

UNSEAL INLIEN 48WAY CONNECTOR

Contents/目录

1 GENERAL	3
1 综述	3
1.1 Purpose	3
1.1 目的	3
1.2 Customer Drawing/ Documents	3
1.2 客户图纸/文档	3
2 Product Description	3
2 产品说明	3
2.1 48Pos plug connector	4
2.1 48 位母端连接器	4
2.1.1 Component Introduction	4
2.1.1 零件组成介绍	4
2.1.2 Delivery Status	4
2.1.2 出货状态	4
2.2 48way Tab ASSY connector	4
2.2 48 位公端连接器	4
2.2.1 Component Introduction	4
2.2.1 零件组成介绍	4
2.2.2 Delivery Status	5
2.2.2 出货状态	5
3 48POS CONNECTOR ASSEMBLY	5
3 48 位连接器组装	5
3.1 Terminal insertion	5
3.1 端子插入	5
3.1.1 Insertion 0.64mm terminal	5
3.1.1 0.64 端子的插入	5
3.1.2 Insertion 1.2mm terminal	6
3.1.2 1.2 mm 端子的插入	6
3.1.3 Insertion 2.8mm terminal	7
3.1.3 2.8 mm 端子的插入	7
3.2 Locking Secondary Lock Plate	8
3.2 二次锁 (TPA) 插入到位	8
3.3 Clip Mount	9
3.3 卡扣安装	9
3.4 Mating the connectors, lock the Lever & CPA	9
3.4 对配连接器, 锁上 Lever & CPA	9
3.4.1 Check Before mating	9
3.4.1 对配前确认	9

3.4.2 Assembly Step.....	9
3.4.2 对配过程	9
3.4.3 mount couple connectors to system module	10
3.4.3 安装对配好的插件到整车模块.....	10
3.4.3.1 clip mount panel size	10
3.4.3.1 卡扣安装的面板尺寸	10
3.4.3.2 couple connectors mount to the module by clip	10
3.4.3.2 对配接插件通过 clip 安装到模块上.....	10
4 48POS CONNECTOR DISASSEMBLY	11
4 48 位连接器拆装	11
4.1 Depart the couple connectors from module	11
4.1 从模块上拆下对配的插件	11
4.2 release cable from wire dress (optional)	11
4.2 将绑线拆除 (可选).....	11
4.3 Release CPA from end lock to pre-lock.....	11
4.3 将二次锁 (CPA) 退回到预锁位置	11
4.4 Release Lever from end lock to pre-lock.....	11
4.4 将 lever 退回到预锁位置	11
4.5 un-mating connector	12
4.5 连接器分离	12
4.6 Pull the TPA from end-lock to pre-lock.....	12
4.6 将二次锁从终锁位置退回到预锁位置	12
4.7 Terminal Extract	13
4.7 端子退出	13
4.7.1 Extract 0.64 Terminal.....	13
4.7.1 0.64 端子退出	13
4.7.2 Extract 1.2mm Terminal	13
4.7.2 1.2mm 端子退出	13
4.7.3 Extract 2.8mm Terminal	14
4.7.3 2.8mm 端子退出	14
5. PROTECTION SUGGESTIONS FOR 48WAY TAB ASSY CONNECTOR	16
5 48 位公端连接器保护建议	16

1 GENERAL

1 综述

1.1 Purpose

1.1 目的

This application specification includes the guidelines to be followed during assembly, installation and disassembly of the 0.64/1.2/2.8 and 0.64/1.2/2.8 unsealed hybrid plug.

本规范用于指导 48P(8XMCP2.8+10XMONO1.2 or MCON1.2+30XMQS0.64)混合型连接器的组装、安装和拆卸。

1.2 Customer Drawing/ Documents

1.2 客户图纸/文档

This application specification is based on the latest valid customer drawings.

本规范基于以下有效客户图纸的最新版本。

This application specification is based on the latest customer drawings/Documents.

产品尺寸、材料和表面

C-2316763 UNSEAL INLINE 48P REC ASSY

C-2298631 UNSEAL INLINE 48P CAP ASSY

108-101580 UNSEAL INLINE 48P PRODUCT SPECIFICATION

The document is also a reference for the application

以下文档作为此应用规范的参考文件

114-18021 MQS0.64 Male Contact Application Spec (MQS公端子压接规范)

114-101042 MQS0.64 Female Contact Application Spec (MQS母端子压接规范)

114-101043 Mono1.2 Male & Female Contact Application Spec (Mono端子压接规范)

114-18051 MCP2.8/K Male Contact Application Spec (MCP2.8/K公端子压接规范)

114-18148 MCP2.8 Female Contact Application Spec (MCP2.8母端子压接规范)

114-18387 MCP2.8K Female Contact Application Spec (MCP2.8K母端子压接规范)

The release tool as below PN. However, it can be replaced by similar tool

以下是端子退出工具，类似结构的退出工具经验证也可作为替代工具

6-1579007-1 MQS Extraction Tool (MQS端子退出工具)

1579007-8 & 1-1579007-0 (2-1579008-1) Mono1.2 Extraction Tool (Mono1.2退出工具)

1-1579007-2 MCP2.8/K Female Contact Extraction Tool (MCP2.8/K母端子退出工具)

1-1579007-6 MCP2.8/K Male Contact Extraction Tool (MCP2.8/K公端子退出工具)

2 Product Description

2 产品说明

The unseal inline 48way connectors are used for signal & current power transmit in the body & chassis of car,

48way 连接器系统用于连接车辆车身或者地盘上系统的信号及电流传输

2.1 48Pos plug connector

2.1 48 位母端连接器

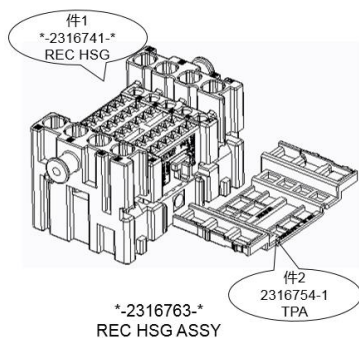
2.1.1 Component Introduction

2.1.1 零件组成介绍

The plug connector contains below parts. 母端连接器包含以下零件。

48way Rec Assy connector contains below part.

