

Repair Manual for HD Plus[®] Backplane Contacts



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1.0 SCOPE

The Purpose of this manual is to guide in the replacement of 234-2502 series contacts used in either the 540-9XXX-XXX series inverse din modules or 422-7XXX-XXX series HD Plus backplane modules.

2.0 INDIVIDUAL CONTACT REMOVAL

Individual contacts can be removed using contact removal tool 600-1626-000 by following steps 1 thru 4.

2.1) Place Contact removal tool 600-1626-000 over the damaged contact as shown in Figure A.

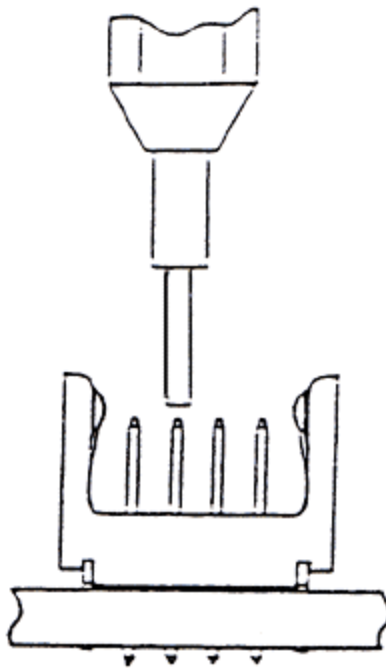
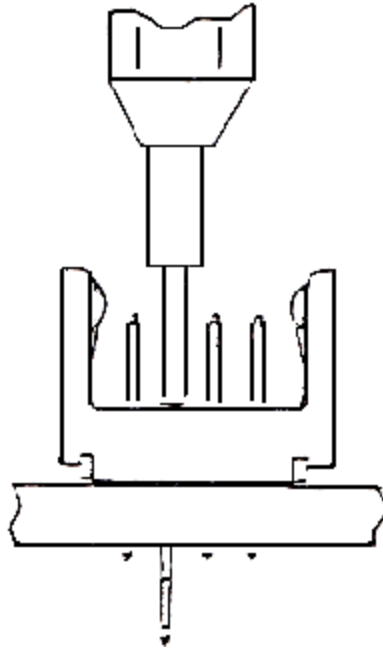
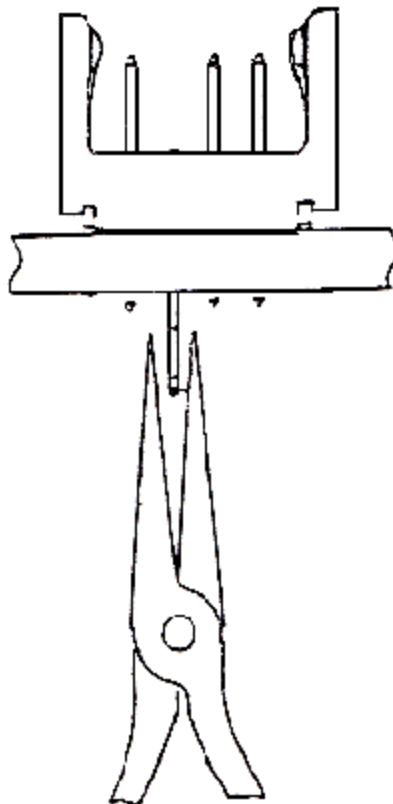


FIGURE A

2.2) With contact removal tool perpendicular to the insulator housing, tap on the base of the removal tool until the tip of the removal tool is flush with the insulator housing as shown in Figure B.

**FIGURE B**

2.3) With a pair of needle nose pliers remove the contact from the printed circuit board as shown in Figure C.

**FIGURE C**

2.4) Dispose of damaged contact

3.0 INDIVIDUAL CONTACT REPLACEMENT

Individual signal contacts can be replaced using contact insertion tool 600-0132-000 by following steps 1 thru 4.

- 3.1) Position replacement contact in plated thru hole from secondary side of printed circuit board as shown in Figure D. Care must be taken to align replacement contact with dynamic section oriented in the same manner as the original contact.

