

AMP

AMP SUPERSEAL 1.5 SERIES

CUSTOMER MANUAL

Nr. 412-20000

AMP SUPERSEAL 1.5 SERIES IS A TRADEMARK OF AMP INC.

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FOREWORD

The AMP SUPERSEAL 1.5 SERIES connectors have been designed to meet the severe performances required by usage in automotive field. Refer to AMP Specification 108-20090 for details. It must be noted that these connectors are fully intermateable with Rheinshagen METRI-PACK 150 Series.

The following paragraphs are intended as general guide for the best use of the connectors for making harnesses and for their maintenance.

Detailed instructions for crimping contacts with wire seals are given in the attached Application Specification 114-20045.

1) HARNESS ASSEMBLY OPERATION

1.1) Insertion of crimped contacts into housing

Contacts can be inserted into housing cavities in one position only. The correct placing is shown here below.

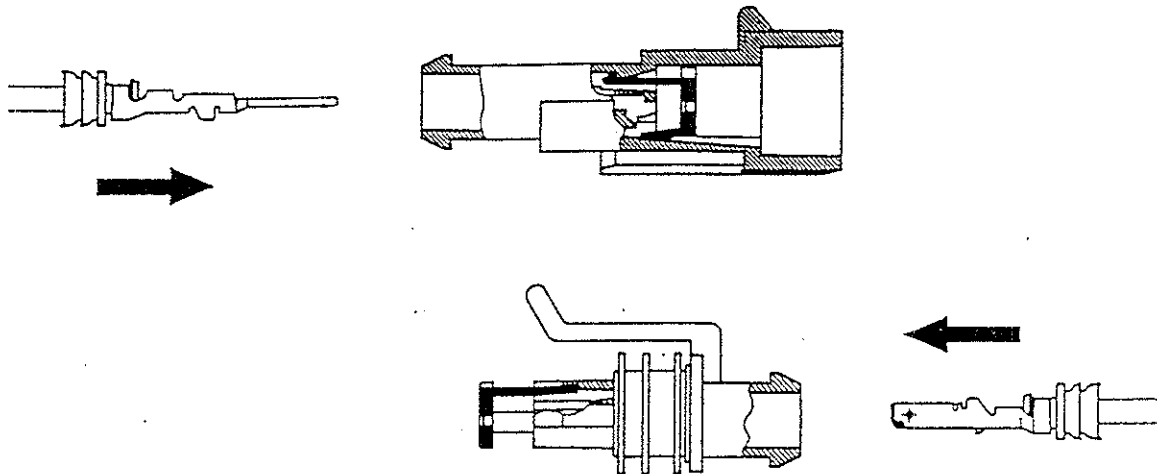


FIG.1

After insertion of a contact, pull back the wire lightly to check if the contact is securely locked in position.

1.2) Insertion of cavity plug

Cavity plug PN 282081-1 must be used when some cavity is not loaded with contacts, to prevent the ingress of water.

Insert it deeply into the cavity by means of a pin as shown.

If necessary, it can be removed by a pin point.

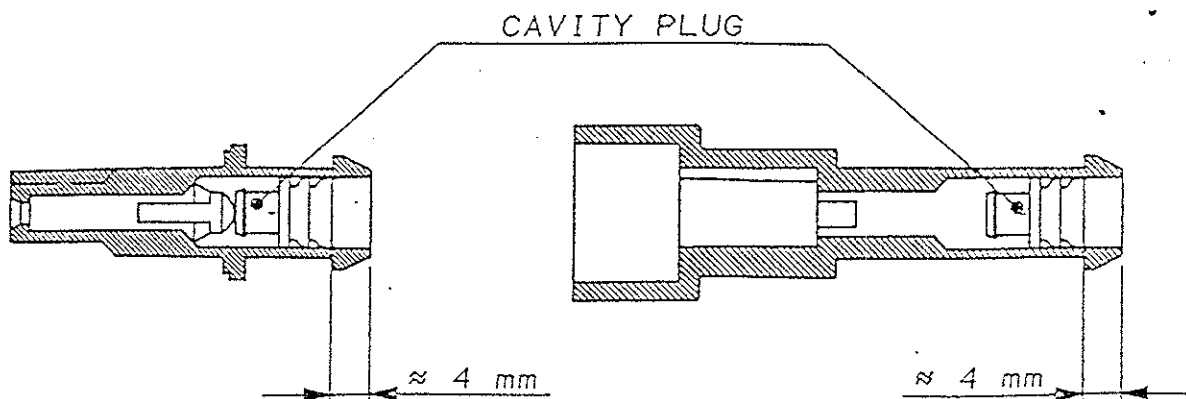


FIG.2

1.3) Positioning of anti-back out device

The AMP SUPERSEAL 1.5 SERIES connectors are supplied with an anti-back out device, pre-assembled on both receptacle and tab housings.