48way 母端连接器组装件由以下部分组成。



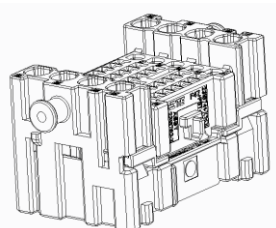
1. REC HOUSING 塑壳本体
2. TPA(端子二次锁)

Pic 1

2.1.2 Delivery Status

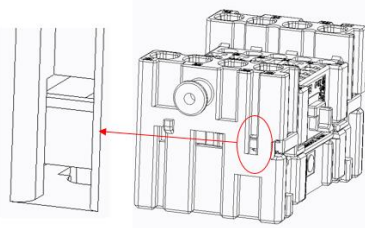
2.1.2 出货状态

TPA should be in pre-lock position when delivery (出货状态: TPA 在预锁位置)



Delivery status (出货状态)

Pic 2



TPA in pre-lock
二次锁在预锁位置

Pic 3

2.2 48way Tab ASSY connector

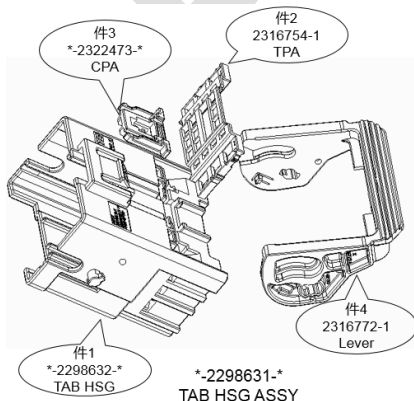
2.2 48 位公端连接器

2.2.1 Component Introduction

2.2.1 零件组成介绍

ASSY 48way Tab connector contains below part.

48 位公端连接器组装件由以下部分组成。



1. HOUSING 塑壳本体
2. TPA 端子二次锁
3. CPA 连接器二次锁
4. Lever 连接器辅助操作杆

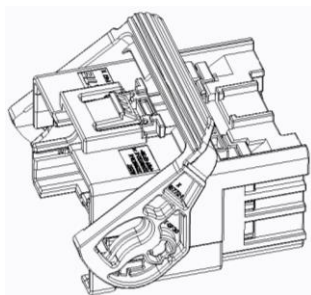
Pic 4

2.2.2 Delivery Status

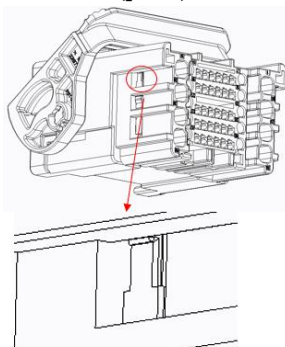
2.2.2 出货状态

When delivery, there is below: 出货状态如下:

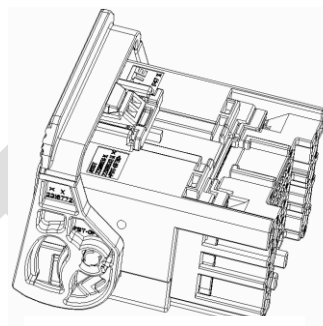
- 1) TPA in pre-lock TPA 在预锁位置 (pic 6)
- 2) CPA in pre-lock CPA 在预锁位置 (pic 8)
- 3) Lever in pre-lock lever 在预锁位置 (pic 6)



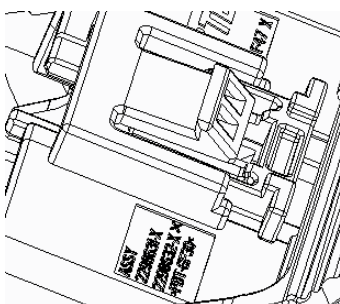
Delivery status
出货状态
Pic 5



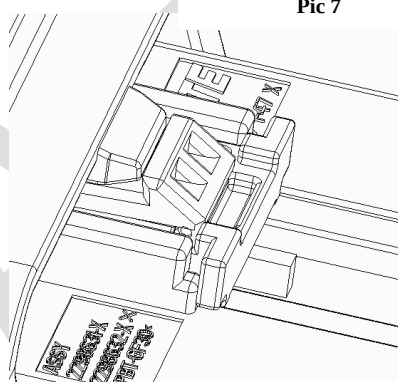
TPA & lever in pre-lock
TPA 和 lever 在预锁状态
Pic 6



lever in end-lock
lever 在终锁状态
Pic 7



CPA in pre-lock
CPA 在预锁状态
Pic 8



CPA in end-lock
CPA 在终锁状态
Pic 9

3 48POS CONNECTOR ASSEMBLY

3 48 位连接器组装

3.1 Terminal insertion

3.1 端子插入

The contact cavities are polarized to prevent the contacts from being inserted upside-down.

Check before inserting contacts if the TPA is in Pre-lock position. If not, move it to the pre-lock position as described in chapter 4.6.

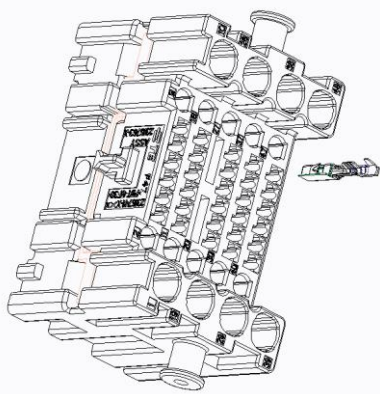
端子与塑壳孔都有方向性来防止端子不正确的插入。插入端子前，确认 TPA 在预锁位置。如发现 TPA 偏离预锁位置，请参考 4.6 节操作复位。

3.1.1 Insertion 0.64mm terminal

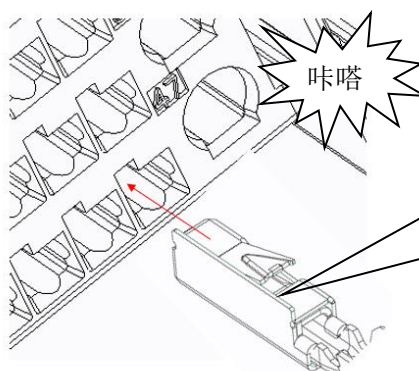
3.1.1 0.64 端子的插入

Insert the terminal (as below direction) as far as the end of the spring engages and produces an audible click. Complete locking can be examined by gently pulling back the terminal.

