

**For Adam Opel AG, their suppliers and
System manufacturers only**

Contents

	Page
1 General	
1.1 Purpose	2
1.2 Customer Drawing	2
1.3 Product specification	2
2 Product Description	
2.1 Description of components	3
3 Assembly cable harness	
3.1.1 Equip Socket housing with JPT-A- socket terminals	4
3.1.2 Close secondary locking device	5
3.2.1 Equip tab housing with 2.8x0.8mm tab terminals	7
3.2.2 Close secondary locking device	8
3.3 Equip corrugated tube and close cover (socket- and tab housing)	9
3.4 Equip harness grommet on secondary locking device	11
3.5 Fixing cable with cable tie on secondary locking device	12
4 Troubleshooting on assembly cable harness	
4.1 Remove harness grommet	13
4.2 Remove cable tie	14
4.3 Open cover and remove corrugated tube (socket- and tab housing)	15
4.4 Remove secondary locking device from socket housing	
4.4.1 - with CPA feature	16
4.4.2 - without CPA feature	18
4.5 Remove JPT-A- contacts from socket housing	20
4.6 Remove secondary locking device from tab housing	22
4.7 Remove 2.8x0.8mm terminal from tab housing	23
5 Assembly	
5.1 Assembly tab housing in metal bracket	25
5.2 Assembly tab housing in clip opening	27
6 Final Assembly inline connector	
6.1 Connecting tab- and socket housing	30
6.1.1 - with / without CPA feature	30
7 Reassembly inline connector	
7.1 Opening from tab- and socket housing	32
8 Reassembly of tab housing	
8.1 Remove tab housing from metal bracket	33
8.2 Remove tab housing from clip opening	35

1 General

1.1 Purpose

This specification describes the necessary work flow at :

- a) Assembly the socket housing at cable harness
- b) Assembly the tab housing at cable harness
- c) Opening socket housing from cable harness
- d) Opening tab housing from cable harness
- e) Assembly tab housing on metal bracket opening / clip
- f) Opening and closing of inline connector
- g) Reassembly of tab- socket housing from sheet metal- clip opening

1.1 Customer drawing

Basis of this application specification is the last actual Customer drawing.

JPT -A- socket housing, 6 pos., with sealing	1452327
2,8x0,8mm tab housing 6 pos.	1452324
secondary locking device	1452325 / 1452542
extraction tool for JPT-A- socket- and 2,8x0,8mm tabs	726548

MT II -A- socket housing , 10 pos., with sealing	1452545
1,6x0,6mm tab housing 10 pos.	1452546
Secondary locking device	1452325 / 1452542
Extraction tool for MT II-A- socket- and 1,6x0,6mm tabs	726534

1.2 Product Specification

This application specification is valid for products specified with product specification 108-18793

This application specification is valid for products specified with product specification 108-18816

2 Product Description

2.1 Description of components

The assembly is figurative shown with the inline connectors JPT-A-/Tab 2.8mm cause application for MT II -A- is the same flow of work

Following components are included for a connection:

- a) Secondary locking device with corrugated tube or cable grommet / cable screwing

Tyco-order-no.: 1452325

Tyco-order-no.: 1452542

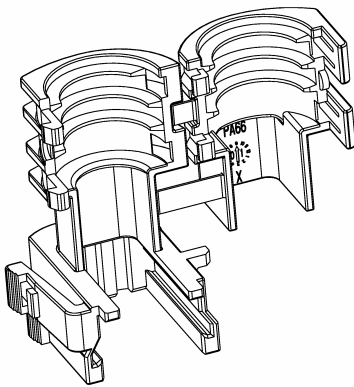


Fig.1

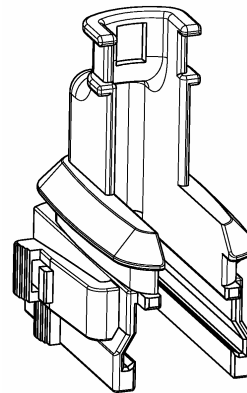


Fig.2

- b) JPT -A- socket housing, 6 pos., with sealing

Tyco-order-no.: 1452327

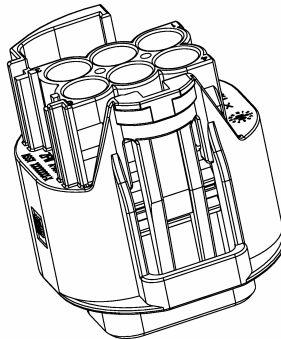


Fig.3

- c) 2,8x0,8 mm-tab housing, 6 pos.

Tyco-order-no.: 1452324

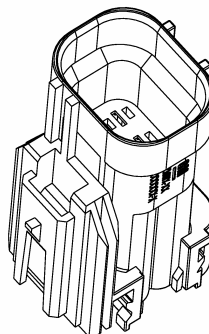


Fig.4

3 Assembly cable harness

3.1.1 Equip socket housing with JPT –A- socket terminals

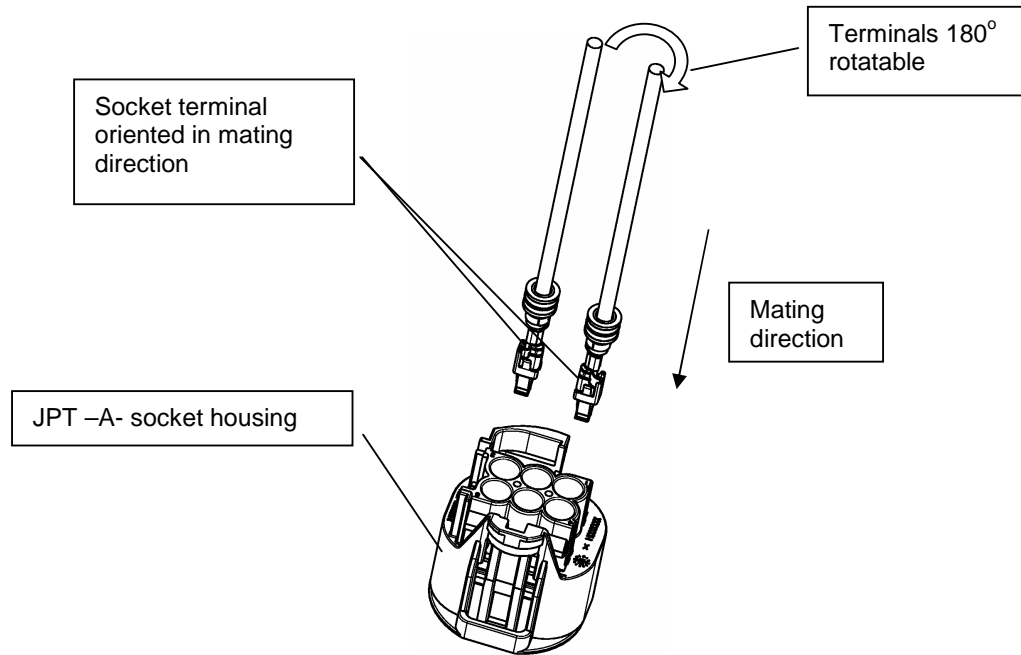


Fig.5

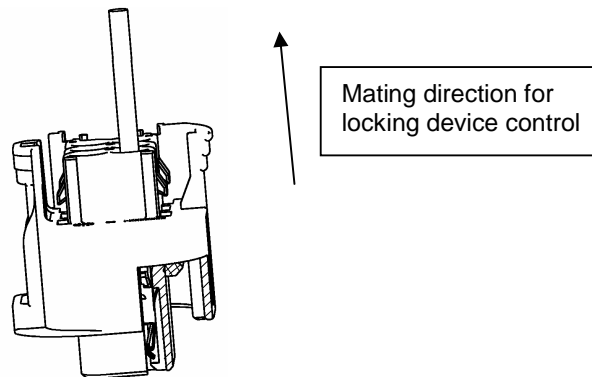


Fig.6

Fig.5
Equip socket housing with Junior Power Timer terminals
The Junior Power Timer terminals, according to Tyco customer drawing have to be plugged orientated in cavity of socket housing till stop.
The locking lance of the terminals locked audibly in cavity.

Fig.6
After each plugging the locking has to be controlled by a tight pull against mating direction. An optical control of the single wire sealing in the cavities is also necessary.

ATTENTION!
If a cavity is not arranged with a terminal the cavity has to be plugged with a dead end plug for water protection.

3.1.2 Close secondary locking device

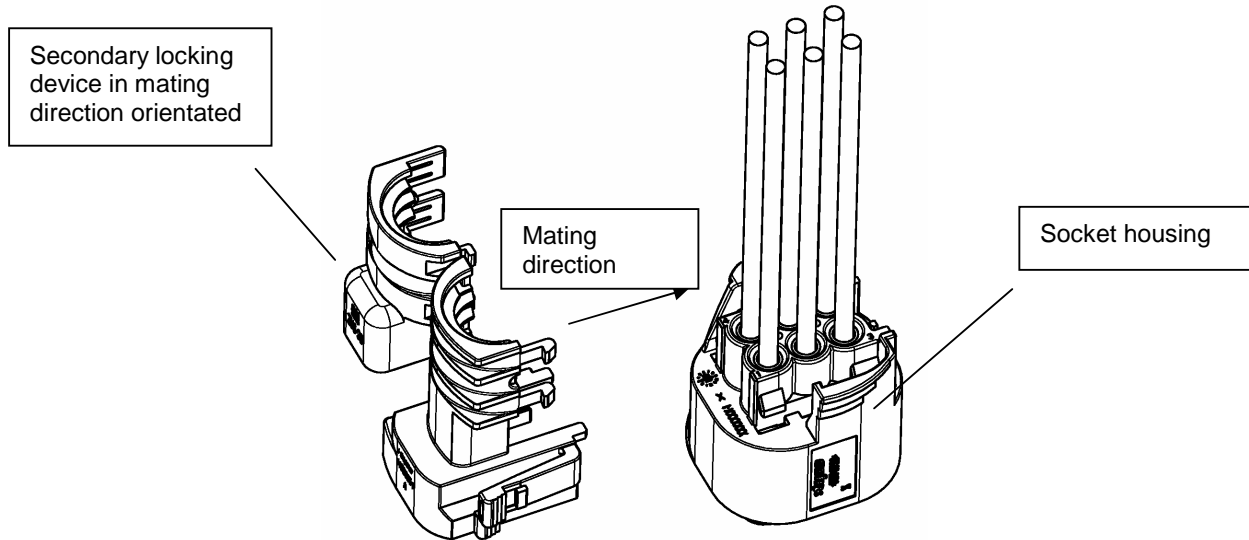


Fig.7

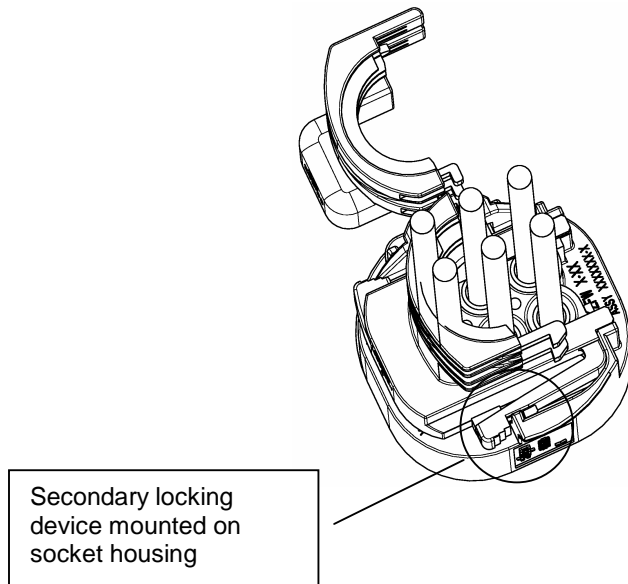
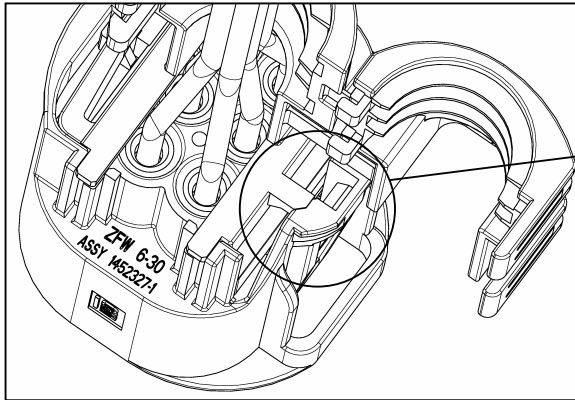
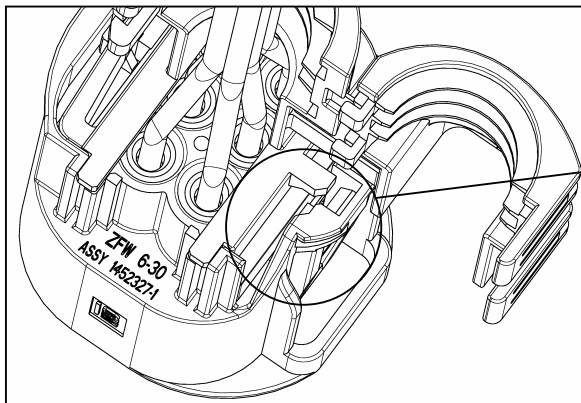


Fig.8



Secondary locking device *with* CPA-function in end position.
Locking latch **is blocked**

Fig.9



Secondary locking device *without* CPA-function in end position.
Locking latch **is not blocked**.

Fig.10

Fig.7 and 8
Mounting the secondary locking device like shown in Fig.7 orientated on socket housing until it's locked.