After loading of all crimped contacts, these devices must be pushed in "closed" position.

If one contact is not properly seated in the cavity, the plastic locking lance remains deflected: the anti-back out device can't be closed. This condition is a warning for the user. Moreover, with this device not closed, the mating with the counterpart can't be completed.

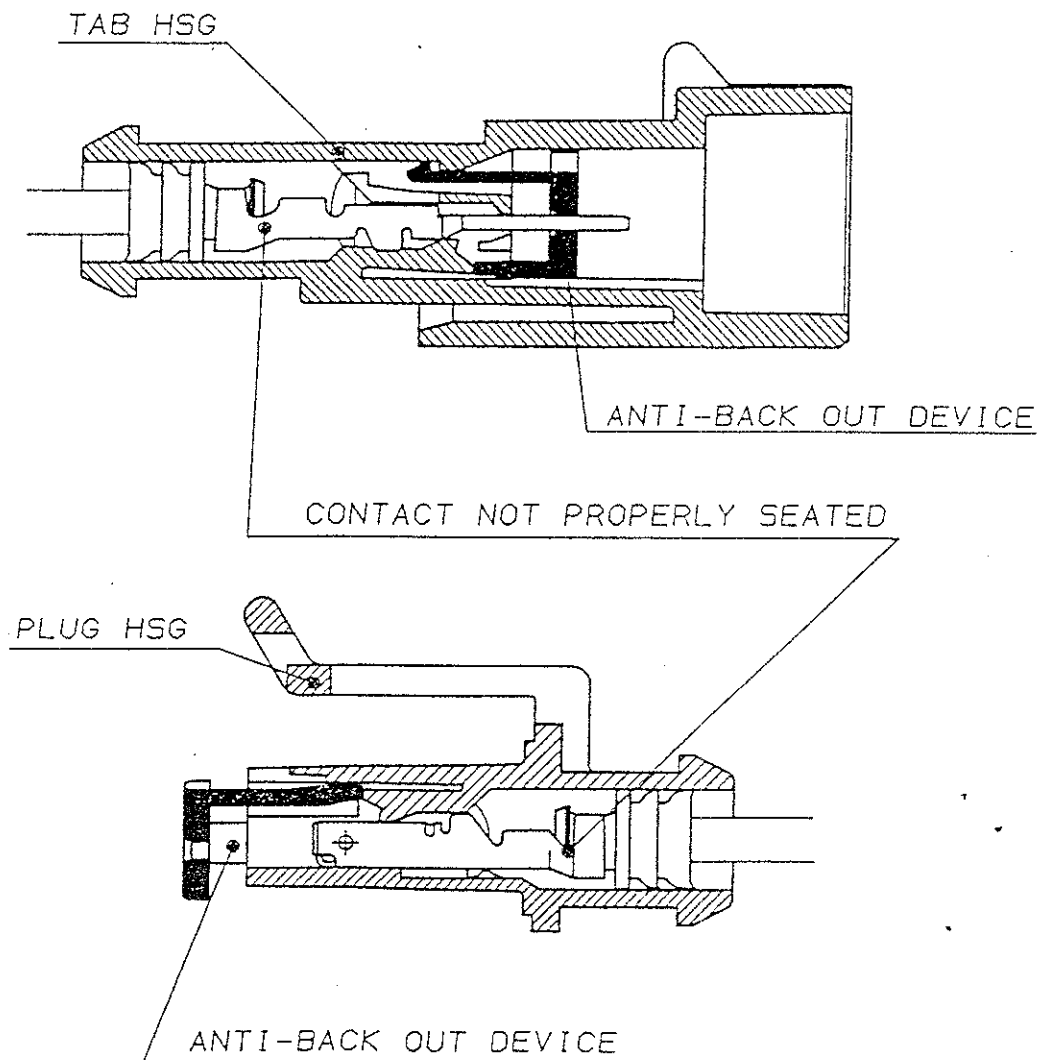


FIG.3

1.3.1) Closing the anti-back out device of plug housing

- For 2 to 6 position plugs, manually operated, the sequence is:

rotate the device to deflect the central lances inwardly, and then push till to the locking of the side arms.