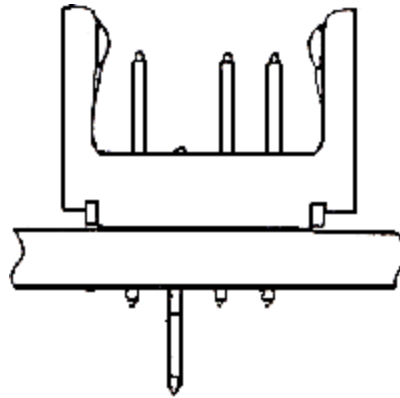


FIGURE D

- 3.2) Place insertion tool over the tail of the contact, making certain the insertion tool is perpendicular to the printed circuit board (PCB).
- 3.3) Gently tap on the head of the insertion tool until the tip of the insertion tool is flush with the PCB. Do not drive the insertion tool into the PCB.
- 3.4) Using a drop gauge or alternative measuring device, assure contact meets the requirements shown in Figure E for HD Plus modules (422-7XXX-XXX) or Figure F for inverse din modules (540-9XXX-XXX).

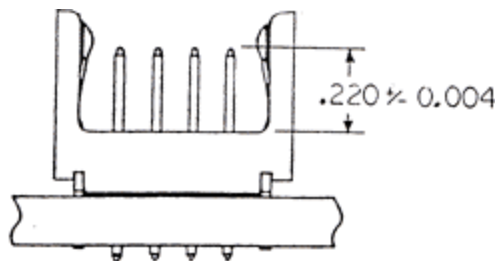
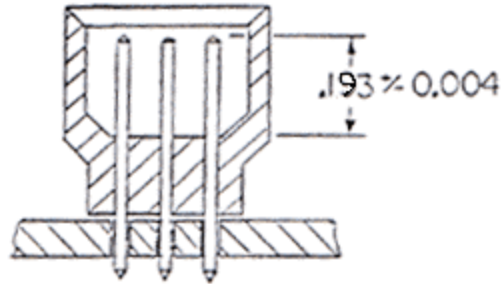


FIGURE E

**FIGURE F**

4.0 INSULATOR REMOVAL

If removal of the insulator is necessary, care should be taken to avoid damaging the backplane and contacts. To avoid damage an insulator removal tool, which exerts uniform pressure over the printed circuit board and evenly lifts the insulator off the contact field should be used to avoid unnecessary damage.

4.1)

a) HD Plus Removal

Place insulator removal tool (600-5041-500, Figure G) over insulator housing the damaged contact. Press the removal tool down over the insulator until the tool locks on the housing. Care should be taken to assure that the insulator removal tool is centered over the insulator being removed and under no circumstances the tool overlaps the end of the insulator.

b) Inverse Din Removal

Slide the insulator removal tool (600-0970-000, Figure H) under the insulator to be removed. Care should be taken to assure that the insulator removal tool is centered over the insulator being removed. Squeeze the handle to remove the insulator. Proceed to step 4.4.

4.2) With the removal tool on the module, place the stiffener over the removal tool.

4.3) Simply turn the handle on the top of the removal tool in a clockwise manner to remove the insulator.

4.4) Dispose of insulator.

5.0 REMOVAL OF BENT SIGNAL CONTACTS

5.1) If the contact has been bent, try to straighten the contact with a pair of needle nose pliers.