Fig.9 and 10
Function of secondary locking device *with* CPA-function see Fig.9
Function of secondary locking device *without* CPA-function see Fig.10

3.2.1 Equip tab housing with 2,8x0,8mm tab terminals

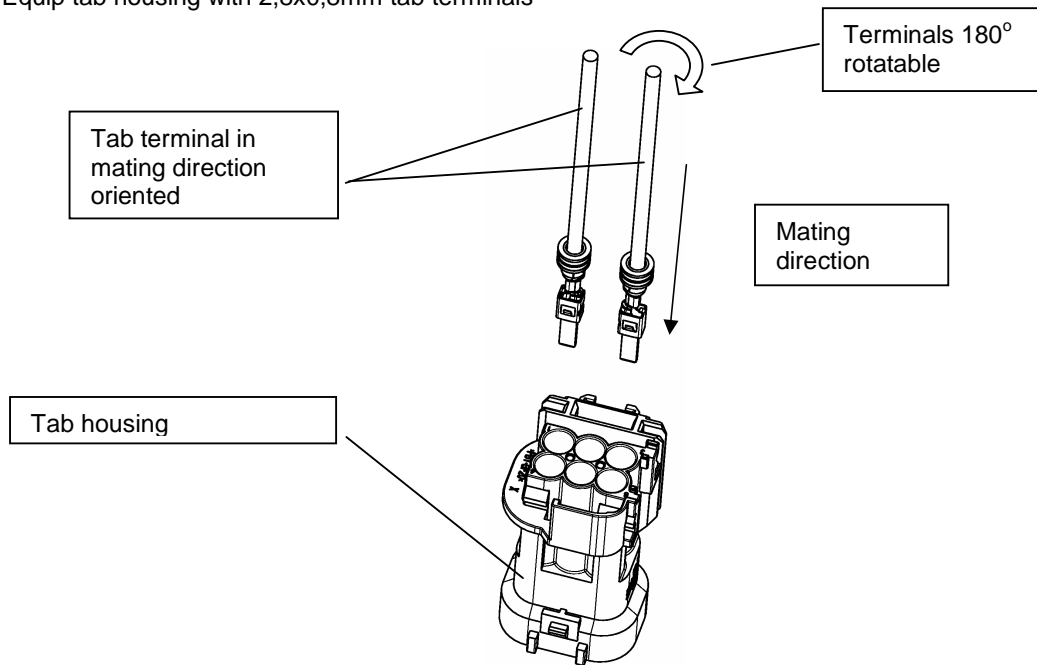


Fig.11

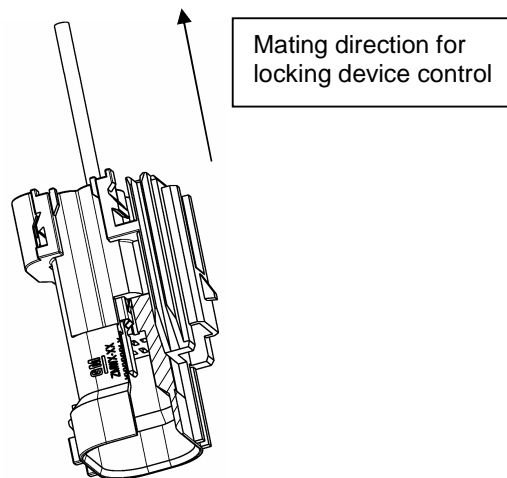


Fig.12

Fig.11

Equip tab housing with 2.8x0,8 mm terminals

The 2,8x0,8 mm terminals, according to Tyco customer drawing have to be plugged orientated in cavity of socket housing till stop. The locking lance of the terminals locked audibly in cavity.

Fig.12

After each plugging the locking has to be controlled by a tight pull against mating direction. An optical control of the single wire sealing in the cavities is also necessary.

ATTENTION!

If a cavity is not arranged with a terminal the cavity has to be plugged with a dead end plug for water protection.

3.2.2 Close secondary locking device

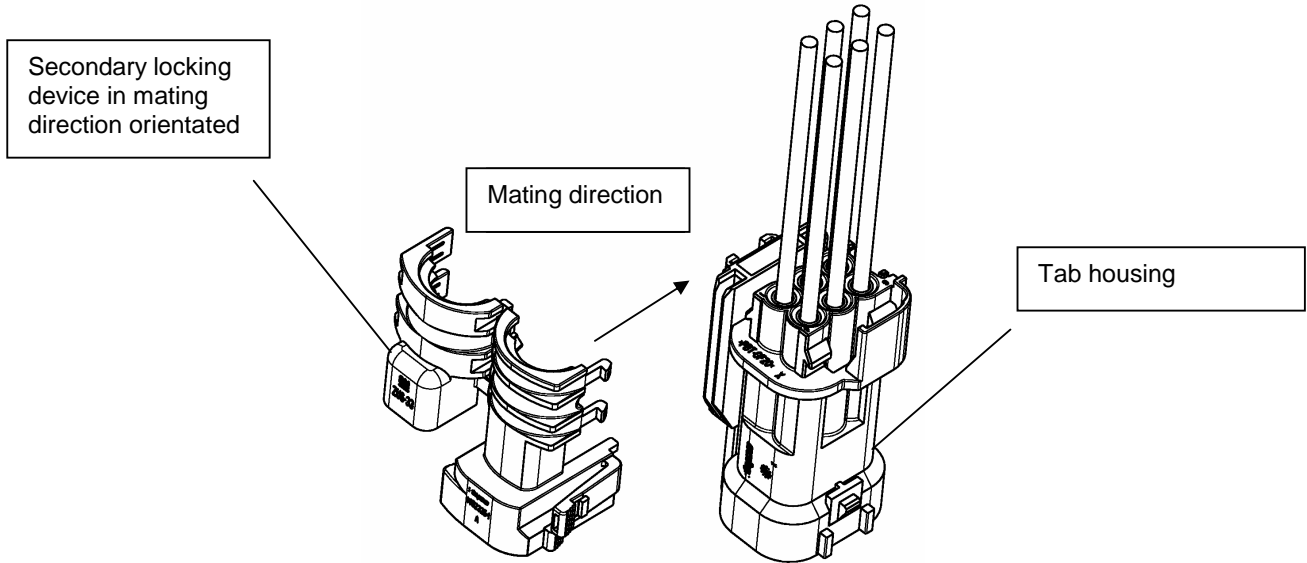


Fig.13

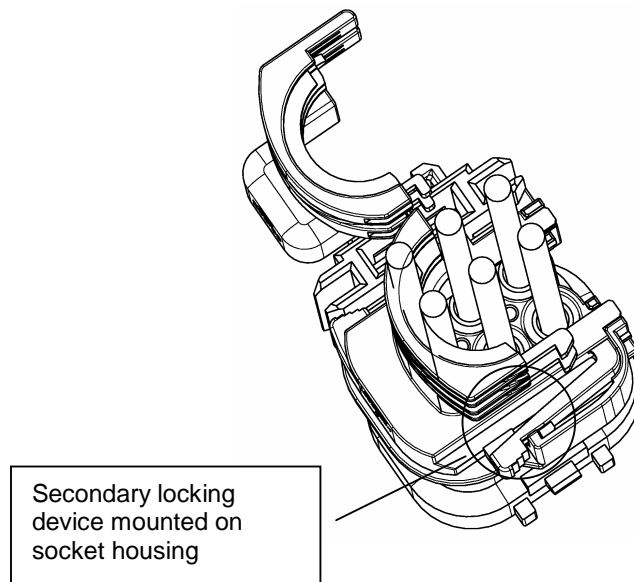


Fig.14

Fig.13 and 14

Mounting the secondary locking device like shown in Fig.13 orientated on socket housing until it's locked.

3.3 Equip corrugated tube and close cover (socket- and tab housing)

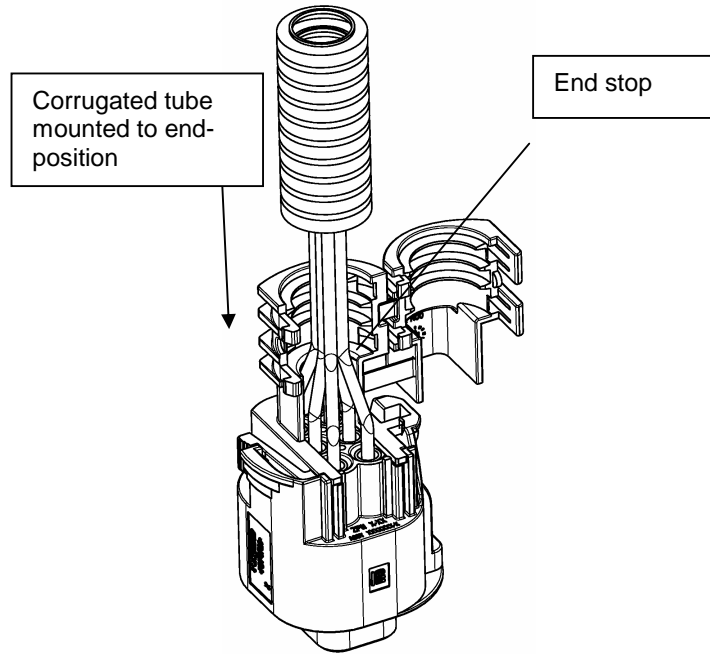


Fig.15

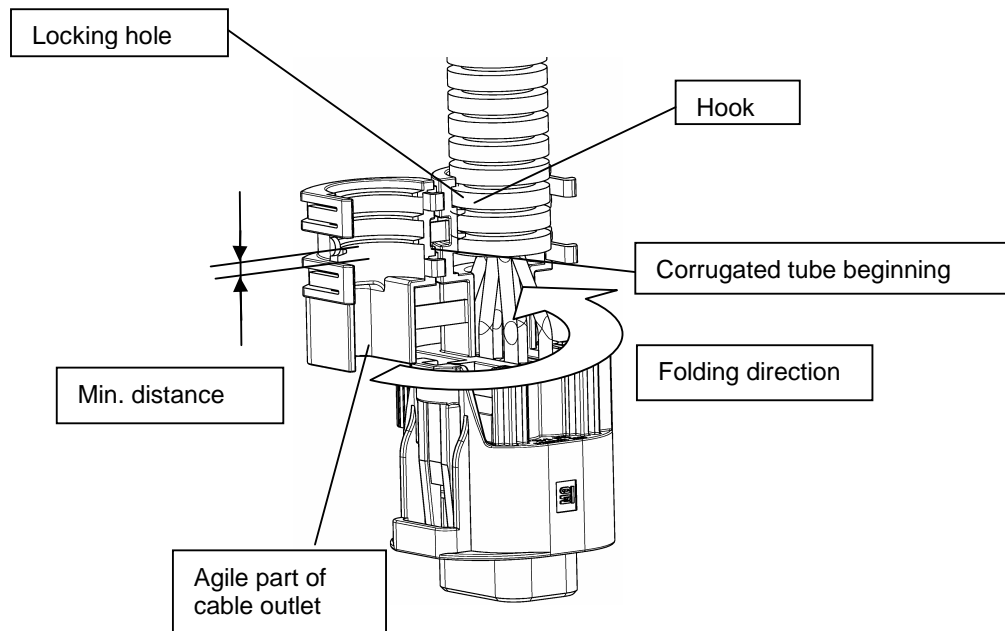


Fig.16

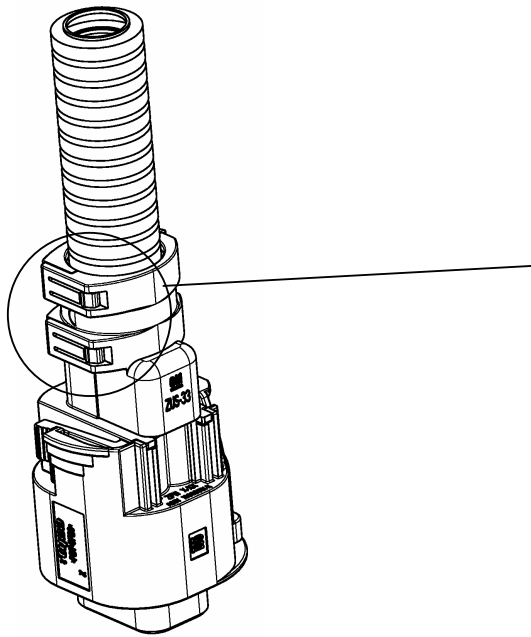


Fig.17

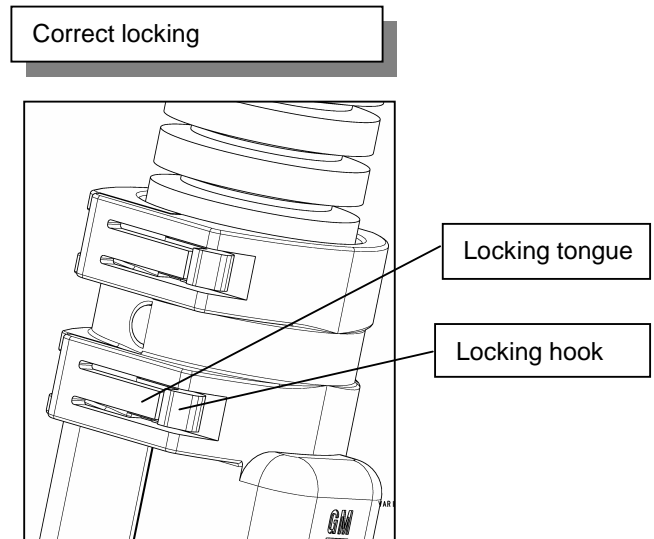


Fig.18

Fig.15

Corrugated tube mounted on cables until end stop.
The groves of corrugated tube swiveled into the groves of the secondary locking device.

Fig.16

Take care for the minimum distance between corrugated tube and secondary locking device.

