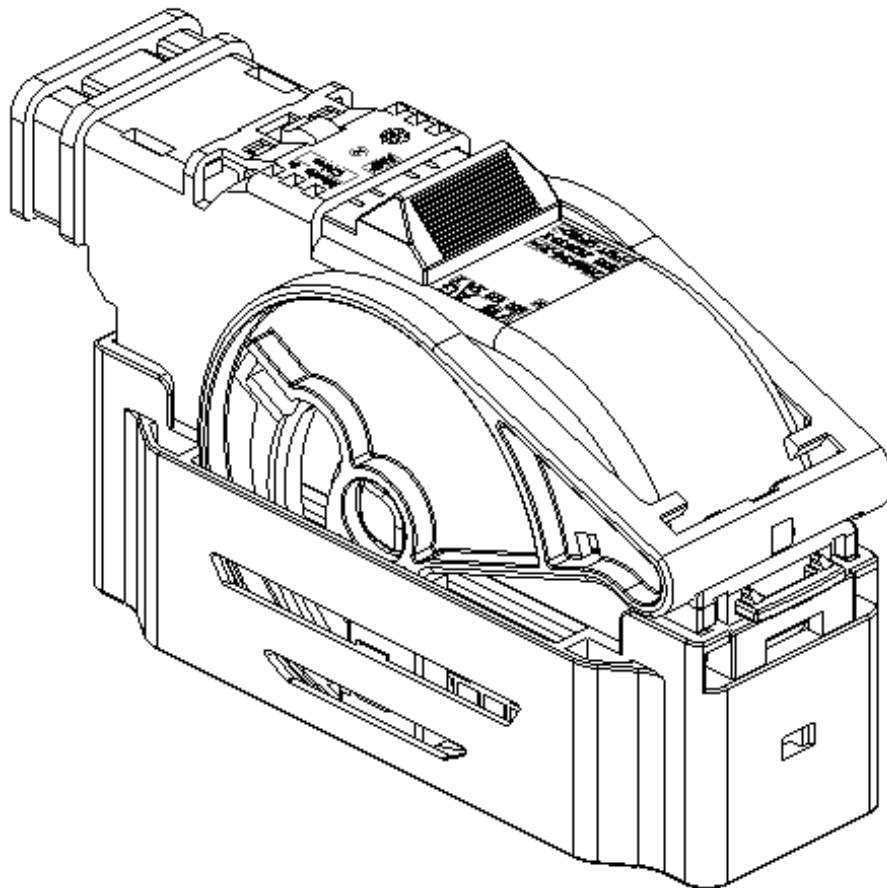


Class 1

**46 POS. MIXED RECEPTACLE HOUSING, ASSY;
4 x AMP MCP 4.8k, 4 x AMP MCP 2.8k & 38 x MCON 1.2 CB**

4 x AMP MCP 4.8k, 4 x AMP MCP 2.8k & 38 x MCON 1.2 CB



Description	TE Nr.:
HSG Assy:	2209520 2354766
Cover assy	2209521

TABLE OF CONTENTS

1.	General	3
1.1.	<i>Purpose</i>	3
1.2.	<i>Customer drawings</i>	3
1.3.	<i>Relevant TE* specifications</i>	4
1.4.	<i>Other documents</i>	4
1.5.	<i>Exploded views</i>	5
1.6.	<i>Cover family seal</i>	6
2.	Insertion and removing of the contacts.....	7
2.1.	<i>Insertion of contacts with tool</i>	7
2.2.	<i>Removing of contacts with tool</i>	8
2.3.	<i>Activation of 2ndary Locking</i>	9
2.4.	<i>Removing of contacts with tool</i>	11
3.	Mounting and removing the cover	12
3.1.	<i>Mounting of the cover.....</i>	12
3.2.	<i>Removing the cover.....</i>	14
4.	Mating and disconnect the coupling.....	15
4.1.	<i>Mating the coupling</i>	15
4.2.	<i>disconnect the coupling</i>	18

1. GENERAL

1.1. Purpose

This specification is a description to use and handle the “46 POS. MIXED RECEPTACLE HOUSING, ASSY”.

.

The specification covers

- a) The general survey of the 46 pos. ABS / ESP connector
- b) The insertion and removing of the contacts
- c) The assembly and disassembly of the cover
- d) The mating and disconnecting procedure of the 46 pos. ESP connector onto the header

1.2. Customer drawings

This specification is based on the latest valid customer drawings

- 46 position ABS / ESP assembly, TE* drawing numbers: 2209520/2354766 & 2209521
- interface specification, TE* drawing number: 114-101028

1.3. Relevant TE* specifications

A.) Product Specifications

108-18782	Product Specification for MCON 1.2 CB
108-18717	Product Specification for AMP MCP 2.8K
108-18718	Product Specification for AMP MCP 4.8K

B.) Application Specification

114-18464	Application Specification for MCON 1.2 CB
114-18387	Application Specification for AMP MCP 2.8K
114-18388	Application Specification for AMP MCP 4.8K

1.4. Other documents

I.	DIN IEC 512	Electromechanical components for electronic equipment, basic testing procedures and measuring methods Edition May 1994
II.	DIN IEC 68	Electrical engineering, basic environmental testing procedures Edition August 1991
III.	VW 751 74 (LV214)	Motor vehicles specification; Test Specification
IV.	VW 801 01	Electrical and electronic devices in motor vehicles – standard terms and conditions
V.	VW 801 06	Plug connection in and on the electrical and electronic devices in motor vehicles