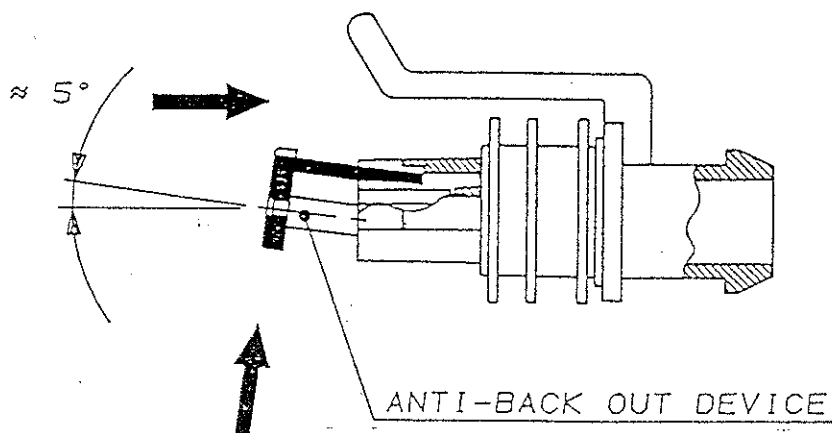


FIG. 4

- For 2 to 6 position plugs, operated by harness maker machine, the sequence is:
 - push inwardly:
 - the two lances for 2 pos. hsg
 - the central lance for 3 and 5 pos. hsg
 - the two central lances for 4 and 6 pos. hsgs.
 - then push till to the locking of the side arms.

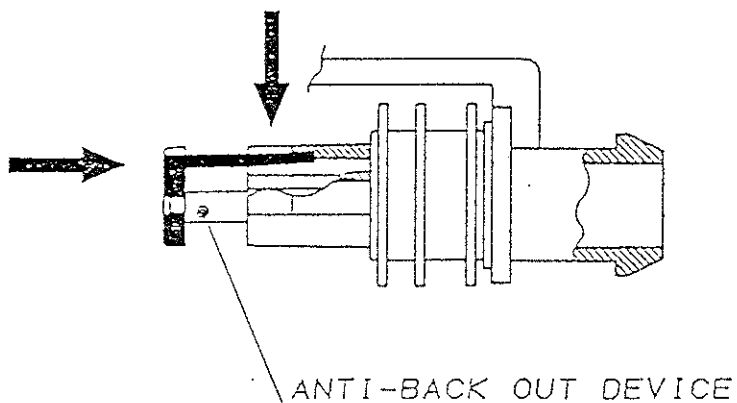


FIG. 5

- For 1 position, manually or by machine operated:

Push the device till its upper end is at the same level of the housing mating face.

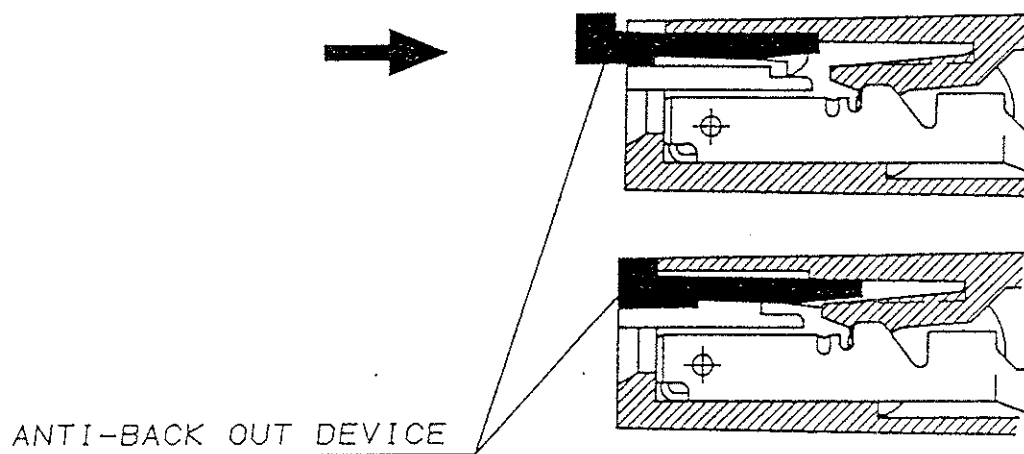


FIG.6

1.3.2) Closing the anti-back out device of tab housing

For 1 to 6 pos., manually or machine operated:

Push the device by a jig till the stop.
 (Different jigs are requested for 1 & 2 position housings and 3 to 6 position housings).

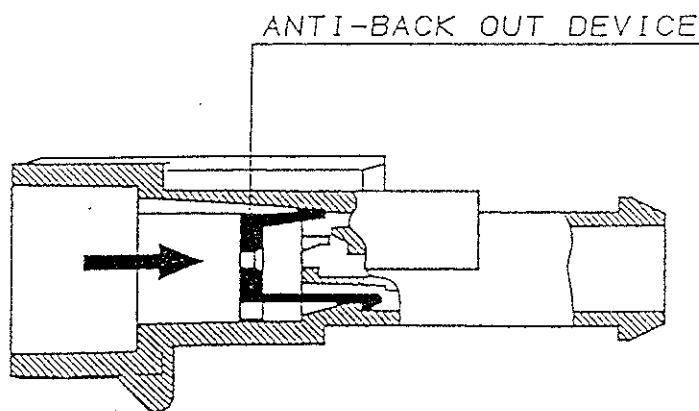


FIG.7

1.4) Removal of contacts

Since the locking lance of contacts can be reached from the mating side of the housings, it is necessary firstly to remove the anti-back out device.

1.4.1) Removal of receptacle contact

- a)- Deflect the side arms of anti-back out device and pull it away.
- b)- Insert the contact extraction tool (PN 784980-1) between contact and lance nose, then rotate it slightly as shown.
- c)- Pull the wire.