Attention: *To make sure not to damage the cable sheath no sharp edges on the corrugated tube are admitted!*

The agile part of the cable outlet is mounted with his hook in the locking hook and closed in shown mounting direction.

This is only possible if the corrugated tube is mounted correct like shown in Fig.15

*Fig.17 and 18

To control the end position you can see the locking hook behind locking tongue.

Cause of small tolerances it's necessary to push the locking hook's behind the locking tongues

3.4 Equip harness grommet on secondary locking device

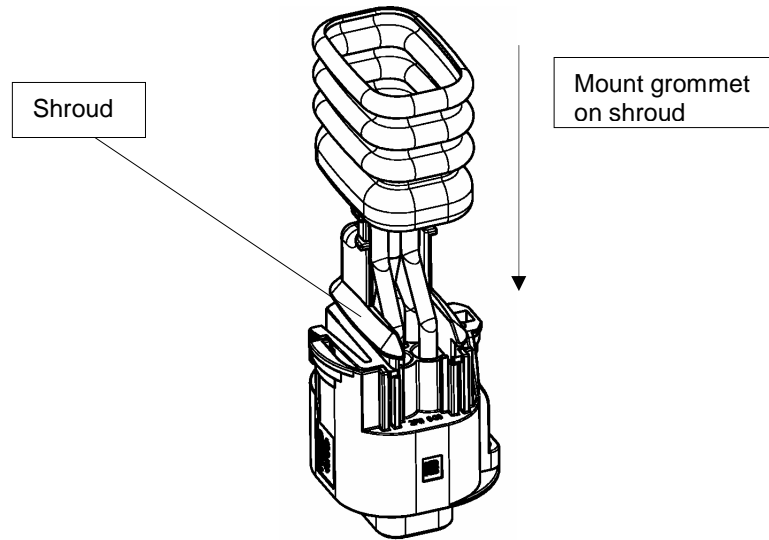


Fig.19

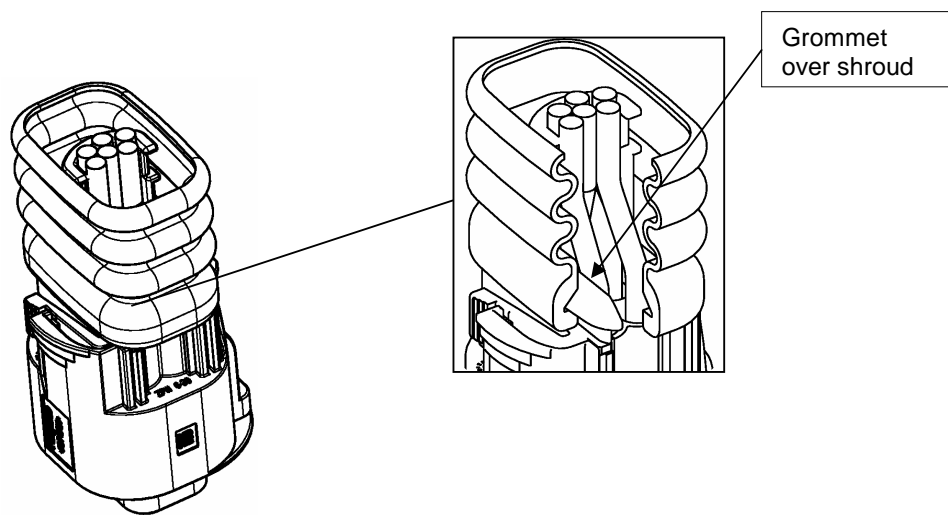


Fig.20

Fig.19
Push grommet over cables. Pull grommet over shroud carefully.

Fig.20
The position of the grommet has to be checked around.

3.5 Fixing cable with cable tie on secondary locking device

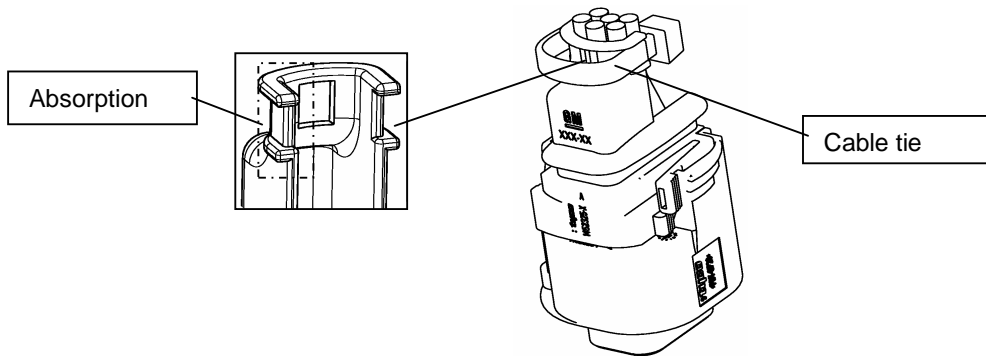


Fig.21

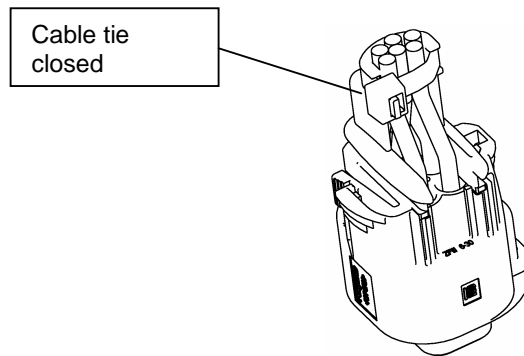


Fig.22

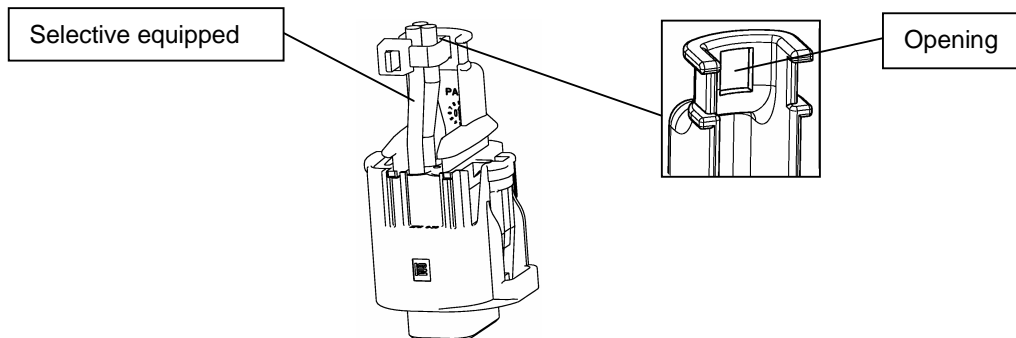


Fig.23

Fig.21
Place the cable tie over the cables and close carefully. Fix cable tie in shown position (see Fig.22).

Fig.23
In case of selective equipped connectors or small cable section bear the cable tie to the opening of the secondary locking and close careful.

4 Troubleshooting on assembly cable harness

4.1 Remove harness grommet

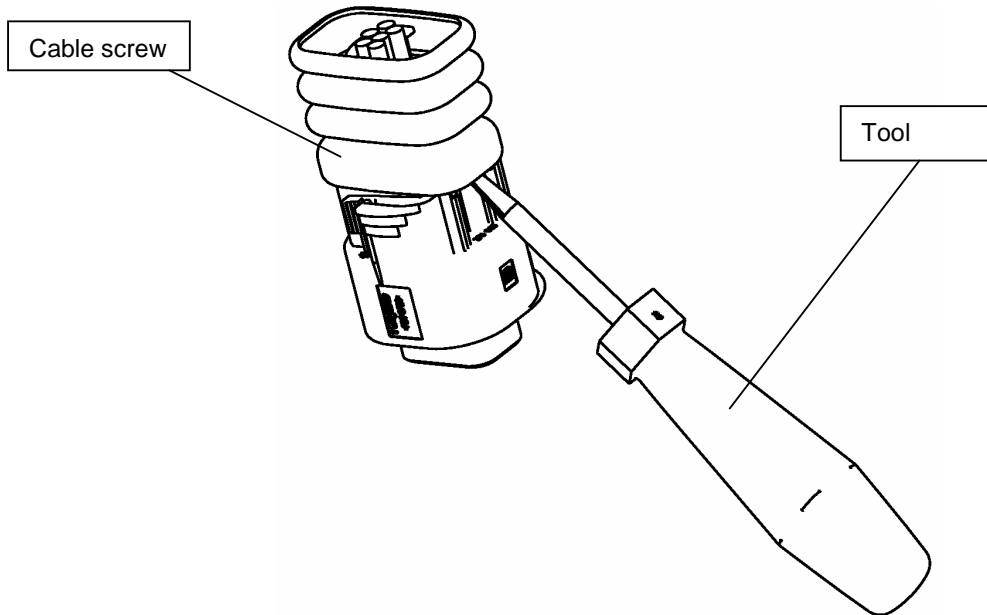


Fig.24

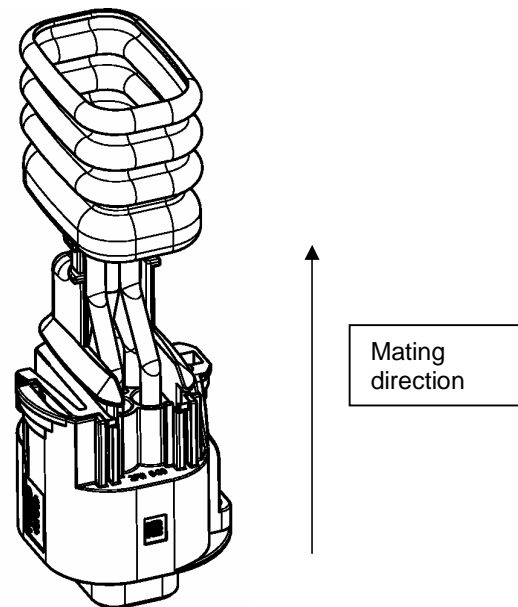


Fig.25

Fig.24
To remove the grommet, amplify the skirt with a non sharp tool and pull carefully.

Fig.25
Remove the grommet in mating direction.

Attention: Take care not to damage the cable sheath.

4.2 Remove cable tie

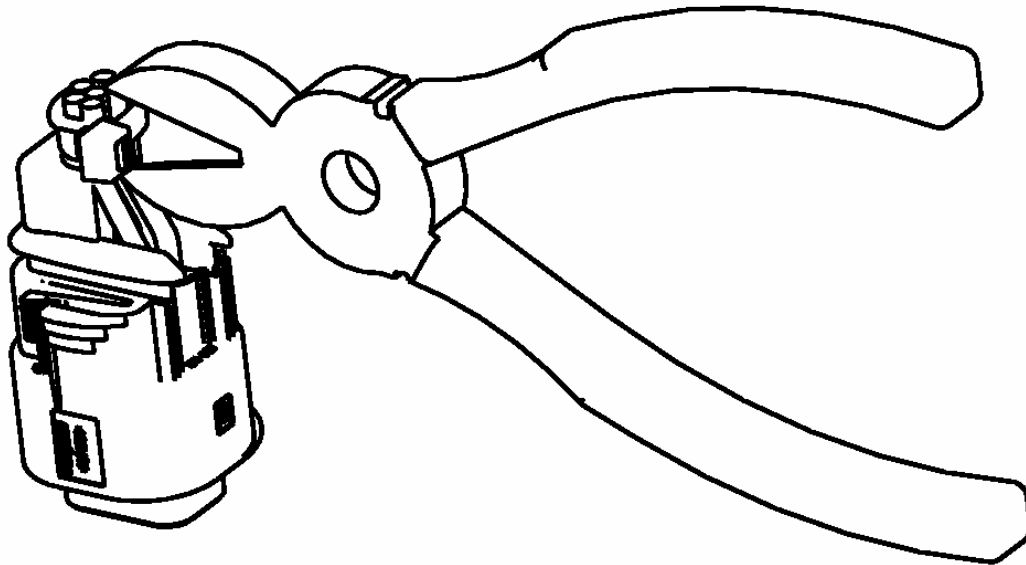


Fig.26

Fig.26
To remove the cable tie cut it with a tool like knife or nipper.

Attention: Take care not to damage the cable sheath.