按照如下方向插入端子，插入到位后有轻微咔嗒声。为确保插入到位，可轻微回拉线材检查。

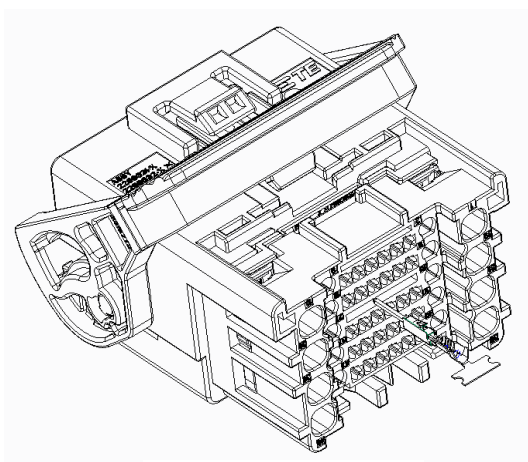


Pic 10

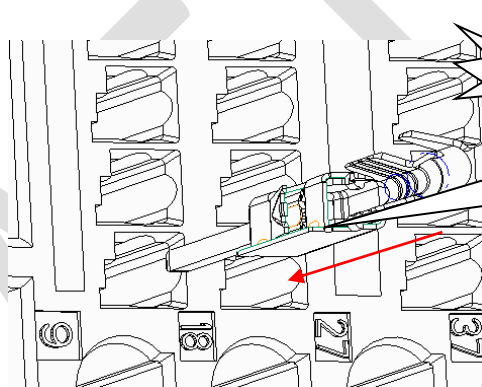


Pic 11

Orientation feature
on the terminal
端子上的定向特征



Pic 12



Pic 13

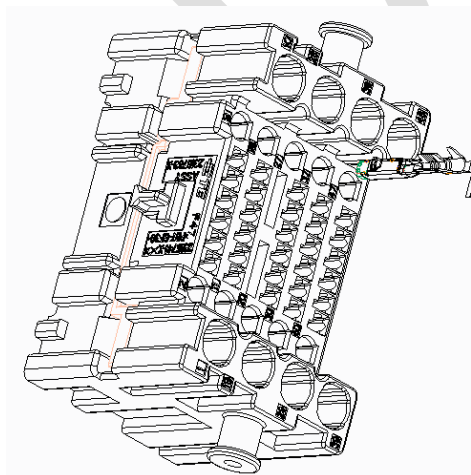
Orientation feature
on the terminal
端子上的定向特征

3.1.2 Insertion 1.2mm terminal

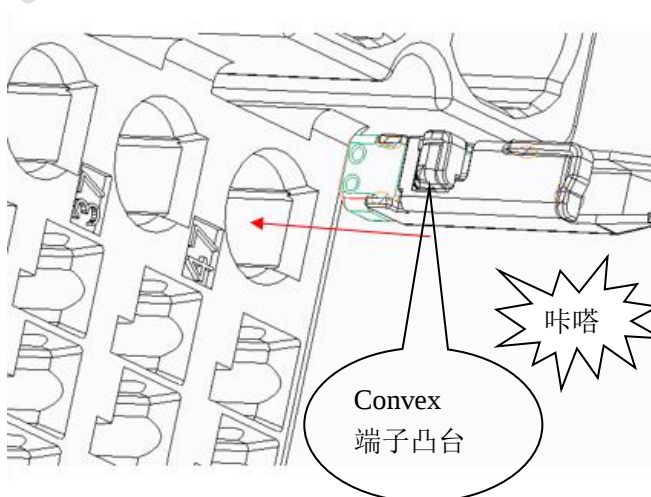
3.1.2 1.2 mm 端子的插入

Insert the terminal (as below direction) till an audible click. Complete locking can be examined by gently pulling back the terminal.

按照如下方向插入端子（注意图示端子凸台方向），插入到位后有轻微咔嗒声。为确保插入到位，可轻微回拉线材检查。

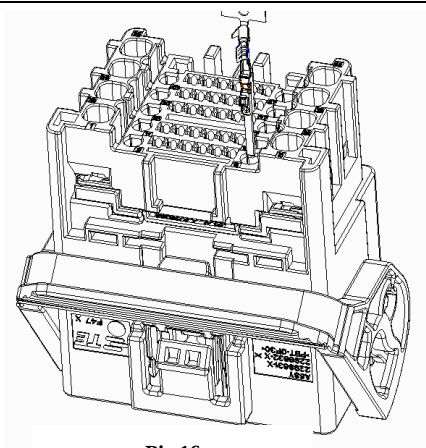


Pic 14

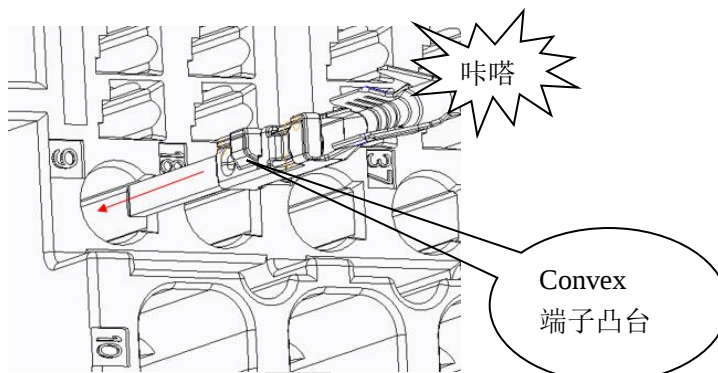


Pic 15

Convex
端子凸台



Pic 16



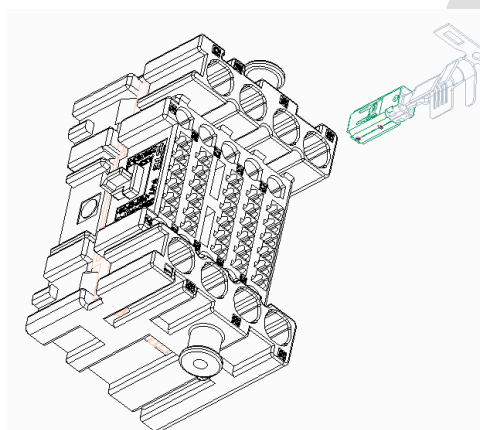
Pic 17

3.1.3 Insertion 2.8mm terminal

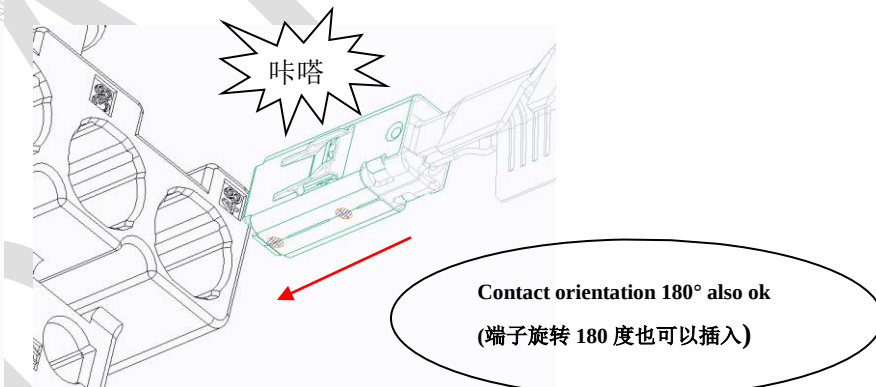
3.1.2 2.8 mm 端子的插入

Insert the terminal (as below direction) as far as the end of the spring engages and produces an audible click. Complete locking can be examined by gently pulling back the terminal.