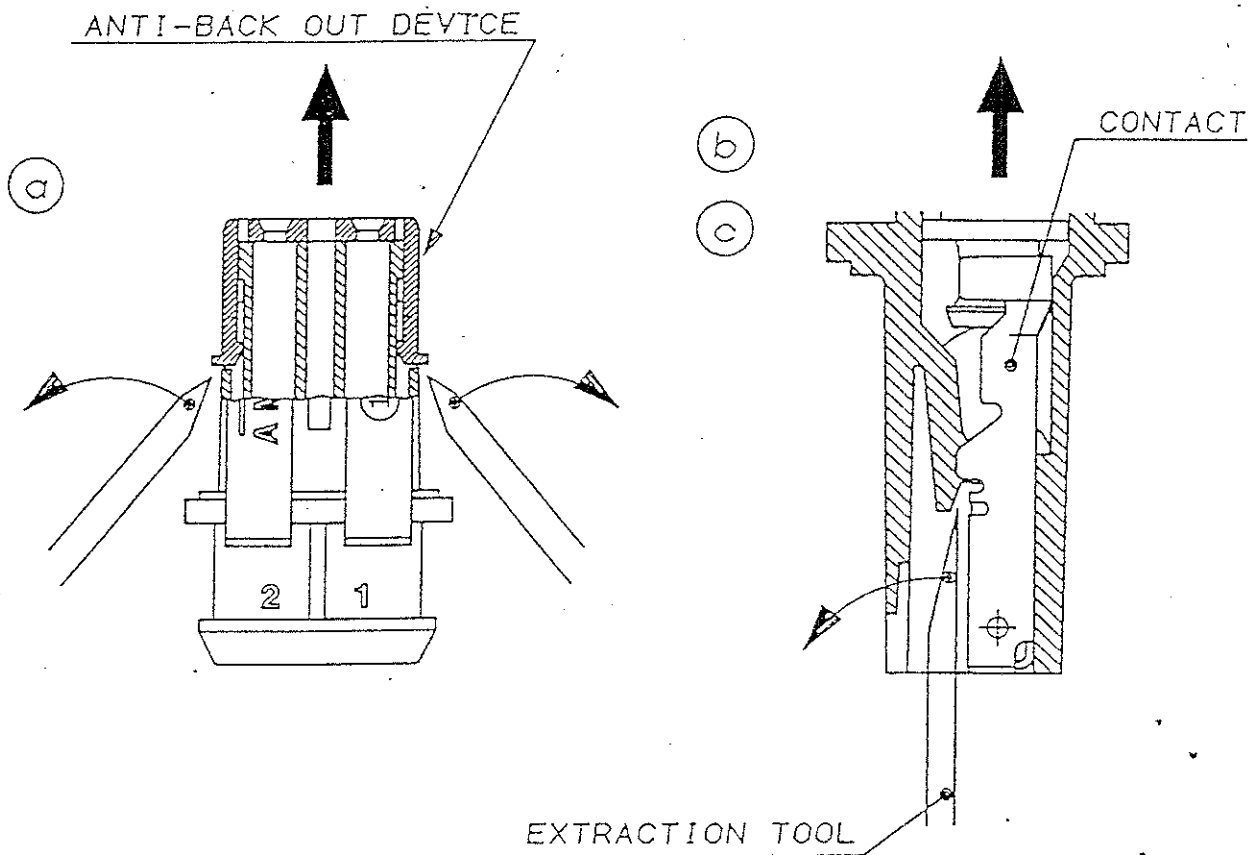


FIG. 8

Caution: be careful not to insert the extraction tool in the contacting area of receptacle.

1.4.2) Removal of tab contact

- a)- Insert the extraction tool (PN 785084-1) in one of central holes of anti-back out device and pull it away.
- b)- Insert the contact extraction tool (PN 784980-1) between contact and lance nose, then rotate it slightly as shown.
- c)- Pull the wire.