4.3 Open cover and remove corrugated tube (socket- and tab housing)

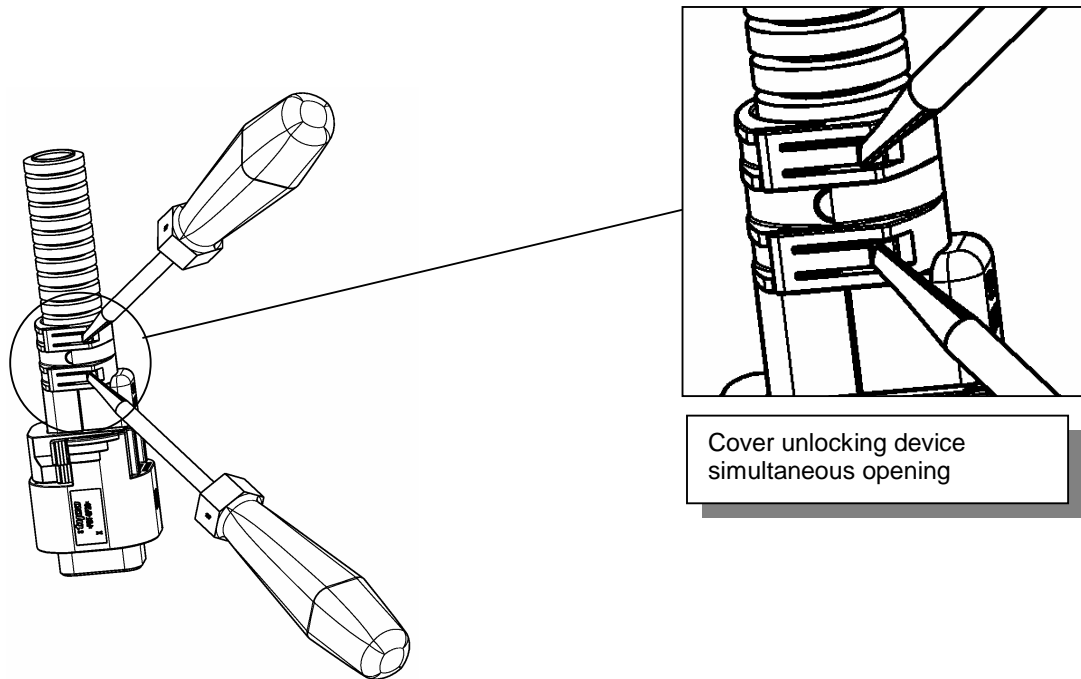


Fig.27

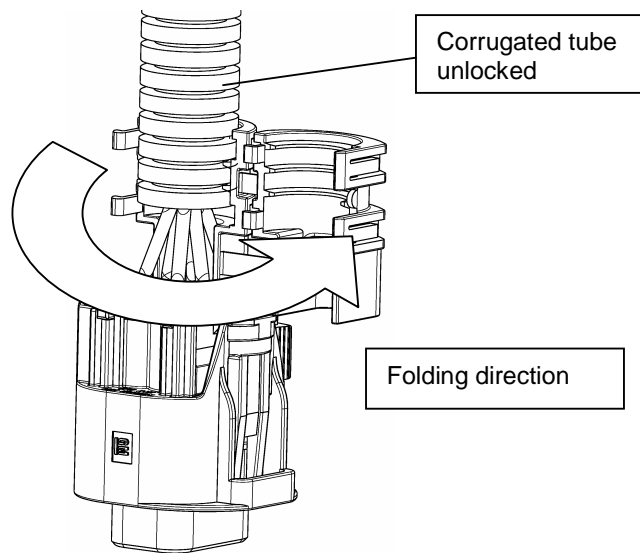


Fig.28

Fig.27
Unlock the locking on corrugated tube with two tools.

Fig.28
Keep the position and turn one side of the cover until the corrugated tube is free.

4.4 Remove secondary locking device from socket housing

4.4.1 -with CPA-feature

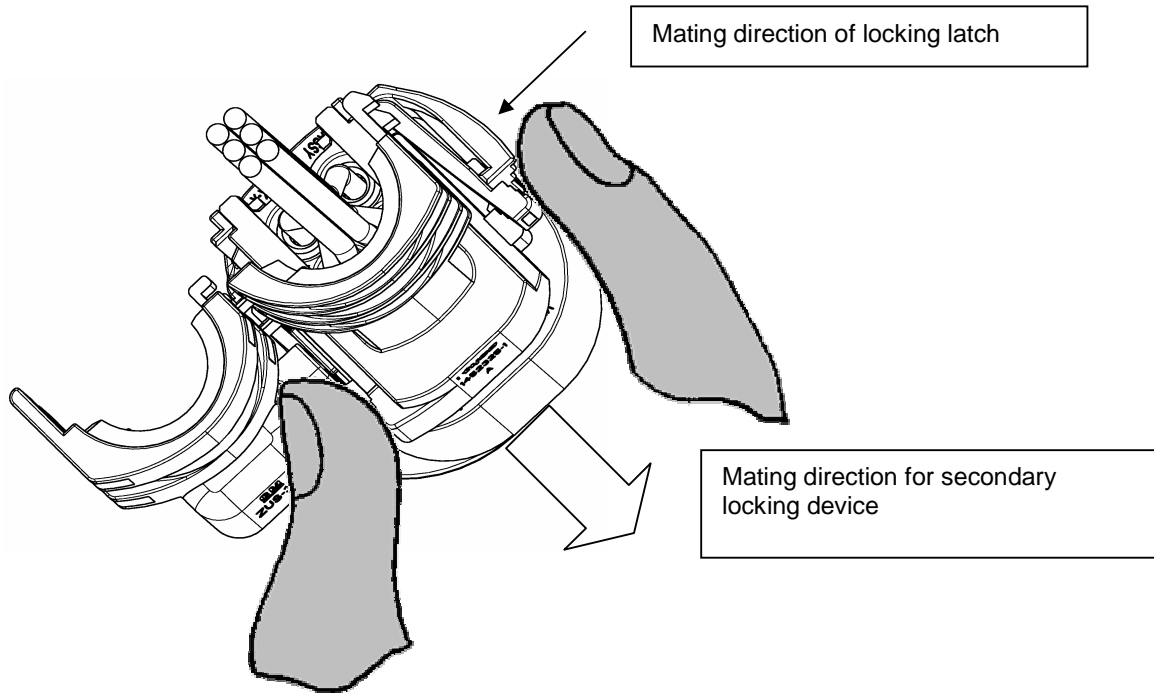


Fig.29

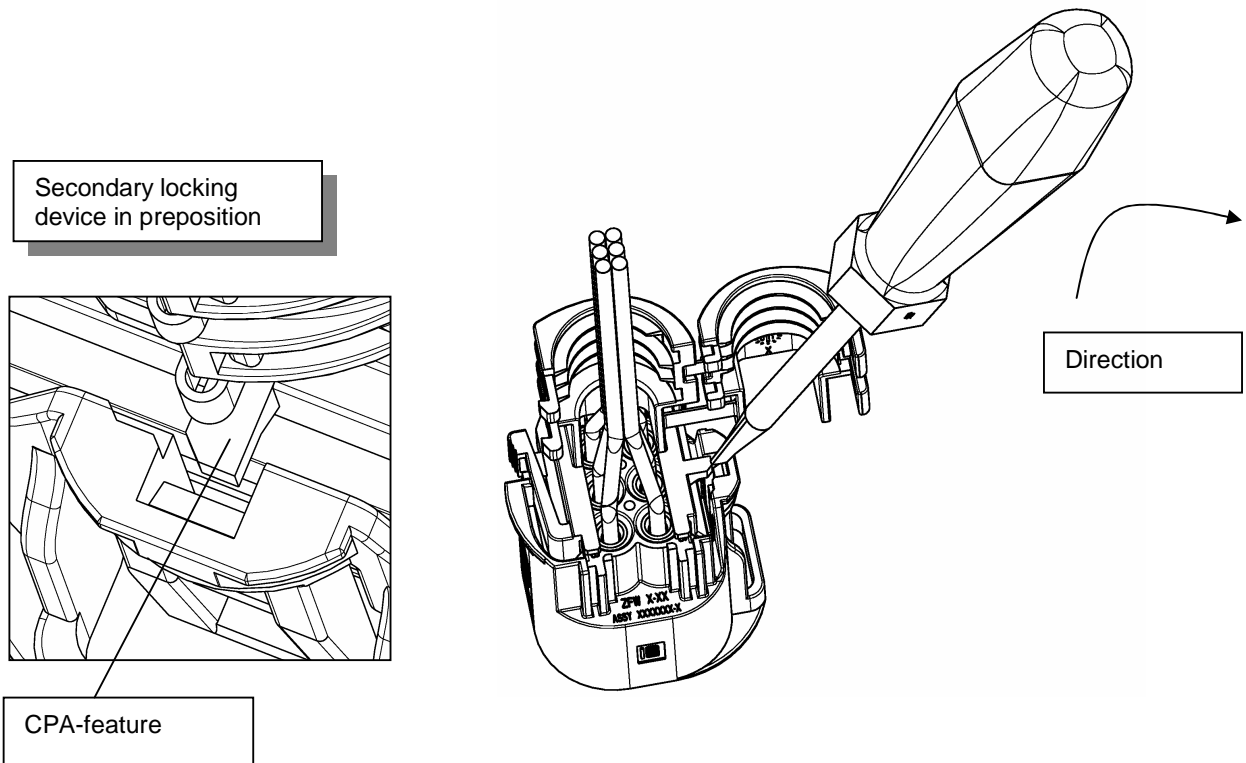


Fig.29a

Fig.30

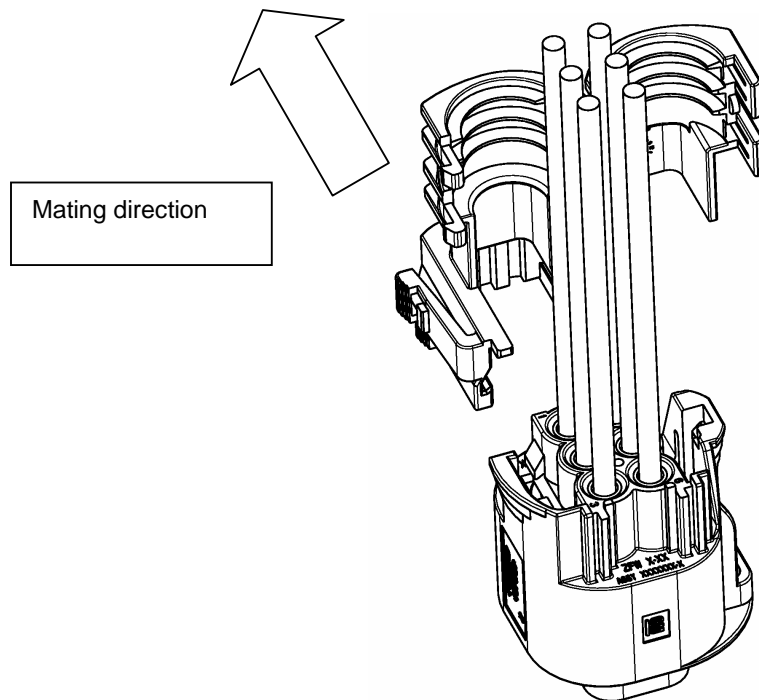


Fig.31

Fig.29

To remove the secondary locking device mate the locking latch in shown direction and pull against mating direction in preposition (Position see Fig.29a).

Fig.30

Pull the locking latch under assistance of a tool, or the fingers until the CPA feature is unlocked.

Fig.31

Keep the position of the latch and remove the secondary locking device.

