

**PORTE-CLIPS ET PORTE-LANGUETTES
4 VOIES COURT CIRCUIT GENERATION II
RECEPTACLE HOUSING AND TAB HOUSING
4 WAYS SHORT CIRCUIT CONNECTOR GEN II**

1. INTRODUCTION

1.1. PRÉSENTATION DU PRODUIT

La connectique 4v à court circuit se compose d'un porte-clips et d'un porte-languettes.

Celui ci possède un shunt. Toutes les languettes sont shuntées.

L'ouverture du shunt intervient lors de l'accouplement du porte-clips.

Les contacts utilisés sont les clips SICMA II/III dorés au point de contact et les languettes SICMA II dorés uniquement.

La languette à utiliser doit également être dorée sur la zone de contact shunt/languette.

2. REFERENCES DES PRODUITS

2.1 RÉFÉRENCE DES BOITIERS

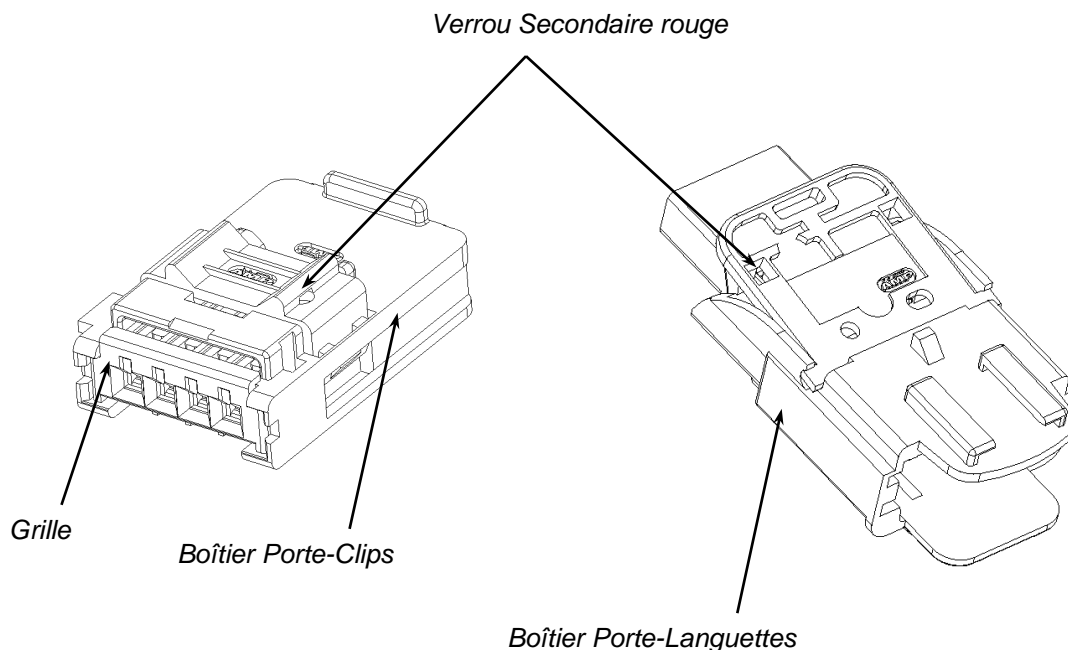


Figure 1

Désignation	Matière	Référence
Porte-clips 4 voies CC Génération II	PBT 20% et 30%FV	X-1379822-X
Porte-languettes4 voies CC		X-953733-X

1 - INTRODUCTION

1.1. PRESENTATION OF THE PRODUCT

The short-circuit connector 4w is composed of a receptacle housing and a tab housing.

This one has a shunt. All the tabs are shunted.

The opening of the shunt occurs during the mating of the receptacles housing.

The contacts used for are the SICMA II/III receptacle gold plated on the contact area and only the SICMA II tab gold plated.

The tab to be used must also be golded on the contact area shunt/tab.

2 - PRODUCTS REFERENCES

2.1 HOUSINGS REFERENCES

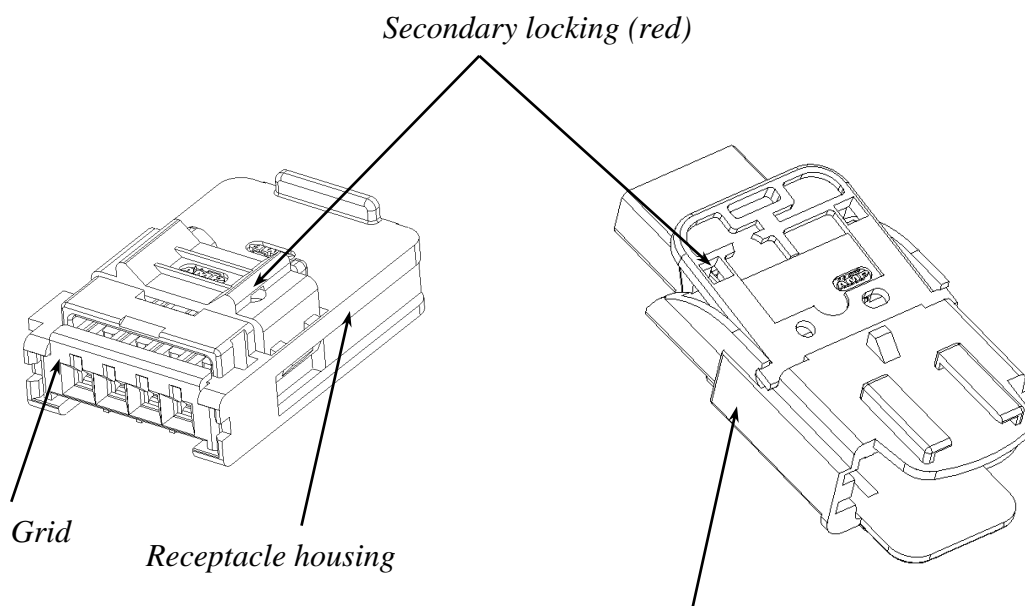


Figure 1

Désignation	Matière	Référence
Connector housing 4 ways CC Génération II	PBT 20% et 30%GF	X-1379822-X
Tab housing 4 ways CC		X-953733-X

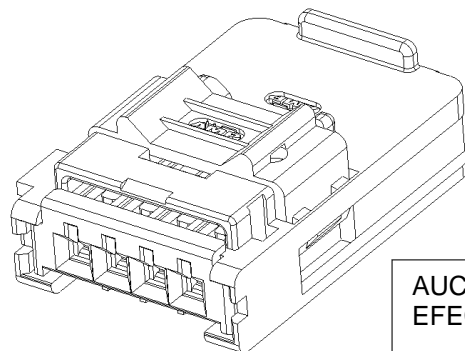
2.2. CONDITIONNEMENT

- Porte-clips 4 Vcc : Carton A15 en vrac ; Qté (VC) 1050 (VL) 800.
- Porte-languettes 4 Vcc : Carton A15 en vrac ; Qté (VC) 350 (VL) 300.

A. LE PORTE-CLIPS

Il existe en deux versions :

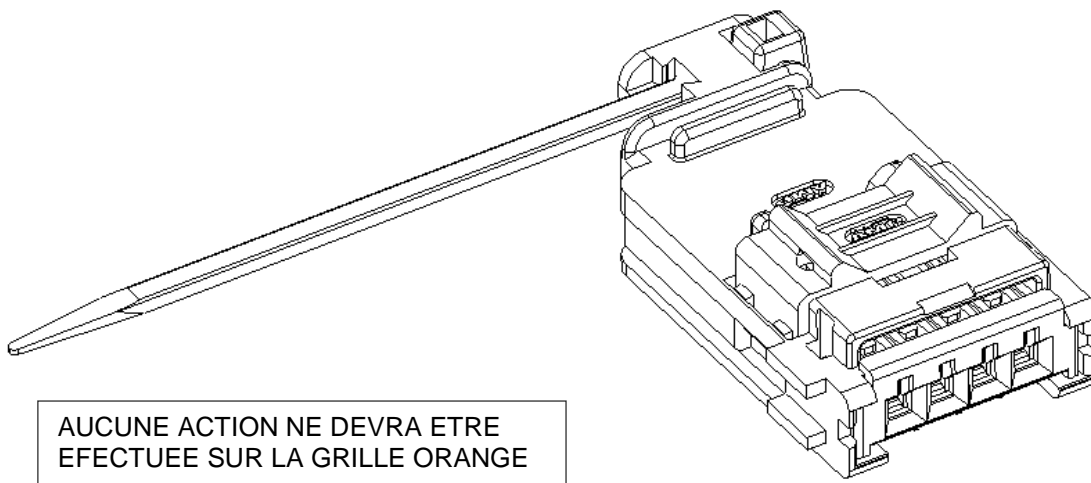
A.1. La version dite "COURTE" réf. 0-1379822-X



AUCUNE ACTION NE DEVRA ETRE
EFFECTUEE SUR LA GRILLE ORANGE

Figure 2

A.2. La version dite "LONGUE" livrée avec serre câbles pré-montés réf. 2-1379822-X



AUCUNE ACTION NE DEVRA ETRE
EFFECTUEE SUR LA GRILLE ORANGE

Figure 3

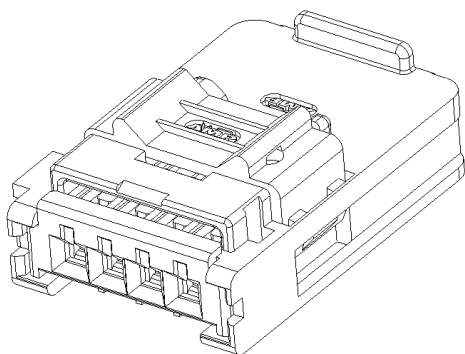
2.2. PACKAGING

- Receptacle housing 4 Vcc : Shipping box A15 bulk ; Qté (VC) 1050 (VL) 800.
- Tab housing 4 Vcc : Shipping box A15 bulk ; Qté (VC) 350 (VL) 300.

A. RECEPTACLE HOUSING

Two versions exist:

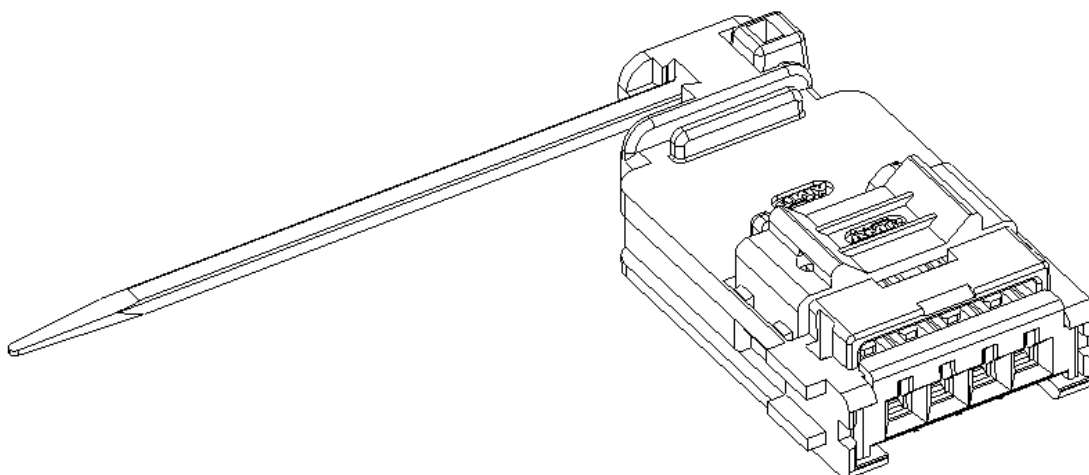
A.1. The version known as "SHORT " ref. 0-1379822-X



NO ACTION WILL HAVE TO BE DONE ON THE ORANGE GRID

Figure 2

A.2. The version known as "LONG" is supplied with tie cable pre-assembled ref. 2-1379822-X

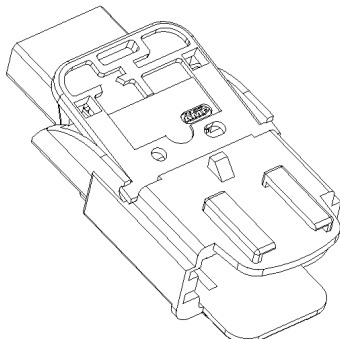


NO ACTION WILL HAVE TO BE DONE ON THE ORANGE GRID

Figure 3

B. LE PORTE-LANGUETTES

Il existe en deux versions :



B.1. La version dite "COURTE" réf. 0-953733-X

Figure 4

B.2. La version dite "LONGUE" livrée avec serre câbles pré-montés réf. 2-953733-X

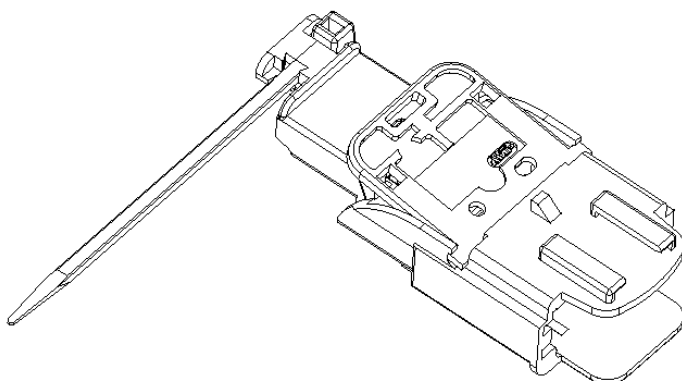


Figure 5

COULEURS:

REF	COULEUR
XXXXXX-1	NOIR
XXXXXX-2	BLANC
XXXXXX-3	VERT
XXXXXX-4	BLEU

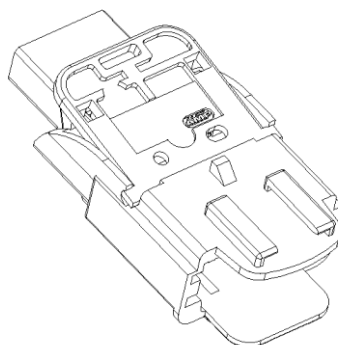
REMARQUE Détrompage couleur et mécanique

2.3. RÉFÉRENCE DES CONTACTS UTILISÉS

- Clips 1.5 SICMA II/III (dorés) et languettes 1.5 SICMA II (dorés) ou compatibles SICMA dorés.

B. TAB HOUSING

Two versions exist:



B.1. The version known as “SHORT” ref. 0-953733-X

Figure 4

B.2. The version known as “LONG” is supplied with tie cable pre-assembled ref. 2-953733-X

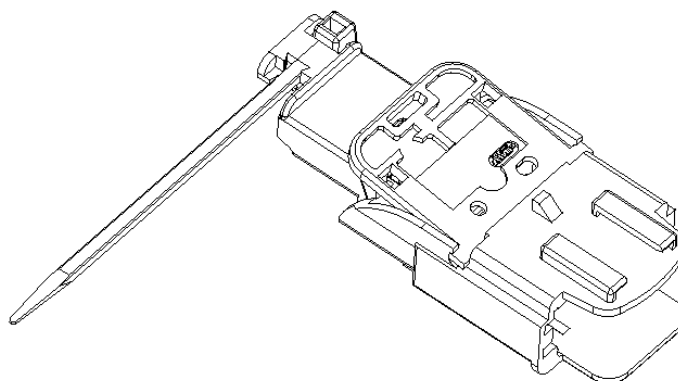


Figure 5

COLORS:

REF	COLOR
XXXXXX-1	BLACK
XXXXXX-2	WHITE
XXXXXX-3	GREEN
XXXXXX-4	BLUE

NOTE : color and mechanical coding

2.3. REFERENCE OF THE CONTACTS USED

- Receptacles 1.5 SICMA II/III (golded) and tabs 1.5 SICMA II (golded) or compatible SICMA golded

3. SERTISSAGE DU CONTACT

Voir spécification contacts.

REMARQUE Pour une utilisation du connecteur avec un câble multi-fils on doit respecter la cote de dégainage suivante ($25 +5/0$) pour les versions courtes et longues.

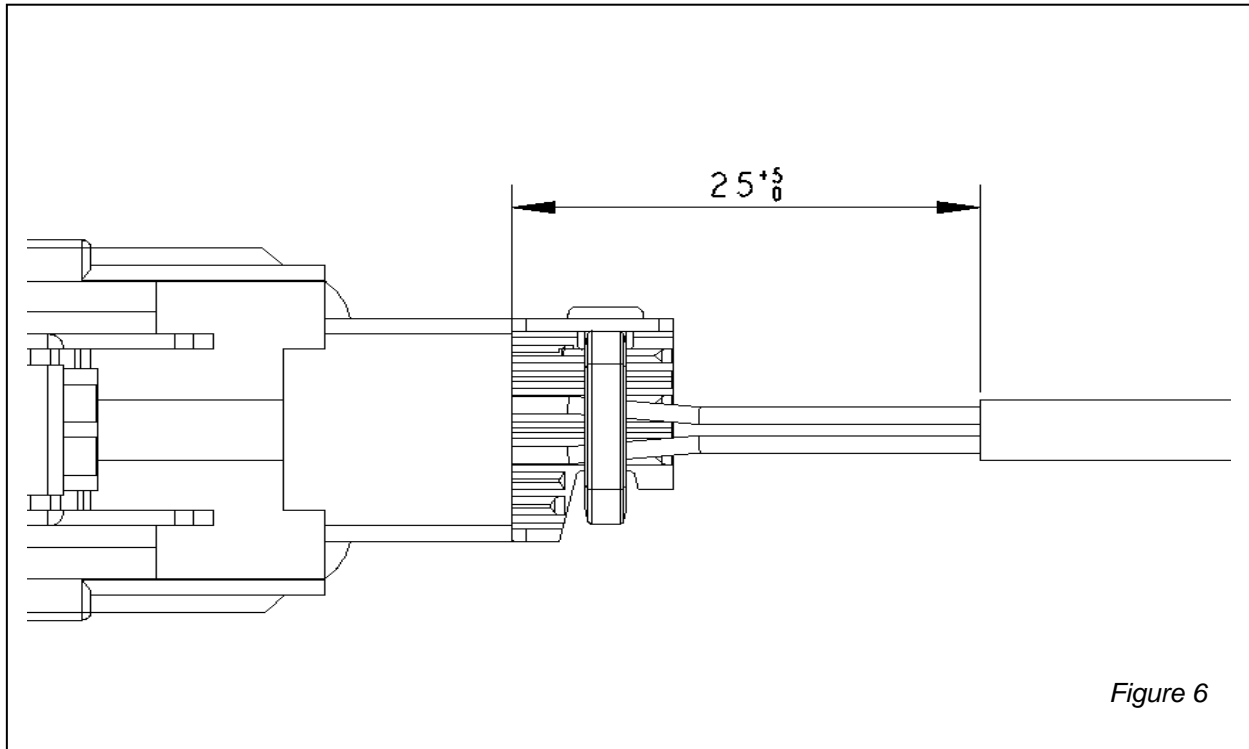


Figure 6

3. CRIMPING CONTACT

See contacts spec.

Note: in case of use of the connector with multi-wires cable, the following decladding dimension ($25^{+5/0}$) must be respected for short and long versions.

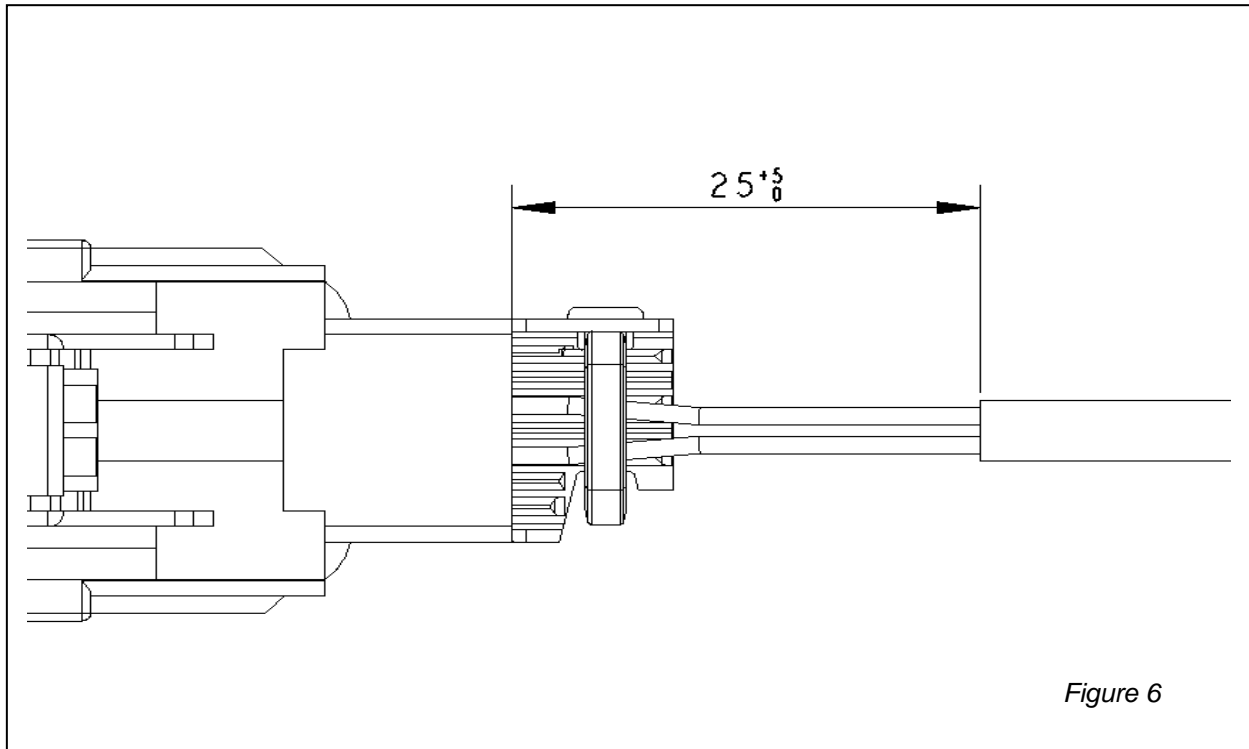


Figure 6

4. CABLAGE DU PORTE-CLIPS

ATTENTION Prendre le porte-clips comme montré ci-dessous :