1.5. Exploded views

2209520 & 2354766plug (+ cover family seal)

2209521

Cover family seal

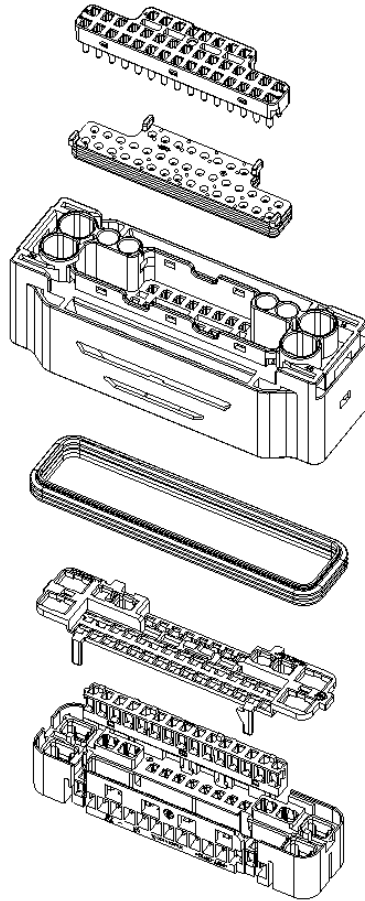
Family seal

Housing 46pos.

Sealing (lip type seal)

Retainer

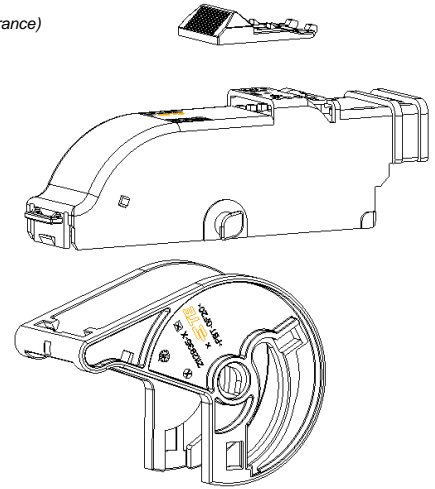
Cavity Blocks



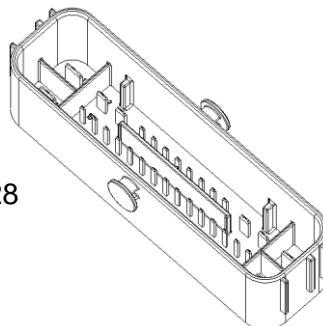
CPA
(Connector Position Assurance)