4.4.2 -without CPA-feature

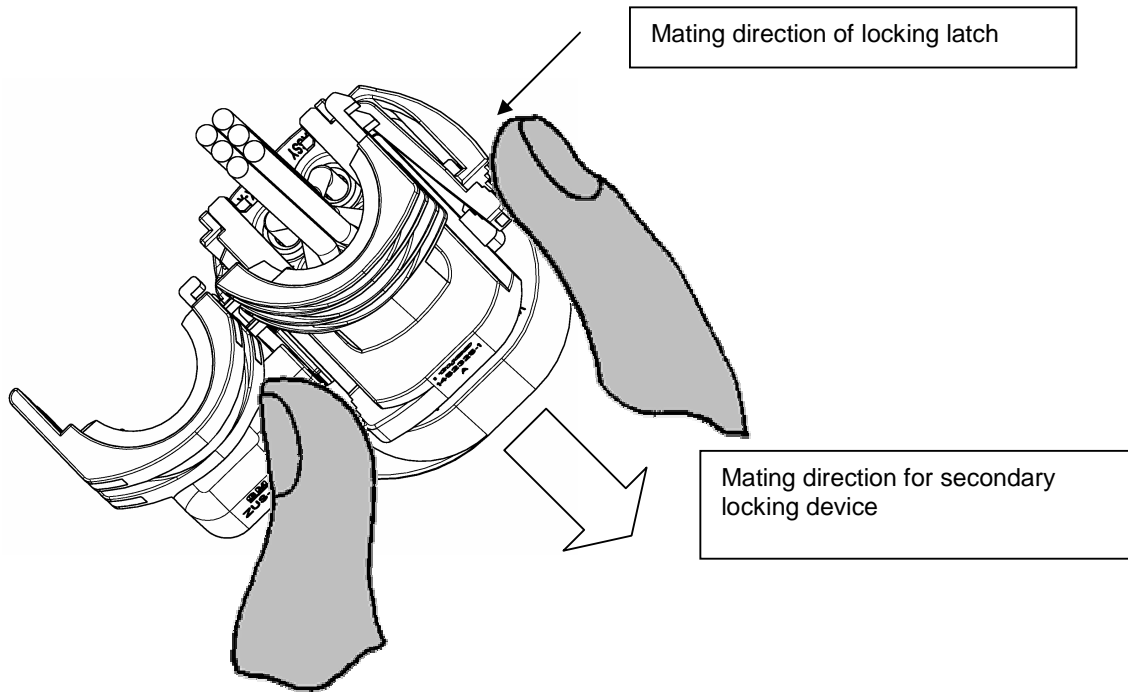


Fig.32

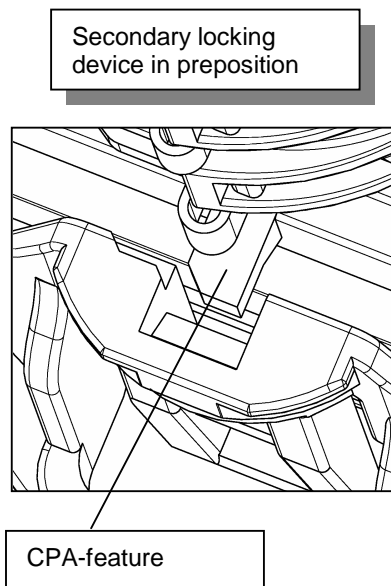


Fig.32a

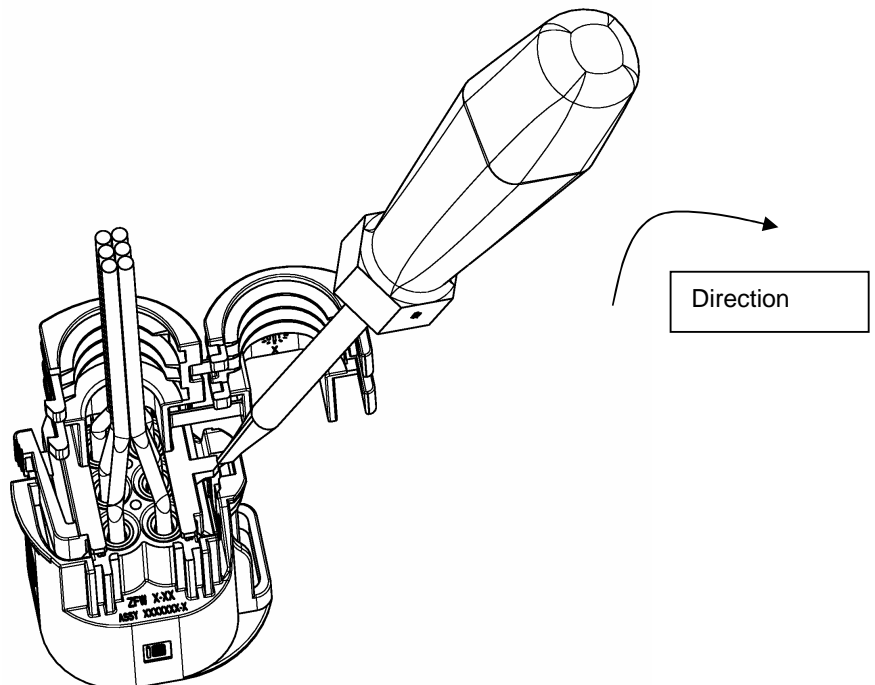


Fig.33

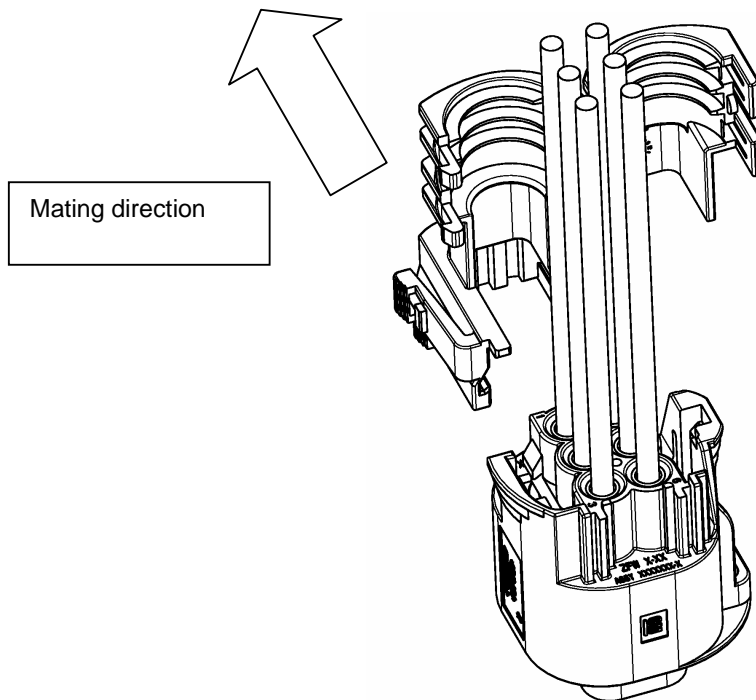


Fig.34

Fig.32

To remove the secondary locking device mate the locking latch in shown direction and pull against mating direction in preposition (Position see Fig.32a).

Fig.33

Pull the locking latch under assistance of a tool, or the fingers until the CPA feature is unlocked.

Fig.34

Keep the position of the latch and remove the secondary locking device.

4.5 Remove JPT-A- terminals from the cavities of the socket housing

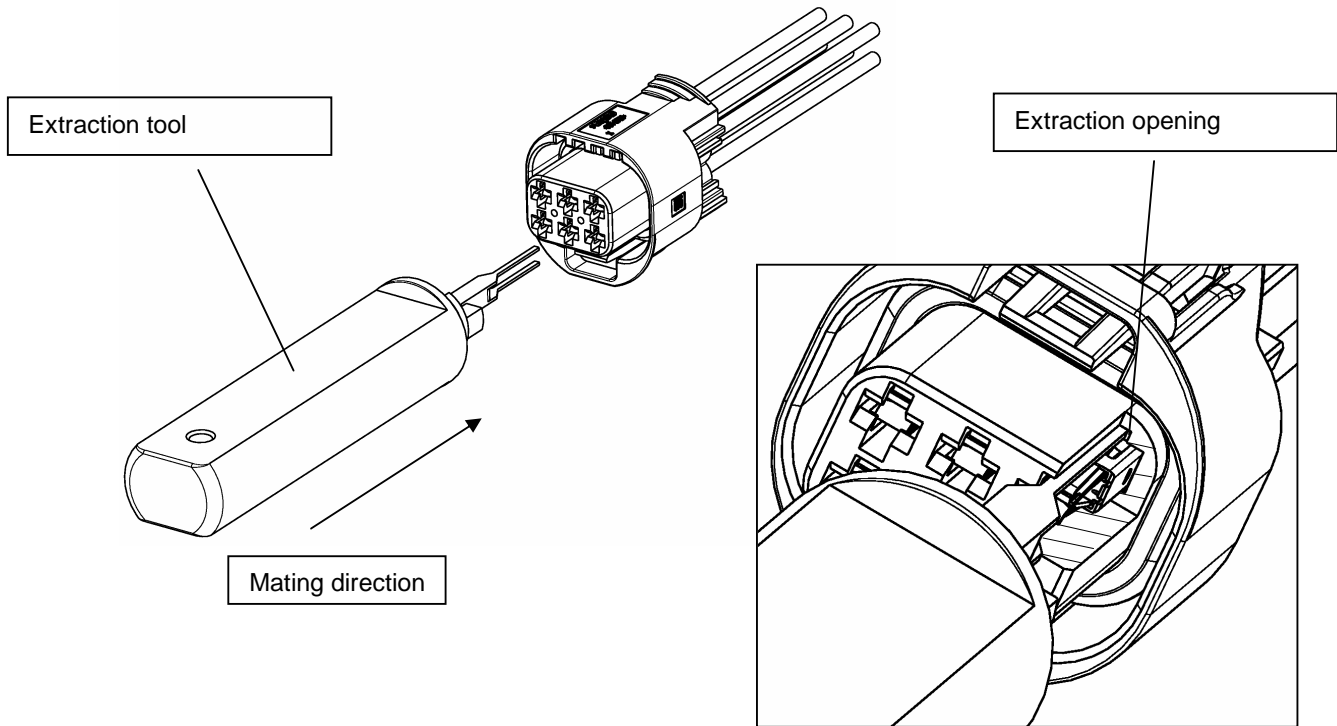


Fig.35

Fig.35a

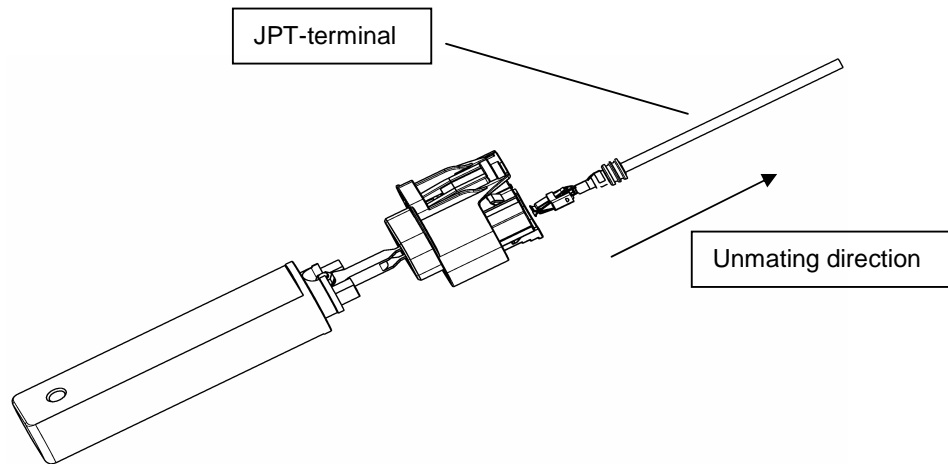


Fig.36

Fig.35

For this procedure it's necessary to use a Tyco extraction tool.
First you have to remove the secondary locking device like shown in chapter 4.4.

Put the Tyco JPT-extraction tool orientated in the extraction opening. The terminal is unlocked (see Fig.35a).

Fig.36

At the same time pull at the wire until the locking is free.

If you want to assemble new terminals look at chapter 3.1.1.

4.6 Remove secondary locking device from tab housing

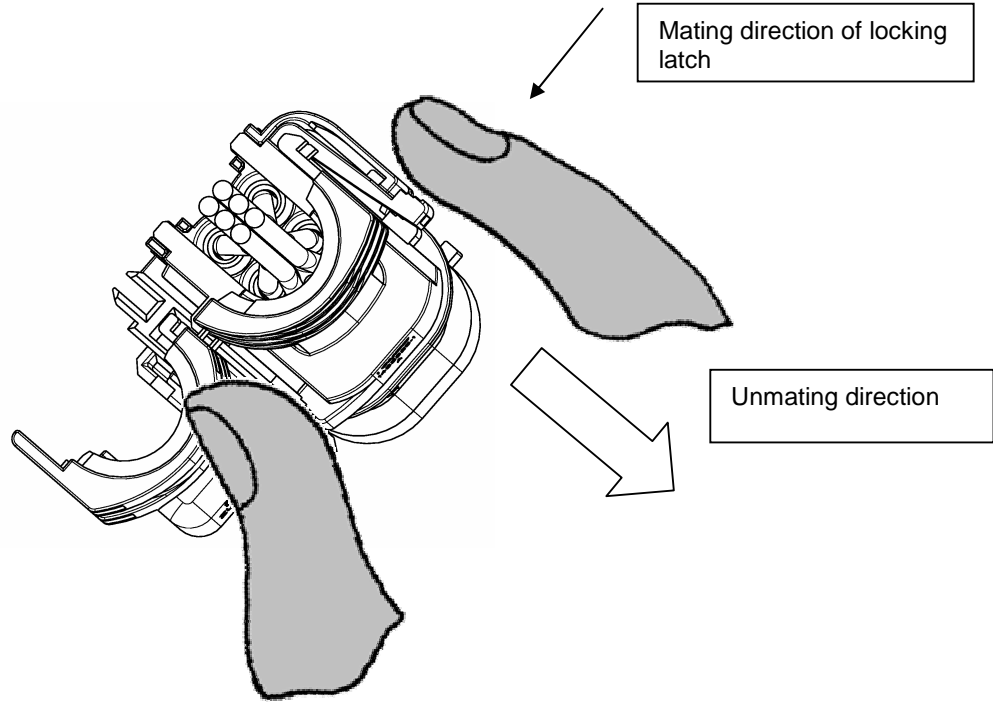


Fig.37

Fig.37
To remove the secondary locking device mate the locking latch in shown direction and pull in unmating direction.

4.7 Remove 2,8x0,8mm terminal from tab housing

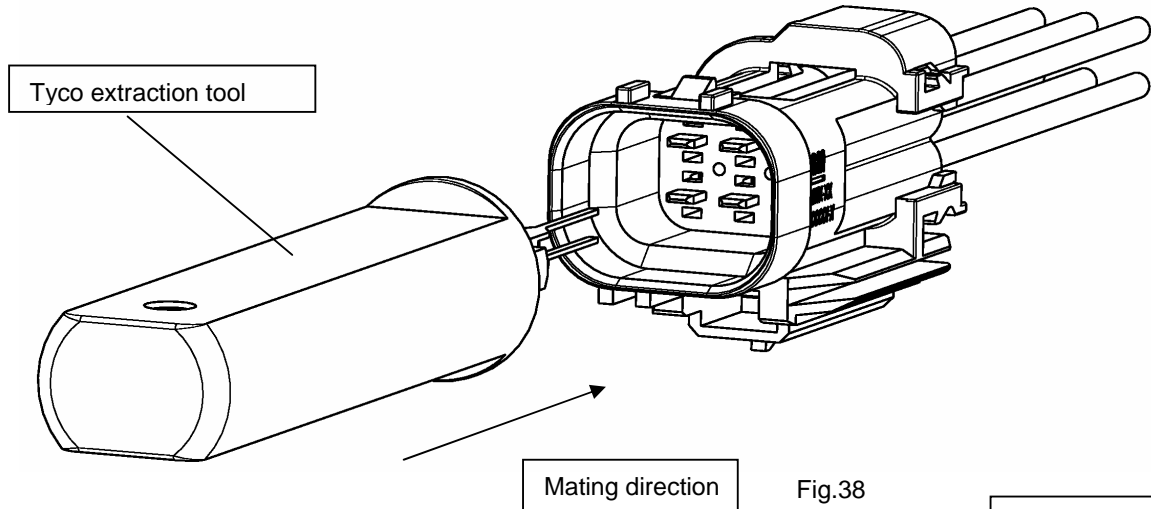


Fig.38

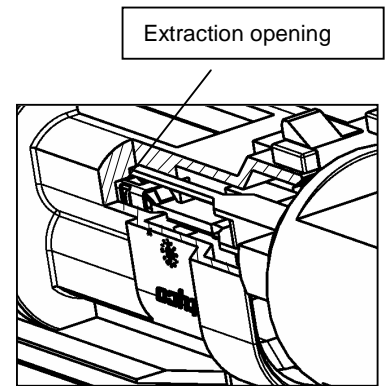


Fig.38a

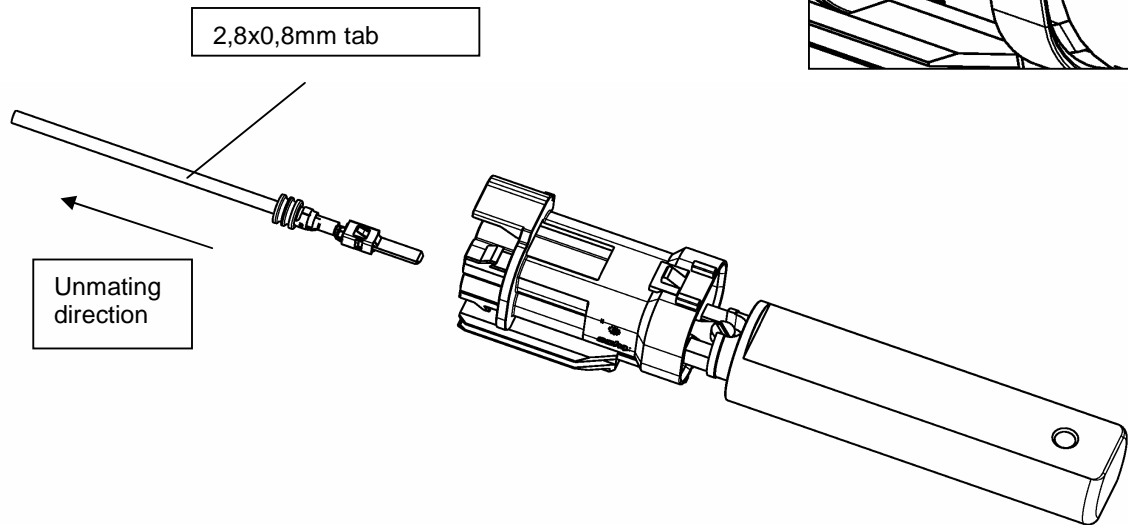


Fig.39

Fig.38

For this procedure it's necessary to use a Tyco extraction tool. First you have to remove the secondary locking device like shown in chapter 4.4. Put the Tyco JPT-extraction tool orientated in the extraction opening. The terminal is unlocked (see Fig.38a).