4.1. INSERTION DES CLIPS

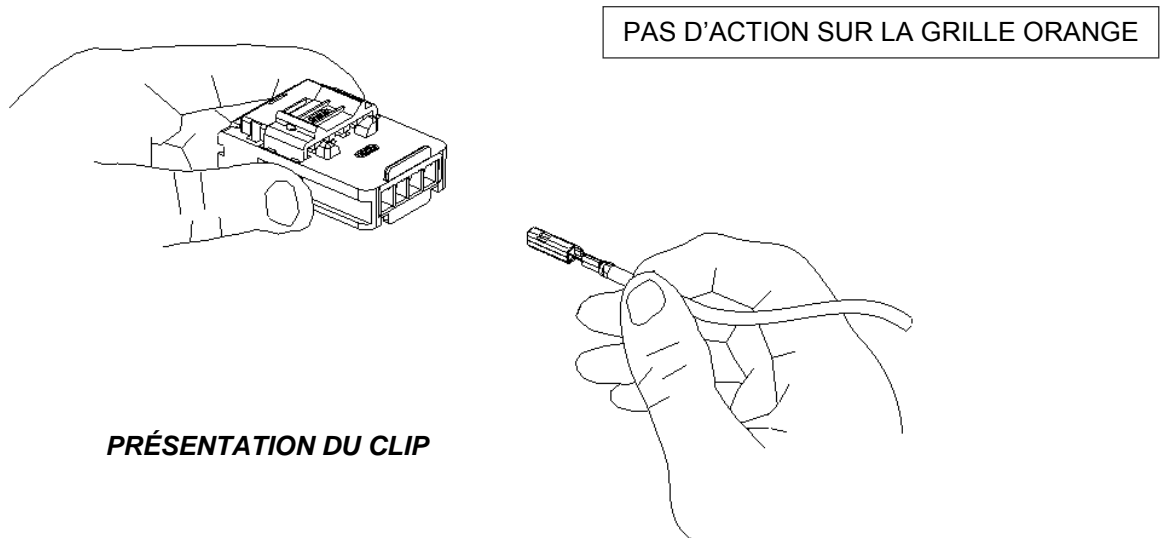


Figure 7

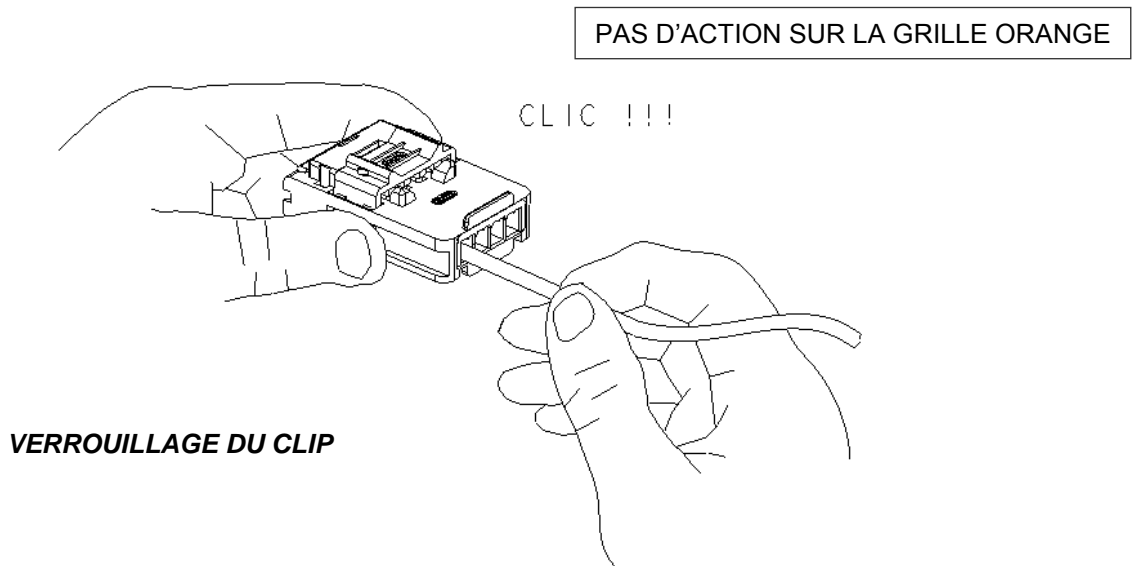


Figure 8

4. WIRING OF THE RECEPTACLE HOUSING

CAUTION: Hold the receptacle housing as shown below

4.1. INSERTION OF THE CLIPS

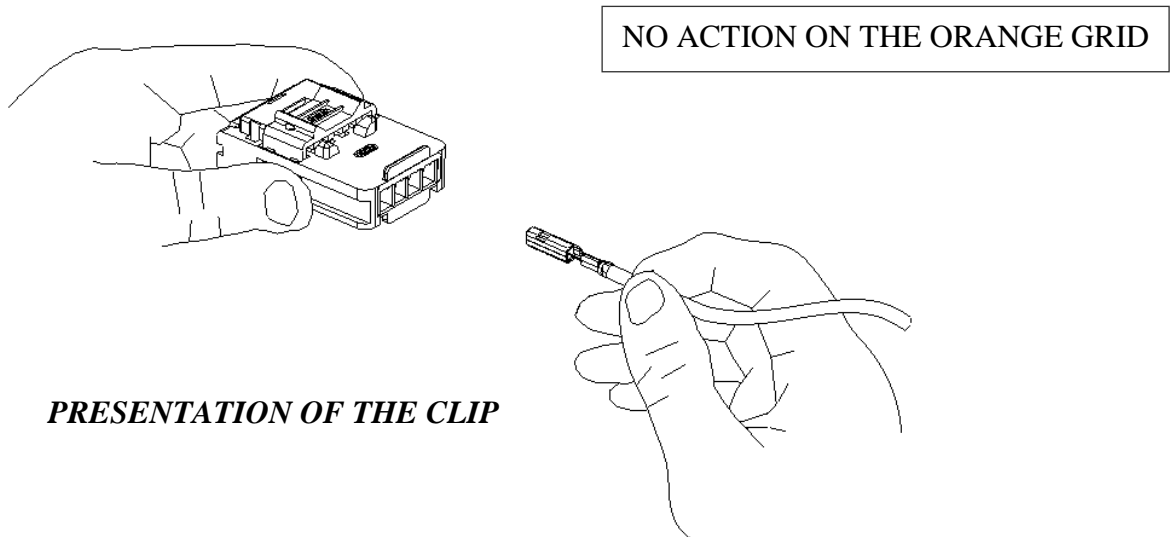


Figure 7

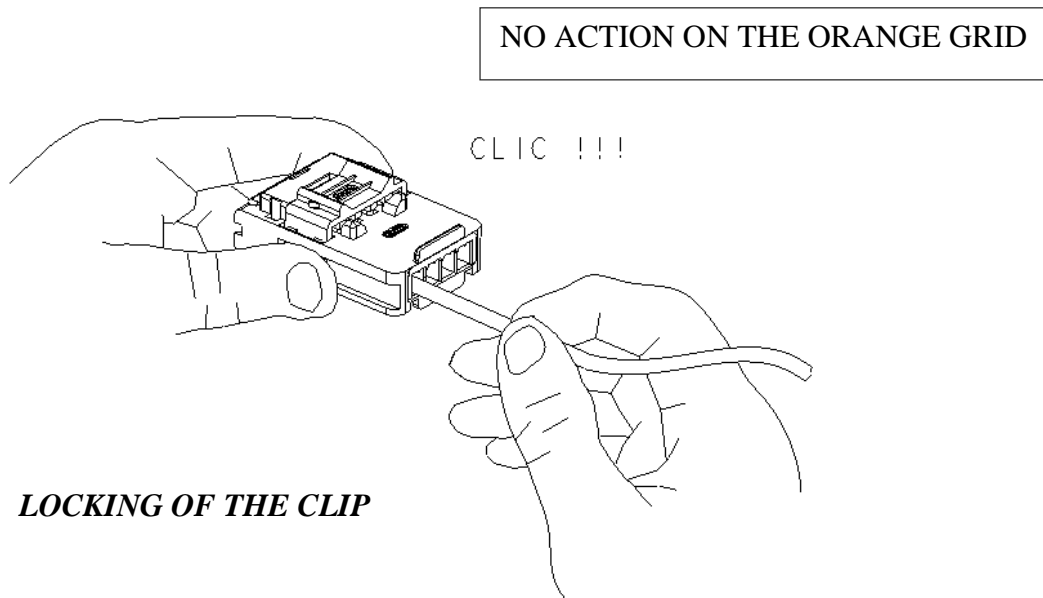
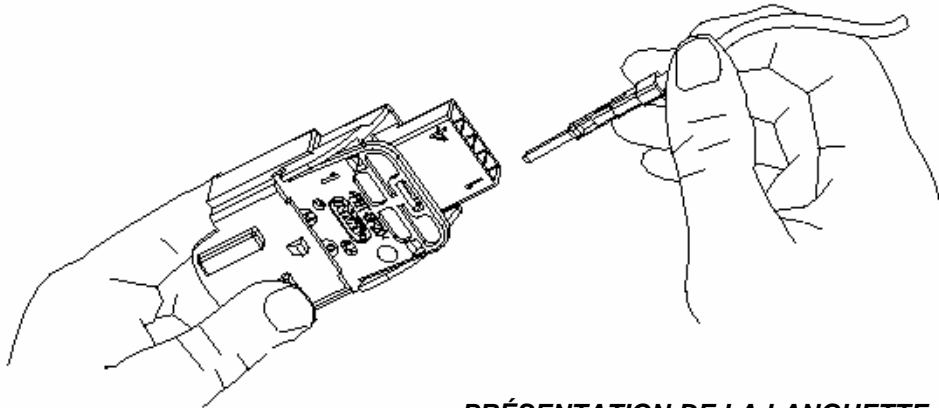


Figure 8

5. CABLAGE DU PORTE LANGUETTES

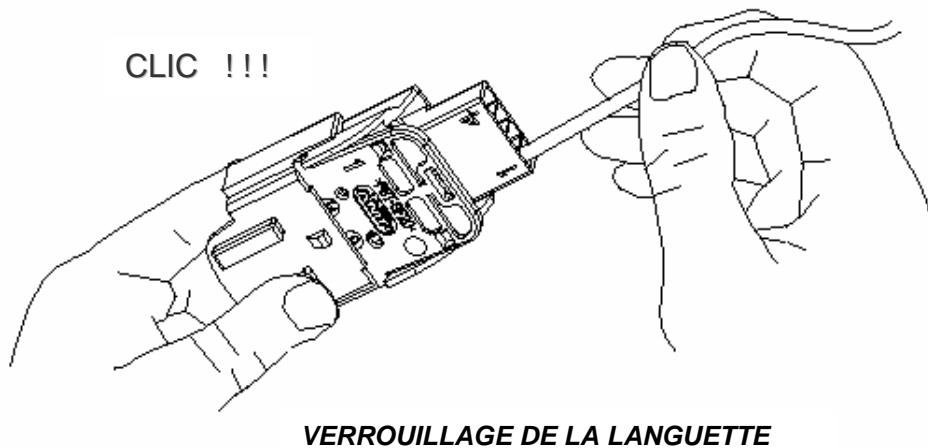
ATTENTION prendre le connecteur comme indiqué ci-dessous :

5.1. INSERTION DES LANGUETTES



PRÉSENTATION DE LA LANGUETTE

Figure 9



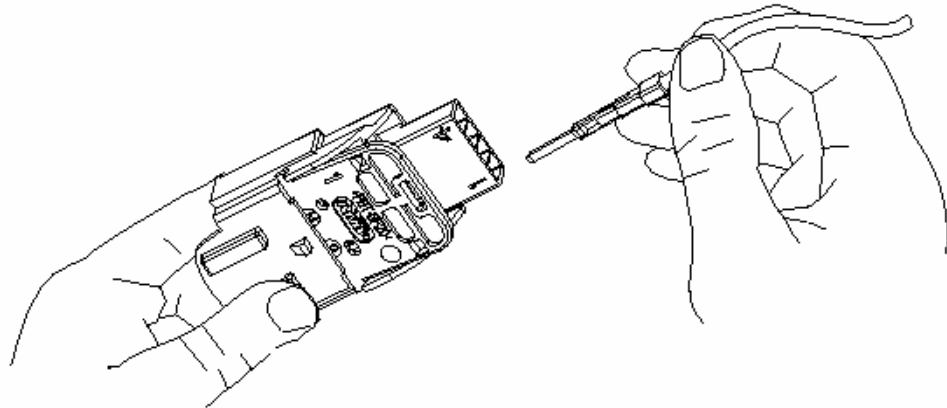
VERROUILLAGE DE LA LANGUETTE

Figure 10

5. WIRING OF THE TAB HOUSING

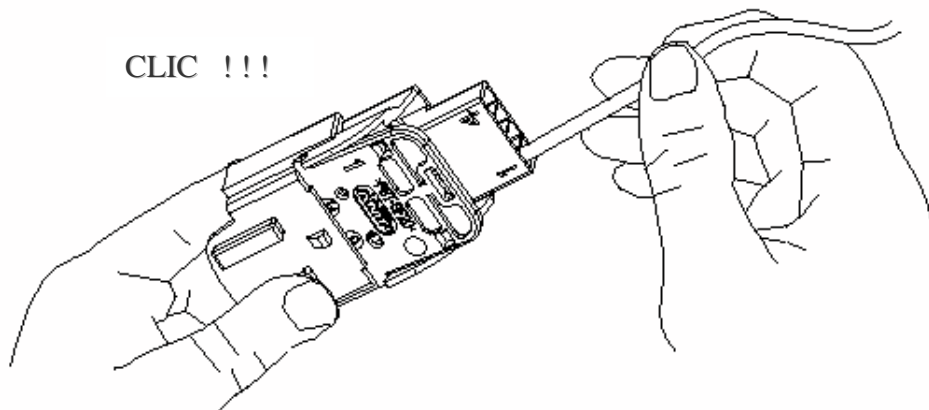
CAUTION: Hold the tab housing as shown below

5.1. INSERTION OF THE TABS



PRESENTATION OF THE TAB

Figure 9



LOCKING OF THE TAB

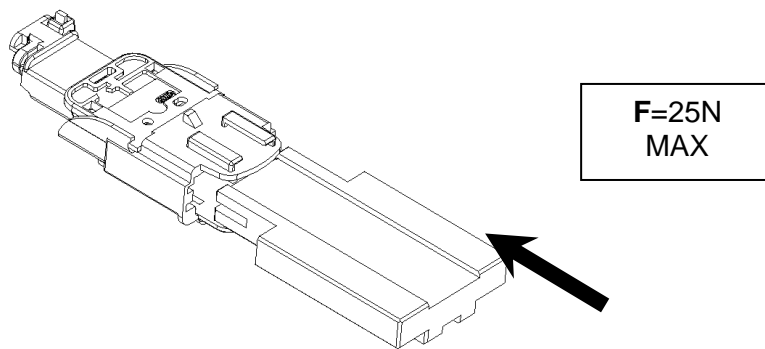
Figure 10

CONTROLE DE LA POSITION DES LANGUETTES

REMARQUE Pour effectuer ce contrôle, on doit utiliser un gabarit défini par les plans 411-15634-4 page 9/28 (pour les câbleurs) et 411-15643-5 pages 10/28 (pour les équipements pyrotechniques, les languettes restent shuntées). Pour une bonne utilisation de cet outil, il doit être inséré dans le porte-languettes après le câblage complet et les différents tests (électriques,) de celui ci.

- Ce contrôle doit être effectué à 100% des faisceaux
- Il ne doit en aucun servir de conformateur.

1) Le calibre doit être introduit de cette manière (le verrou secondaire doit être fermé) :



2) Pour des languettes en bonne position, le calibre doit venir en butée contre le boîtier

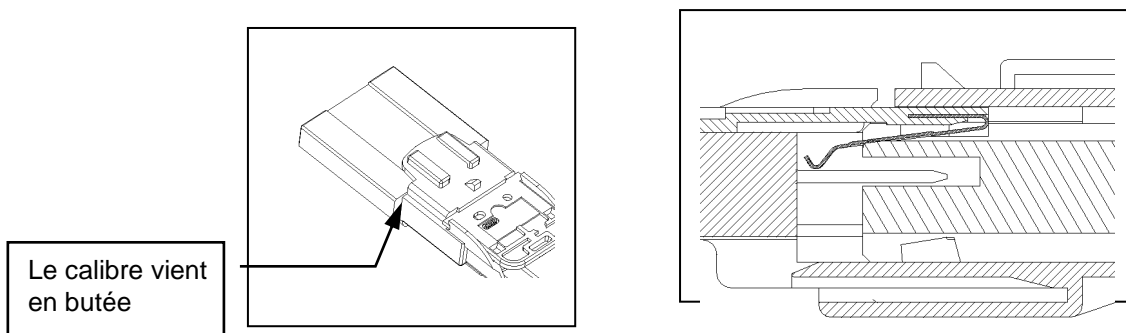


Figure 12

3) Pour des languettes déformées, le calibre vient en butée contre les languettes

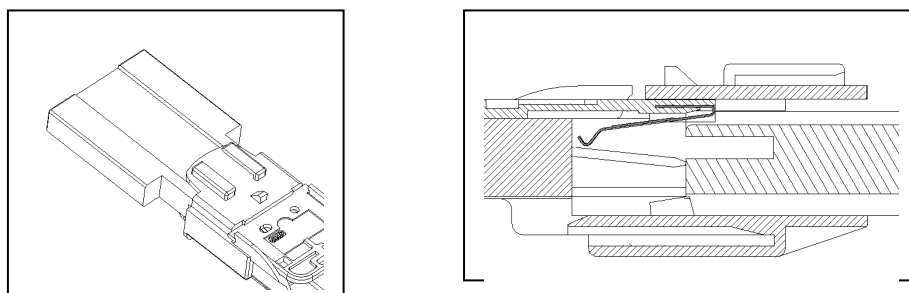


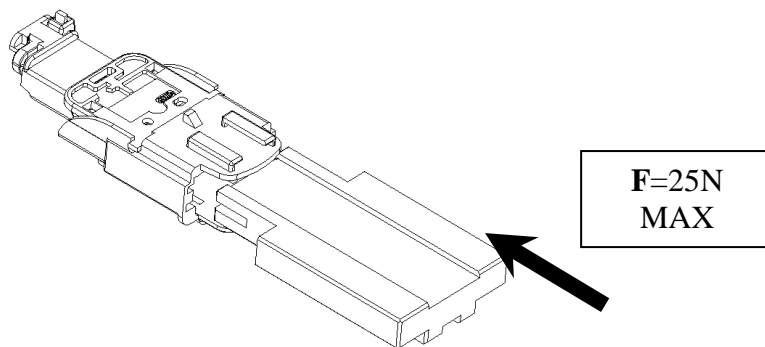
Figure 13

CONTROL POSITION OF THE TABS

Note: to carry out this control, we must use a gauge defined by drawings 411-15634-4 page 9/28 (for the cabling) and 411-15643-5 pages 10/28 (for the pyrotechnical equipment, the tabs remain shunted). For a proper use of this tool, it must be inserted in the tabs housing after complete wiring and the various tests (electric,...) of this one.

- **Control must be carried out á 100% of the harnesses**
- **It must never be used as a conformer.**

1) The gauge must be introduced in this way (the secondary lock must be closed)



2) For tabs in good position, the gauge must come to stop against the housing :

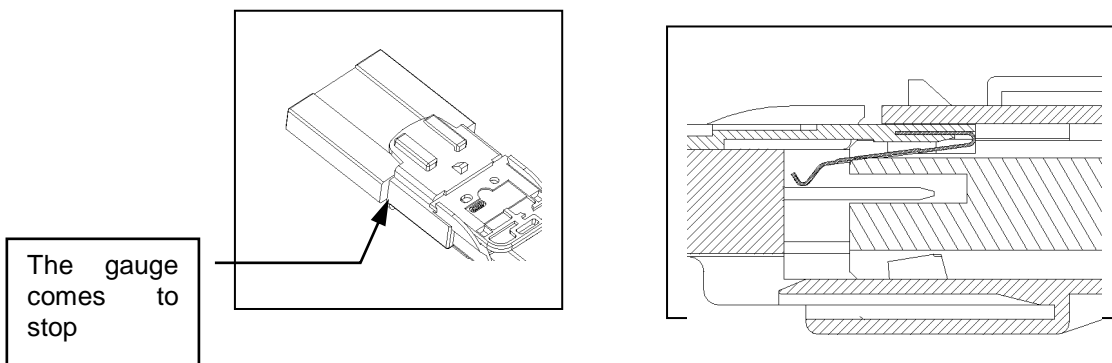


Figure 12

3) For deformed tabs, the gauge comes to stop against the tabs:

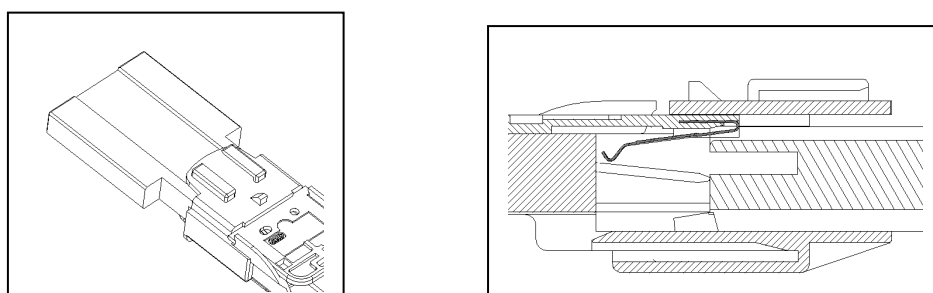


Figure 13

REMARQUE Dans les cas :

- de languettes déformées aux valeurs maxi autorisées (VOIR PLAN 211 FT 0316 OU PSA 9626679980)

- ou/et de câblage du connecteur 4VCC par plusieurs opérations successives.

Il est recommandé d'orienter toutes les languettes dans le même sens lors de l'insertion dans les alvéoles :

Le cœur du frettage isolant doit être dirigé vers le côté du verrou secondaire sur le connecteur,

Comme indiqué ci dessous.

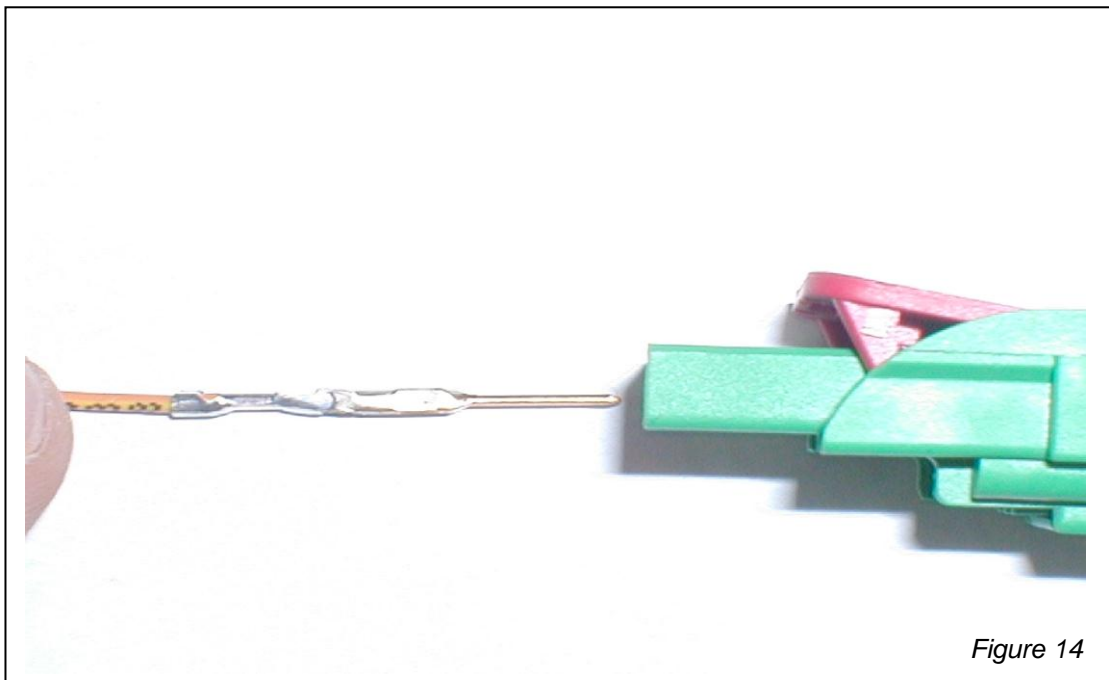


Figure 14

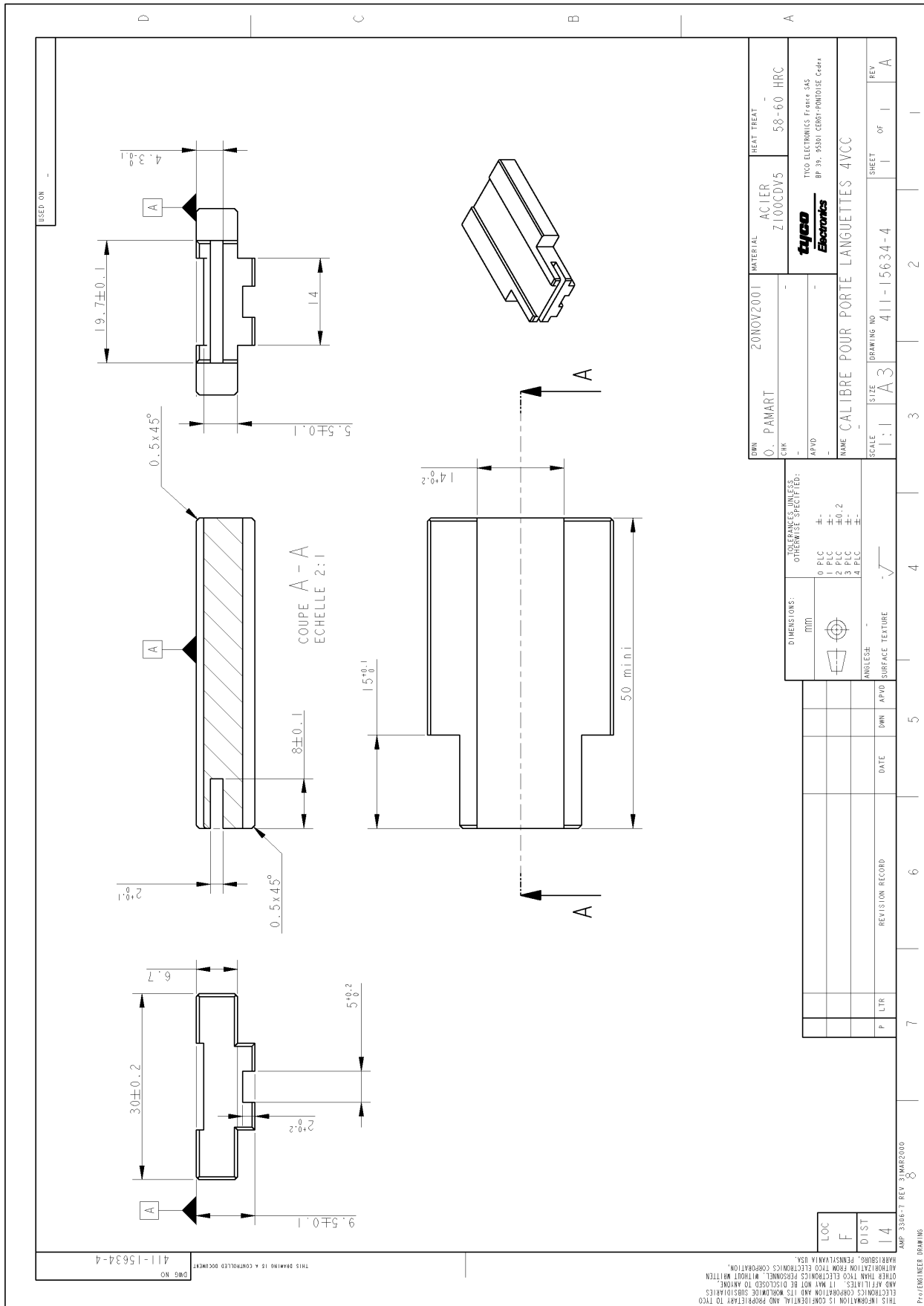
Note: In the cases:

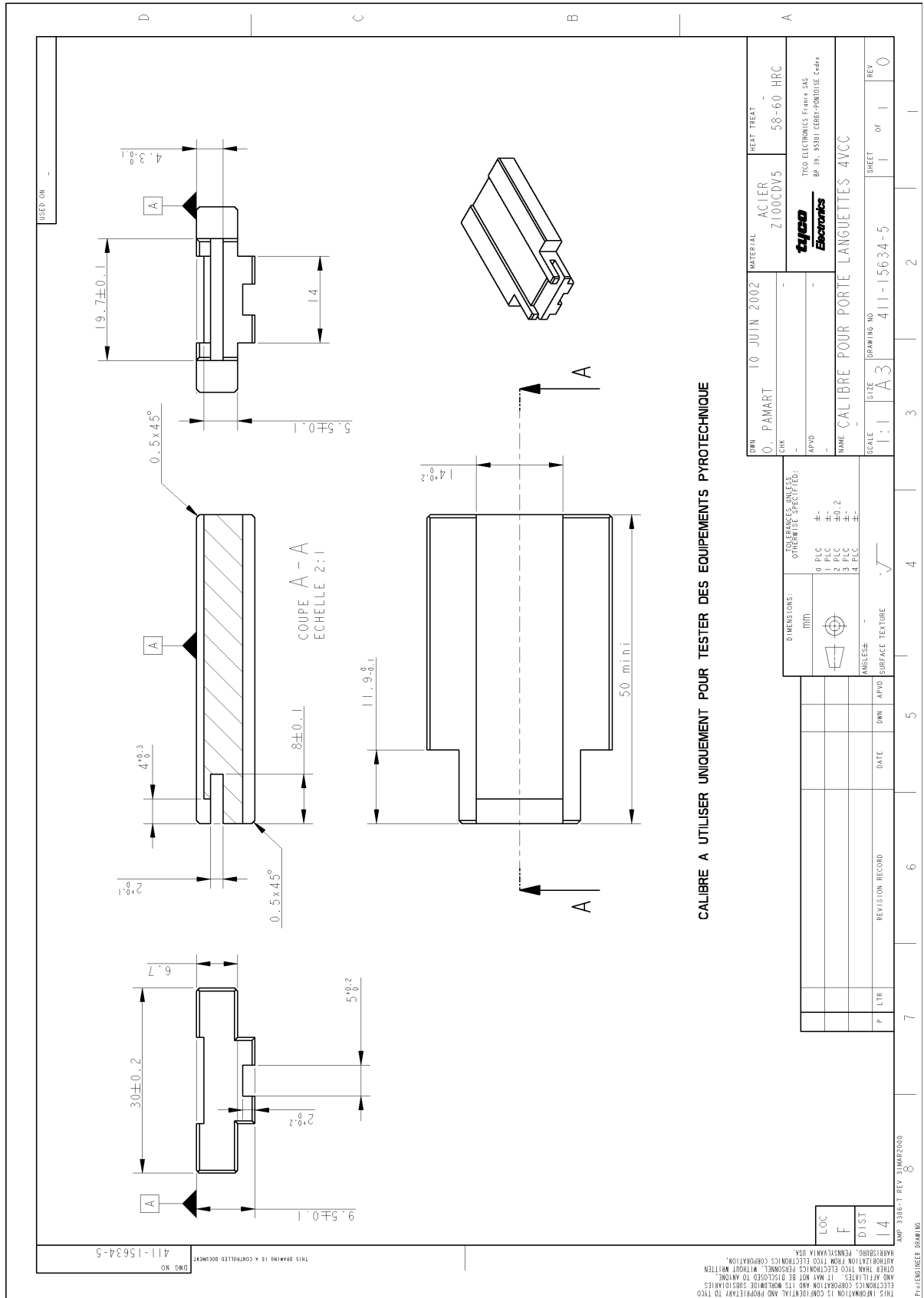
- *Tabs deformed at the maximum values allowed (SEE DRAWINGS 211 FT 0316 OR PSA 9626679980)*
- *and/or wiring of the connector 4VCC by several successive operations.*

It is recommended to direct all the tabs in the same direction during insertion in the cavities: The heart of the shrinking-on insulator must be directed to the side of the secondary lock on the connector. As indicated below.