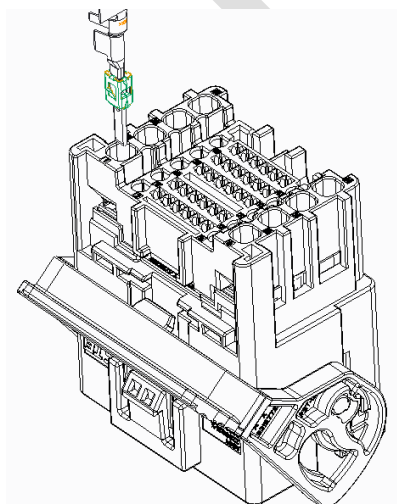
按照如下方向插入端子（注意图示端子方向），插入到位后有轻微咔嗒声。为确保插入到位，可轻微回拉线材检查。



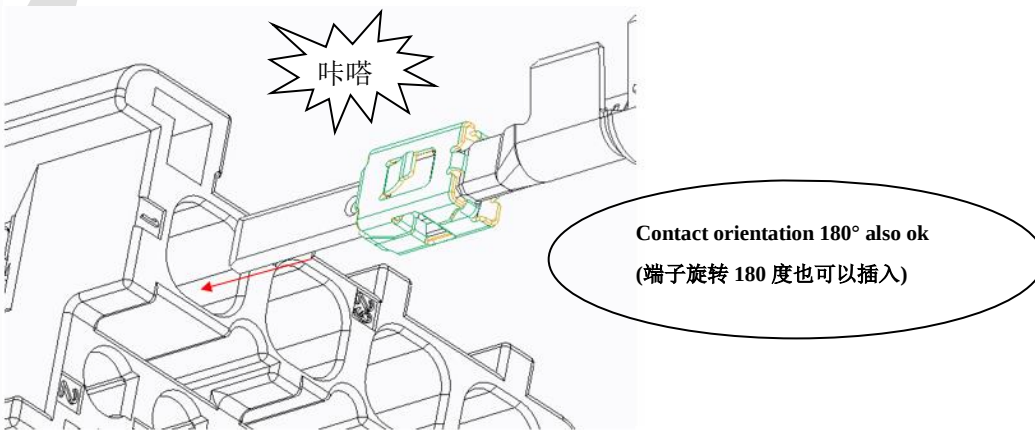
Pic 18



Pic 19



Pic 20



Pic 21

3.2 Locking Secondary Lock Plate

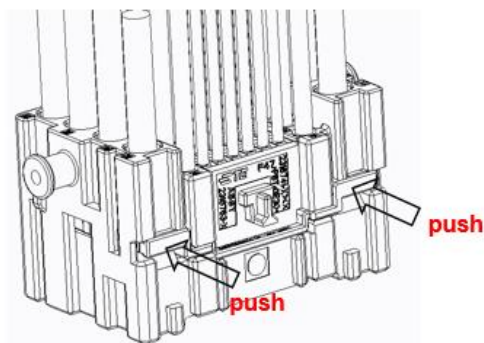
3.2 二次锁（TPA）插入到位

Locking TPA to final position by pushing TPA top surface.

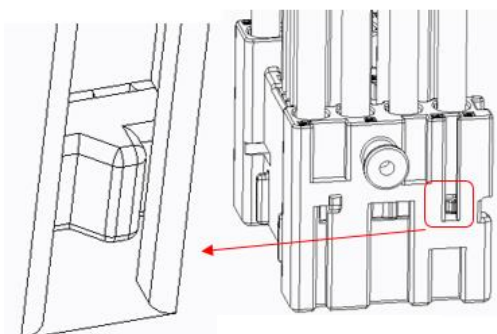
按压 TPA 上表面，使 TPA 压入到位，到位后会有咔嗒声。

If the TPA does not fully close, move it to the OPEN position, ensure that all contacts are fully seated, then try again. **DO NOT force the TPA to close.**

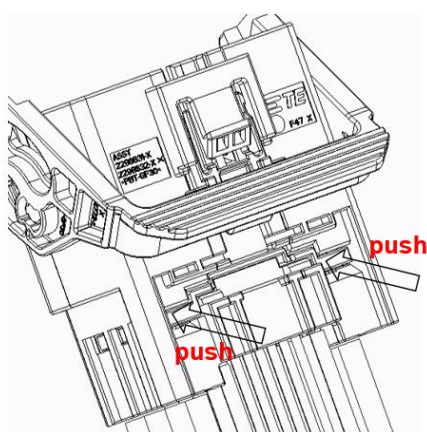
如果 TPA 无法组装到位，请将 TPA 退到预锁位置(pic 3)，确认每个端子都插入到位后再次锁 TPA。
切不可在端子未插入到位时强行锁上 TPA。



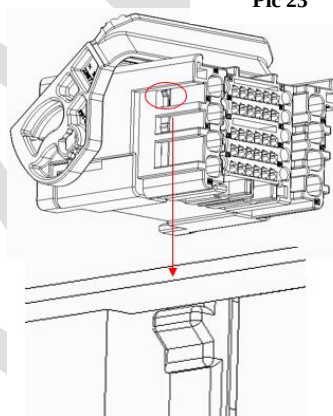
Pic 22



TPA in end-lock
二次锁在终锁位置
Pic 23



Pic 24



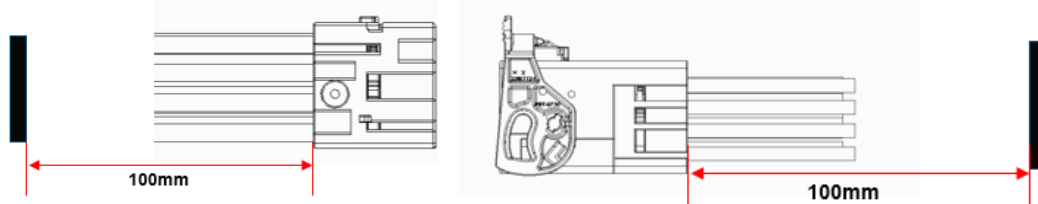
TPA in end-lock
二次锁在终锁位置
Pic 25

After, tie cable by fix tie at the 100mm distance, and fix wire harness on module;

之后，在距离 100mm 的地方，用扎带固定线束在模块或支架上；

Caution: (with 100mm, the cable is loose , can't be fasten)

注意：（在这 100mm 内的 cable，是放松的，不能被拉紧



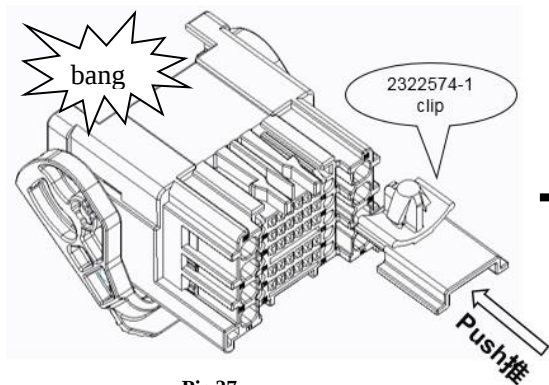
Pic 26

3.3 Clip Mount

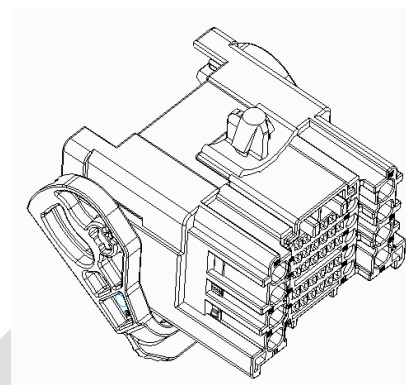
3.3 卡扣安装

Push the clip into the slot in male connector according to below pic, ensure the clip seated completely, and there is “bang” sounds when clip seat completely.