Cover

Lever

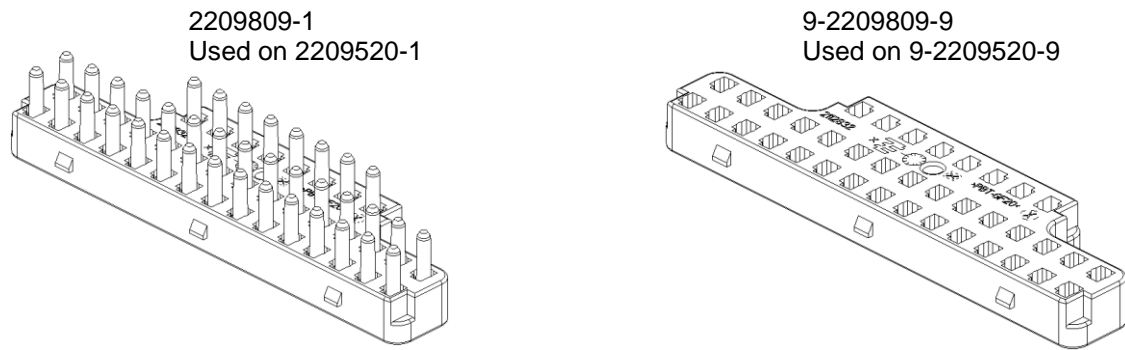


Interface: 114-101028

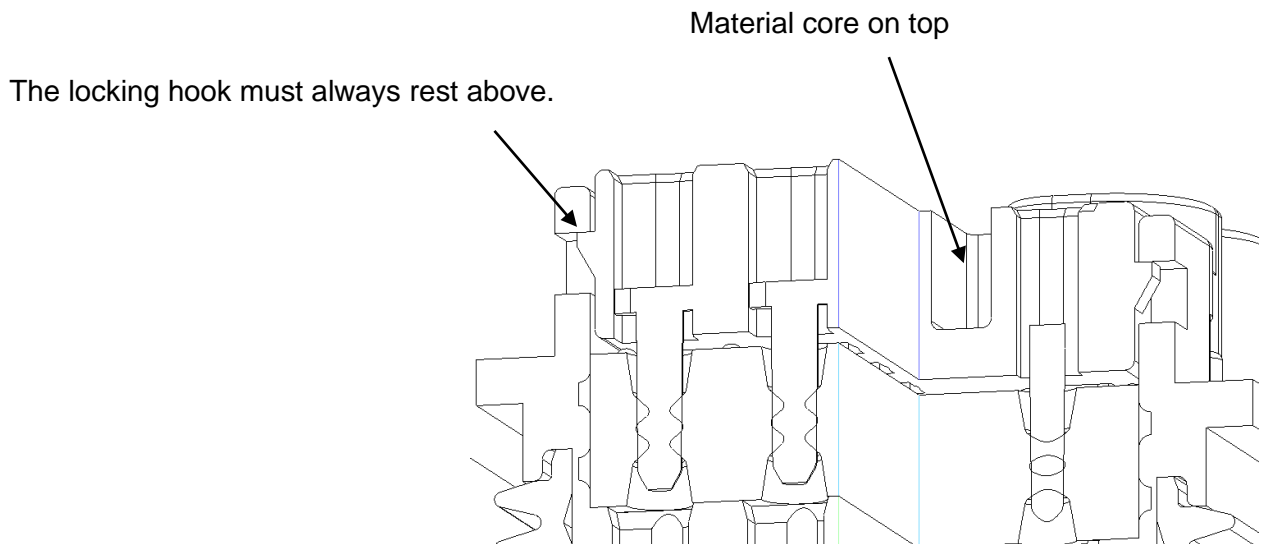


1.6. Cover family seal

The “cover family seal” can be assembled in each variation of sealing pins. For example, the PN 2209520-1 can be used, if no MCON 1,2 CB connectors are required. The PN 9-2209520-9 is for the fully armed connector without sealing pins.



In order to ensure the tightness of the plug, the “cover family seal” must be installed accurately. It will be done in TE*.



2. INSERTION AND REMOVING OF THE CONTACTS

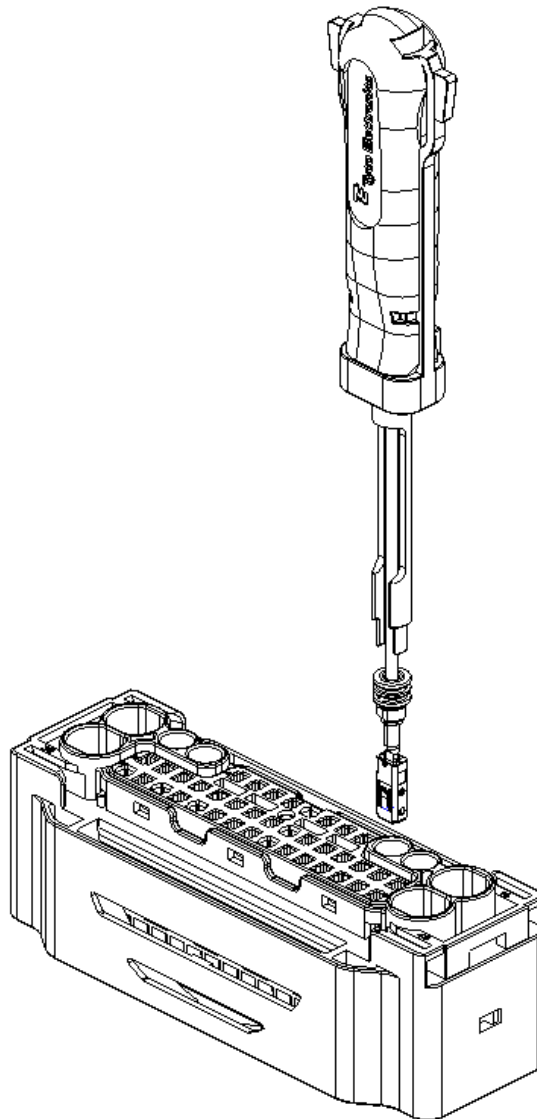
For most TE* contacts there are tools, which enable simple installation and disassembly. Each contact system requires its own tools.

For details and Part/Order-No. of these tools see the application specification of the particular contact. (point 1.3 relevant specifications)

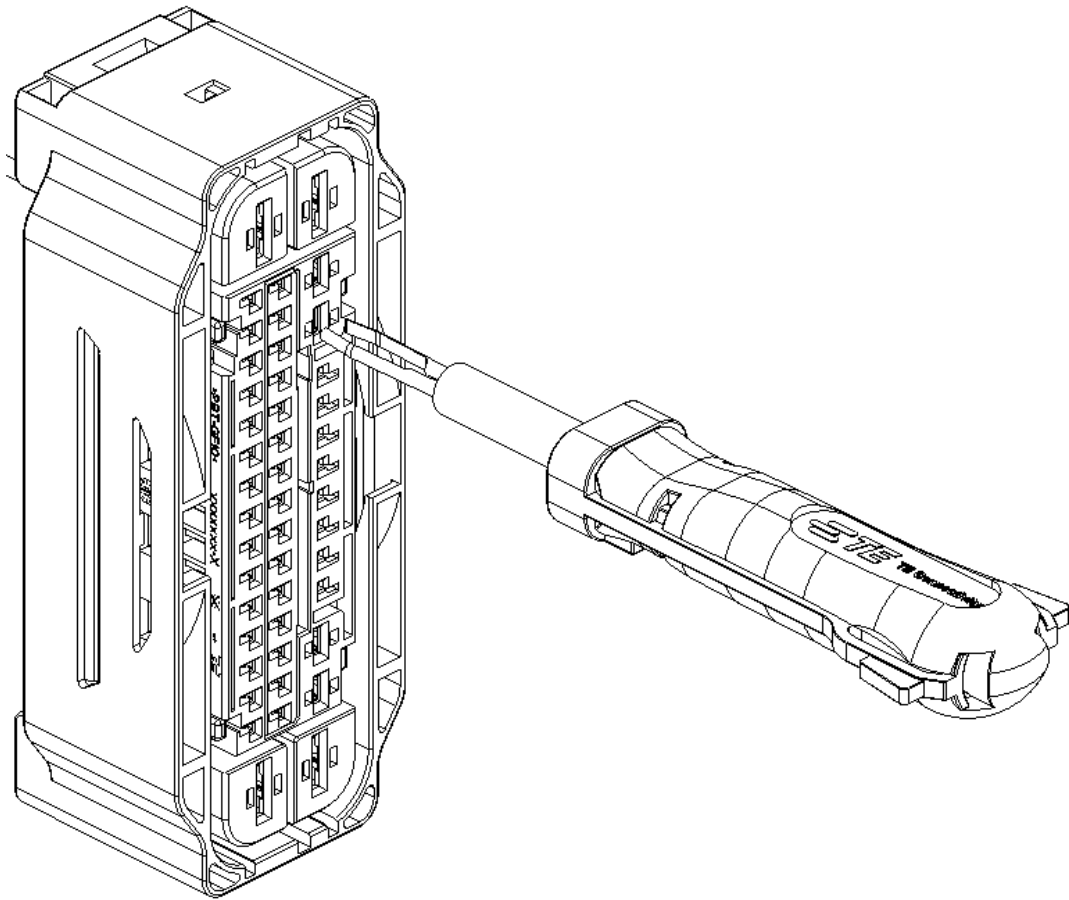
Attention: In case of the MCON 1.2 CB with family seal there is no insertion tool.