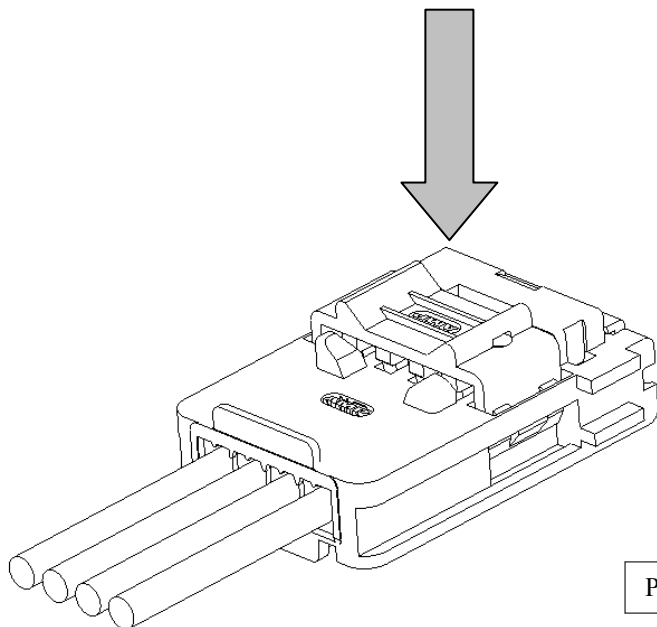
Figure 14





6. ACTIVATION DES VERROUS SECONDAIRES

6.1 ACTIVATION DU VERROU SECONDAIRE DU PORTE CLIPS



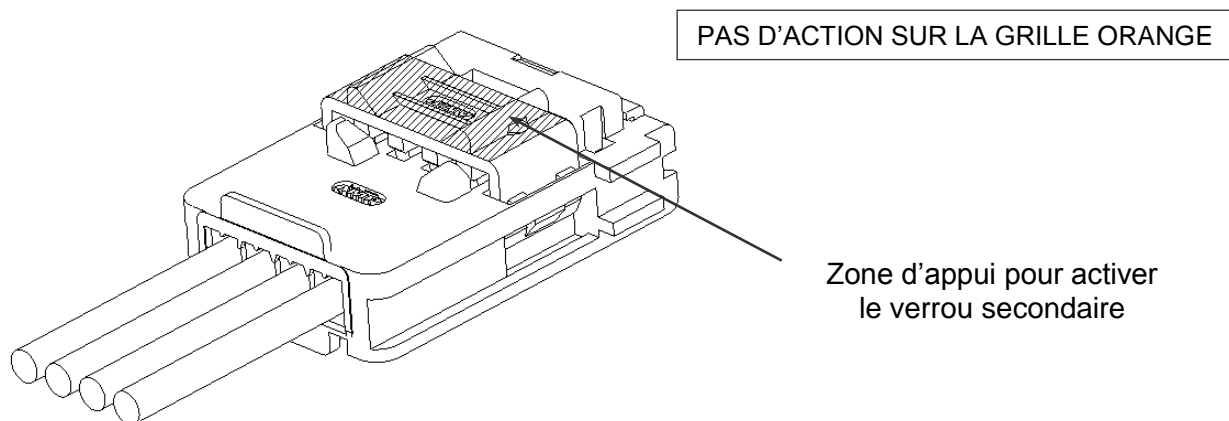
Prendre le connecteur entre les doigts et fermer celui ci. Si tous les clips sont en place, le verrou doit se fermer sous un effort de $20N < F < 40N$.

La course de fermeture des verrous est de 1.8 mm.

PAS D'ACTION SUR LA GRILLE ORANGE

Figure 15

REMARQUE : Zones d'appui autorisées pour verrouiller le verrou secondaire



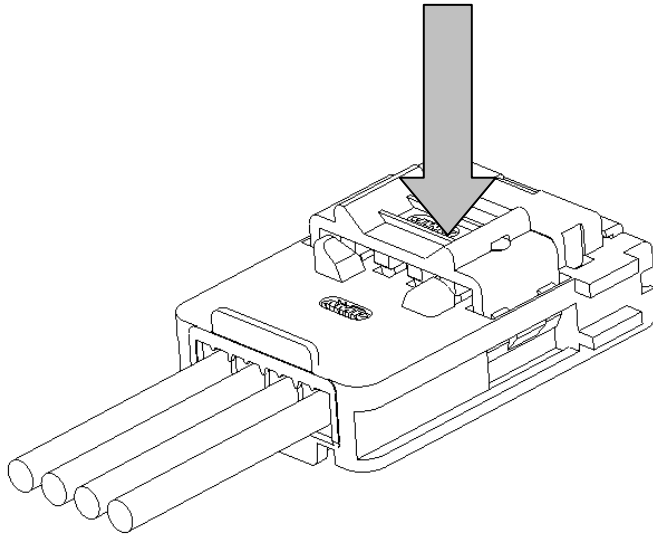
PAS D'ACTION SUR LA GRILLE ORANGE

Zone d'appui pour activer le verrou secondaire

Figure 16

6. ACTIVATION SECONDARY LOCKING

6.1 ACTIVATION SECONDARY LOCKING RECEPTACLE HOUSING



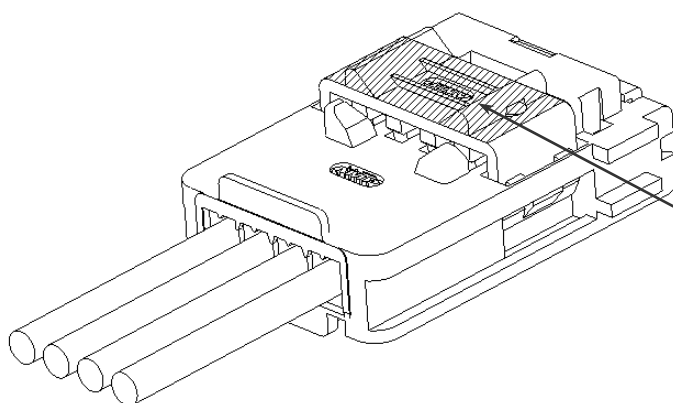
Take the connector between the fingers and close this one. If all the clips are in place, the lock must close under an effort of $20N < F < 40N$

The closing stroke of the lock is of 1.8 mm

NO ACTION ON THE ORANGE GRID

Figure 15

NOTE: Support zone allowed to lock the secondary lock



NO ACTION ON THE ORANGE GRID

Support zone to activate the secondary lock

Figure 16

6.2 ACTIVATION DU VERROU SECONDAIRE DU PORTE LANGUETTES

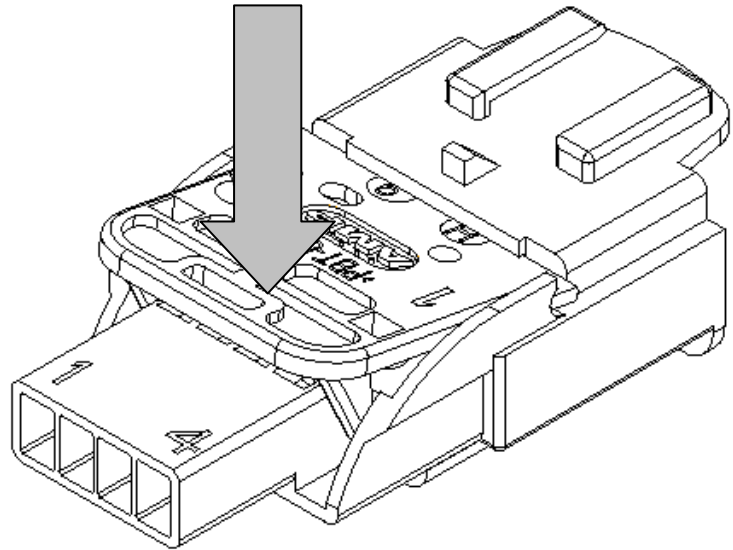


Figure 17

Zone d'appui pour activer
le double verrouillage

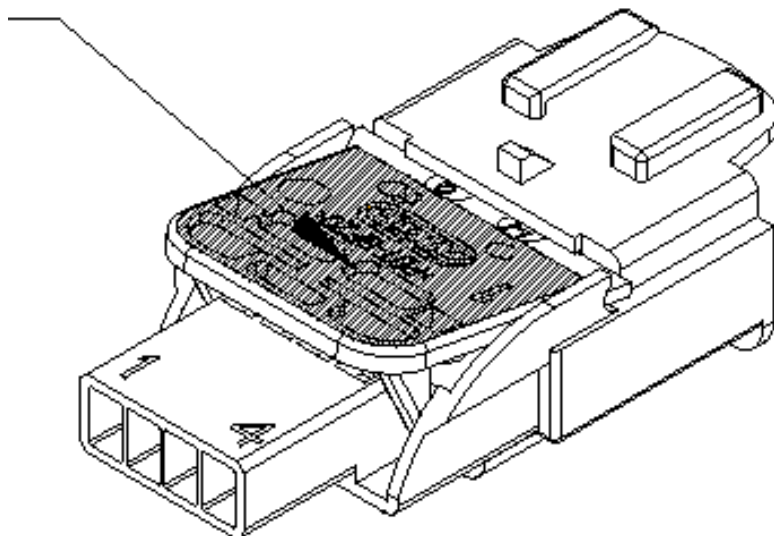


Figure 18

6.2 ACTIVATION SECONDARY LOCKING TAB HOUSING

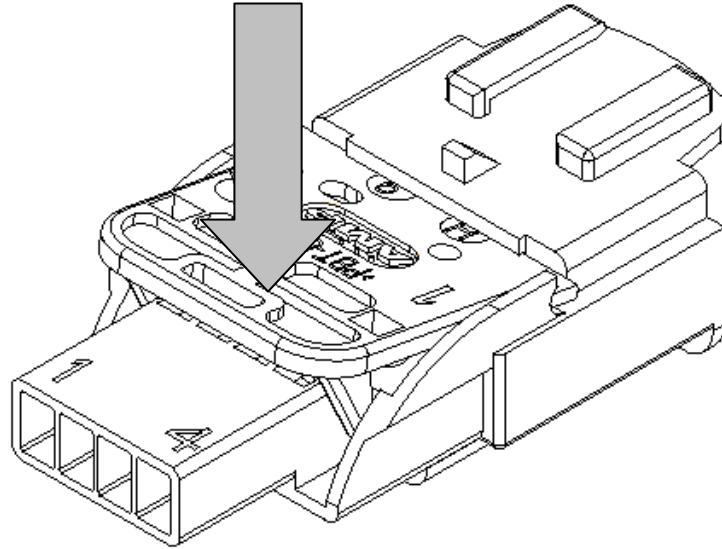


Figure 17

Support zone to activate
the secondary lock

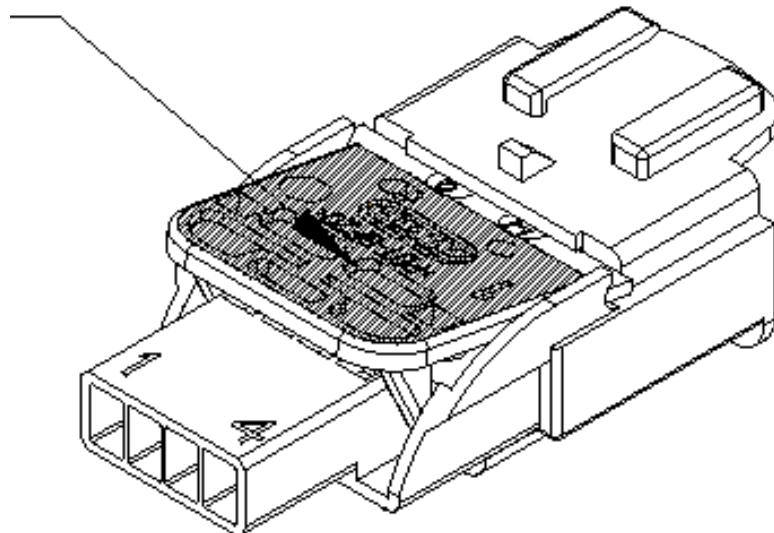


Figure 18

7. DEMONTAGE D'UN CLIP

7.1 DESACTIVATION DU « VS »

OPERATION 1 : Placer le boîtier Porte-Clips dans la zone (1) de l'outil TYCO (outil réf 1379849-1) et venir en butée sur l'outil.

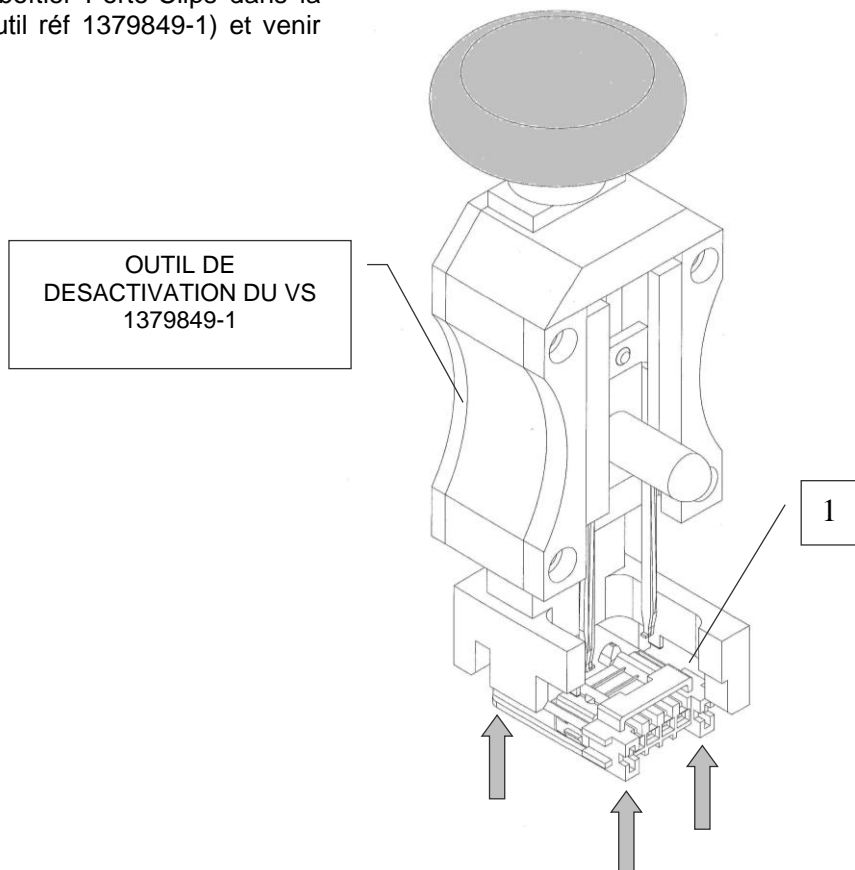


Figure 19

OPERATION 2 : Abaisser la tige cylindrique (2) située sur l'avant de l'outil : l'épingle (3) se verrouille alors sur les ouvertures du Verrou Secondaire.

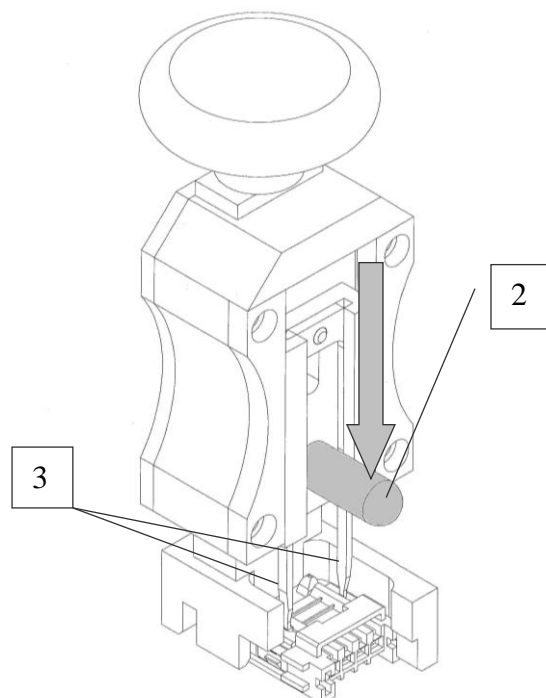


Figure 20

7. DISASSEMBLING OF A RECEPTACLE

7.1 DEACTIVATION OF THE « SL »

STEP 1: Place the receptacle housing in the zone (1) of the TYCO tool (ref. 1379849) and come to stop on the tool

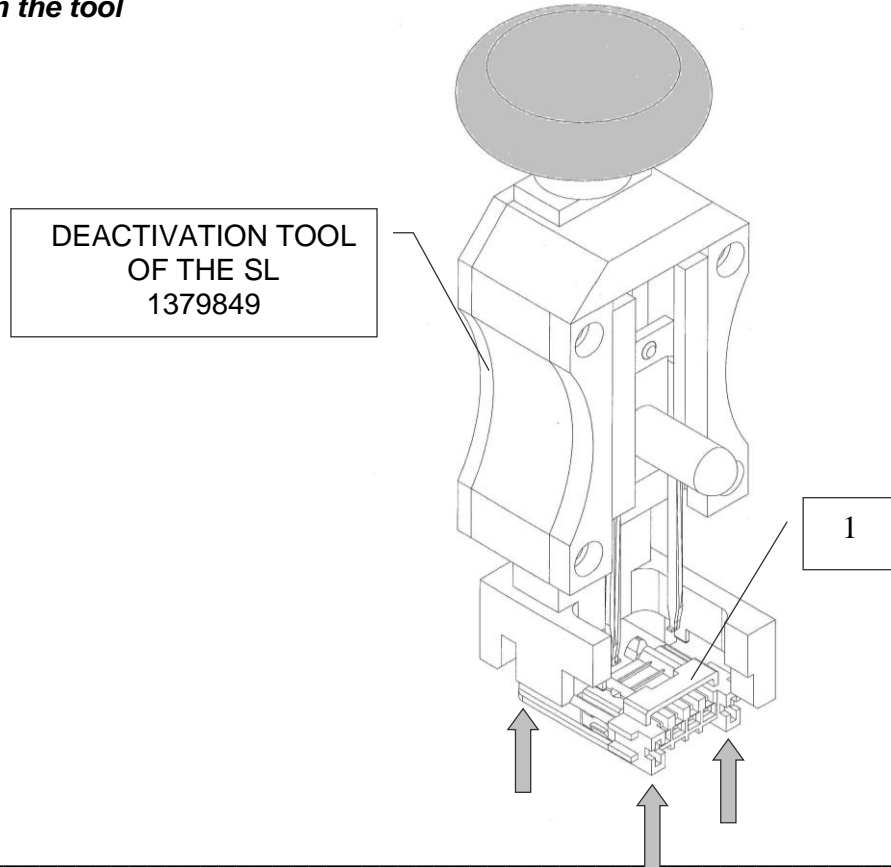


Figure 19

STEP 2: Lower the cylindrical rod (2) located on the front of the tool: the pin (3) is locked then on the openings of the Secondary Lock.

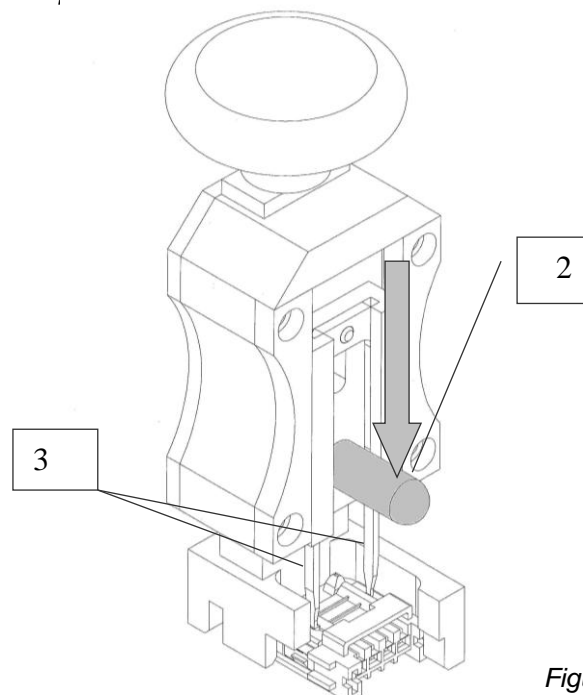


Figure 20

OPERATION 3 : Relever le corps de l'outil (4) et le maintenir en position haute.

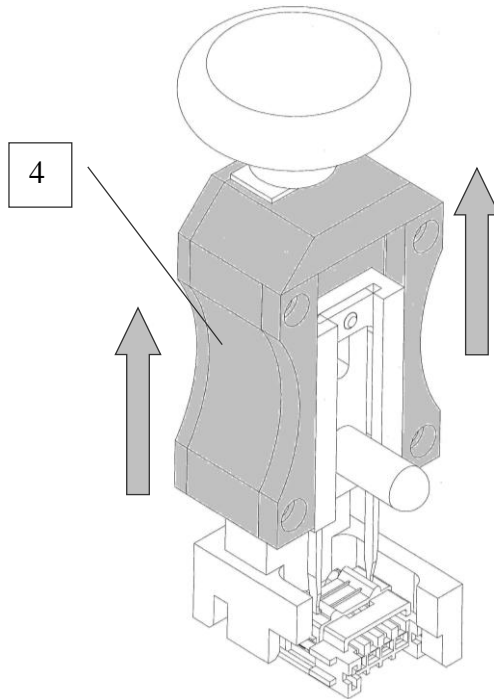


Figure 21

OPERATION 4 : Remonter la tige cylindrique (2).

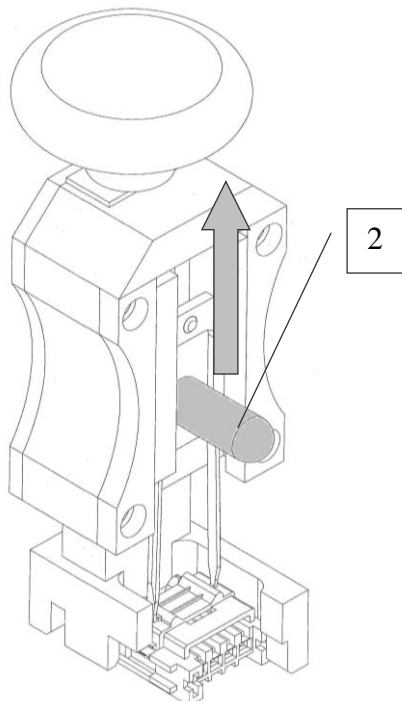


Figure 22

STEP 3: Raise the body of the tool (4) and hold it in this position.

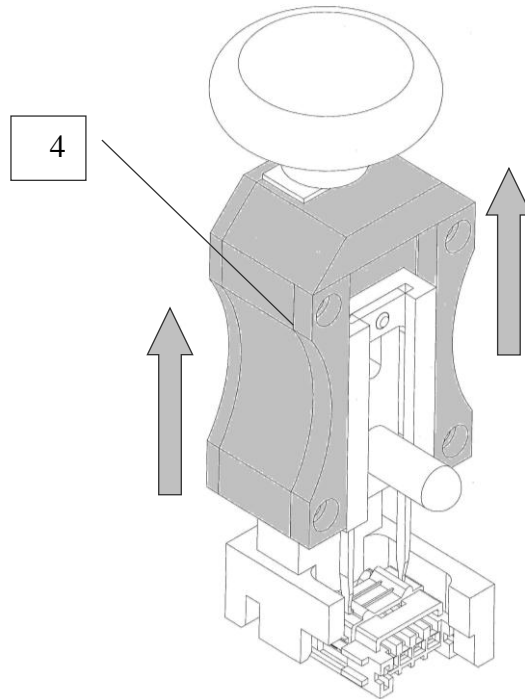


Figure 21

STEP 4: Raise the cylindrical rod (2).