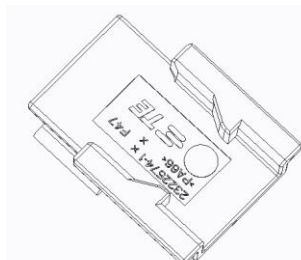
按照下图安装 clip 到公端连接器的槽中，确保 clip 安装到位：clip 安装到位时会有“bang” 的声音



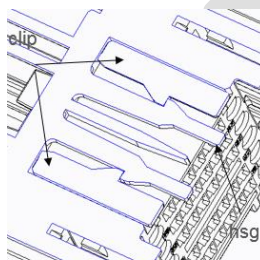
Pic 27



Pic 28



Pic 29



Pic 30

Section of retention structure between clip and hsg
(卡扣和塑壳之间的保持结构示意图)

3.4 Mating the connectors, lock the Lever & CPA

3.4 对配连接器,锁上 Lever&CPA

3.4.1 Check Before mating

3.4.1 对配前确认

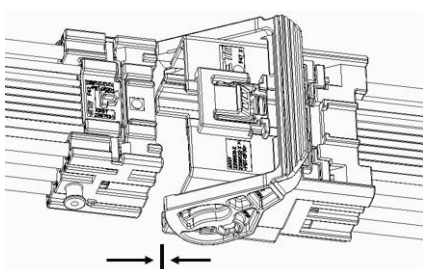
- | | |
|----------------------------------|---------------------------|
| 1) the contact has been inseted; | 端子已插到位 |
| 2) TPA in en-lock location; | TPA 在终锁位置 (pic 23&pic 25) |
| 3) lever in pre-lock location; | lever 在预锁位置 (pic 6) |
| 4) CPA in pre-lock location; | CPA 在预锁位置 (pic 8) |
| 5) clip has been mout; | 卡扣安装到位 (pic 28) |

3.4.2 Assembly Step

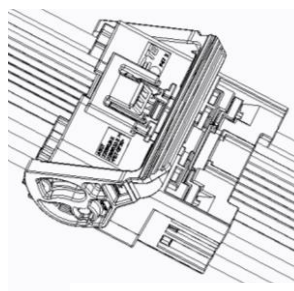
3.4.2 对配过程

Step1, direct insertion

步骤 1 直插



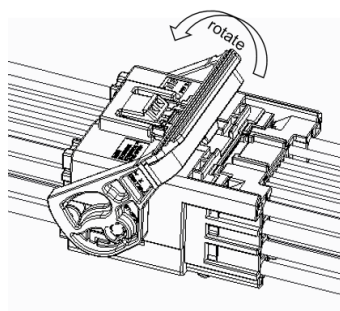
Pic 31



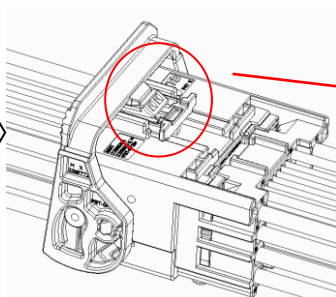
Pic 32

Step 2 rotate lever(pic 33) from pre-lock to end-lock(pic 34), connector mate completely
步骤2 旋转 lever 从预锁位置到终锁位置连接器对配到位。

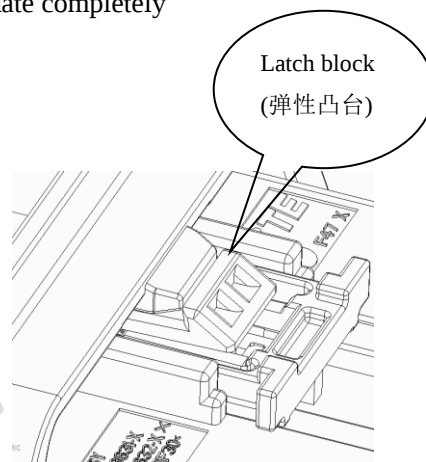
When lever in end-lock position, it stop by latch block in hsg;
当 lever 在终锁位置时，会卡在塑壳的弹性凸台上；(pic 35)



Pic 33

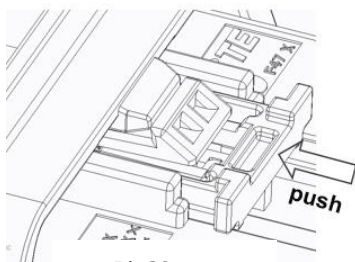


Pic 34

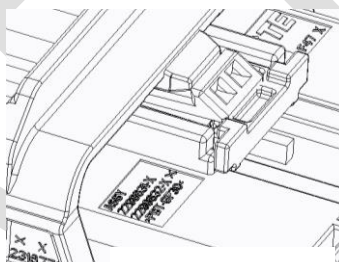


Pic 35

Step 3 Push CPA from pre-lock to end-lock
步骤三 推 CAP 从预锁到终锁位置



Pic 36



Pic 37

3.4.3 mount couple connectors to system module

3.4.3 安装对配好的插件到整车模块

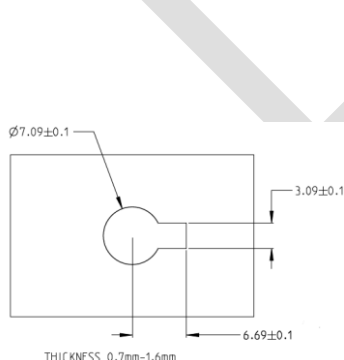
3.4.3.1 clip mount panel size (pic 38)

3.4.3.1 卡扣安装的面板尺寸(pic 38)

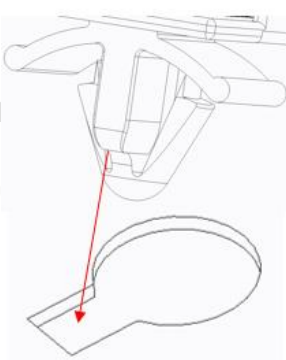
3.4.3.2 couple connectors mount to the module by clip