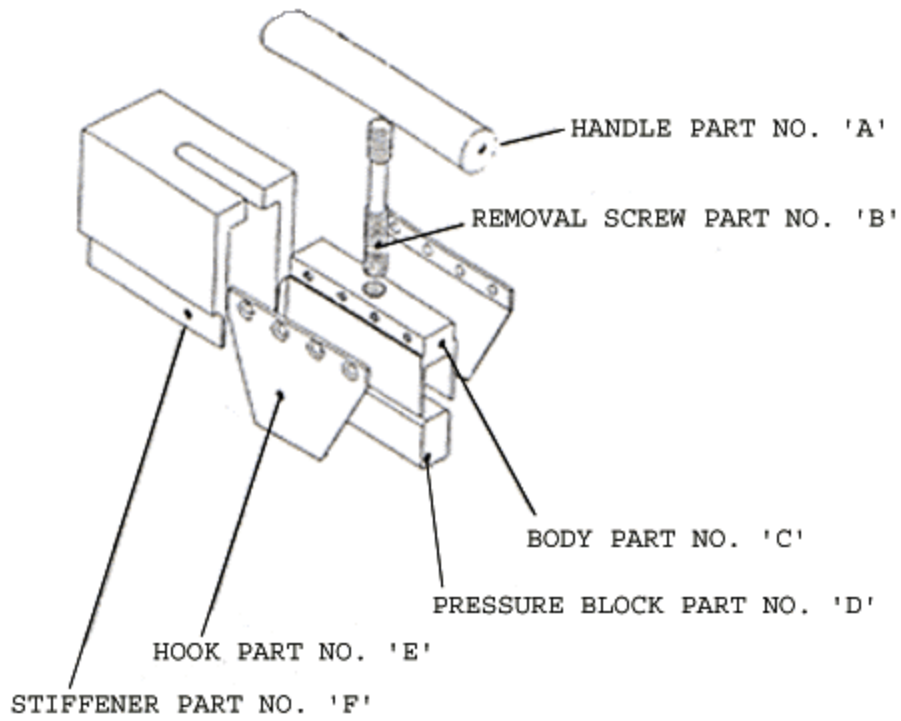


FIGURE G

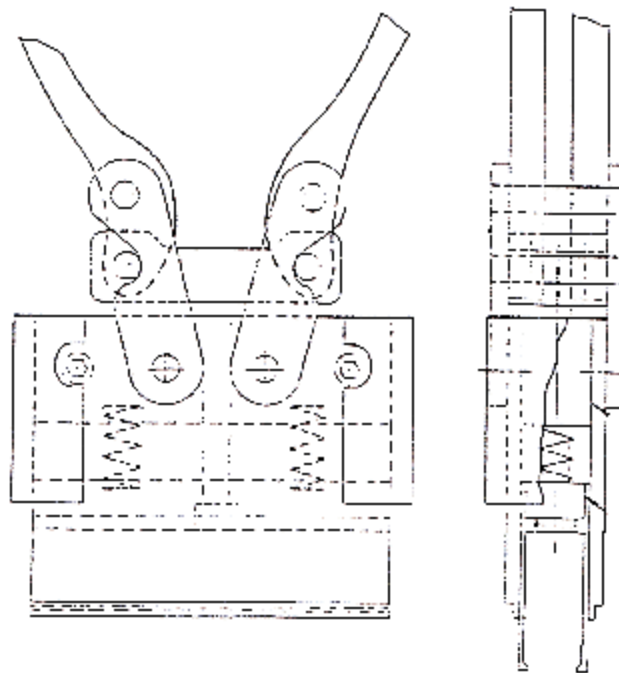


FIGURE H

5.2) Once the contact has been straightened follow the procedures in section 2.0.

5.3) If the contact can not be straightened, cut the contact with a pair of wire cutters. Follow procedures outlined in section 6 for removal of broken contacts.

6.0 REMOVAL OF BROKEN SIGNAL CONTACTS

6.1) If a contact has been broken and can not be removed from the insulator assembly with the contact removal tool, the insulator housing must be removed as outlined in section 4.

6.2) After the insulator has been removed, the contact is to be removed from the plated through hole by placing the contact removal tool (600-1626-000) over the broken end and gently tap until the end of the contact is flush with the PCB. Care must be taken to assure that the contact removal tool is perpendicular to the printed circuit board.

6.3) With a pair of needle nose pliers remove the contact from the printed circuit board as shown in Figure C.

6.4) Dispose of damaged contact.

7.0 REMOVAL OF SHIELD CONTACTS

7.1) If it is necessary to replace a shield contact, the insulator housing must be removed first as outlined in section 4.

7.2) After removing the housing, the shield contacts will either remain in the printed circuit board or in the insulator housing.