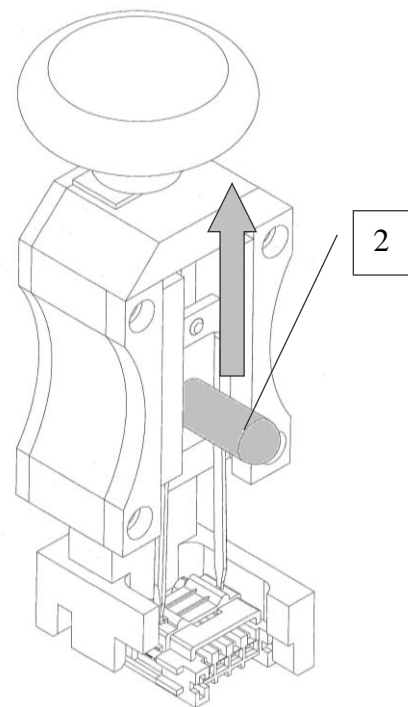


Figure 22

OPERATION 5 : Enlever le Porte-Clips.

7.2 Désactivation du Verrou Secondaire autre méthode (un coté après l'autre)

Opération 1 : Introduire l'outil (défini chap. 7.2.1 fig. 27) entre le verrou secondaire et la partie souple du porte-clips.

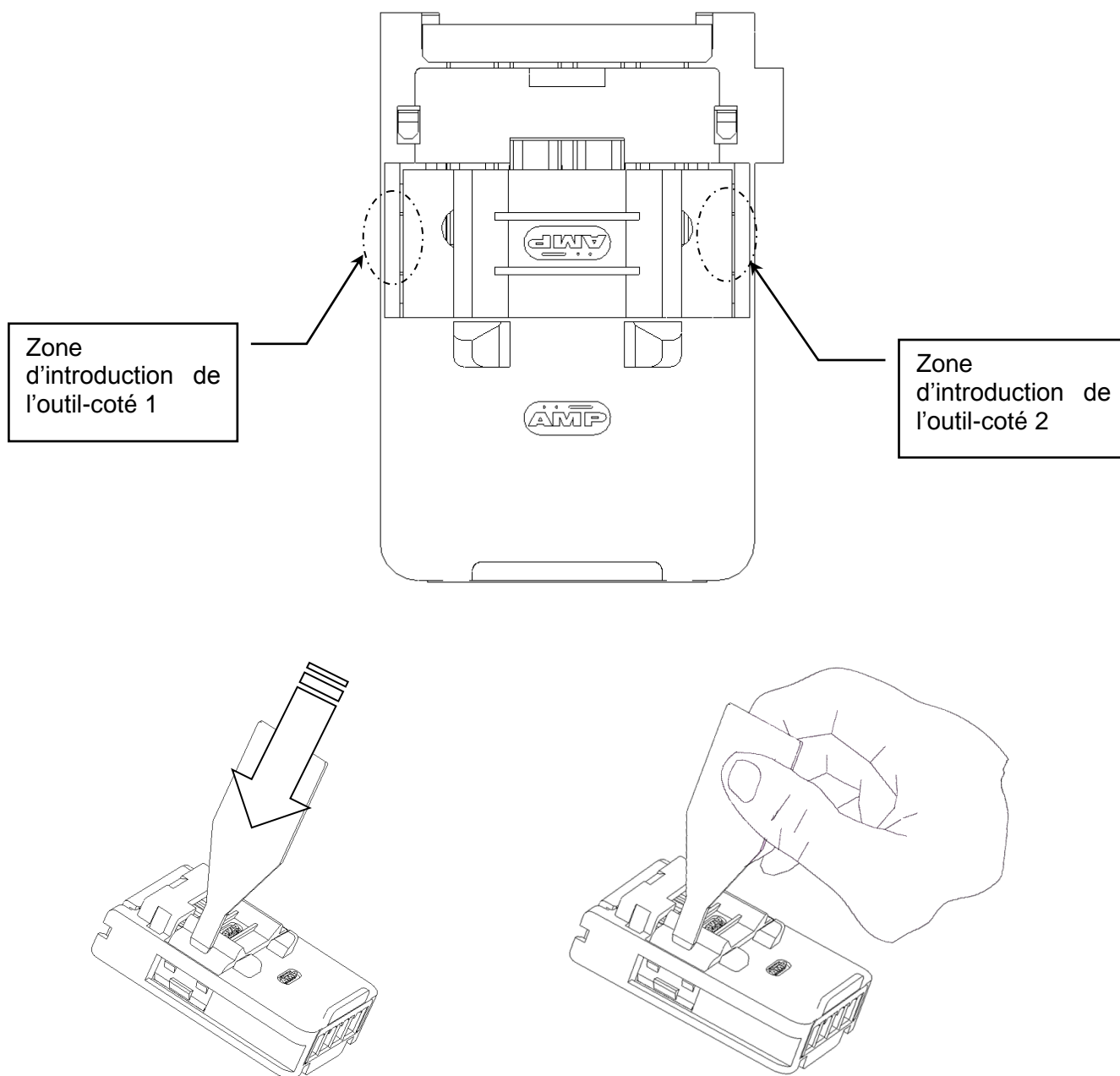
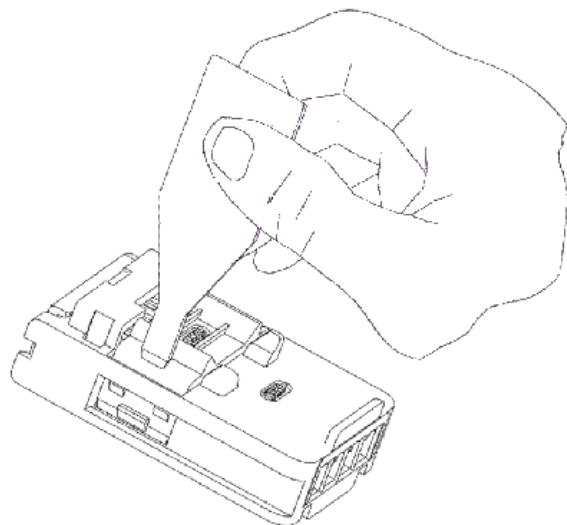
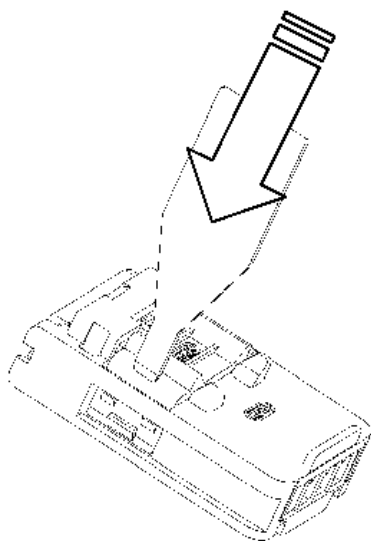
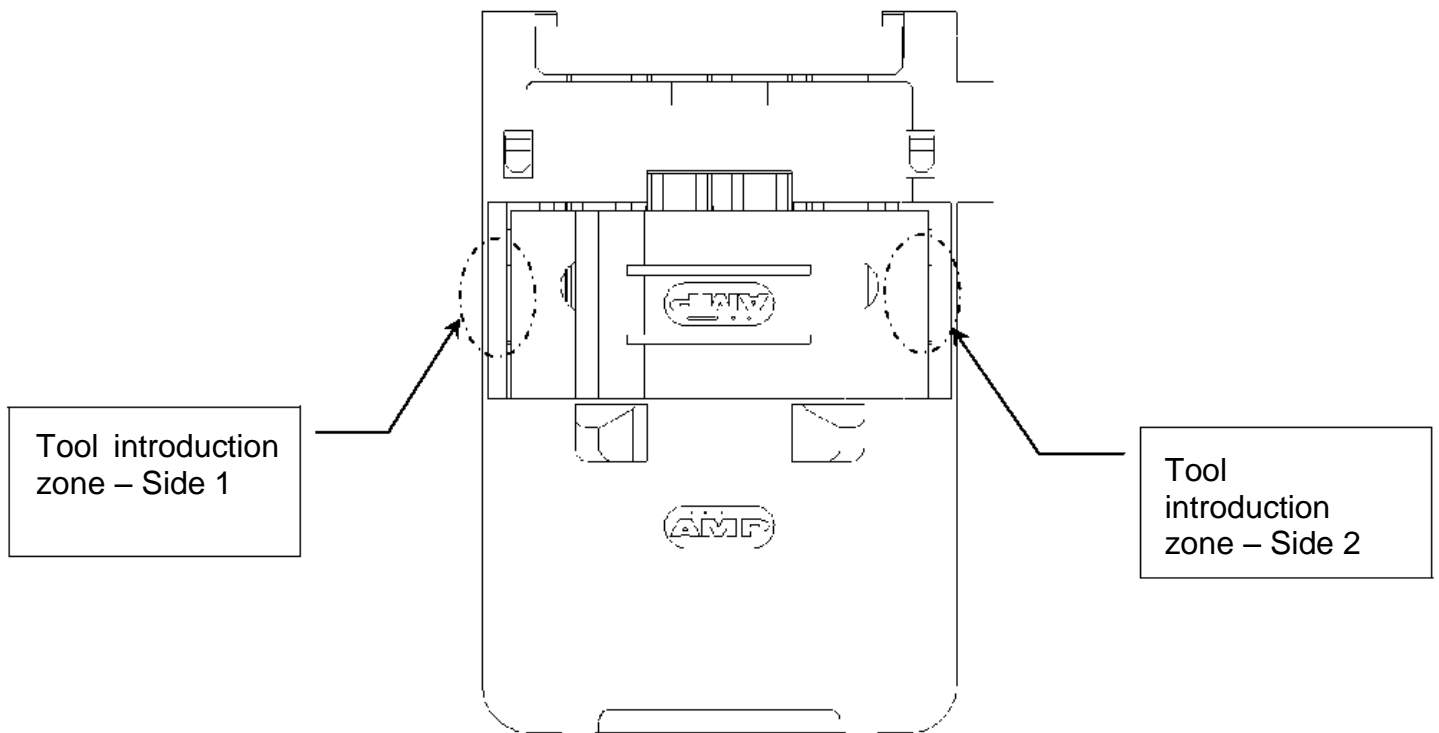


Figure 23

Step 5: Remove the receptacle housing.

7.2 Deactivation of the Secondary Lock: alternative method (one side after the other)

Step 1: Introduce the tool (defined chap. 7.2.1 fig. 27) between the secondary lock and the flexible part of the receptacle housing



Operation 2 : Venir en buté sur le verrou secondaire

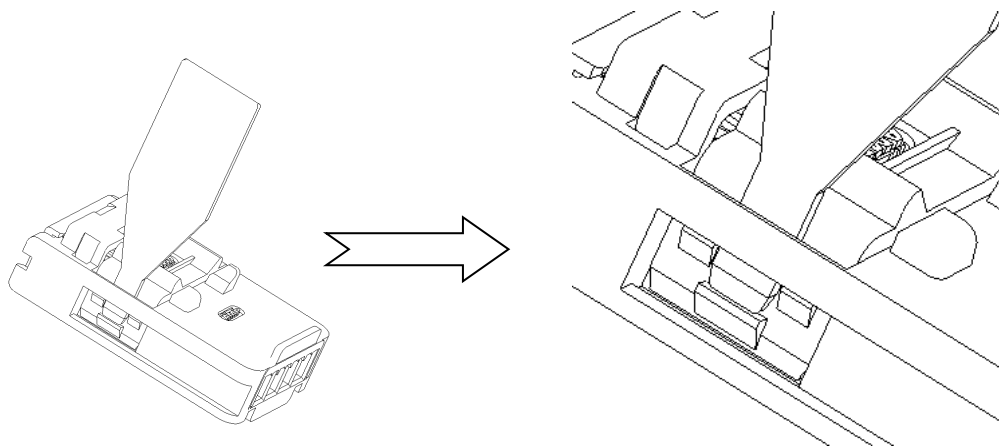


Figure 24

Operation 3 : A l'aide d'un tournevis plat de taille adaptée (largeur 3mm), venir placer la pointe du tournevis entre l'ergot central du verrou secondaire et la nervure du porte-clips et effectuer un mouvement de rotation sur le verrou secondaire, afin de le remettre en position prémonté.

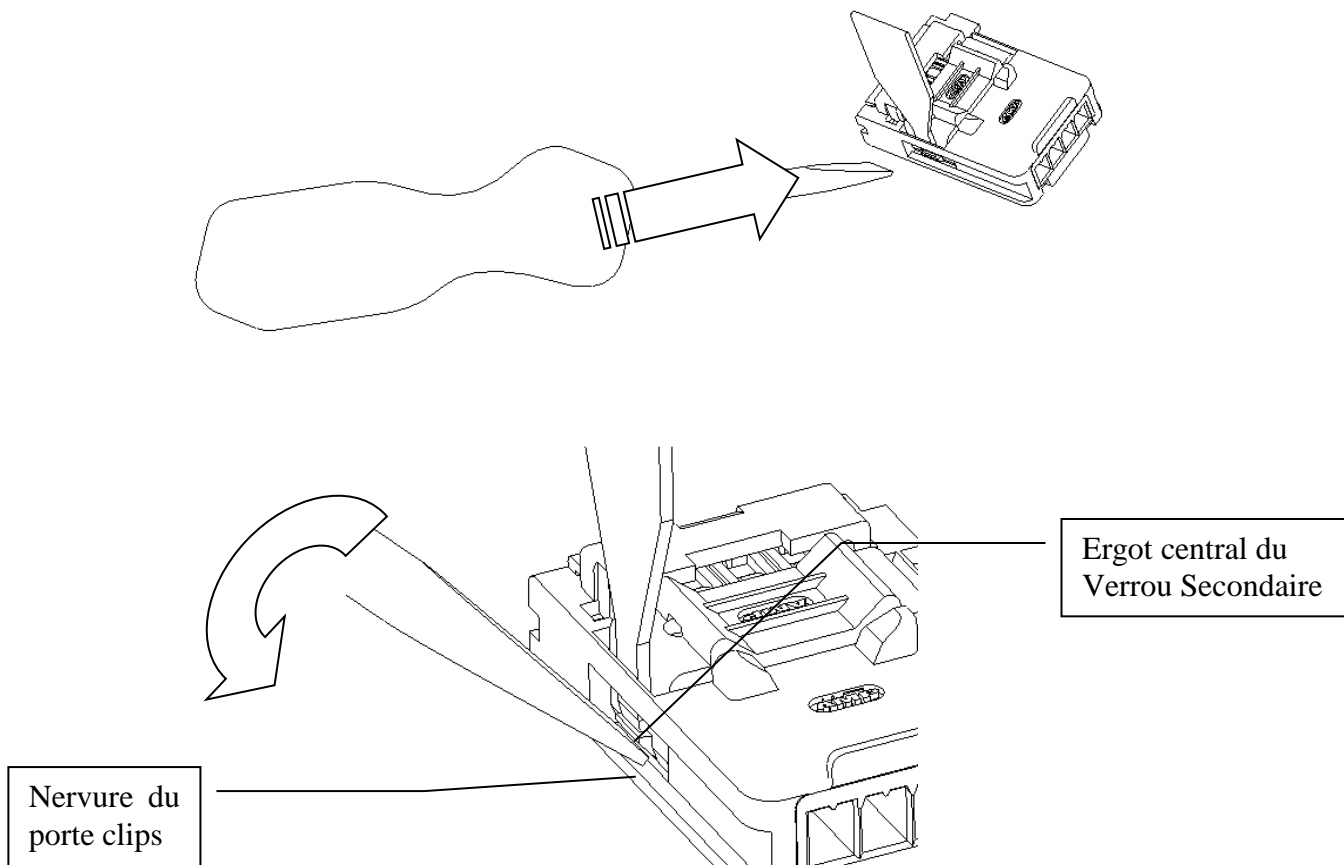


Figure 25

Step 2: Come to stop on the secondary lock

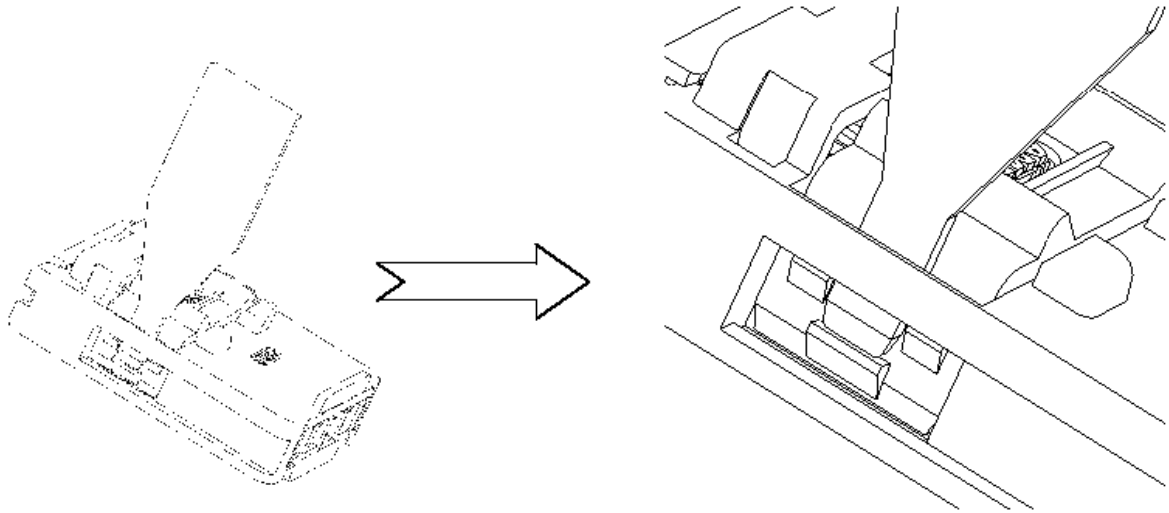


Figure 24

Step 3: Use a flat screwdriver of appropriate size (width 3mm), place the tip of the screwdriver between the central lug of the secondary lock and the rib of the receptacle housing and carry out a rotational movement on the secondary lock, in order to restore pre-assembled position

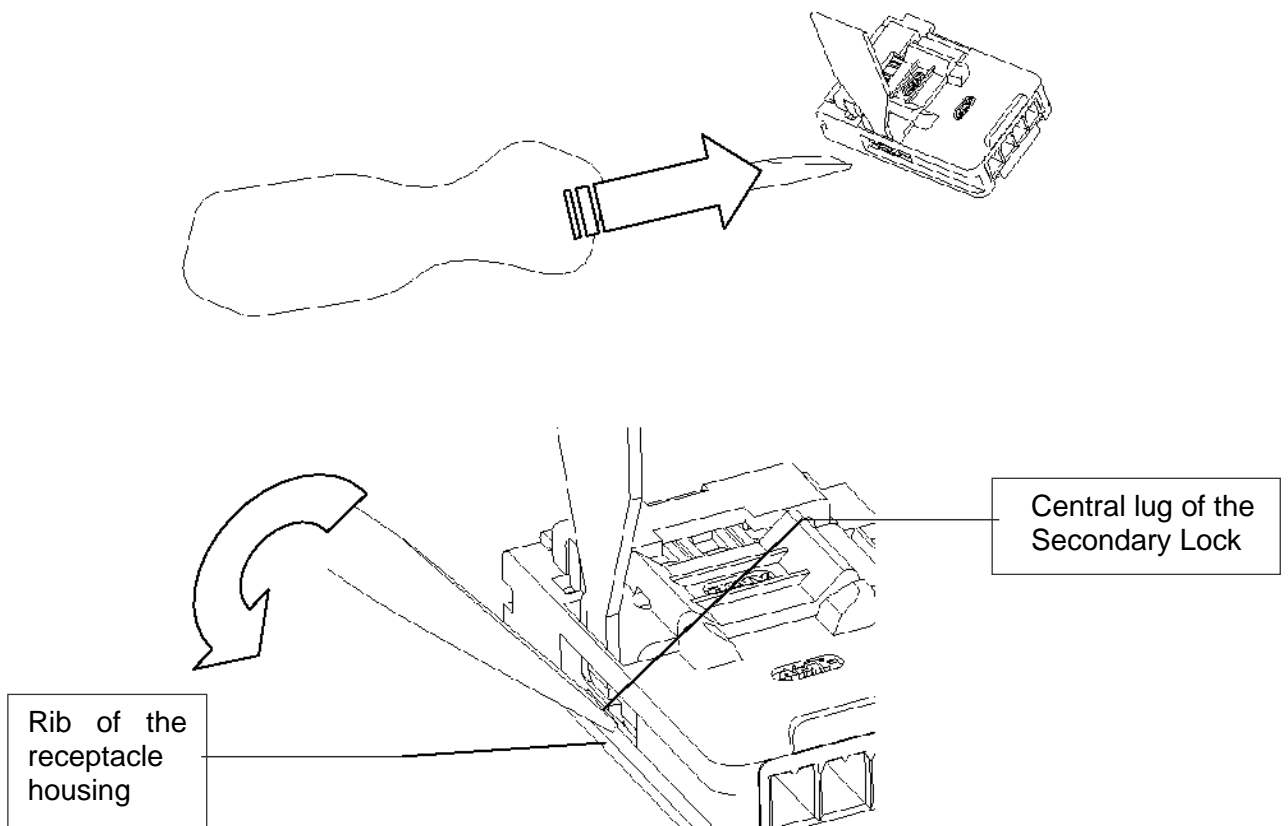


Figure 25

Opération 4 : Une fois le verrou secondaire désactivé d'un coté, retirer l'outil et répéter les opérations précédentes de l'autre coté.

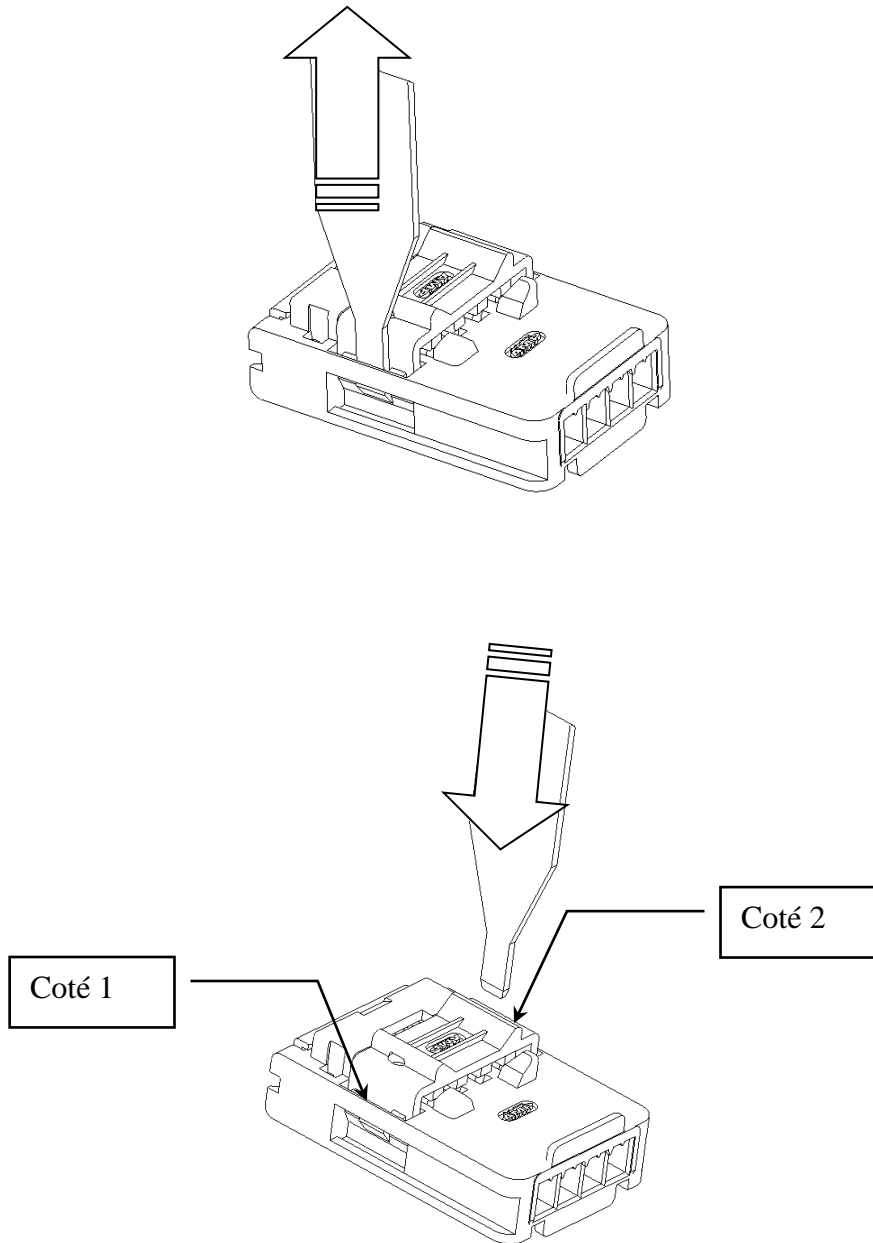
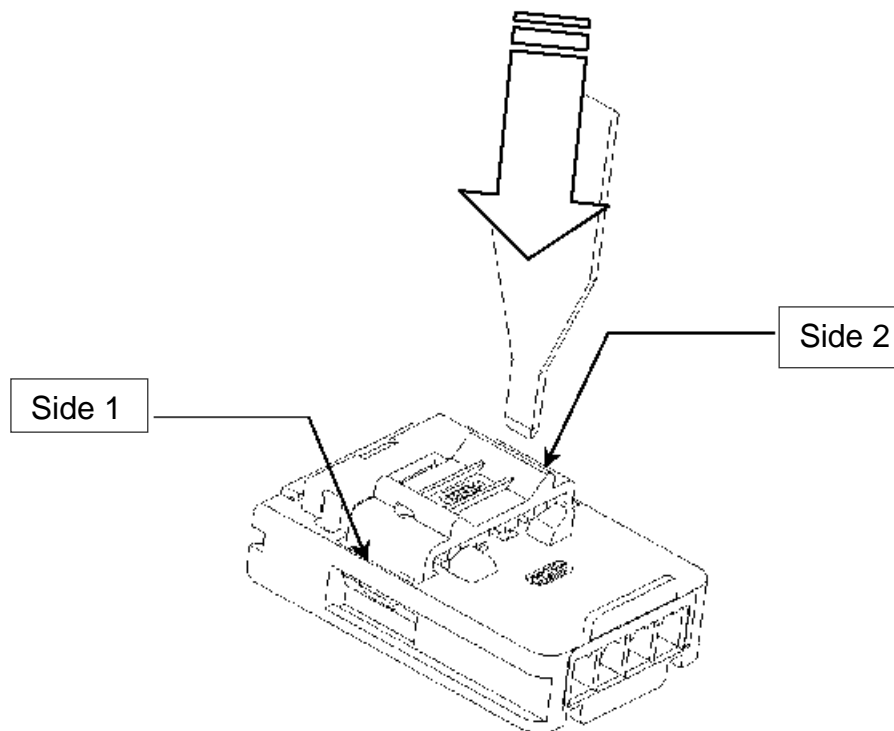
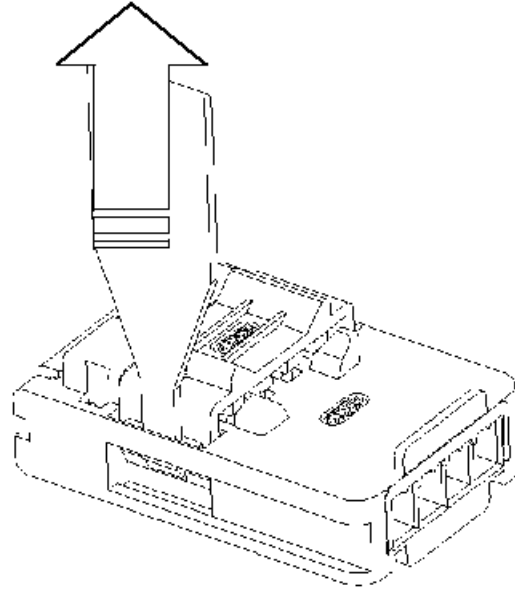
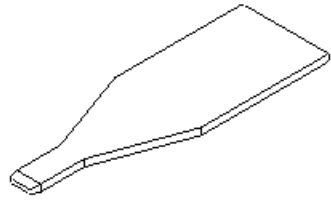