3.4.3.2 对配接插件通过 clip 安装到模块上

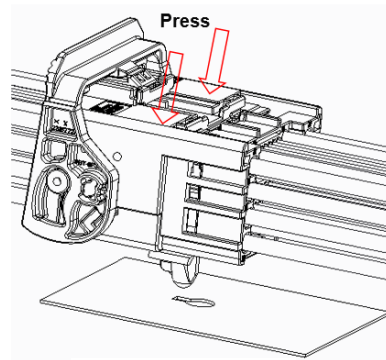
clip align to the hole, and then press the couple connectors towards the module till “ka ta” sounds
确保卡扣特征和面板孔特征对齐(pic 39)，然后朝着模块方向压插件(pic 40)，直到听到”咔嚓“声。



Pic 38



Pic 39



Pic 40

4 48POS CONNECTOR DISASSEMBLY

4 48 位连接器拆装

4.1 Depart the couple connectors from module

4.1 从模块上拆下对配的插件

Option1 : Press the wing of clip , and pull the clip away from panel, depart the couple connectors from module.

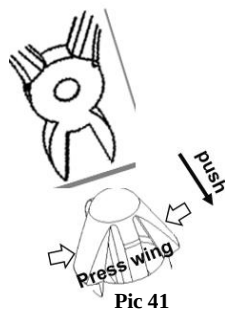
方法一： 摁压卡扣上的翅膀，并压或者拉卡扣脱离模块， 分离接插件和模块。（pic 41）

Option 2: Press the latch in male hsg, make the connector depart the clip;

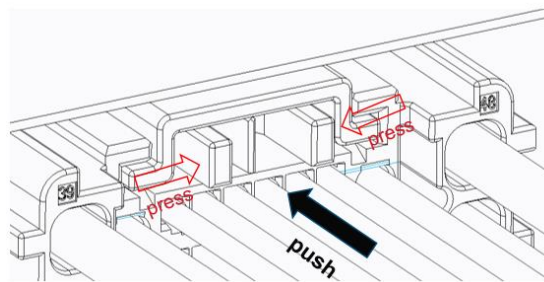
方法二： 摁压在连接器公端塑壳上的弹性卡扣结构;(pic 42)

Option 3 destroy the clip , and change a new clip

方法 3： 破坏卡扣， 重新使用时， 更换新的卡扣



Pic 41



Pic 42

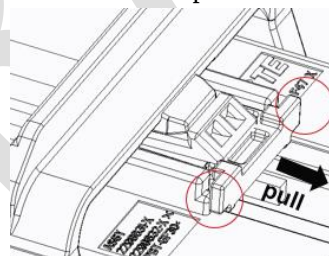
4.2 release cable from wire dress (optional)

4.2 将绑线拆除 (可选)

4.3 Release CPA from end lock to pre-lock

4.3 将二次锁（CPA）退回到预锁位置

By hand, grasp the section in red circle, and pull the CPA from end-lock(pic 37) to pre-lock location(pic 36) by hand; (from pic 37 to pic 36)用手拉 CPA 从终锁位置（pic37）到预锁位置(pic 36);（从图 37 到图 36）



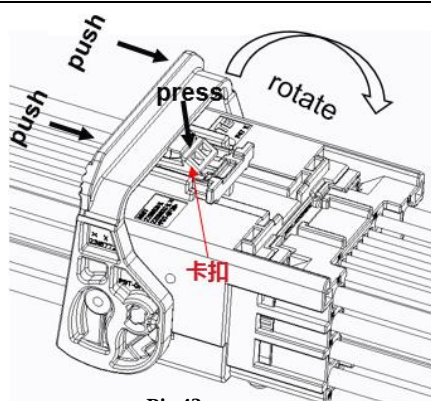
Pic 42a

4.4 Release Lever from end lock to pre-lock

4.4 将 lever 退回到预锁位置

Press the block in male hsg by thumb of left hand,till the block touch CPA, at the same time Push and rotate the lever from pre-lock to end-lock by right hand; and before operate, make sure the CPA has been in pre-lock location.

按照如下图示，先（用左手的大拇指）摁卡扣直到卡扣碰触到 CPA，同时，用右手按照图推动）并旋转（图示区域和方向 lever 到预锁位置，在操作之前，确保 CPA 在预锁位置；