2.1. Insertion of contacts with tool

Exemplary display with AMP MCP2.8K

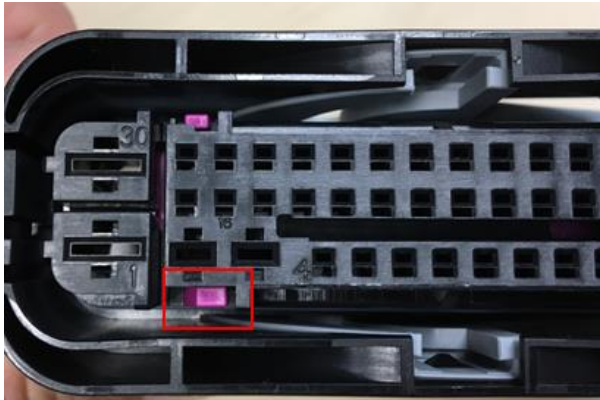
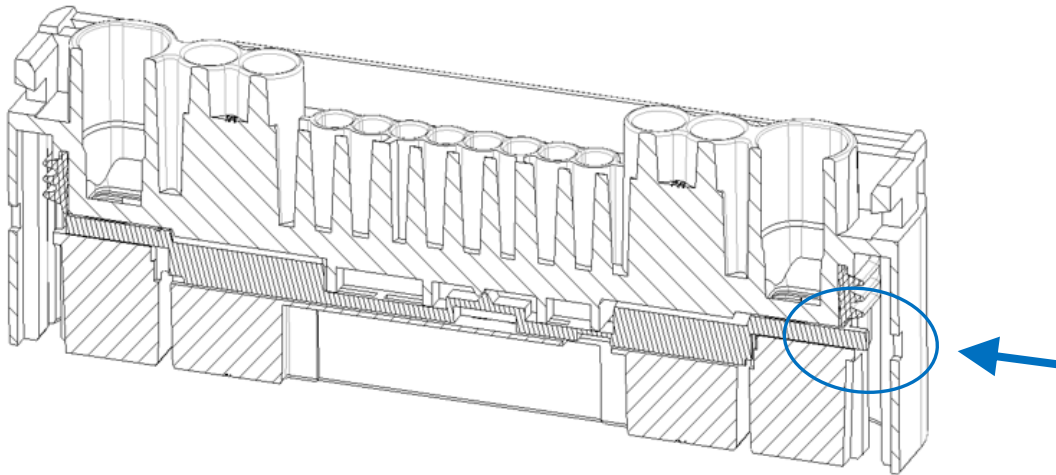


2.2. *Removing of contacts with tool*

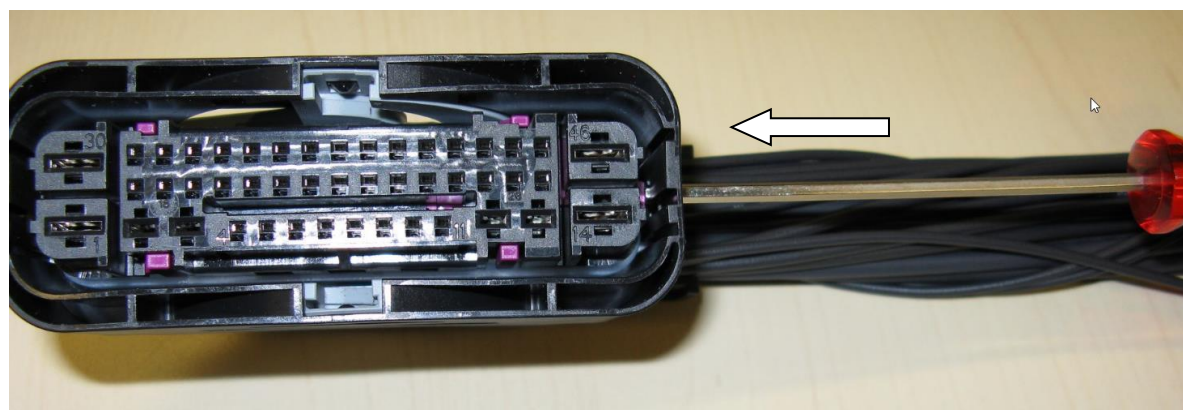
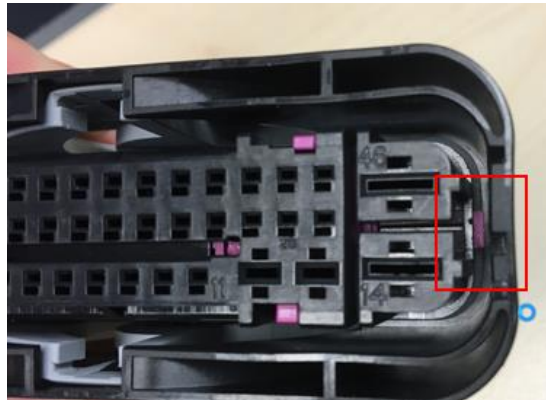


The extraction of each contact is possible with the correct tool, there are no restrictions regarding the sealing system (contacts sealed with family seal are also removable).

