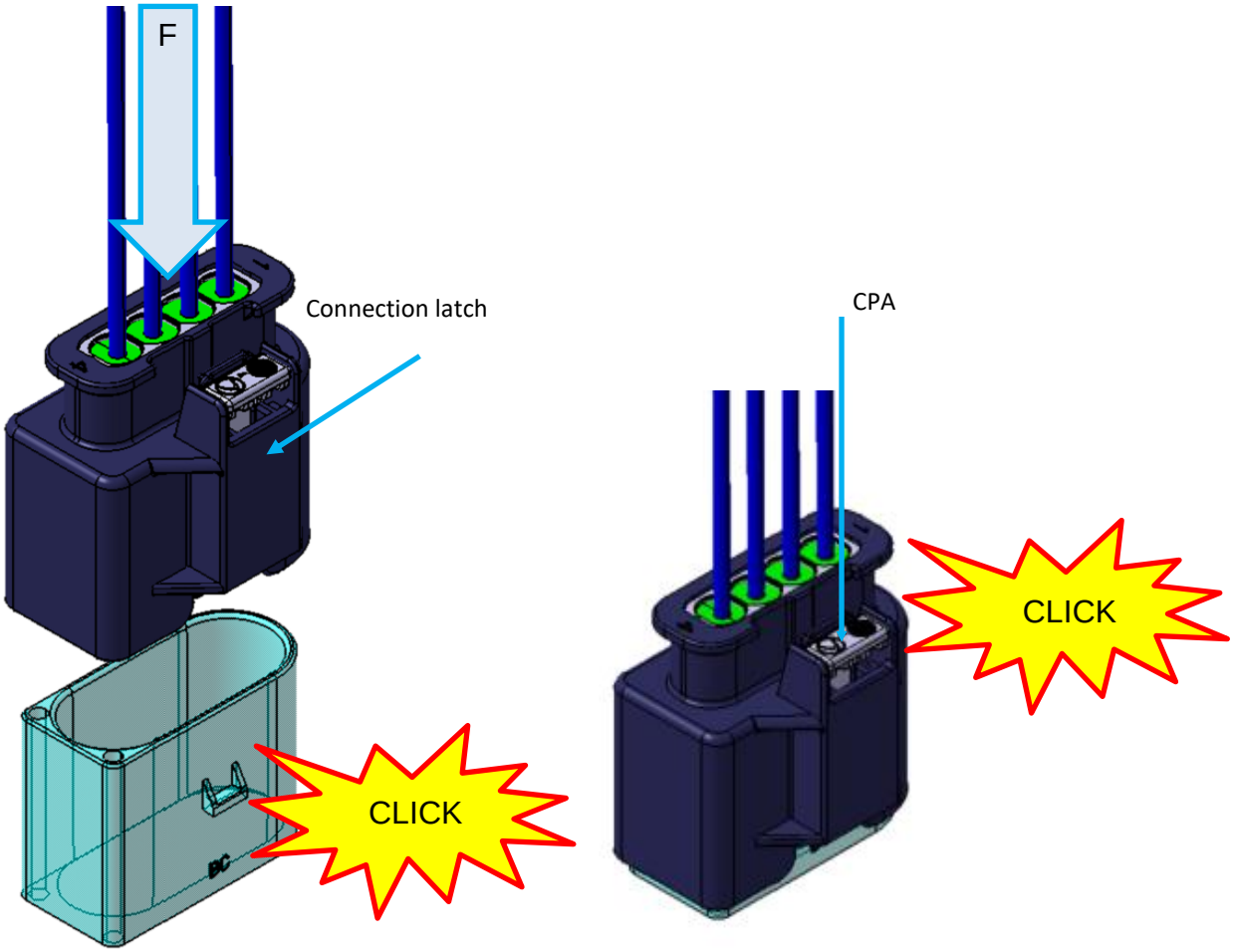
6. Connect and disconnect a Connector

6.1. Connecting the female housing

After correctly mounting the terminals, the connection can be completed by mounting a female connector to it's male counterpart.
Therfore the female connector is pushed upright on its counterpart until an audible click is noticed.