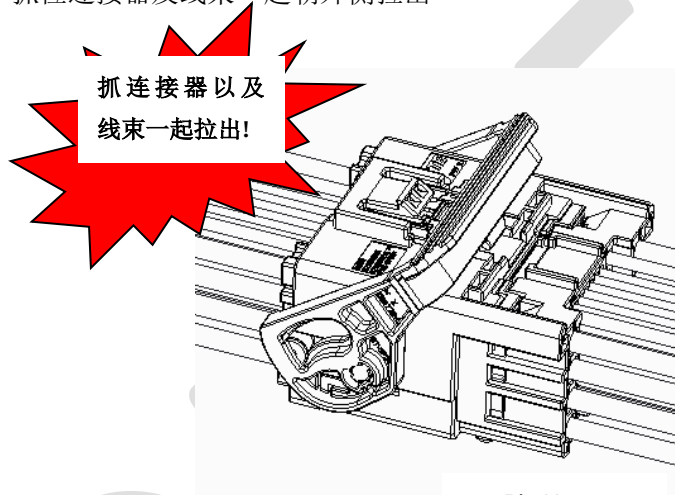


Pic 43

4.5 un-mating connector

4.5 连接器分离

hold the connector and wire and pull back the connectors
抓位连接器及线束一起朝外侧拉出

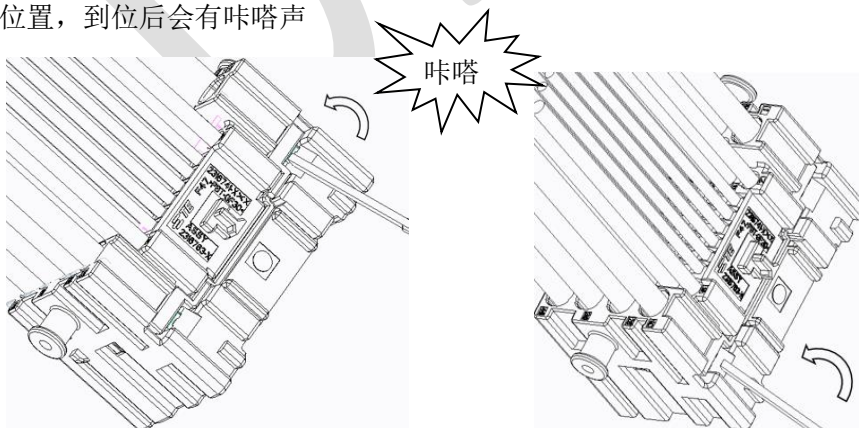


Pic 44

4.6 Pull the TPA from end-lock to pre-lock

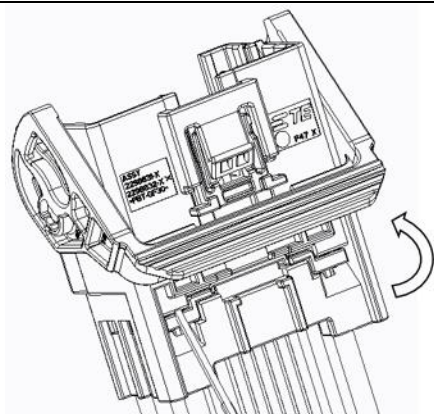
4.6 将二次锁从终锁位置退回到预锁位置

Use Extraction tool 2-1579008-1 OR similar pin (refer 4.4.1) to raise the TPA until to pre-lock
用退端子工具 2-1579008-1 或类似工具, 将尖头伸入连接器 TPA 上的两个小槽, 转动工具使 TPA 退回到预锁位置, 到位后会有咔嗒声

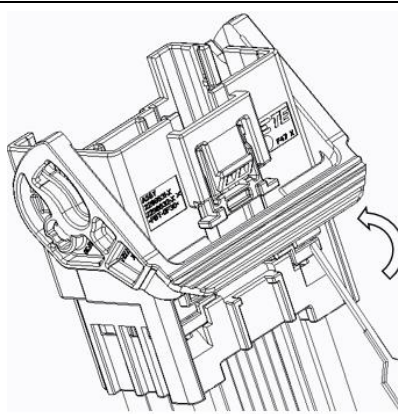


Pic 45

Pic 46



Pic 47



Pic 48

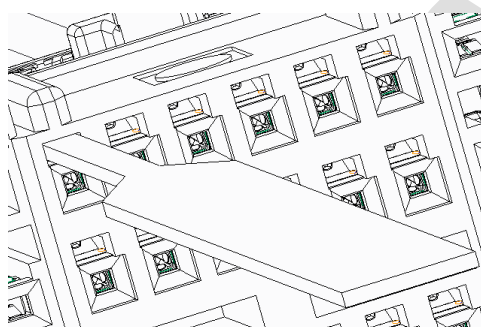
4.7 Terminal Extract

4.7 端子退出

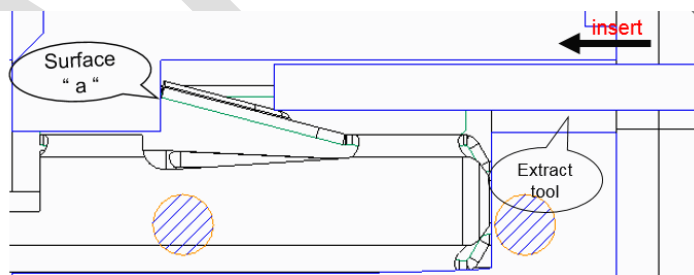
4.7.1 Extract 0.64 Terminal

4.7.1 0.64 端子退出

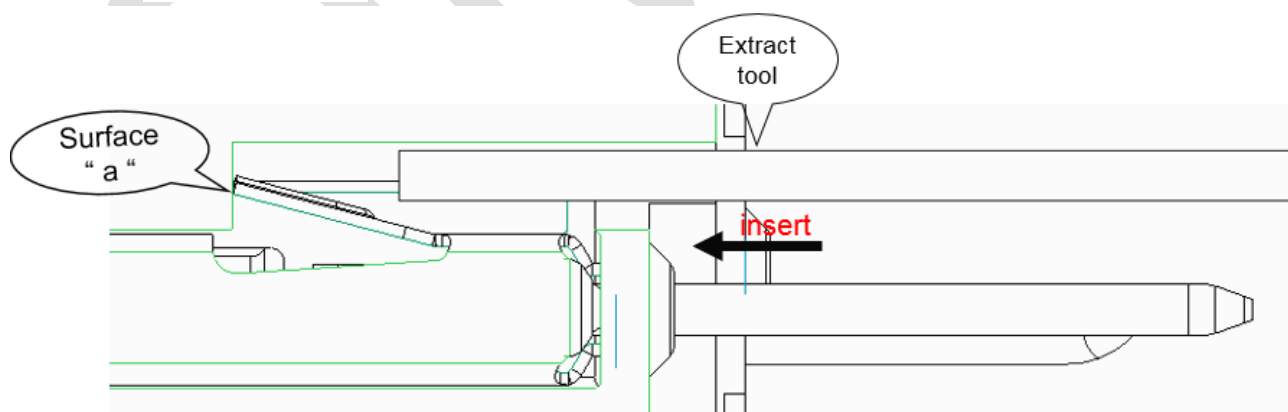
Insert the extract tool till the surface a, and pull the cable till the terminal be away from connectors.
插入退端子工具到面“a”，然后轻拉线束直至端子脱离接插件。



Pic 49



Pic 50



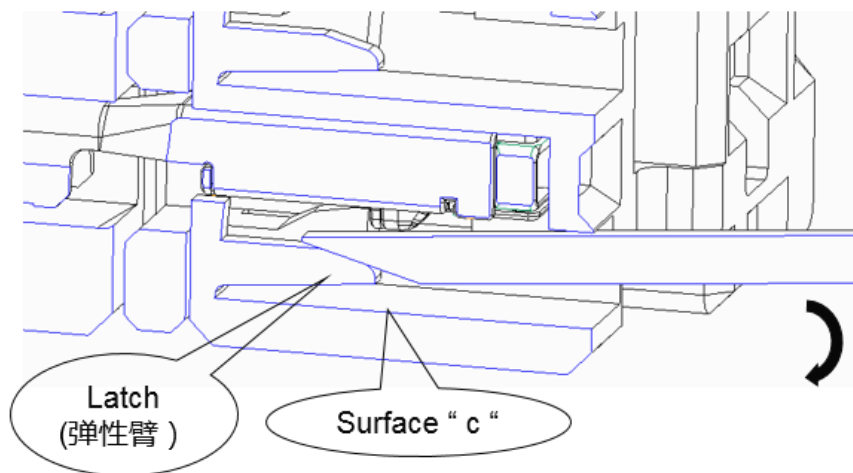
Pic 51

4.7.2 Extract 1.2mm Terminal

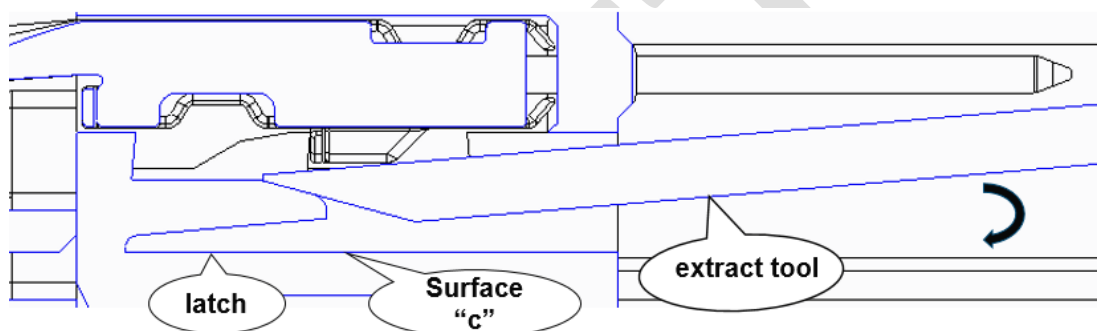
4.7.2 1.2mm 端子退出

rotate the extract tool(as picture shown) till the latch touch the surface c , and then pull the cable till the terminal be away from connectors.