Figure 26

Step 4: *Once the secondary lock deactivated on one side, withdraw the tool and repeat the preceding operations on the other side*



7.2.1. Définition de l'outil de démontage



ECHELLE 2:1

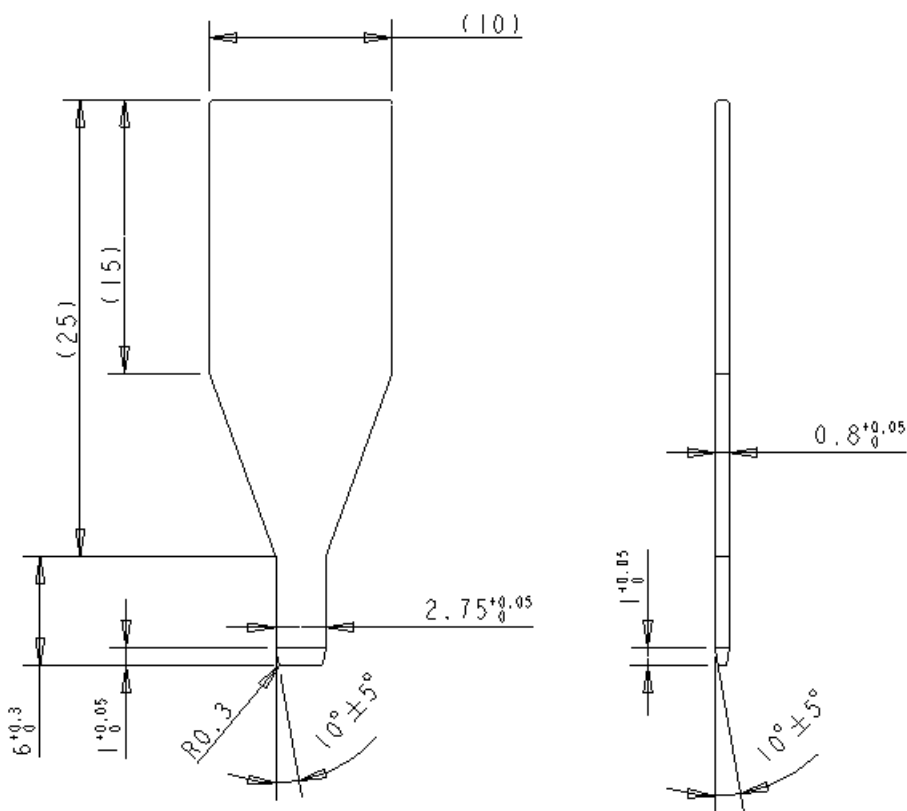
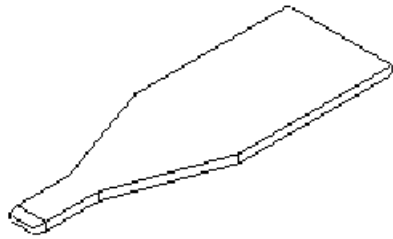


Figure 27 Détail de la partie active de l'outil

7.2.1 Definition disassembling tool



ECHELLE 2:1

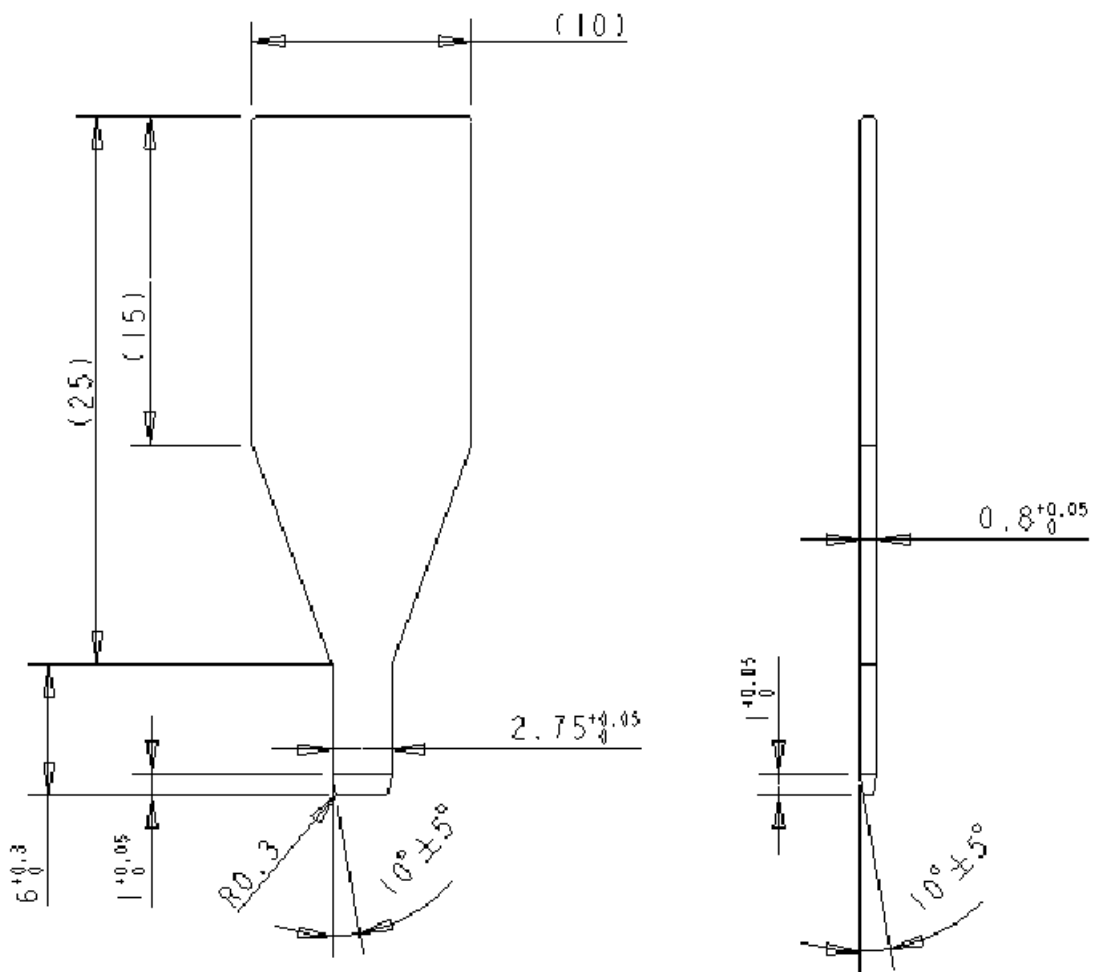


Figure 27 Detail of the active part of the tool

7.3. EXTRACTION DU CLIP

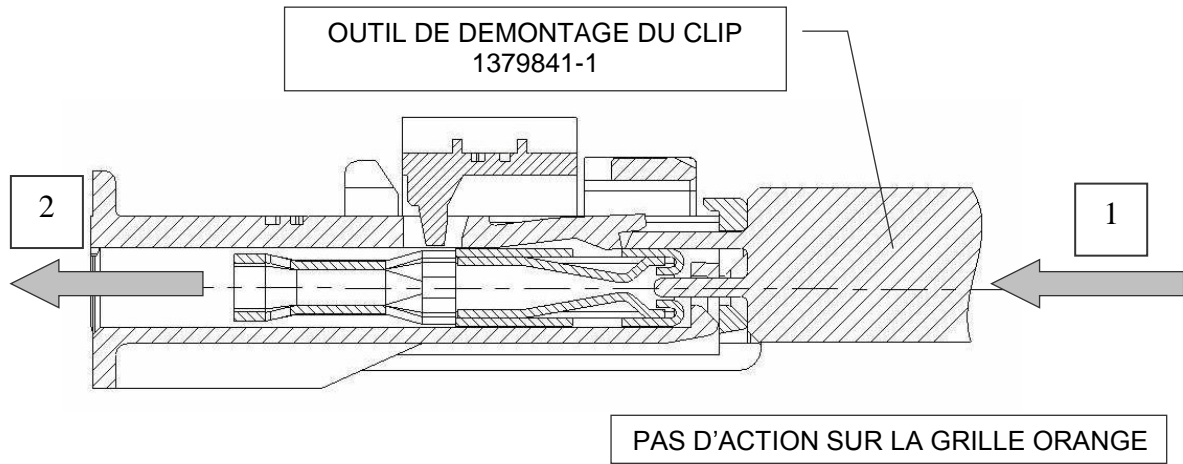


Figure 28

OPERATION 1 : Introduire l'outil de démontage (outil réf 1379841-1) (déflexion de la lance de verrouillage contact).

OPERATION 2 : Retirer le clip.

7.3 EXTRACTION OF THE RECEPTACLE

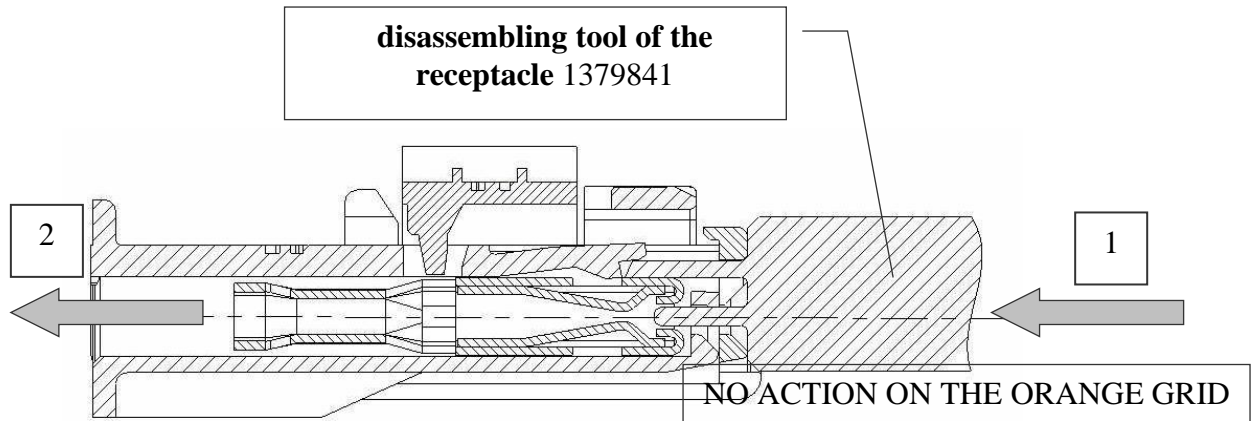
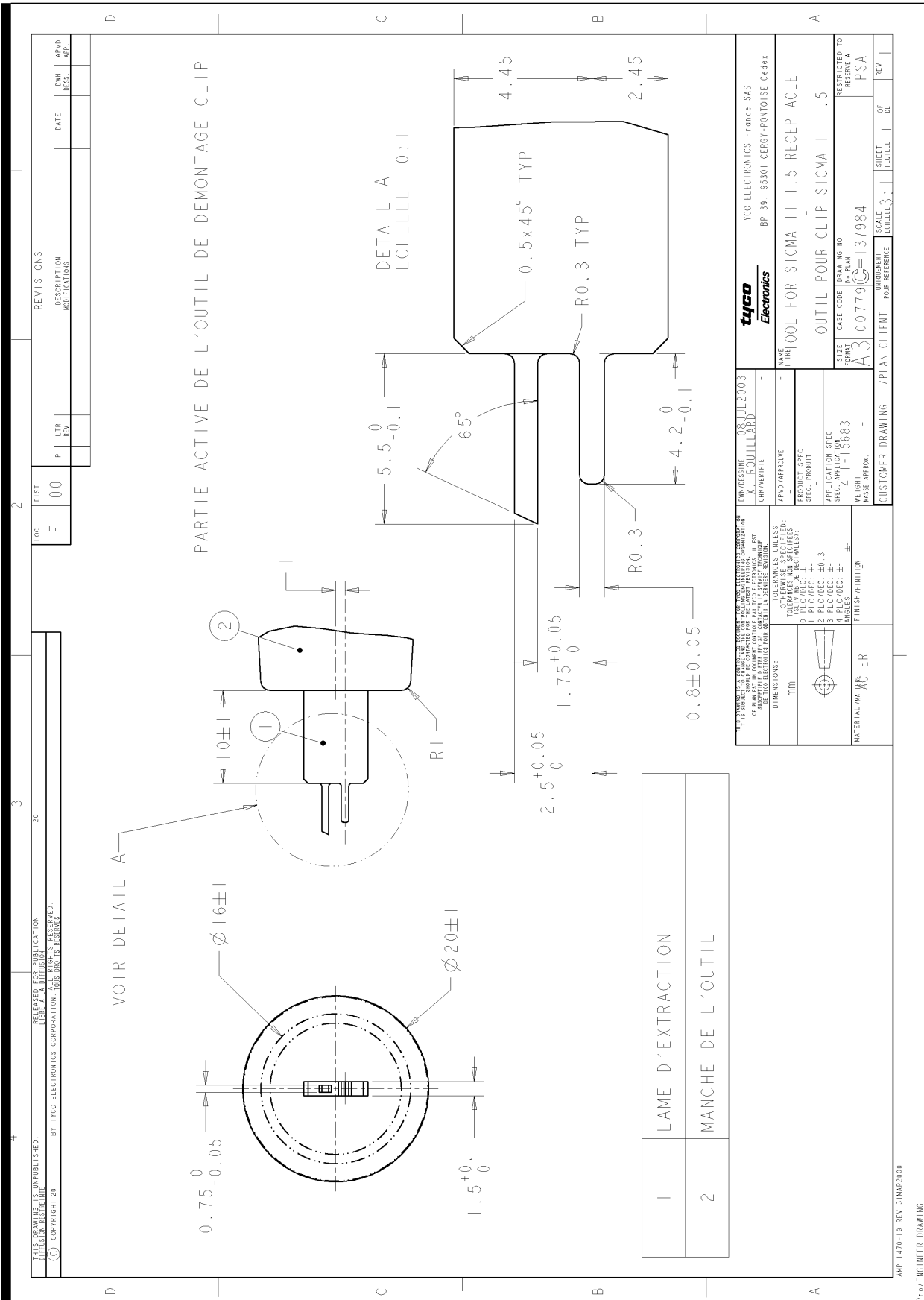


Figure 28

STEP 1: Insert disassembling tool (ref. 1379841) (deflection of the contact locking lance)

STEP 2 : Remove the receptacle.



REV. 00		DATE	
P	CLIR	DWR	APVD
DESCRIPTION		MODIFICATIONS	

LOC	01ST	REVISONS	
F	00	DESCRIPTION	
MODIFICATIONS		DATE	

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DM/RESINE	08JUL2003	TYCO ELECTRONICS France SAS
CH/PROJET	X. ROULLARD	BP 39 - 95301 CERGY-POINTOISE Cedex
APVD/APPROVE	-	tyco Electronics
PRODUCT SPEC	-	FIT/TOOL FOR SICMA II 1.5 RECEPTACLE
SPEC. FINISH	-	OUTIL POUR CLIP SICMA II 1.5
APPLICATION SPEC	-	CAGE CODE DRAWING NO
411-15683	-	RETRACTED TO RESERVE A
WEIGHT	-	FORMAT
NOISE APPROX.	-	A3
CUSTOMER DRAWING	/PLAN CLIENT	INVOICEMENT
		ECHELLE
		FEUILLE
		DE
		REV

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TOLEANCES UNLESS OTHERWISE SPECIFIED:
0 P/LC/FRC: ±
1 P/LC/FRC: ±
2 P/LC/FRC: ±0.3
3 P/LC/FRC: ±
4 P/LC/FRC: ±
ANGLES: ±

MATERIAL/MATIERE: ACIER

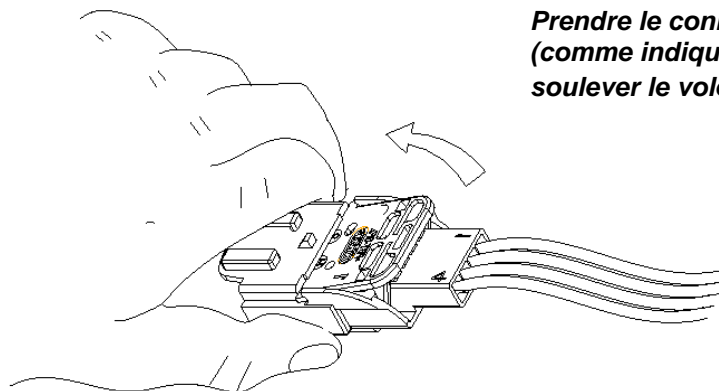
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AMP 1470-19 REV 31MAR2000
Prof.ENG.INEER.DRAWING

8. DEMONTAGE D'UNE LANGUETTE

8.1 DÉSACTIVATION DU "VS"

OPÉRATION 1 : Soulever le volet (pièce rouge)



Prendre le connecteur sur la face avant (comme indiqué sur le croquis) et venir soulever le volet (pièce rouge)

Figure 29

8.2. EXTRACTION DE LA LANGUETTE

OPERATION 2 : Introduire l'outil (réf TYCO : 1308378-1).

OPERATION 3 : Retirer la languette.

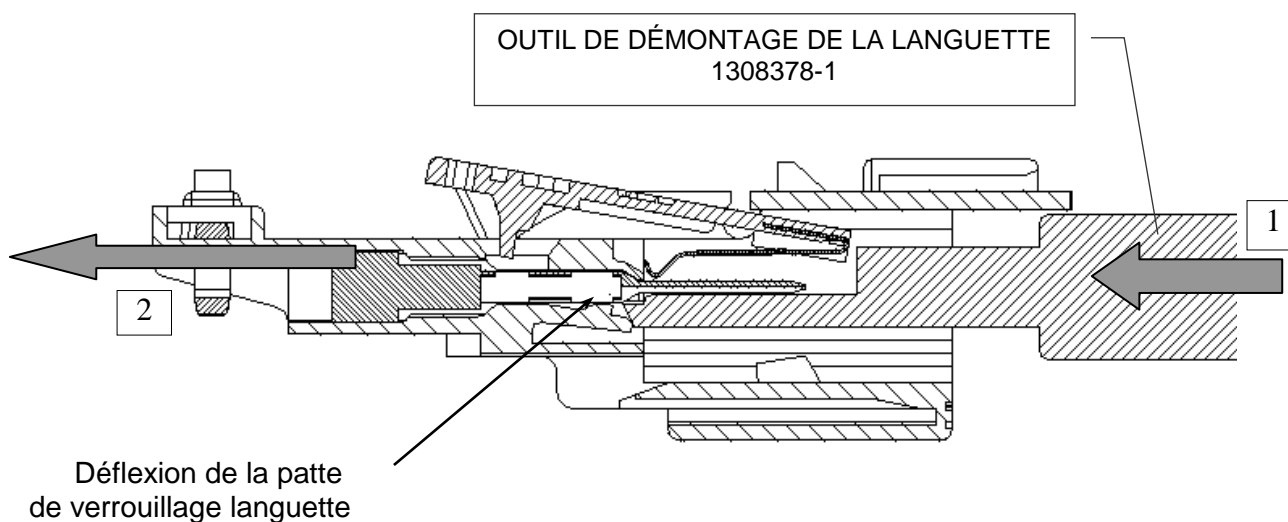
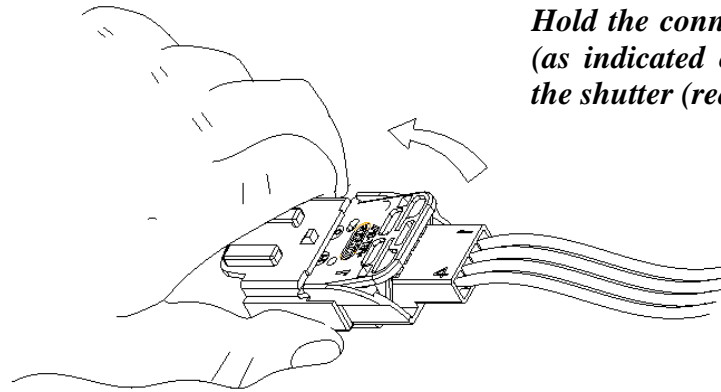


Figure 30

8. TAB REMOVAL

8.1 DEACTIVATION OF THE "SL"

STEP1 : lift the shutter (red part)



*Hold the connector on the front face
(as indicated on the sketch) and lift
the shutter (red part)*

Figure 29

8.2. EXTRACTING THE TAB

STEP 2 : Introduce the tool (ref TYCO :1308380).

STEP 3 : Remove the tab

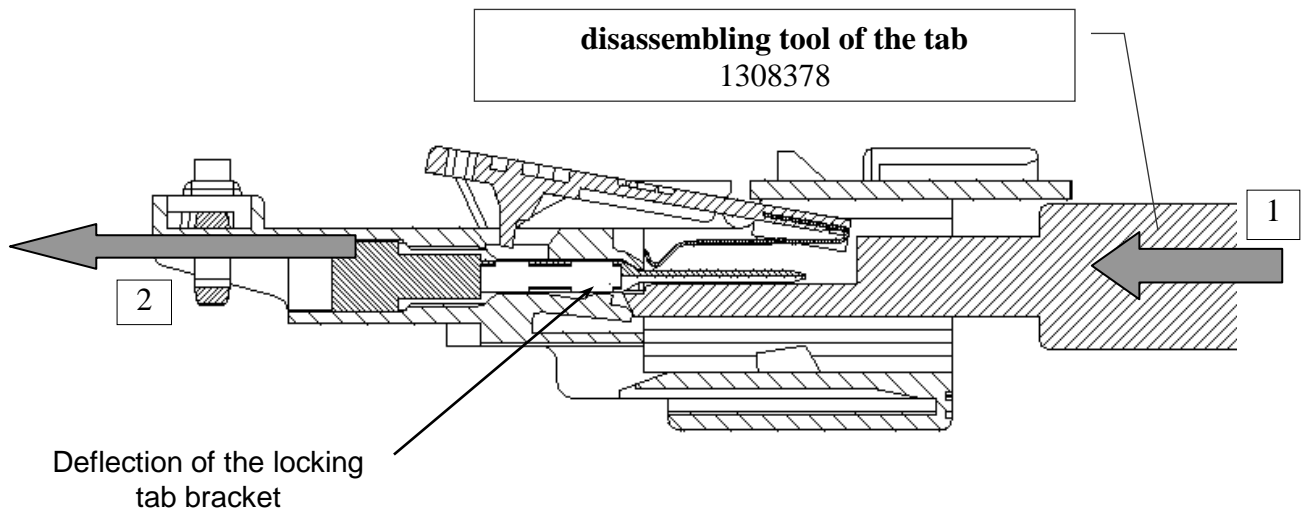
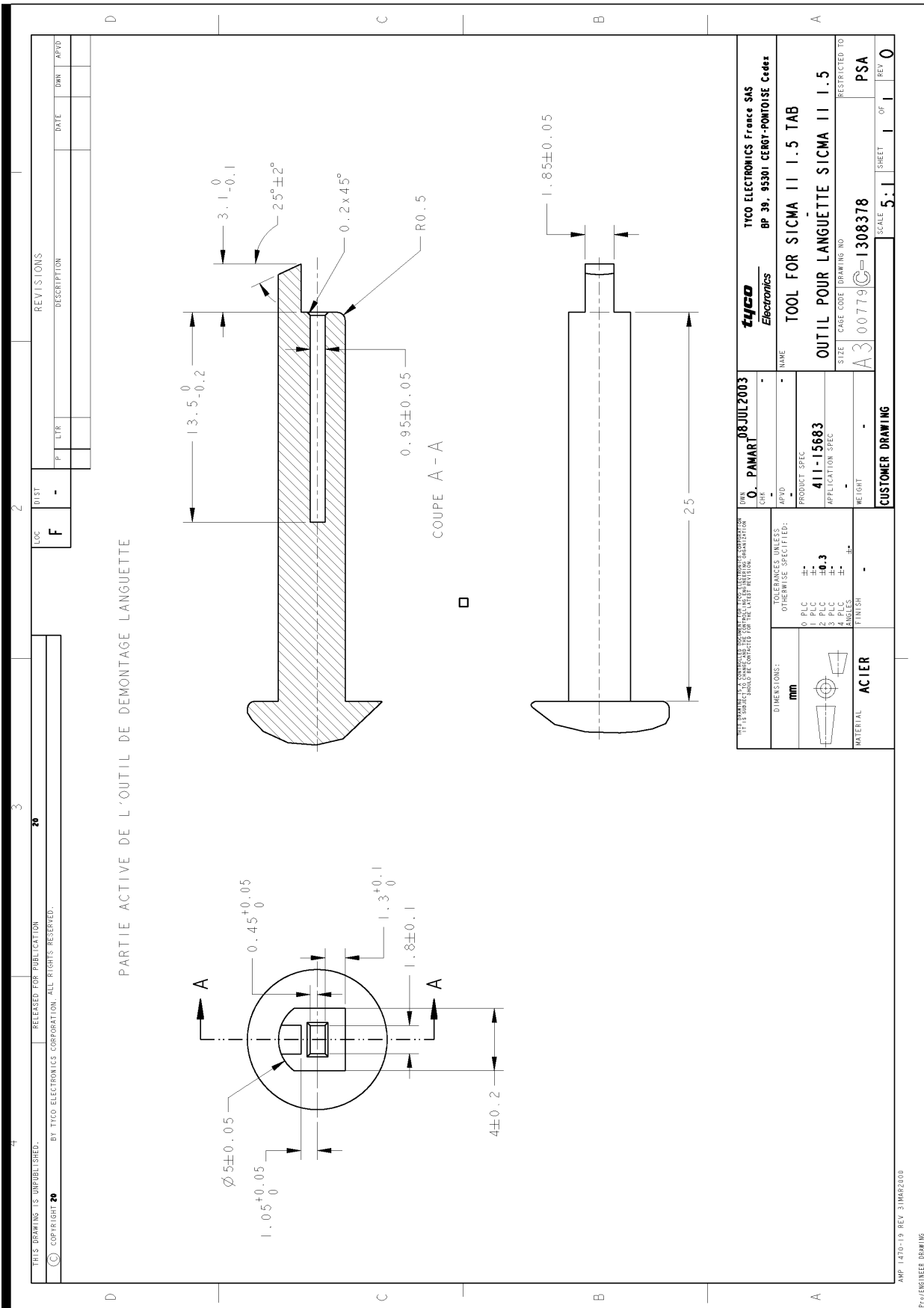


Figure 30



9. BRIDAGE DES FILS

Pour les versions longues les fils doivent être impérativement maintenus au moyen des serre-câbles qui sont livrés pré-montés sur les boîtiers.