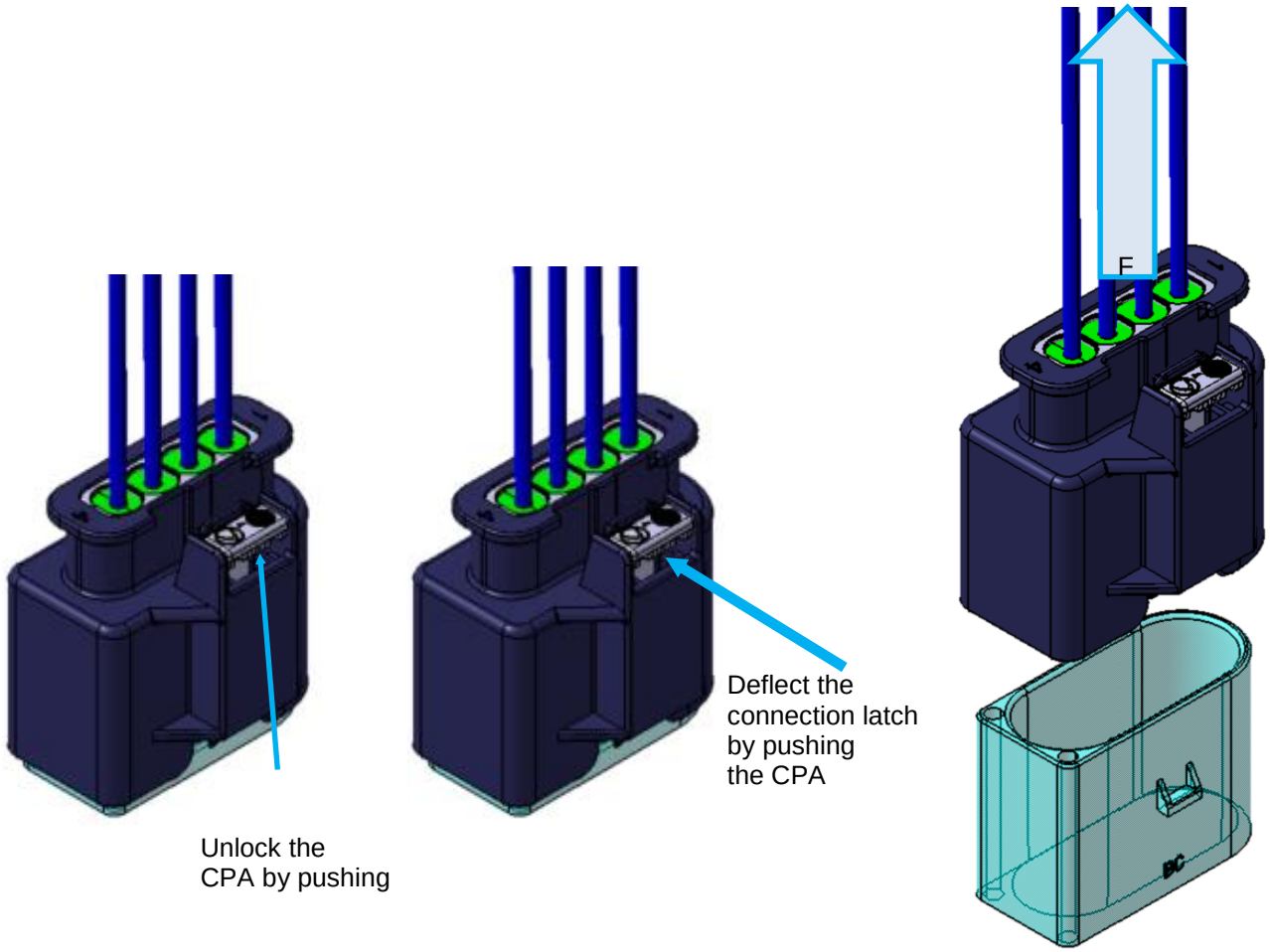
The connection held in place with a form locking.

After actuating the CPA, another audible click can be noticed.



6.2. Disconnecting the female connector

To release the connection, a force has to be applied to the CPA along the direction of the wires. As soon as the CPA snaps back into its pre-locked state, the connection latch has to be actuated by applying a force towards the side of the CPA in the direction of the connector. Additionally the connector has to be pulled off of its male counterpart.



Please be aware that the wires must not in any case be used to apply the pull-force!

7. Index change table

Version	Index	Editing
Rev. 00	First release	Lins