Fig.39

At the same time pull at the wire until the locking is free.

If you want to assemble new terminals look at chapter 3.2.1.

5 Assembly

5.1 Assembly tab housing in metal bracket

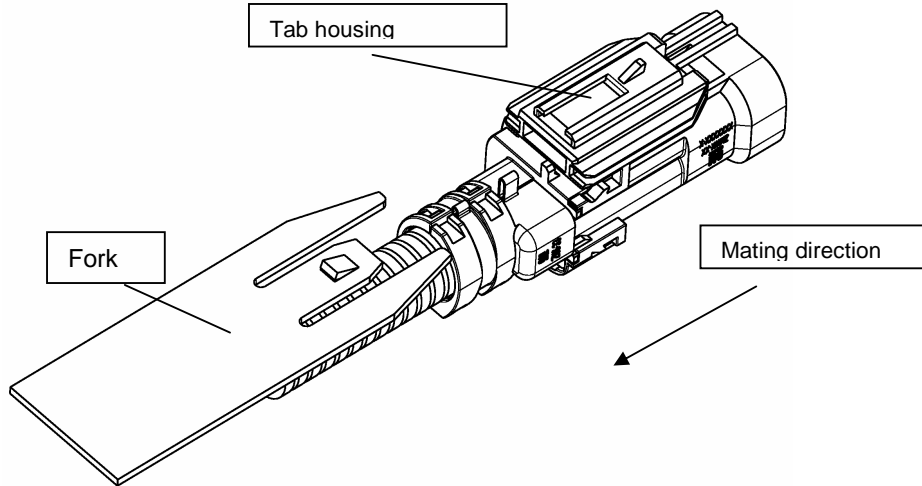


Fig.40

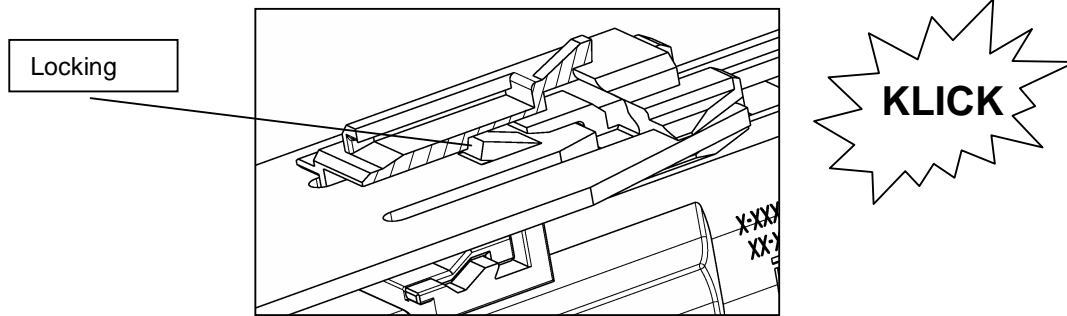


Fig.41

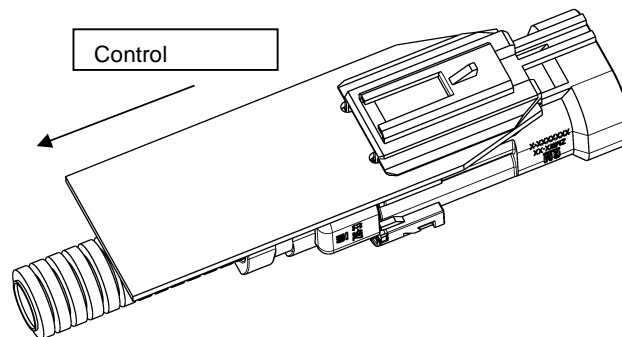


Fig.42

Fig.40
The tab housing has to be orientated to the sheet metal fork.

Fig.41
The tab housing locks audible on the locking latch

Fig.42
Check the locking of the tab housing in control direction.

5.2 Assembly tab housing in clip opening

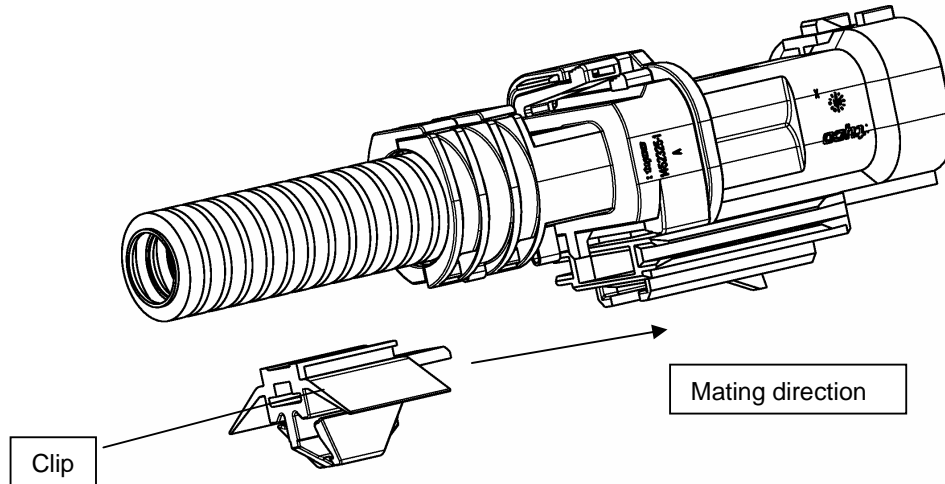
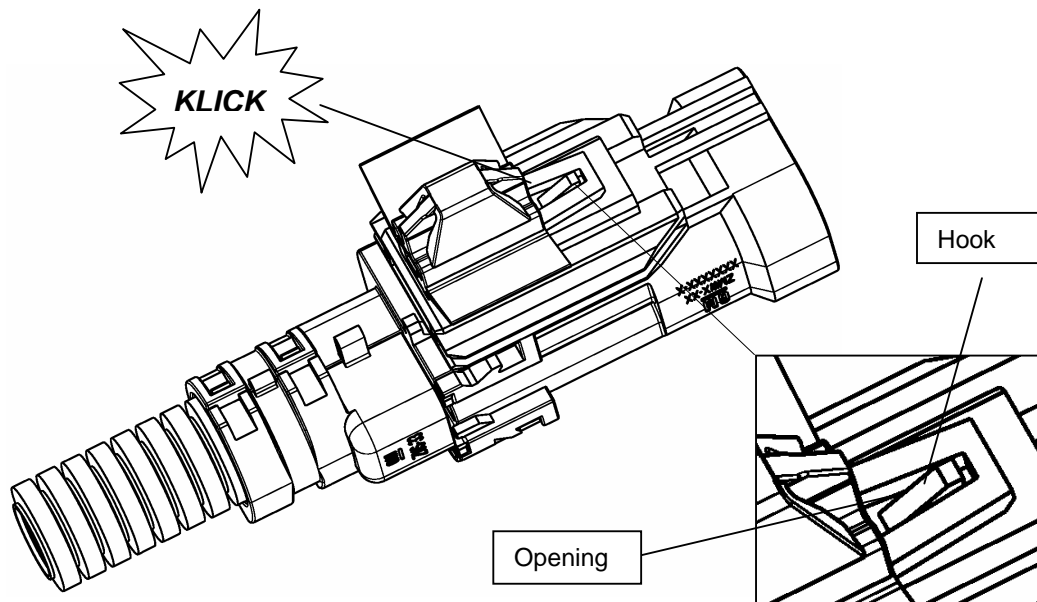


Fig.43



Pic44

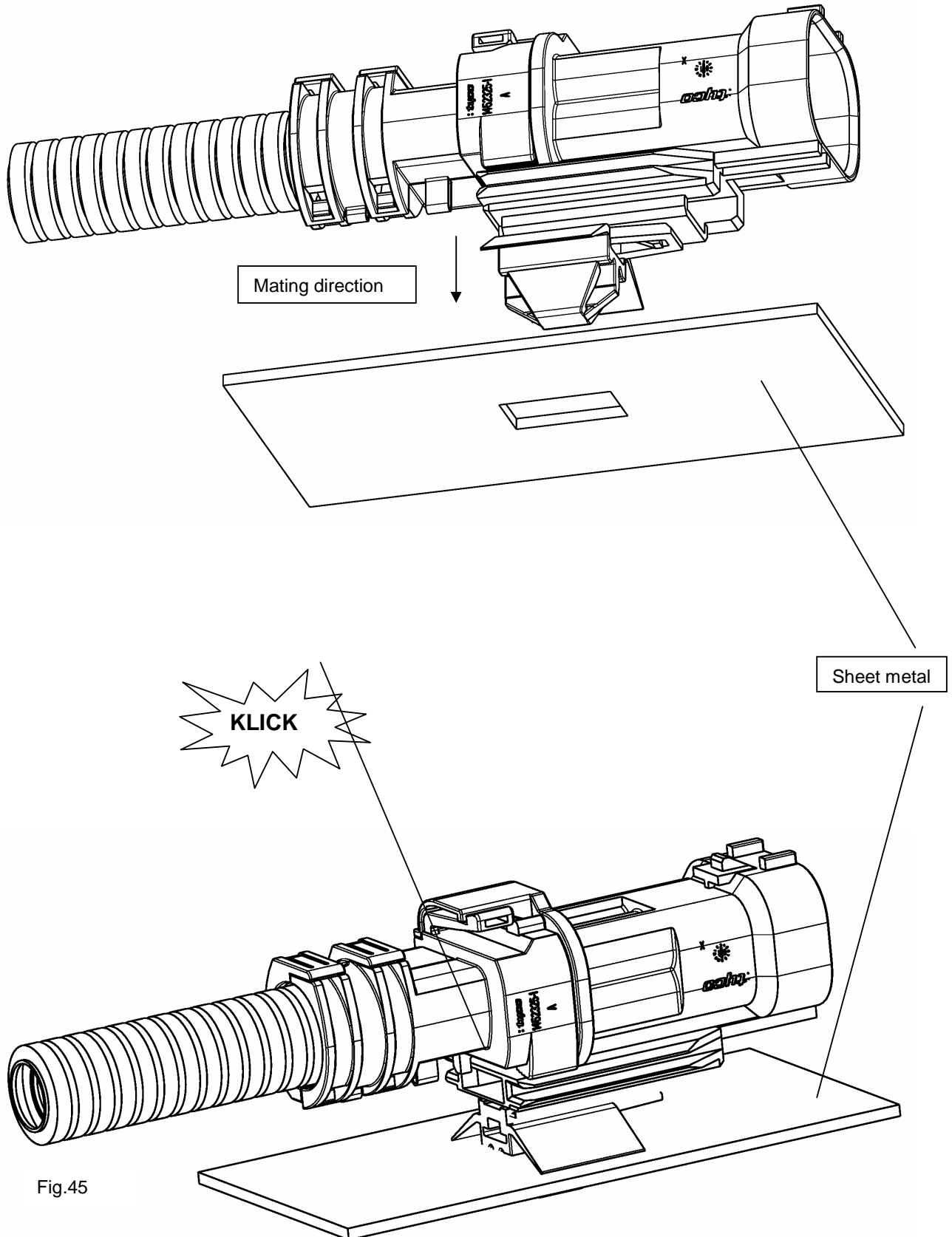


Fig.45

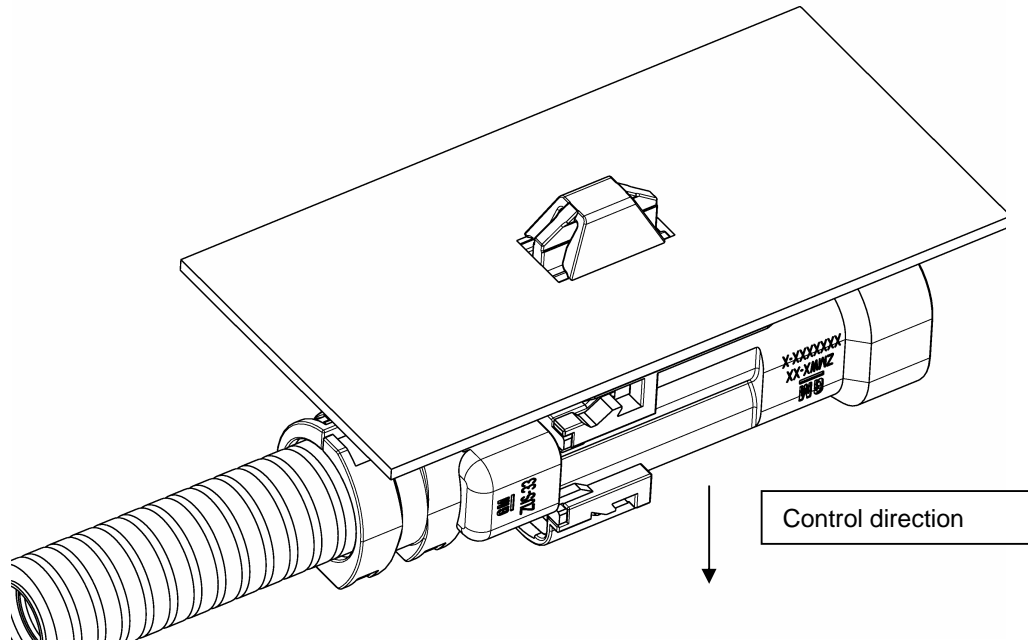


Fig.46

Fig.43

The clip has to be assembled orientated on the tab housing

Fig.44

The clip locks visible and audible on the tab housing. For optical control the hook looks into the opening on the tab housing. Check position against careful pulling again mating direction.