2.3 Activation of 2ndary Locking



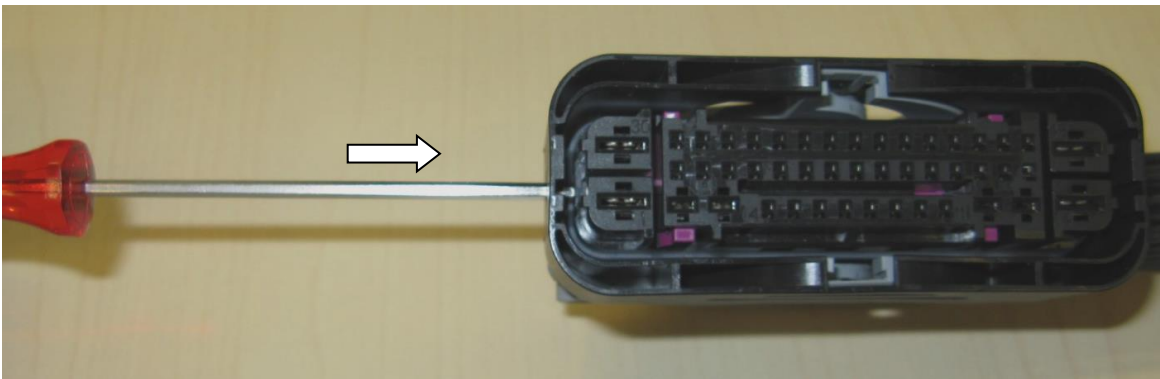
Retainer in open position



Closing of the retainer



Retainer in closed position

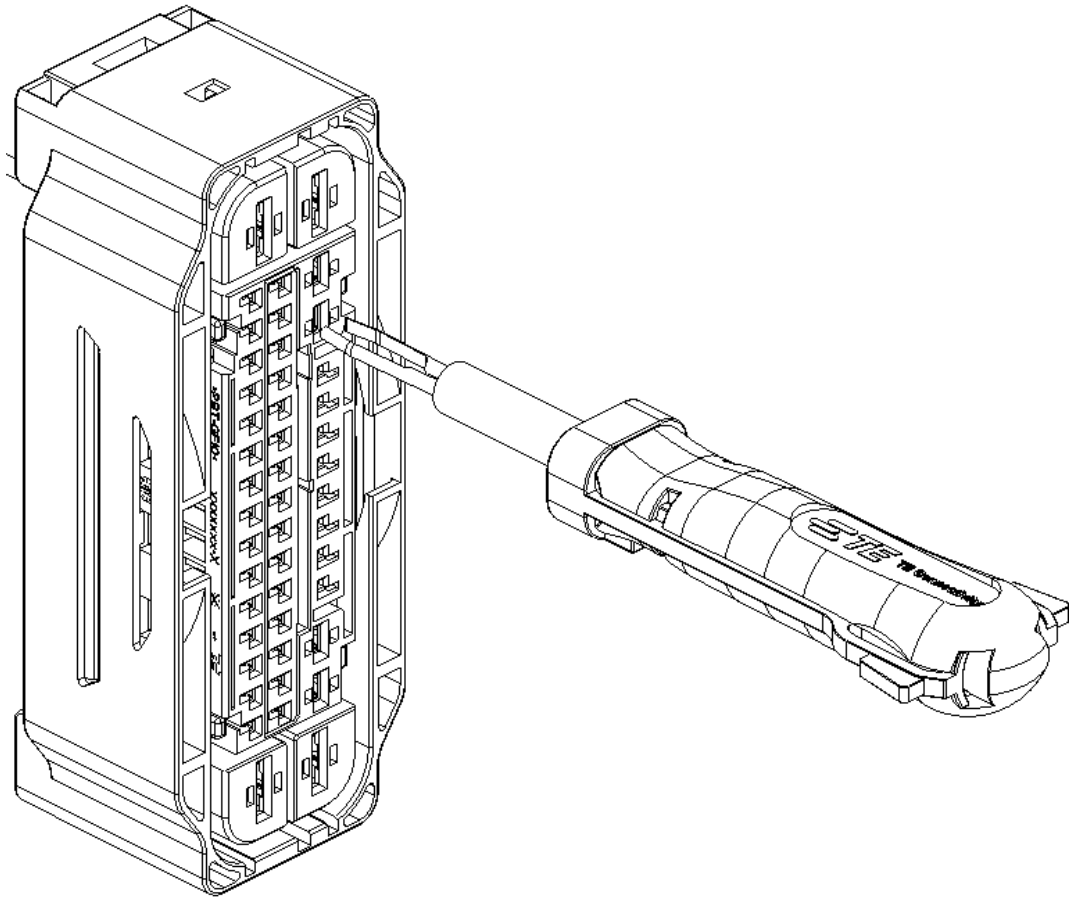


The activation of the 2ndary locking is done by moving the retainer in the shown arrow-direction to the end-locked position (way 1.3mm). Activation can be done by touching at one of the both marked positions. Recommended is a blade 3mmx1mm or similar. Deactivation can be done in opposite direction if necessary.