OPERATION 1 : PASSER D'ABORD L'EXTREMITÉ DU SERRE CABLE DANS L'OUVERTURE DU CONNECTEUR, PUIS L'INSERER DANS LA TÊTE.

REMARQUE

- S'assurer que tous les fils soient bien inclus dans le serre-câble.
- Les fils, en partie arrière, doivent être peignés et ne doivent pas être croisés au niveau du connecteur.
- Il faut serrer le collier sur les fils avant d'enrubanner le sous-faisceau.

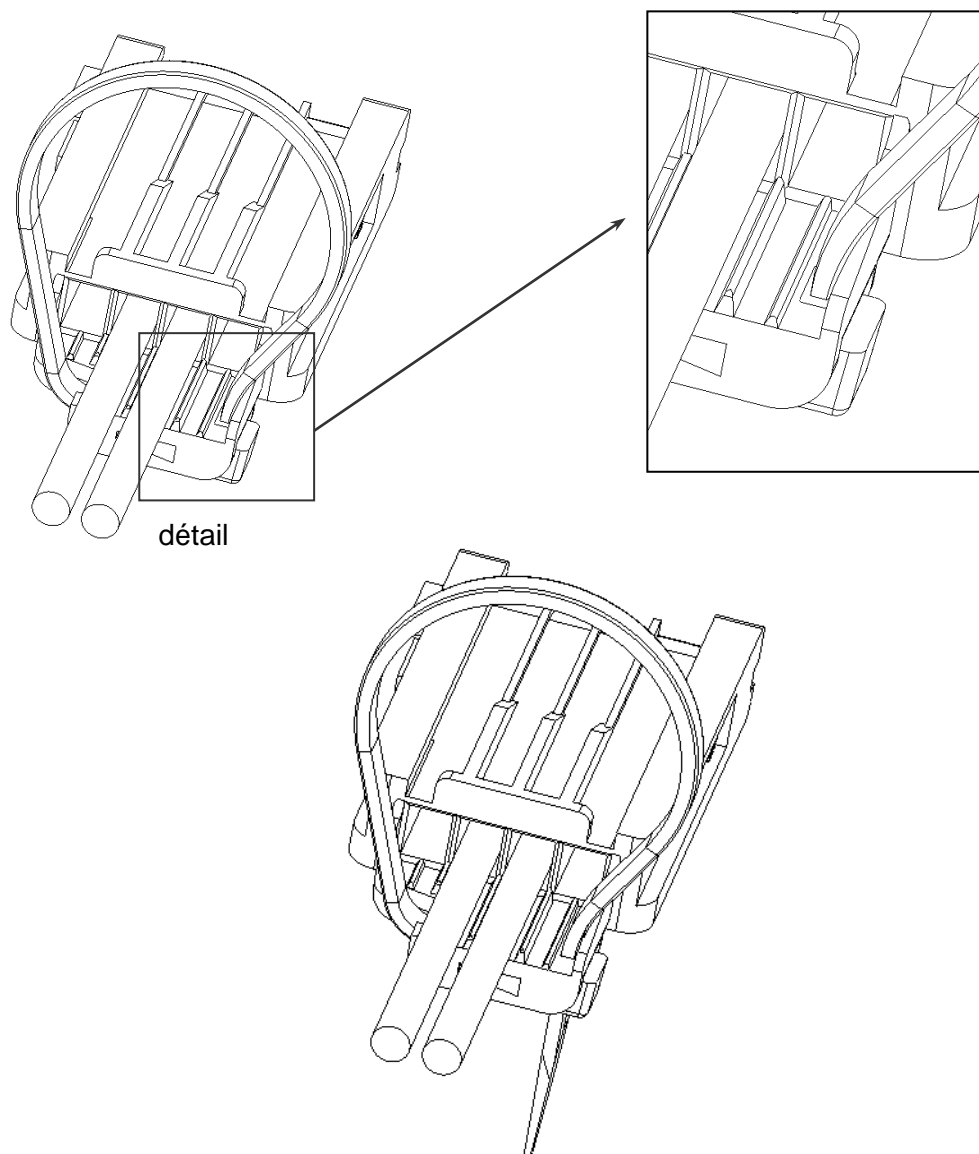


Figure 31

9. WIRE CLAMPING

For the long versions, the wires have to be imperatively maintained by means cable ties which are delivered pre-assembled on the housings.

STEP 1 : PASS THE TIP OF THE CABLE TIE IN THE OPENING OF THE CONNECTOR, THEN INSERT IT IN THE HEAD.

- NOTE:**
- a) Make sure that all the wires are well inserted in the cable tie.
 - b) The wires, in the rear, must be combed and do not have to be cross over at the level of the connector.
 - c) It is necessary to tighten the collar around the wires before taping of the the sub-harness.

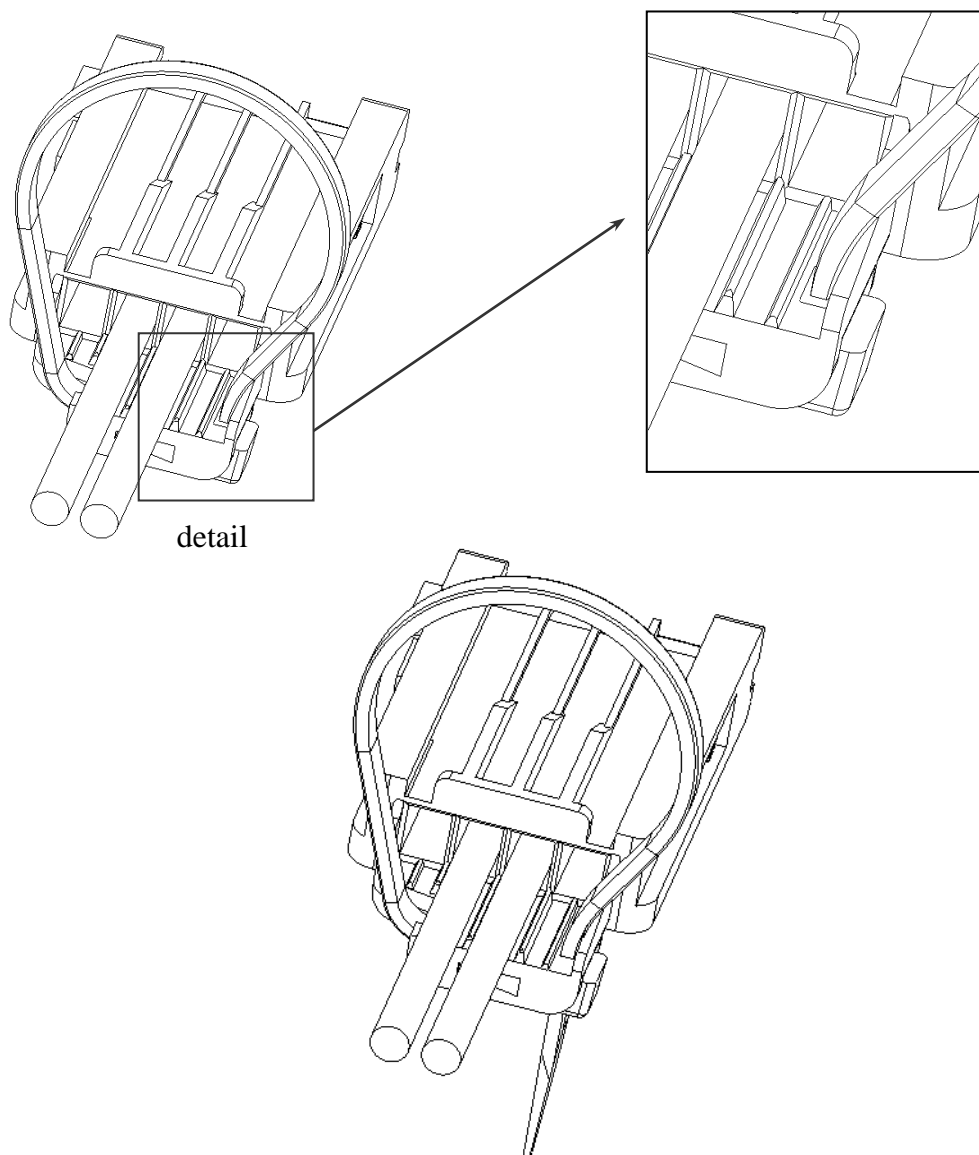


Figure 31

OPERATION 2 : LE SERRE CABLE EST ALORS PRÊT A ÊTRE SERRÉ.

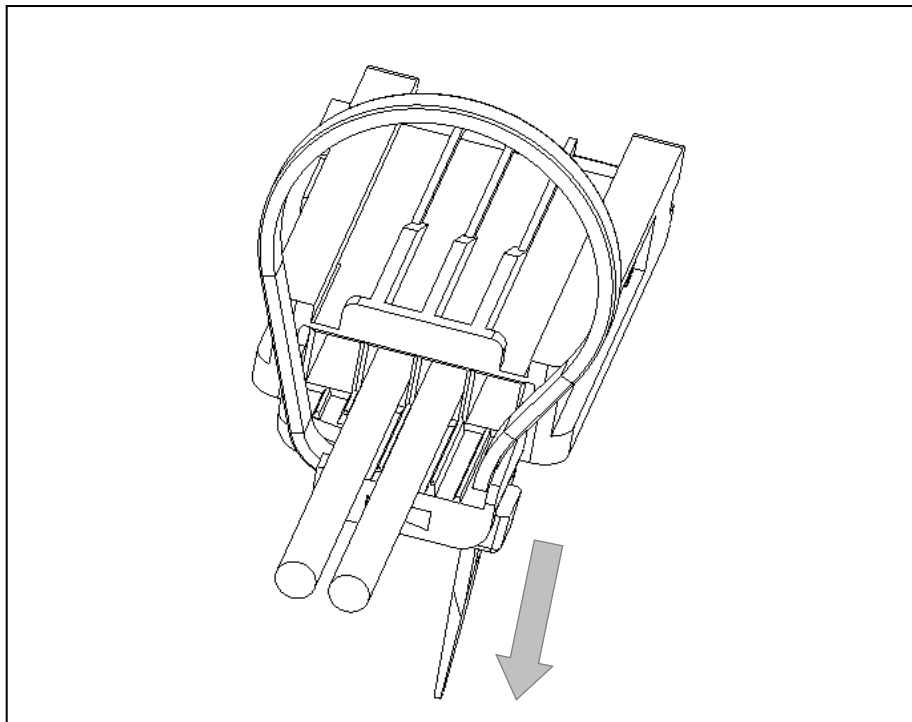
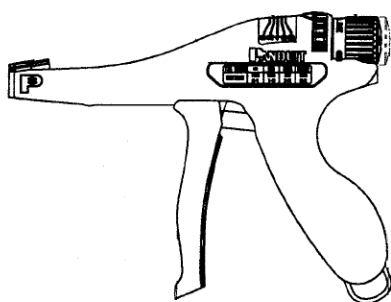
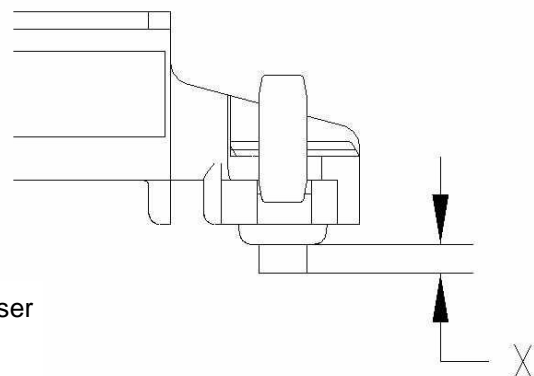


Figure 32

Pour cette application, TYCO préconise un serrage du collier à une valeur de **60 N \pm 5N**.
Le serrage du collier doit être effectué grâce à un pistolet de marque « PANDUIT » réf. GTS.



Le réglage du dit pistolet doit être sur « 2 »



REMARQUE Après serrage du collier l'opérateur doit laisser un témoin de découpe à l'arrière du collier.
La valeur X est spécifiée sur les plans client voir fig.32bis

Figure 32bis

STEP 2 : THE CABLE TIE IS READY TO BE TIGHTENED.

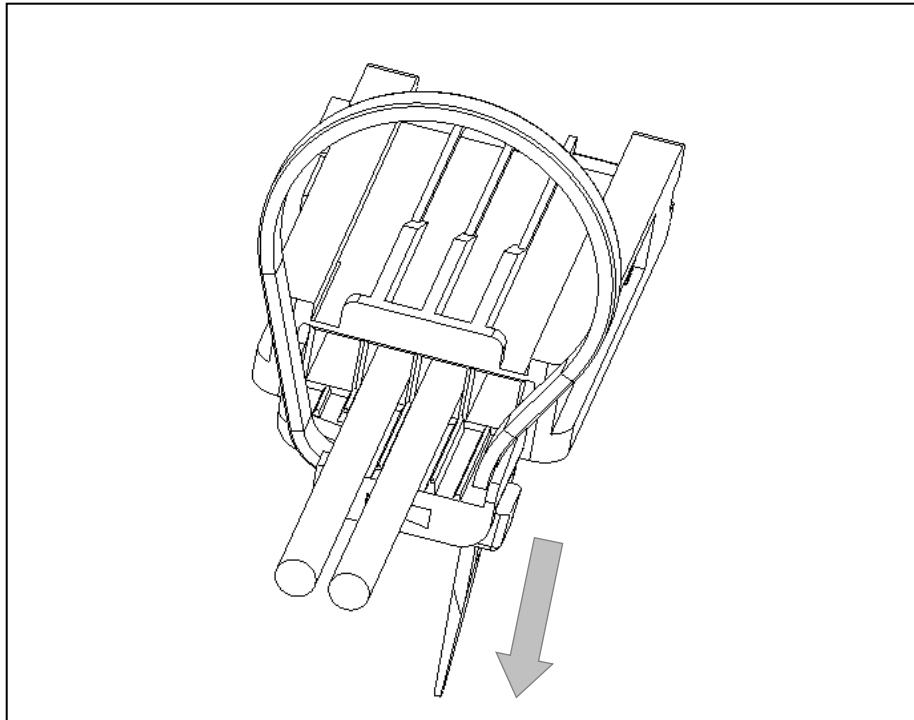
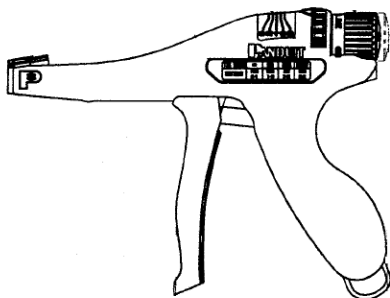
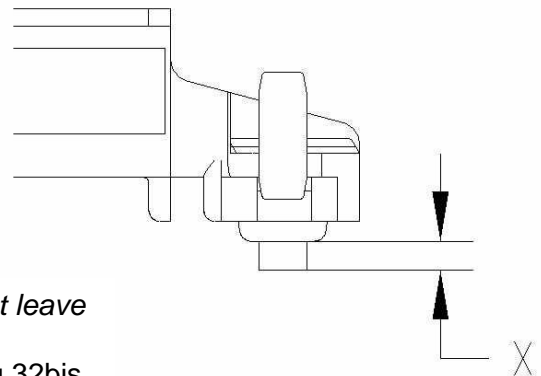


Figure 32

For this application, TYCO recommends a tightening of the collar to a value of **60 N ±5N**.
The tightening of the collar must be done using a gun brand "PANDUIT" ref. GTS



The adjustment of this gun must be on "2"

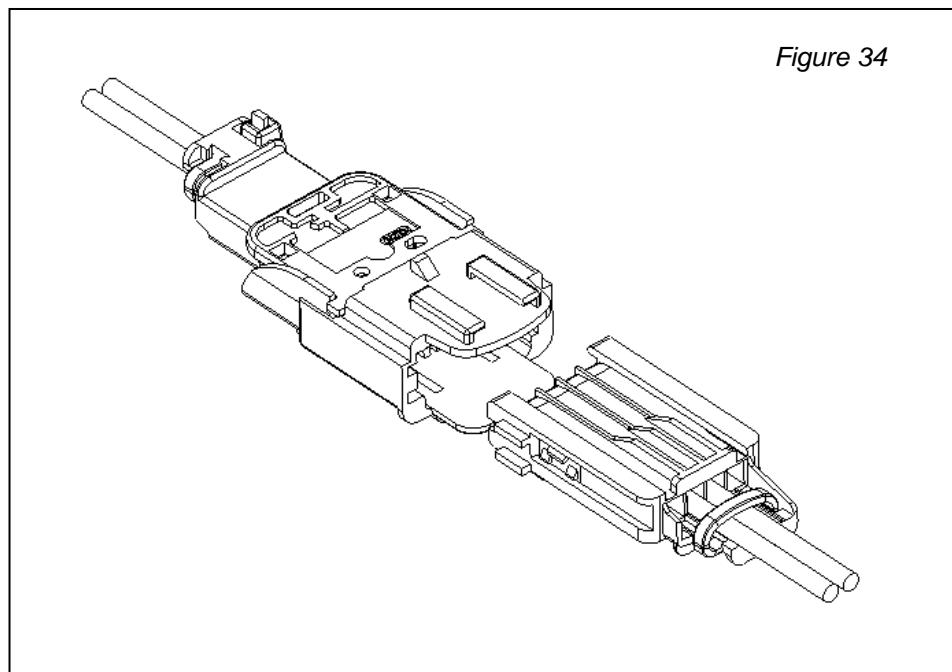
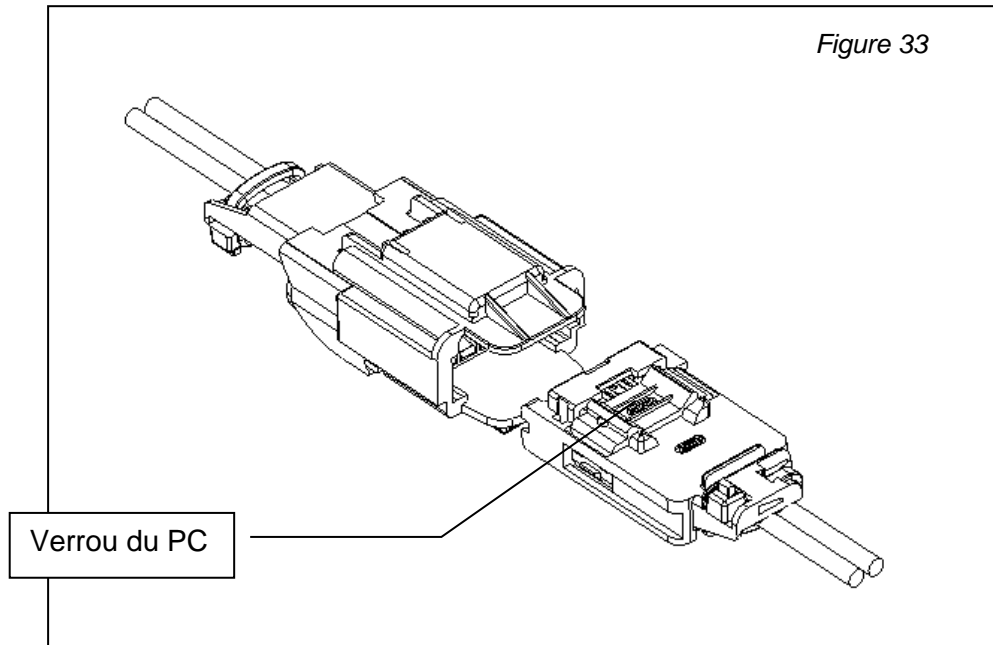


NOTE After tightening of the collar, the operator must leave a cutting witness at the rear of the collar.
The X value is specified on customer drawing see fig.32bis

Figure 32bis

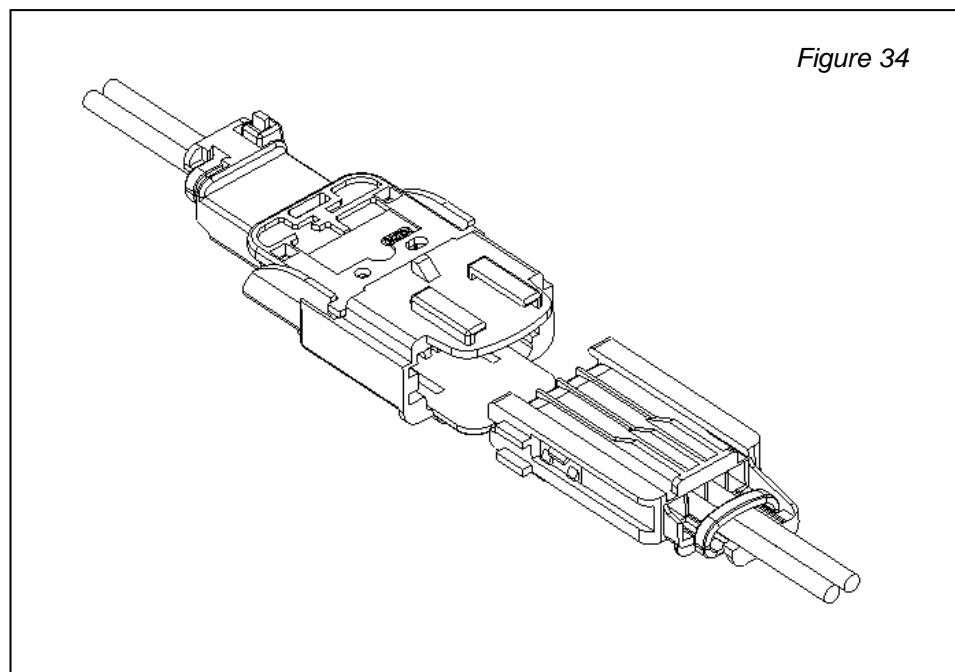
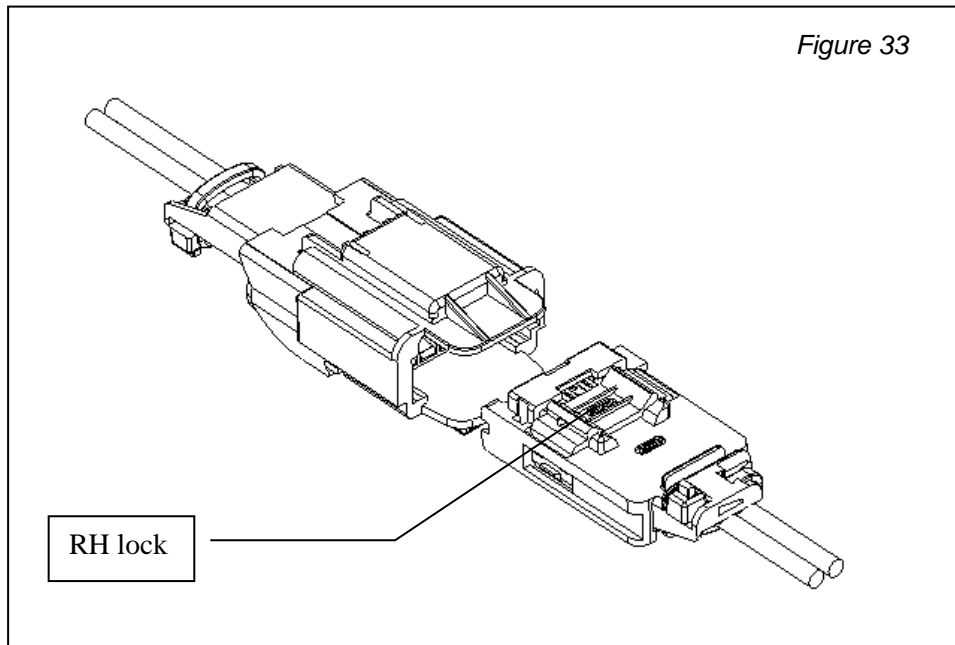
10. BRANCHEMENT DU PORTE-CLIPS SUR LE PORTE-LANGUETTES