Fig.45

On next step lock the tab housing with clip into the sheet metal. The tab housing locks visible and audible on the sheet metal.

Fig.46

Check position of tab housing against mating direction carefully.

6 **Final Assembly Inline Connector**

6.1 Connecting tab- and socket housing

6.1.1 -with / without CPA-function

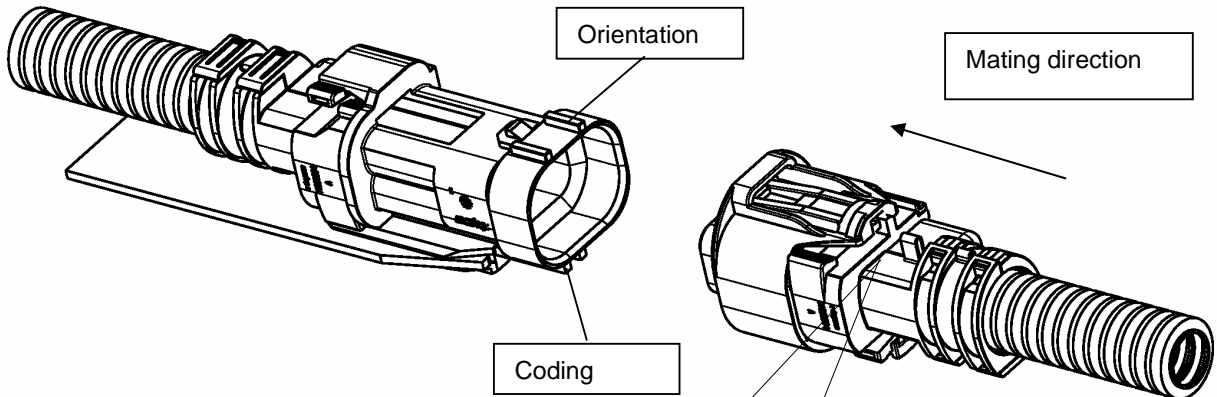


Fig.47

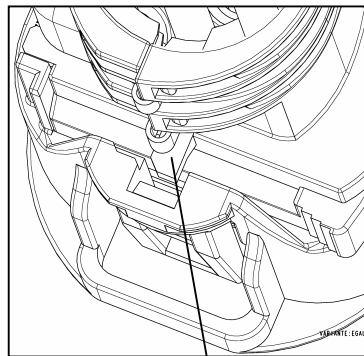
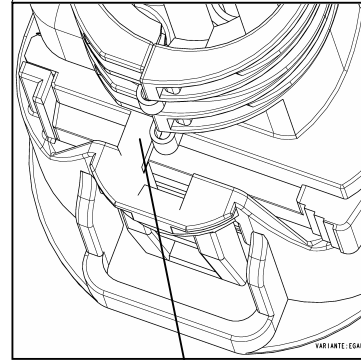


Fig.47a without CPA-function



with CPA-function

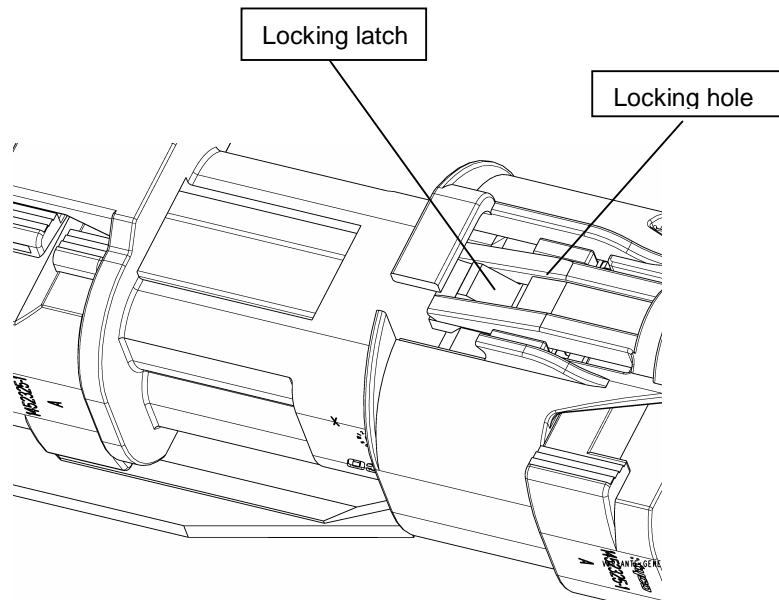


Fig.48

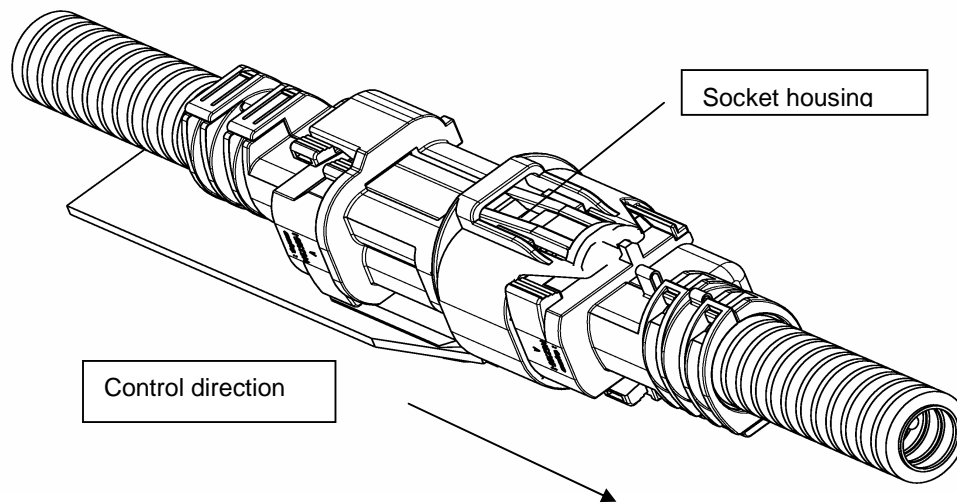


Fig.49

Fig.47

Because of coding- and orientation ribs a connection between tab- and socket housing is possible only in the shown way.

Fig.47a

The CPA-function has no influence on the connection

Fig.48

Pull socket housing over tab housing until the locking hole locks audible and visual over the locking latch.

Fig.49

Check the correct connecting of the housings with a carefully pull on the socket housing against mating direction.

7 Reassembly Inline Connector

7.1 Disconnect tab- and socket housing

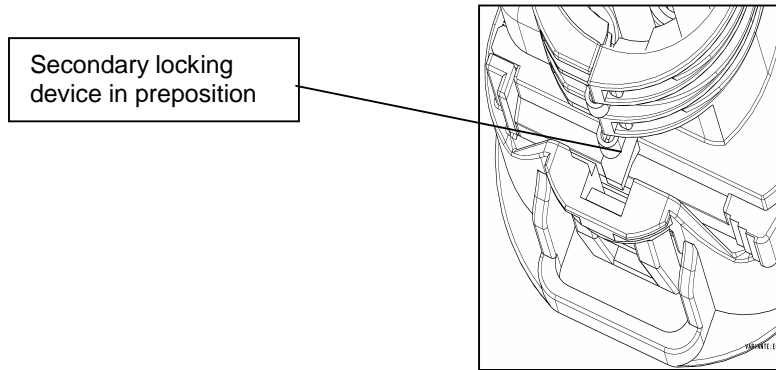


Fig.50

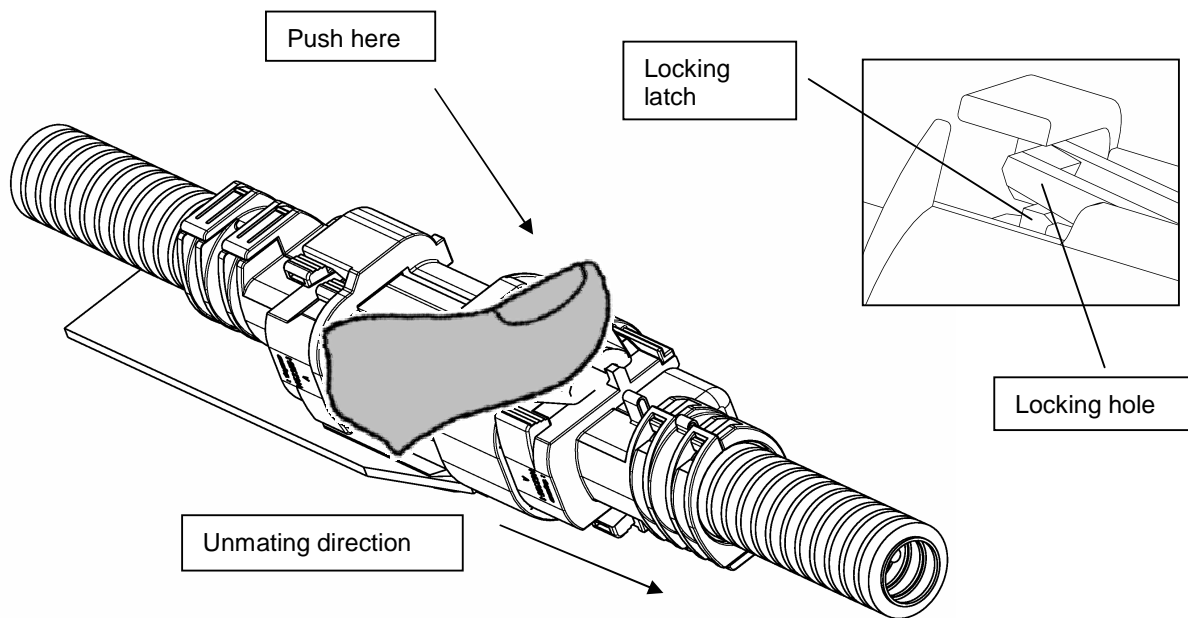


Fig.51

Fig.50
To disconnect tab- and socket housing secondary locking device must be in preposition (see chapter 4.4.1).

Fig.51
Push locking feature until locking latch is unlocked and pull carefully on socket housing.