Before terminal insertion if the retainer in closed position please pull it to open position (if necessary).

The test-pins for electrical testing of loaded housings are described in specification 114-18139-11.

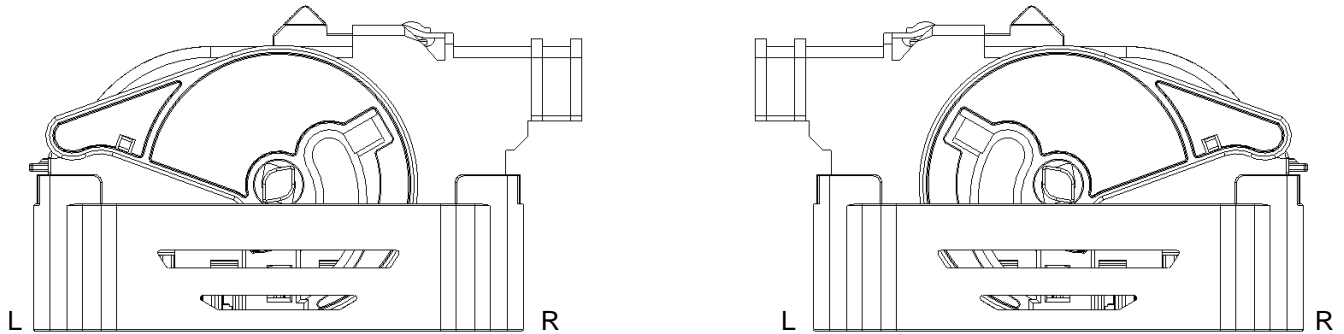
2.4 Removing of contacts with tool



The extraction of each contact is possible with the correct tool, there are no restrictions regarding the sealing system.

3. MOUNTING AND REMOVING THE COVER

The cover can be mounted from the left- or the right-hand side of the housing. The direction depends on the required cable outlet of the application.

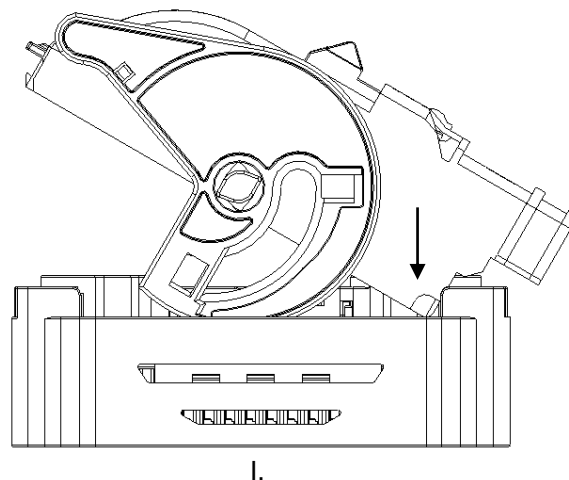


3.1. Mounting of the cover

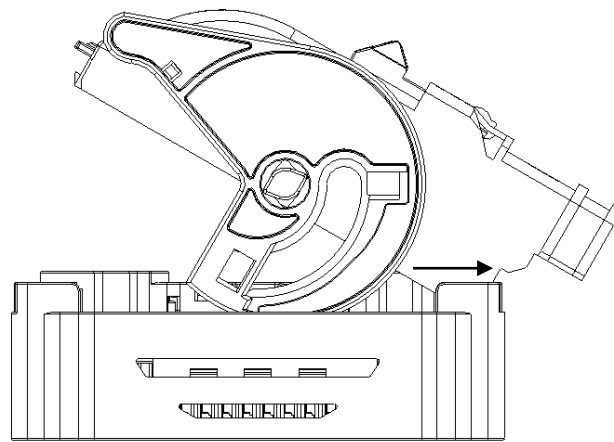
The following steps for the assembly operation are necessary.

- I.) Attach the cover in the correct position on the surface of the housing. The contacts and the cables are assembled, a particular force is necessary during this process.

Attention: All cables must be correctly positioned in the cable outlet.

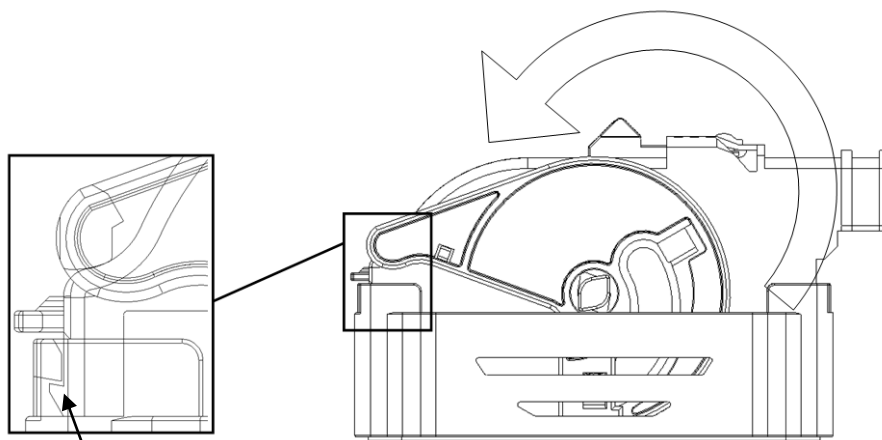


II.) Move the cover to the end position of the housing.