SENS CORRECT DE BRANCHEMENT

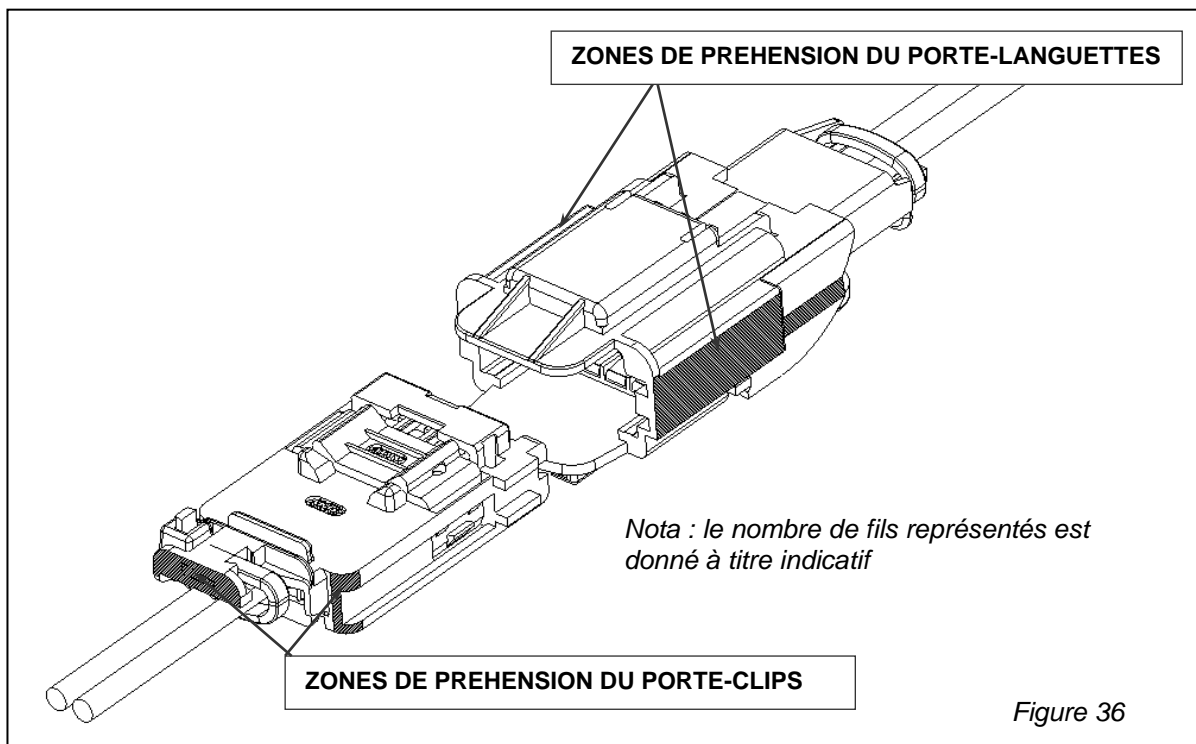
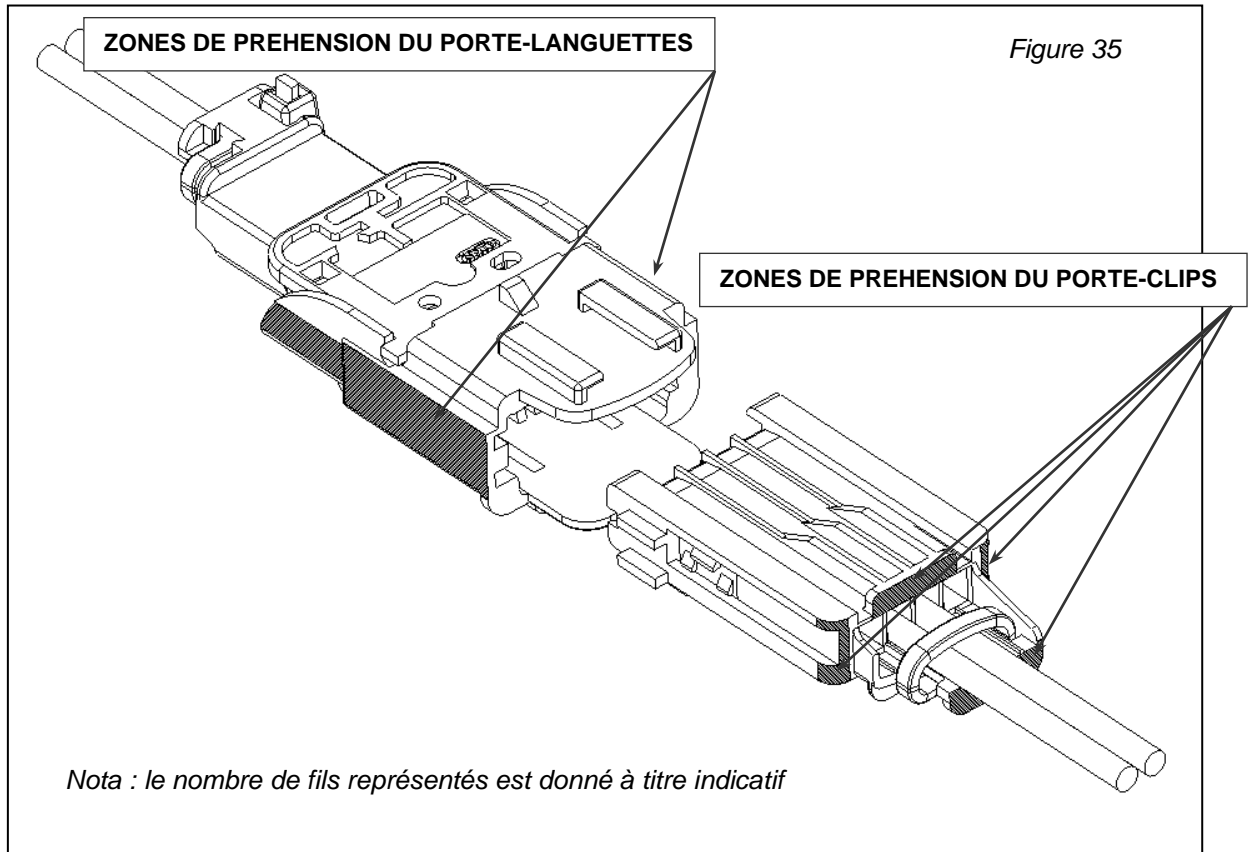


10. CONNECTING THE RECEPTACLE HOUSING ON THE TAB HOUSING

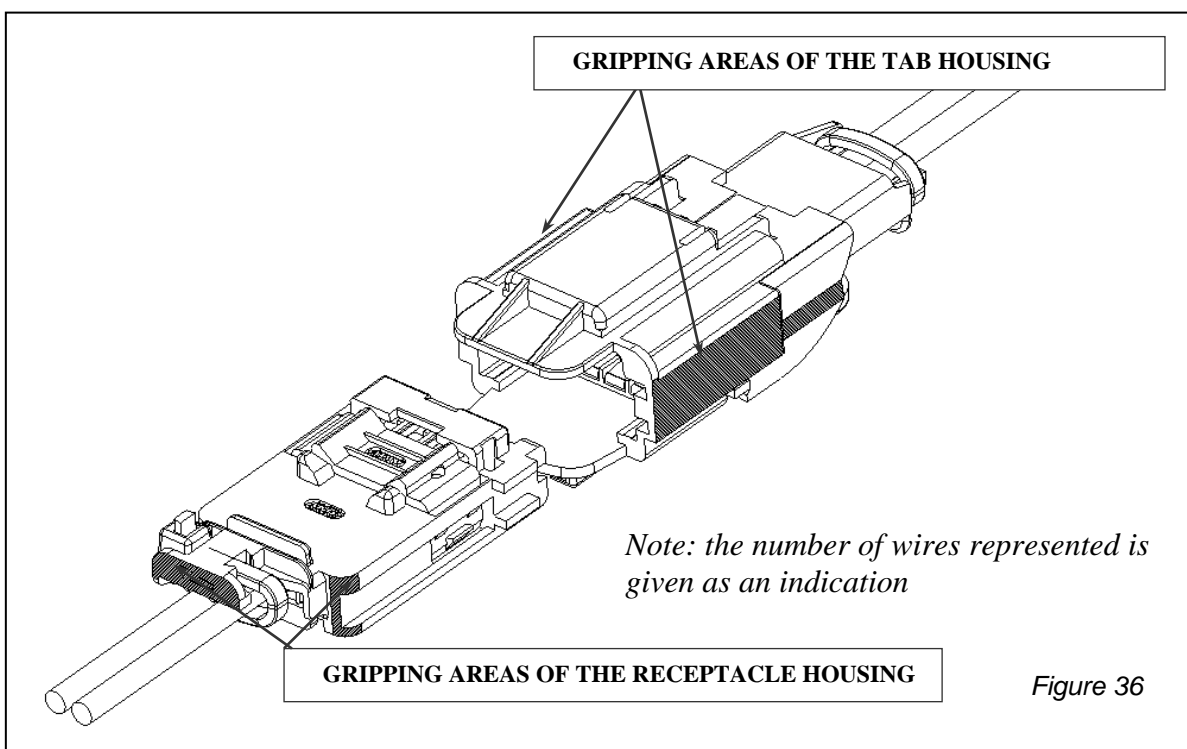
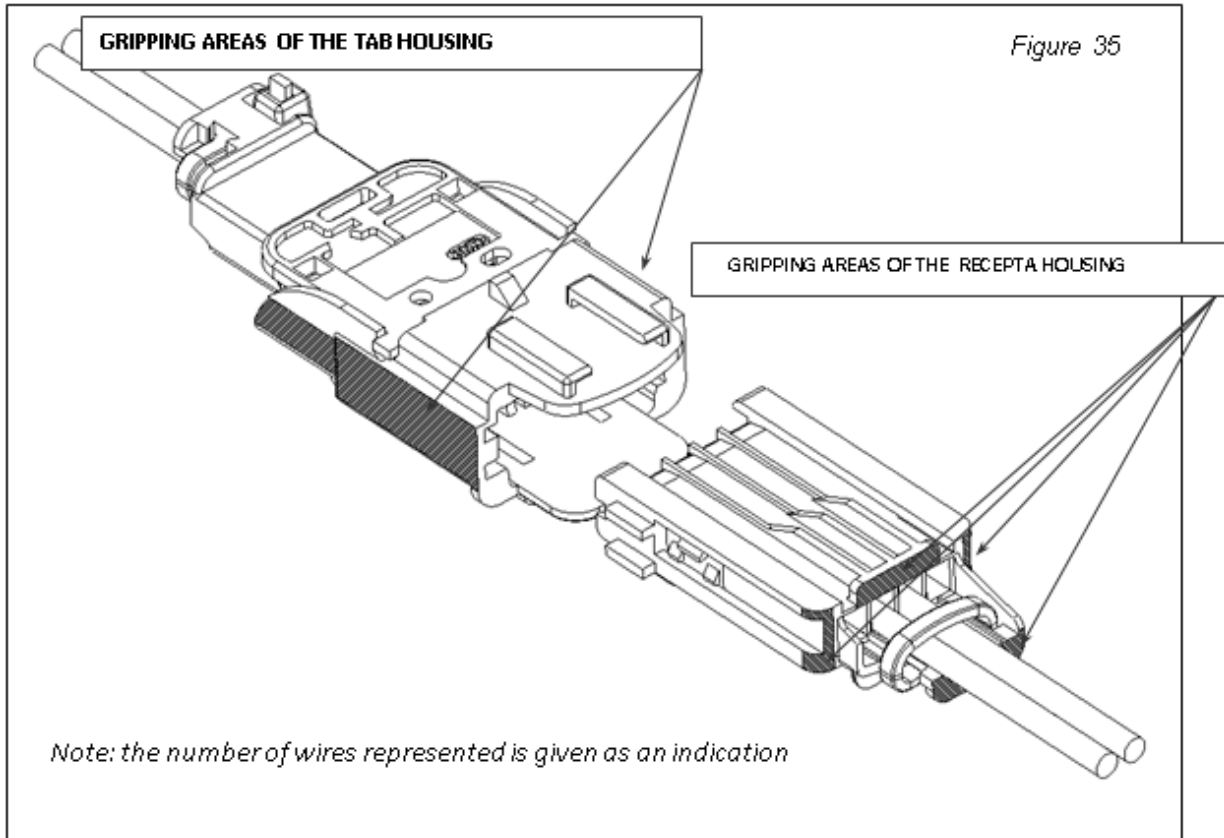
CORRECT ORDER OF CONNECTION



**POUR ACCOUPLER LE PC,
IL FAUT IMPERATIVEMENT POUSSER LE CONNECTEUR A L'ARRIERE DE CELUI CI**



**TO MATE THE RH,
 IT IS IMPERATIVE TO PUSH THE CONNECTOR AT THE BACK OF THIS ONE**



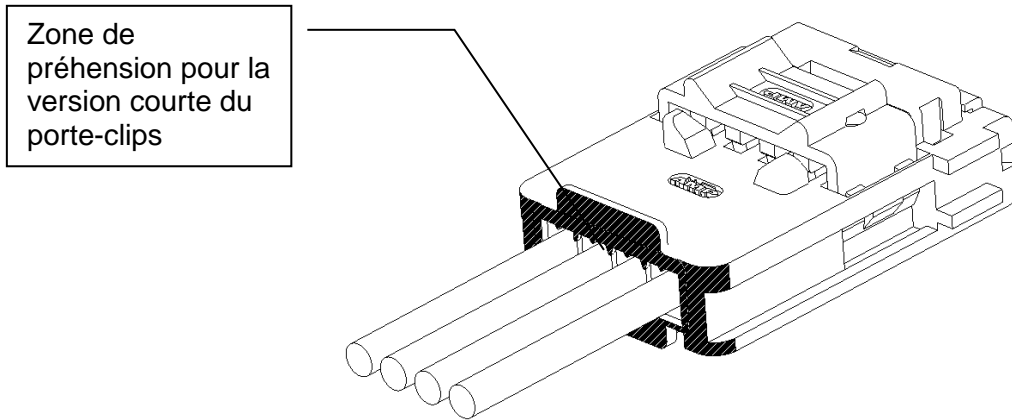


Figure 37

11. DESACOUPLEMENT DES CONNECTEURS

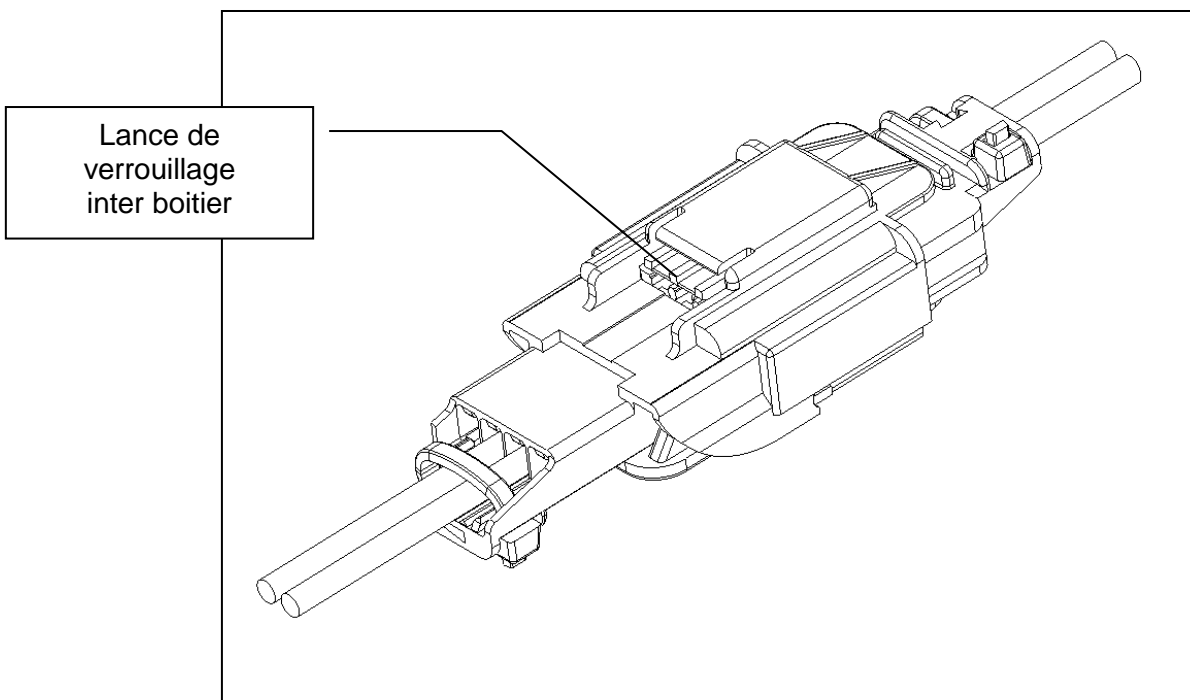


Figure 38

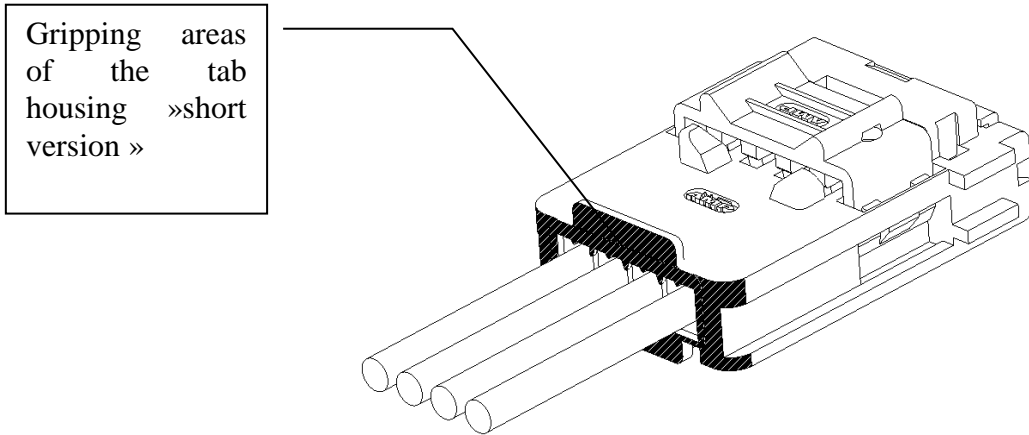


Figure 37

11. CONNECTOR UNMATING

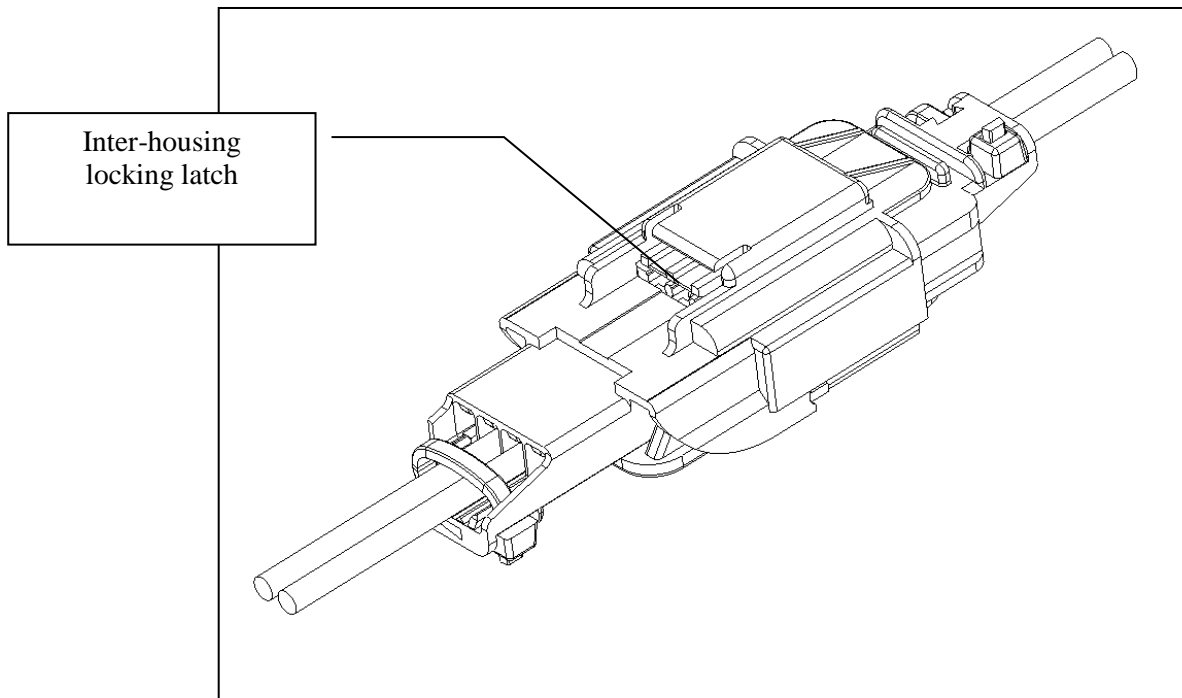


Figure 38

11-1 SANS OUTIL

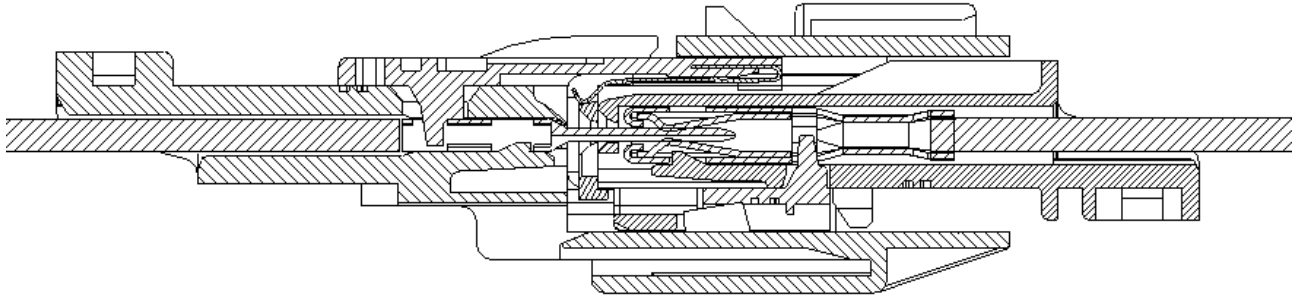


Figure 39

OPERATION 1 : Faire levier sous la lance de verrouillage inter boitier avec un doigt