8 Reassembly of tab housing

8.1 Remove tab housing from metal bracket

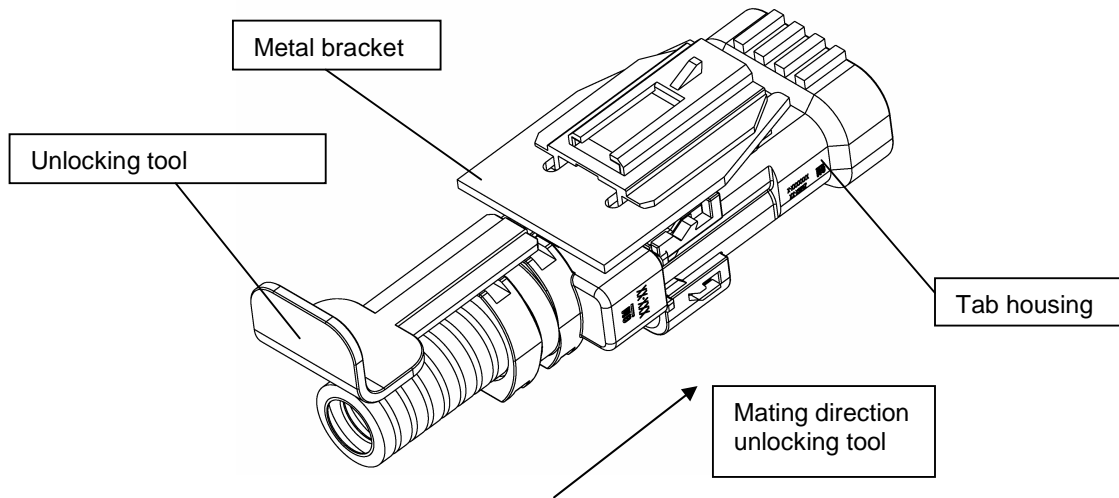


Fig.52

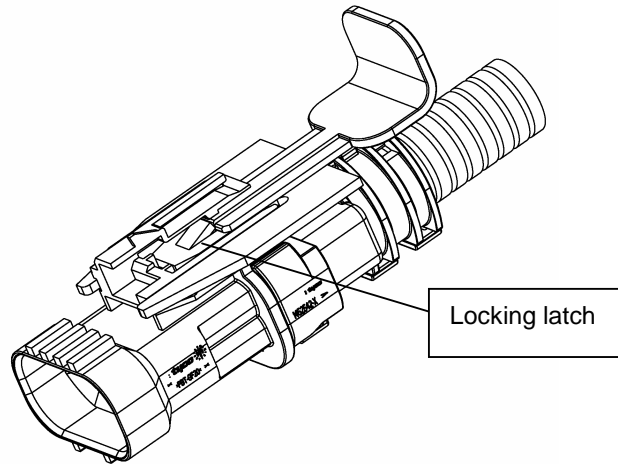


Fig.53

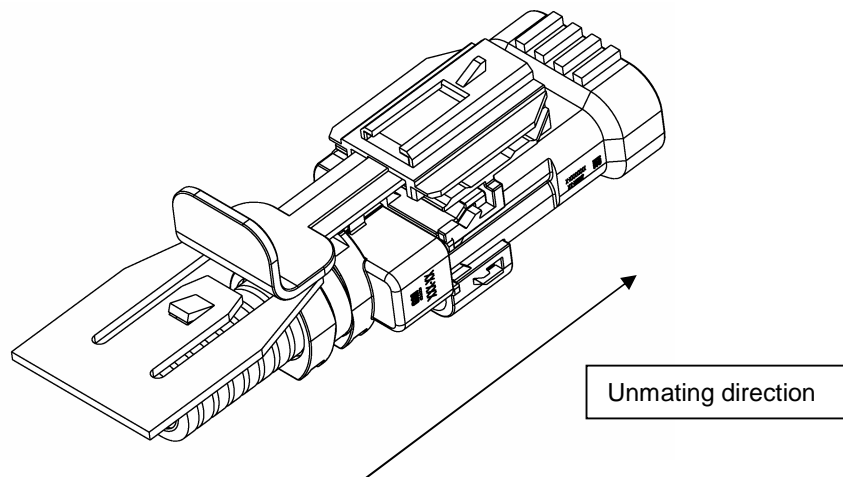


Fig.54

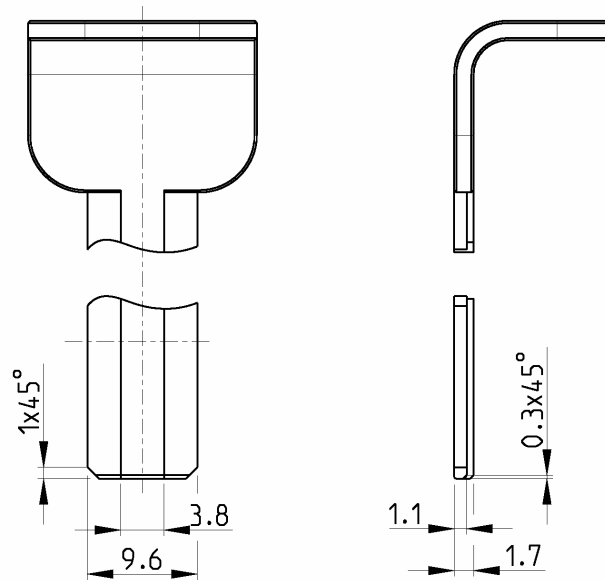


Fig.55

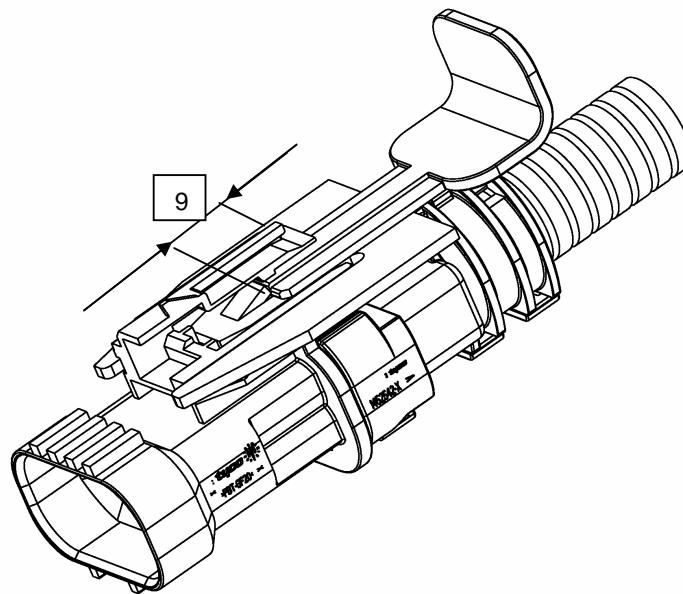


Fig.56

Fig.52 and 53

To unmate the tab housing from metal bracket you need an unlocking tool (Fig.55). Mount this orientated in the locking opening of the tab housing till locking. The locking latch is now free.

Fig.54

Pull the tab housing into unmating direction from the metal bracket.

Fig.55 and 56

The unlocking tool has to be adjusted to the installation situation. The dimension 9mm shows the minimum length of the tool. Recommended length is 12 mm.

8.2 Remove the tab housing from clip opening

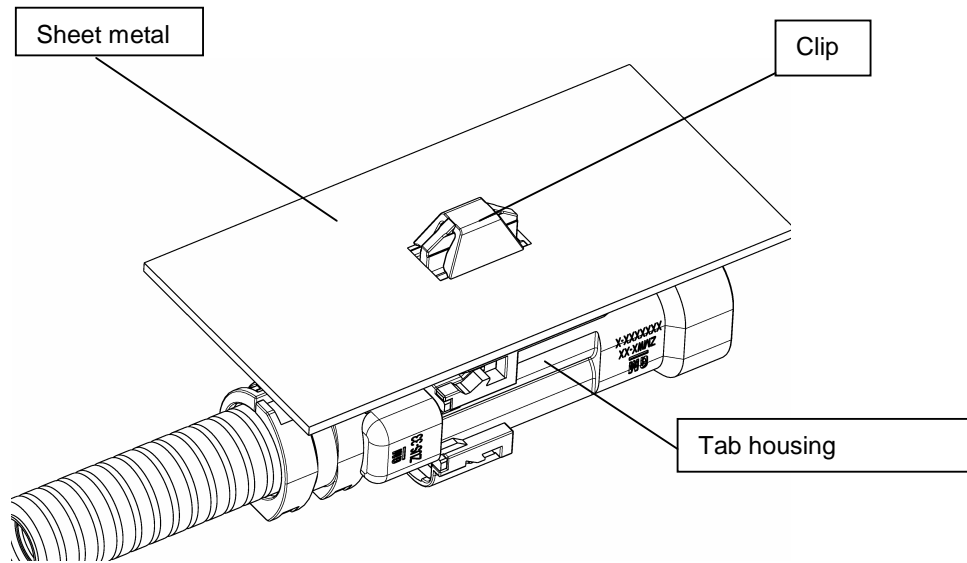


Fig.57

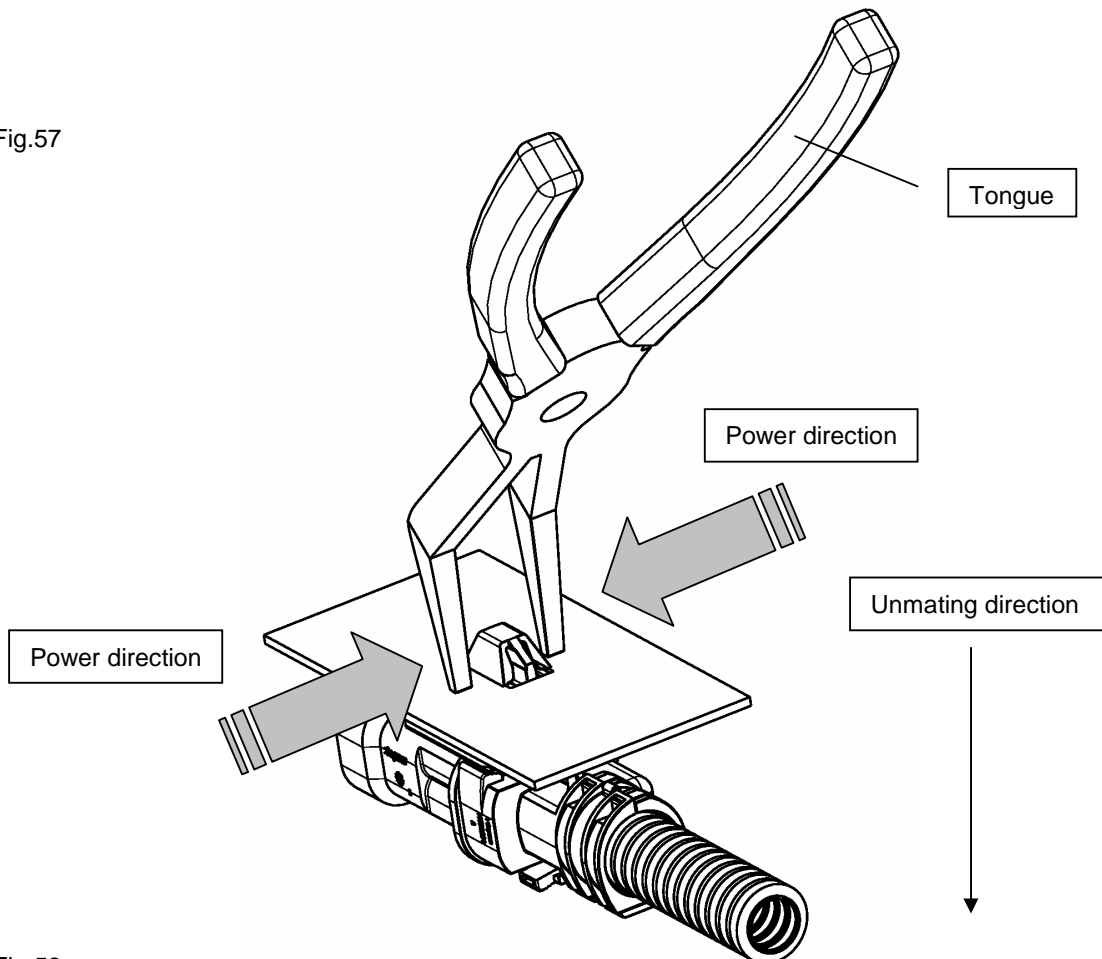


Fig.58

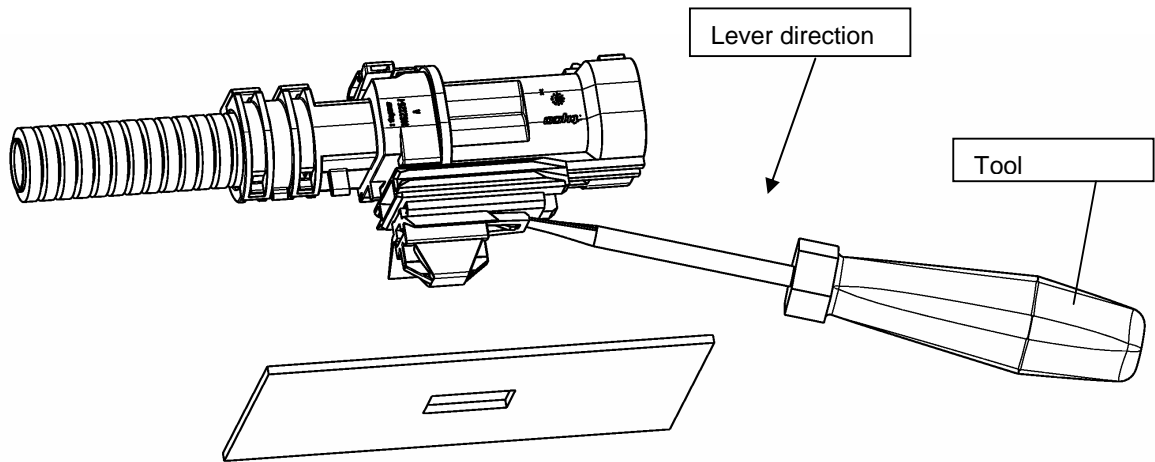


Fig.59

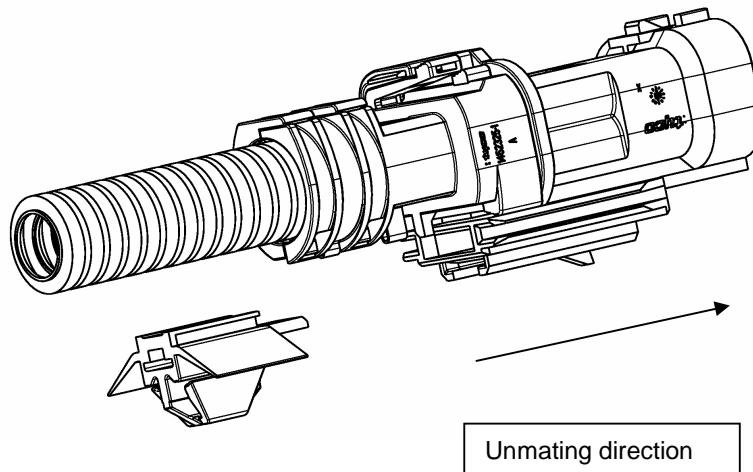


Fig.60

Fig.57 and 58

To unmate the tab housing with the clip squeeze the locking latches of the clip with a tool together until the clip is unlocked. On same time pull at the tab housing carefully till it is unlocked.

Fig.59

To disassembly the clip from tab housing unlock the locking latch with a tool from the locking hook

Fig.60

On same time pull the clip in unmating direction.