II.

III.) Press down the cover to the end position. After this step, the catch mechanism must be locked.



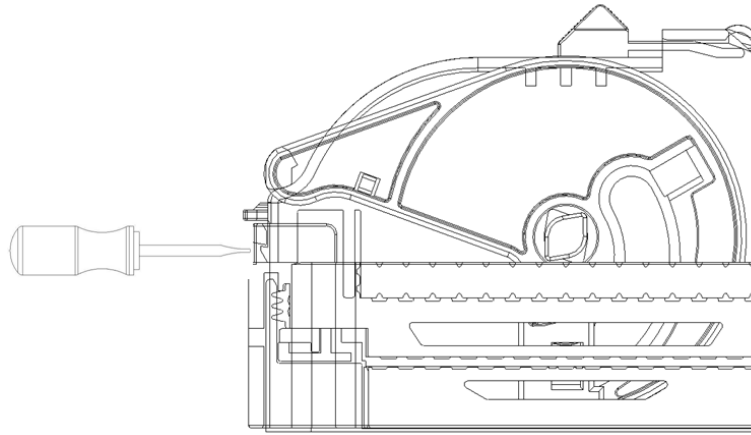
III.

The snap fit has to be closed

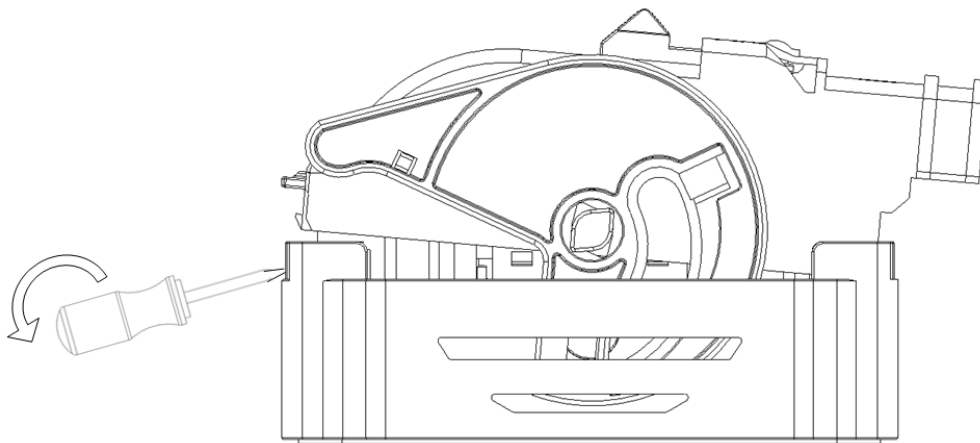
IV.) Fix the cables with a cable strap at the cable outlet

3.2. Removing the cover

The cover can be removed with a simple screwdriver.



1.) press into the snap fit of the cover

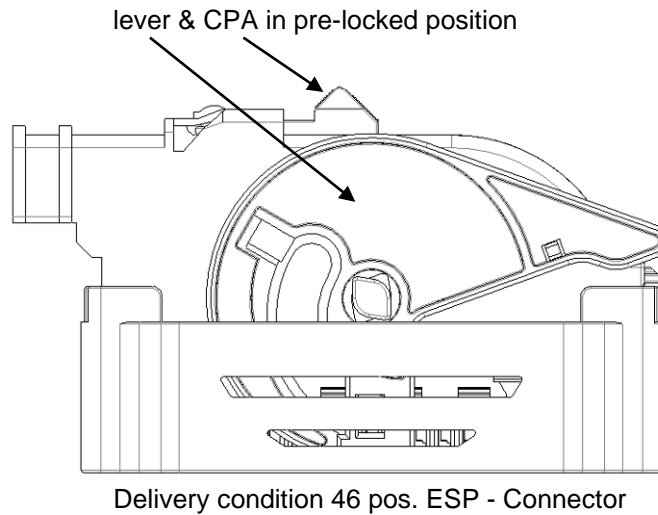


2.) prise the cover out of the housing

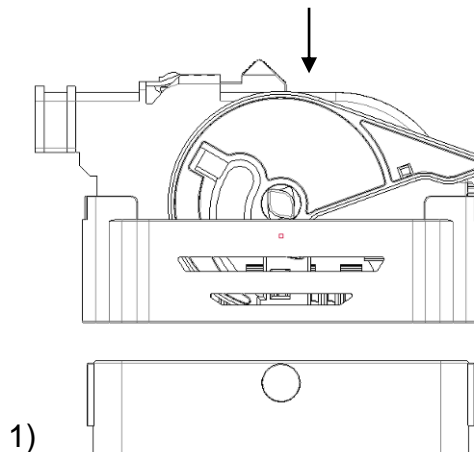
4. MATING AND DISCONNECT THE COUPLING

4.1. Mating the coupling

Before putting the ESP connector onto the header, the lever must be in pre-locked position.

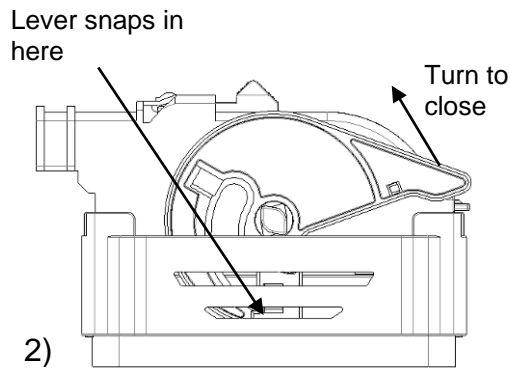


- 1.) When the connector is put horizontally onto the header, the lateral pins of the header slide into the guide slots of the connector housing.