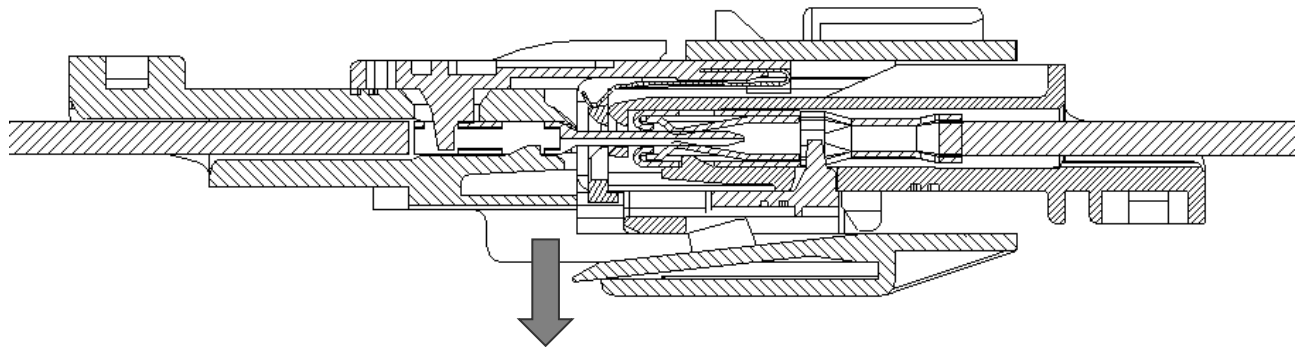


Figure 40

OPERATION 2 : Tirer sur le porte-clips tout en maintenant la lance défléchie

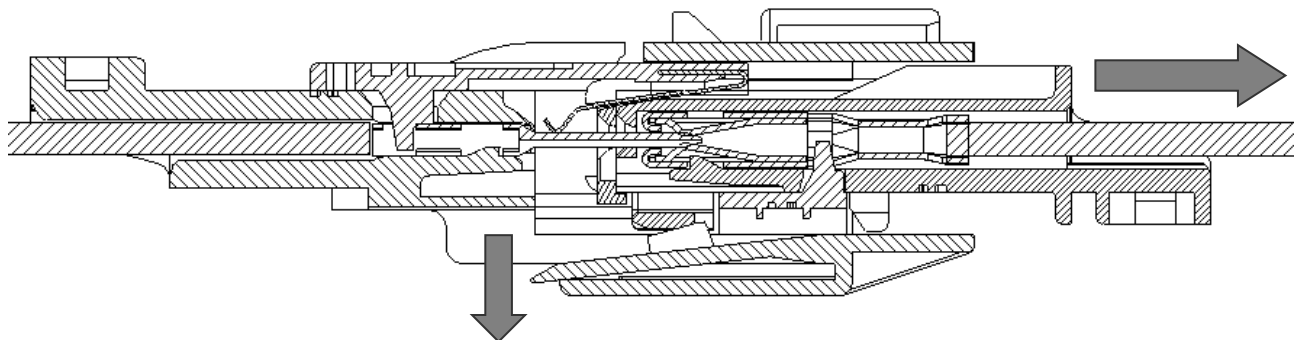


Figure 41

11-1 WITHOUT TOOLS

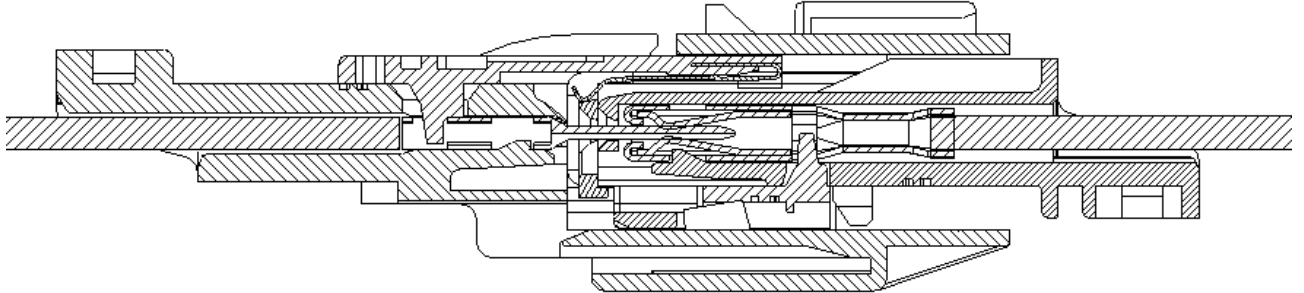


Figure 39

STEP 1 : Make lever with a finger under inter-housing locking latch

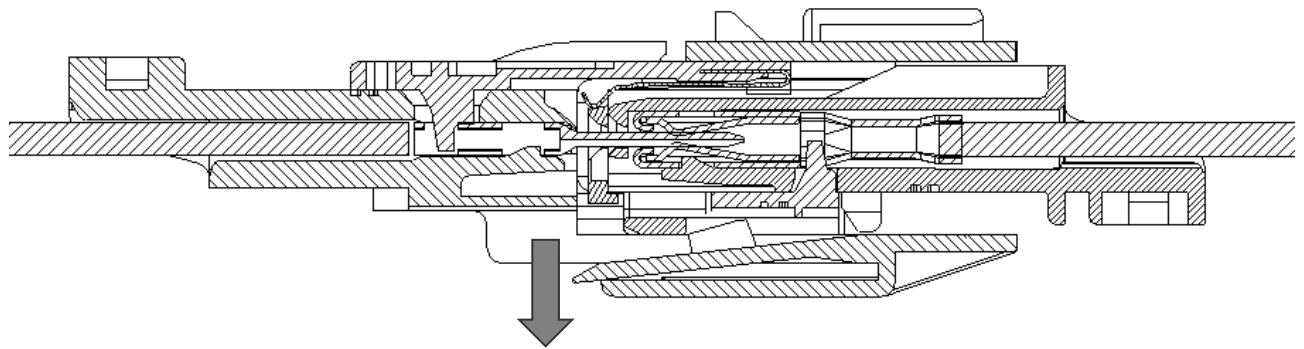


Figure 40

STEP 2: Pull the receptacle housing while maintaining the latch deflected

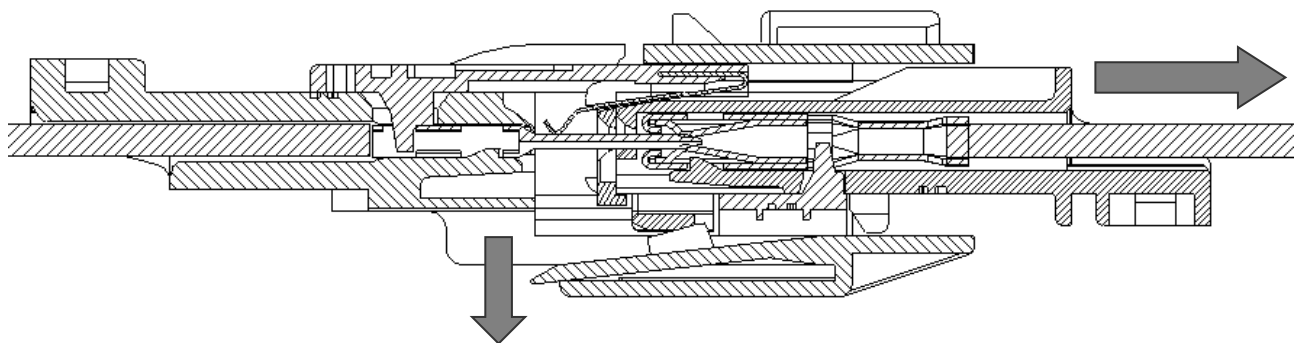


Figure 41

11-2 AVEC OUTIL

OPERATION 1 : Insérer un outil non spécifique (type tournevis) sous la lance de verrouillage inter boitier

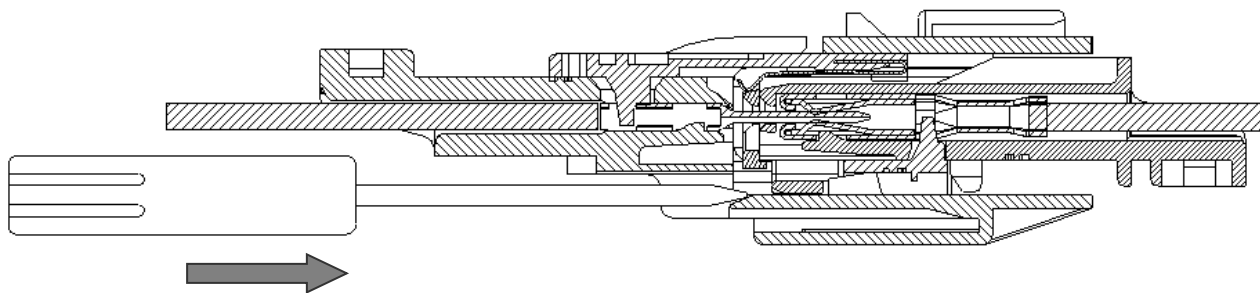


Figure 42

OPERATION 2 : Basculer cet outil comme indiqué ci-dessous

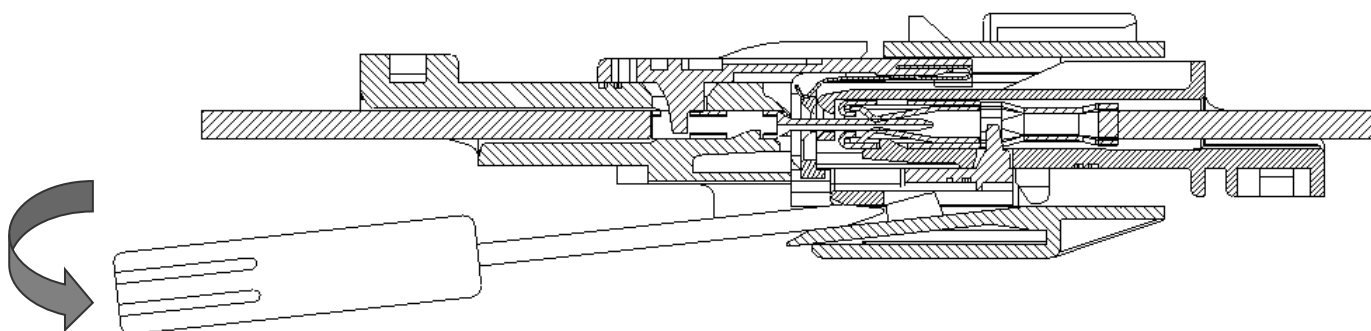


Figure 43

OPERATION 3 : Tirer sur le porte-clips tout en maintenant la lance défléchie

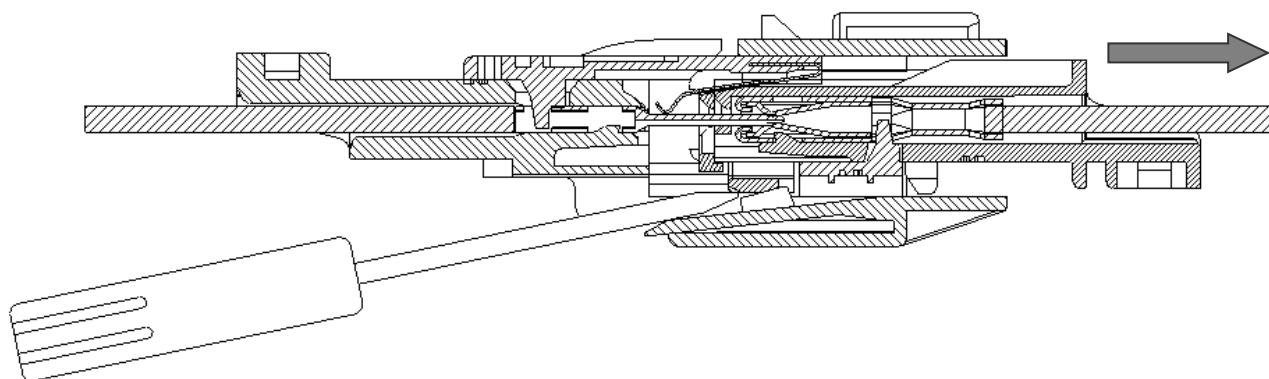


Figure 44

11-2 WITH TOOL

STEP 1 : Insert a non-specific tool (screwdriver type) under inter- housing locking latch

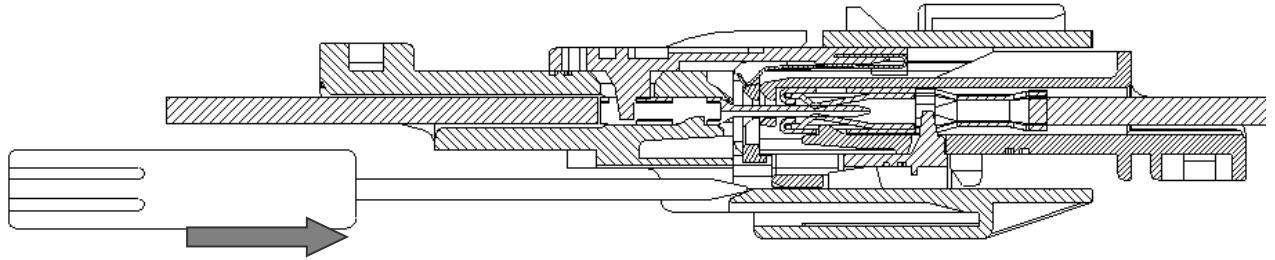


Figure 42

STEP 2 : Tilt this tool as shown below

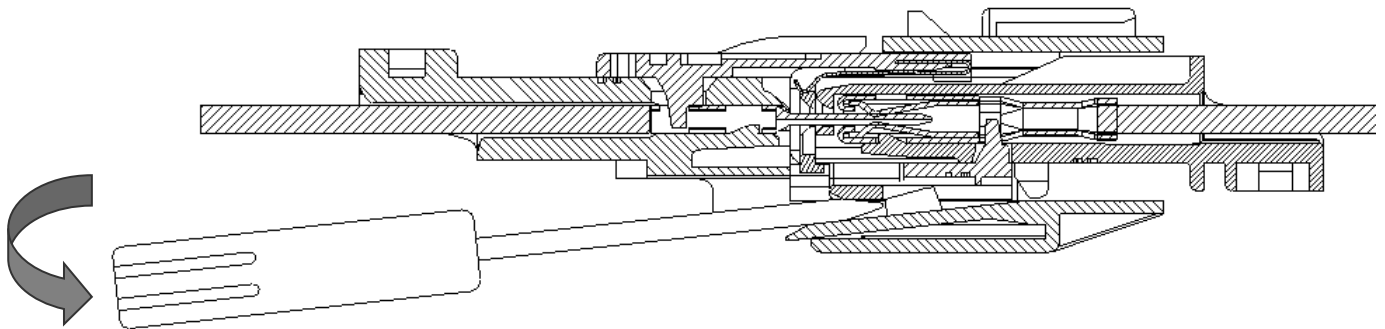


Figure 43

STEP 3 : Pull the receptacle housing while maintaining the latch deflected

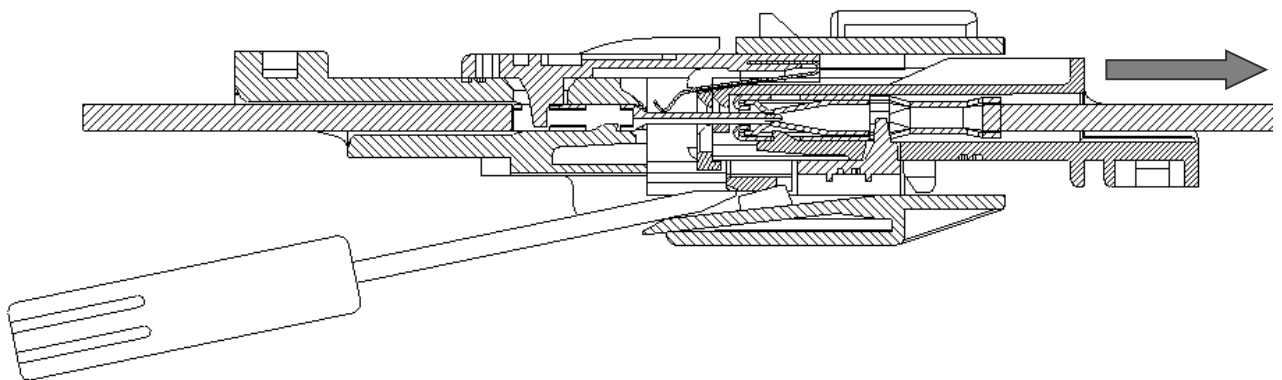
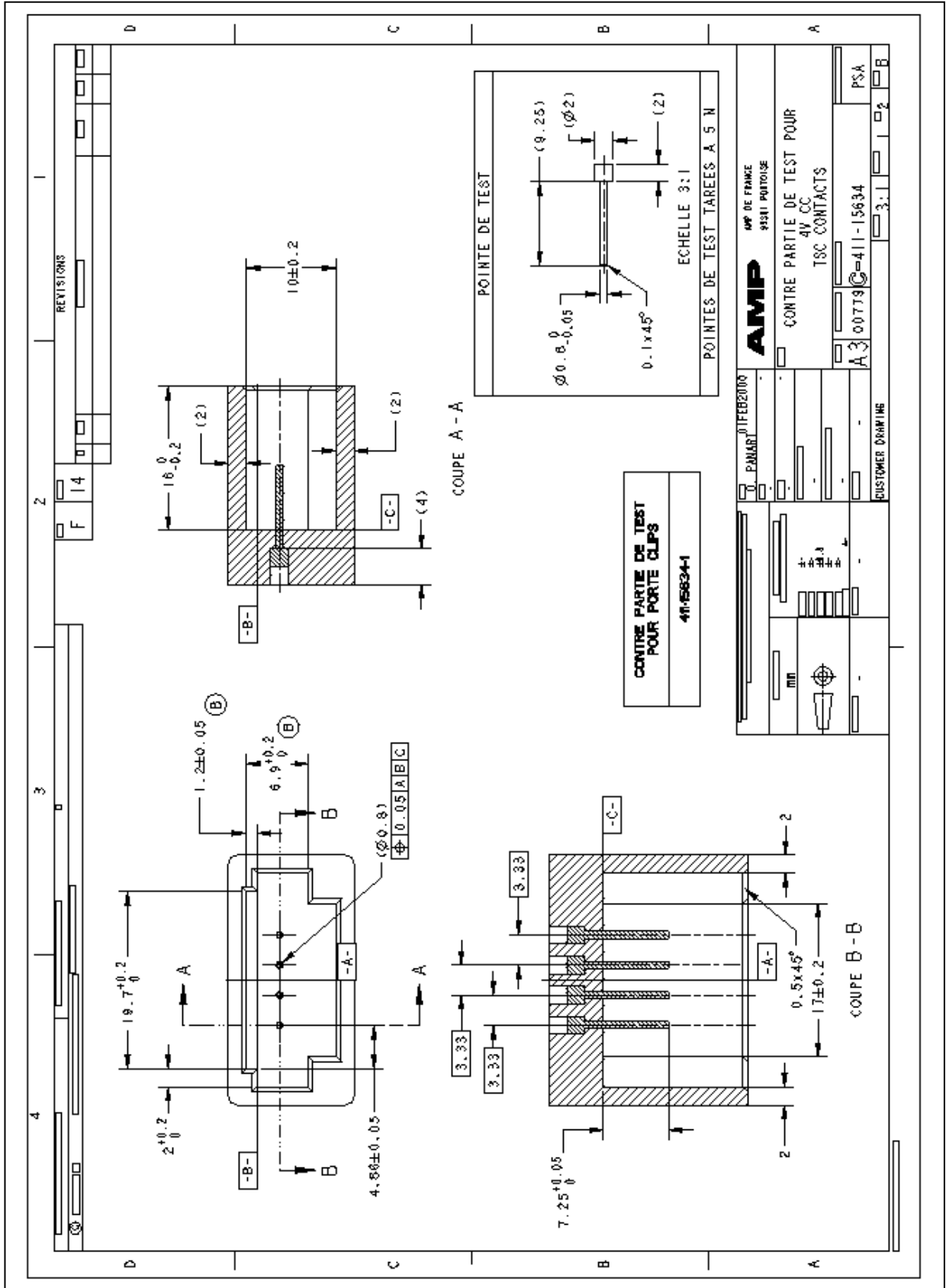
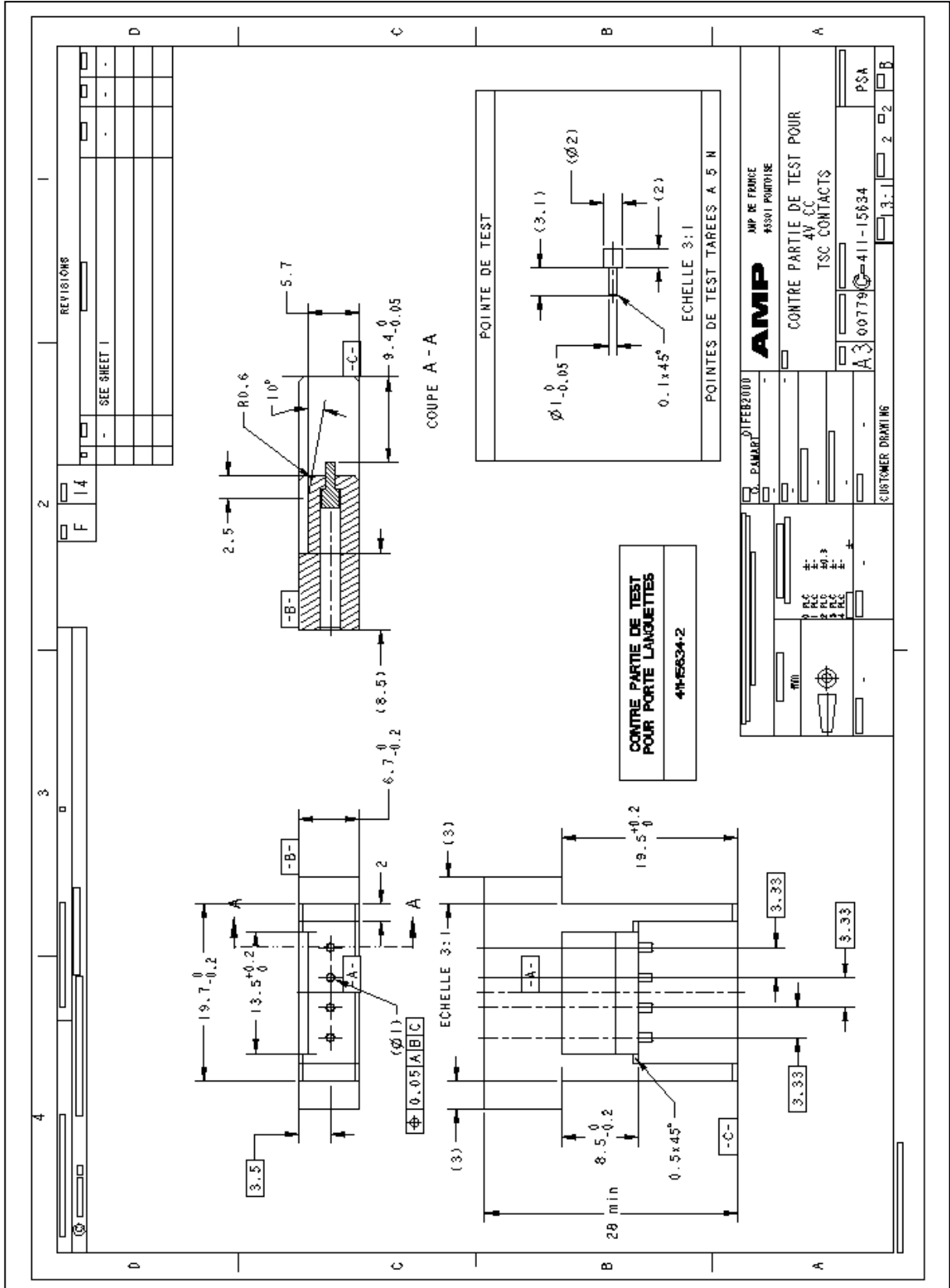


Figure 44

**12. EQUIPEMENT DE TEST DU PORTE CLIPS
RECEPTACLE HOUSING EQUIPMENT TEST**


13. EQUIPEMENT DE TEST DU PORTE LANGUETTES
TAB HOUSING EQUIPMENT TEST



14. MONTAGE SUR VEHICULE

Le porte-languettes (953733) se fixe sur le véhicule grâce à une agrafe de type "CPIO"

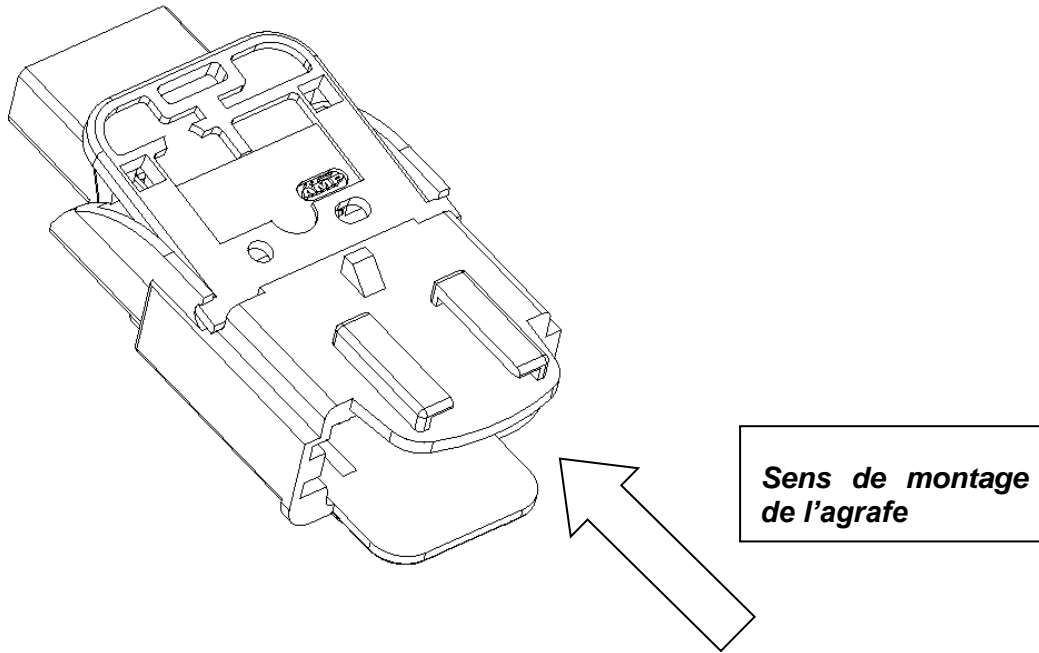


Figure 45

14. ASSEMBLY ON VEHICLE

The tab housing (953733) is fixed on the vehicle with a fastener type "CPIO"

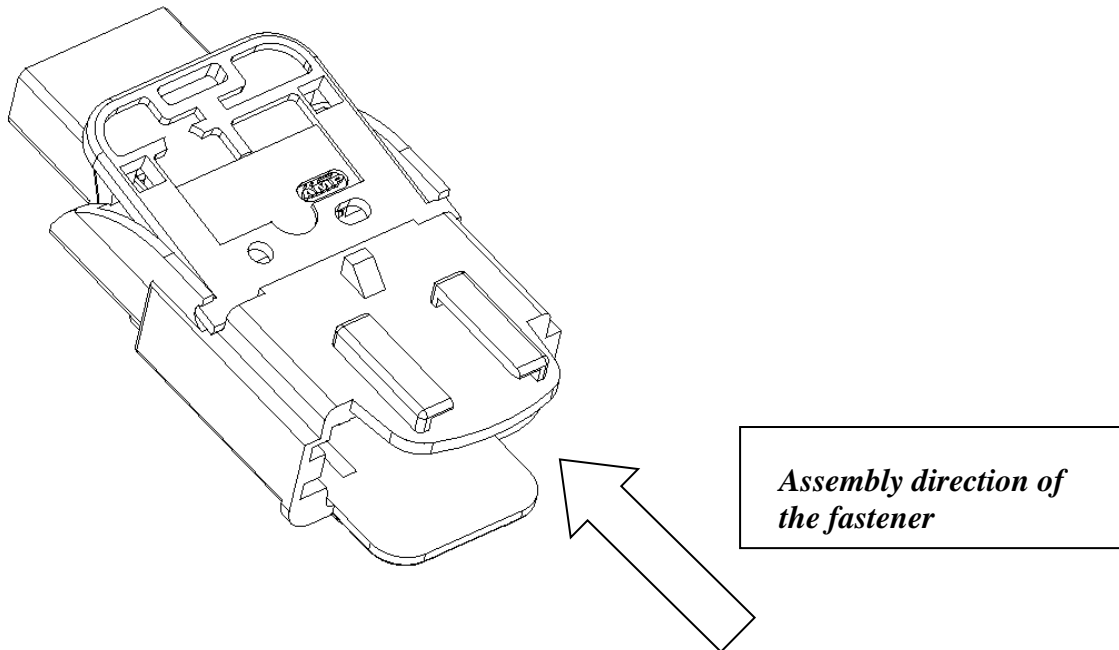


Figure 45