如图旋转退端子工具，使塑壳里的弹性臂碰触到面 c ，然后轻拉线束直至端子脱离接插件。



Pic 52

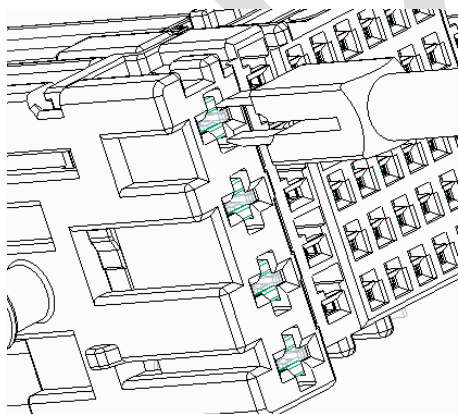


Pic 53

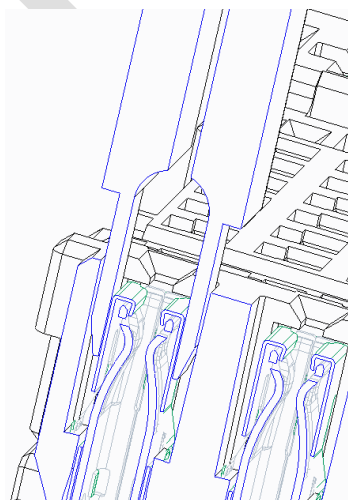
4.7.3 Extract 2.8mm Terminal

4.7.3 2.8mm 端子退出

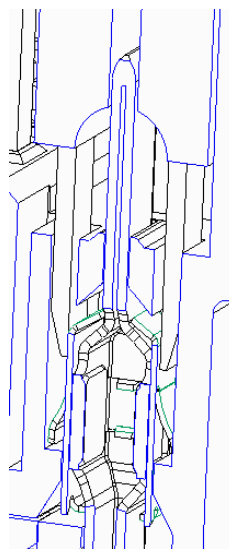
Insert the extract tool till the surface b, and pull the cable till the terminal be away from connectors.
插入退端子工具到面“b”，然后轻拉线束直至端子脱离接插件。



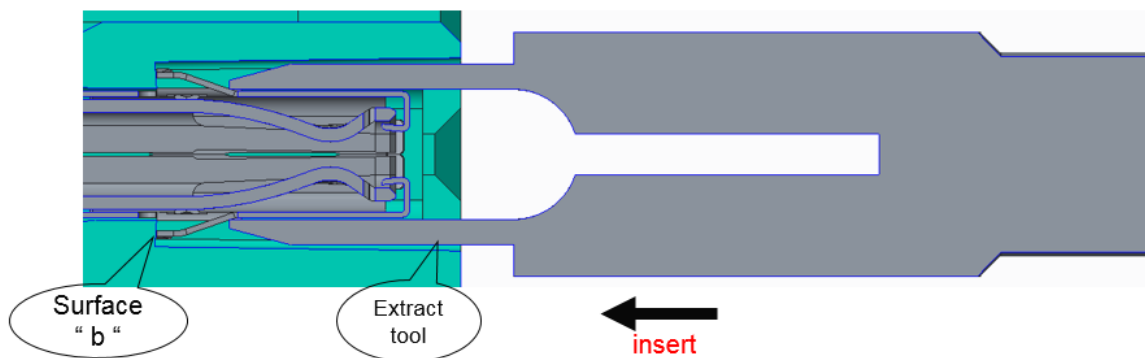
Pic 54



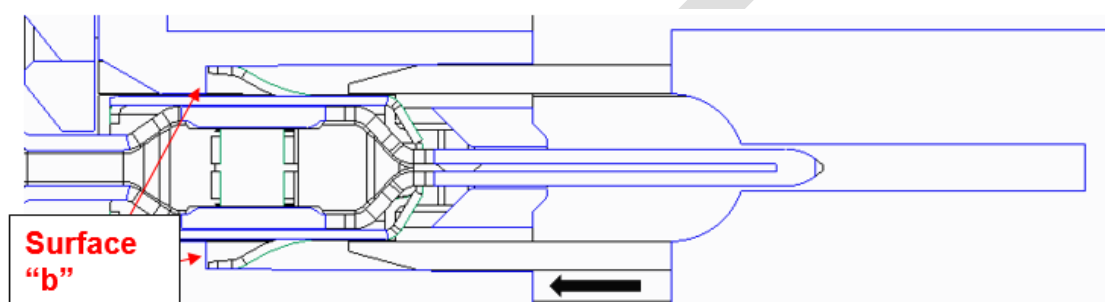
Pic 55



Pic 56



Pic 57

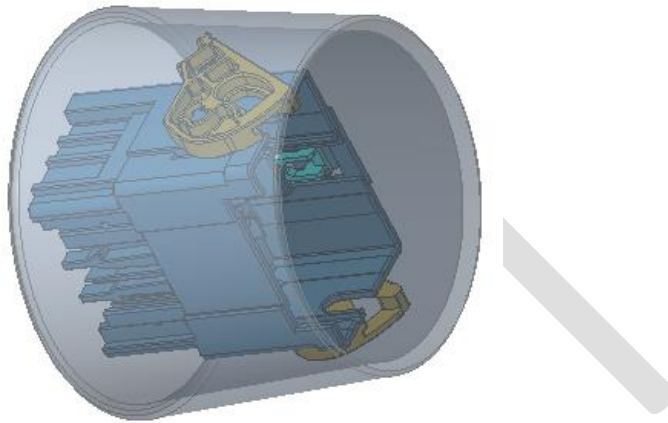


Pic 58

5. PROTECTION SUGGESTIONS FOR 48WAY TAB ASSY CONNECTOR**5 48 位公端连接器保护建议**

After cable assembly, add cover to protect the shroud of connector or choose other effective protection scheme.

Cable 组装后增加罩杯进行产品杯口保护或自行选择其它有效的保护方案.



Pic 59