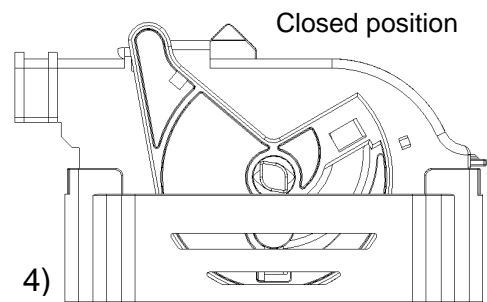
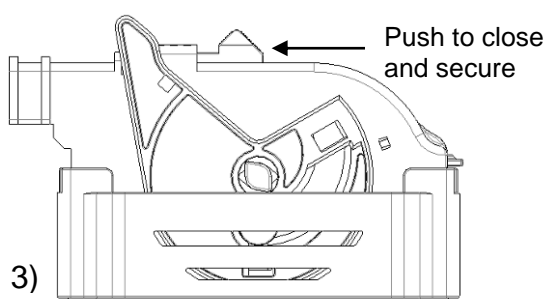


- 2.) The connector has to be held in parallel position to the interface by pressing on the cover until the lever is fully locked.

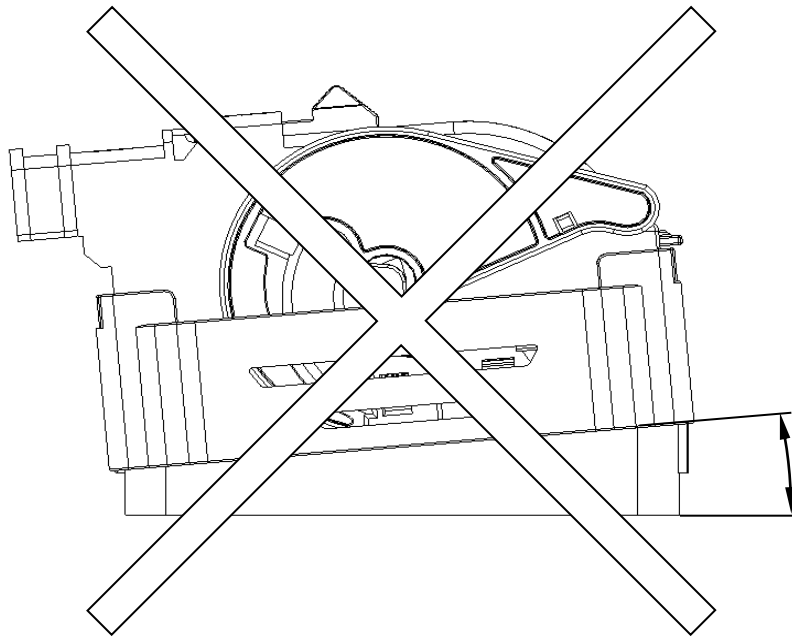
Turn the lever 120° until it stops with an audible click.



- 3.) To secure the lever, push the CPA from pre-locked position to end-locked position.

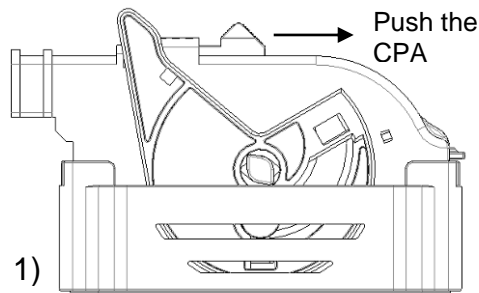


Attention: Don't put the connector on the header at an angle as shown. The connector will be pluggable only with high forces and as a result the function could be impaired (for example: water-tightness or the connector could be destroyed).



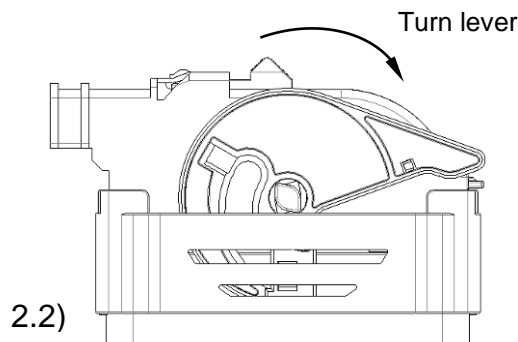
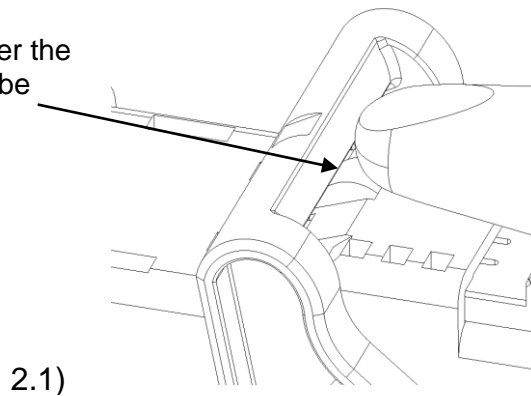
4.2. Disconnect the coupling

- 1.) To disconnect the coupling press the CPA from end-locked to pre-locked position.



- 2.) Turn the lever from the end-locked position to the pre-locked position, during this operation the receptacle connector lifts off from the interface.

Before turning the lever the locking device has to be pressed.



3.) The receptacle housing can be removed from the interface.