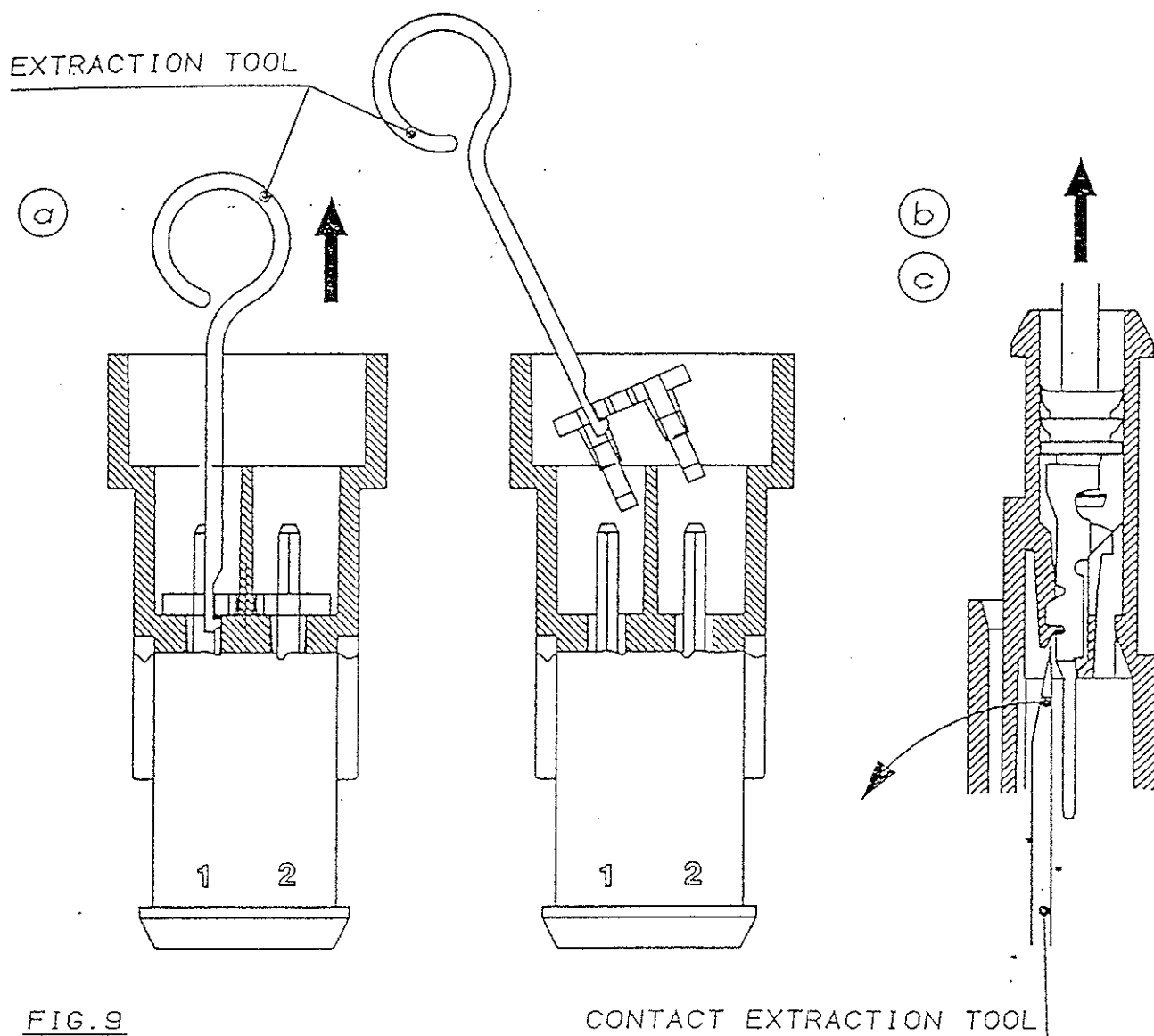


FIG. 9

CONTACT EXTRACTION TOOL

Caution: Rotating the extraction tool, be careful not to deform the tab.

2) REPAIR AND MAINTENANCE

During repair and maintenance operation of wirings, replacement of contacts may occur. In such cases, the following procedure is recommended:

- a) Cut off the wire of defective contact you have to remove.
- b) Strip the wire insulation for the length requested by Application Specification, according to the section of wire itself.
- c) Slide the new wire seal over the wire.
(See Appl. Spec. 114-20045 for the proper choice and its positioning).
- d) Crimp the new contact following the instruction of the mentioned Application Spec.
For maintenance, is available a crimping hand tool.
For its use, see Instruction Sheet 411-20000.

3) PANEL MOUNT OPTION

The tab housings are provided with two "L" shaped guides in which can be inserted a special elastic clip, allowing the panel mounting of the connector.

The clip, not produced by AMP, can have different shapes, according to the Customer needs. An example is shown in Fig. 10.

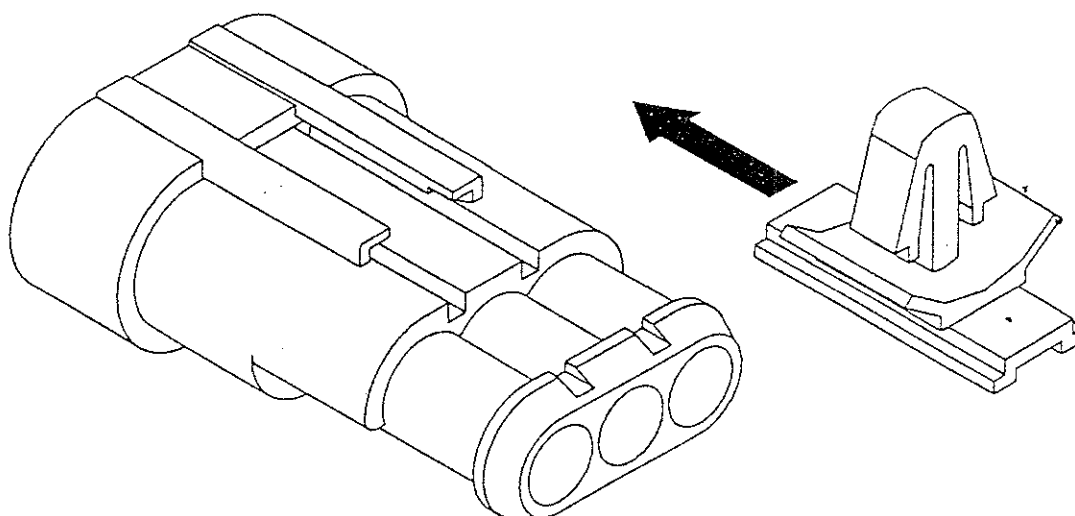


FIG. 10