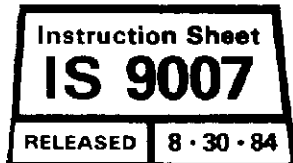




**AMP-HDI★
HIGH DENSITY INTERCONNECTION
PC BOARD CONNECTORS**



CONNECTORS		
TYPE	PART NO.	
4-Row Pin	532435, 532448, 532818, 532837, 532841, 532921, 532933, 533056, 533254, 533270, 533404	
4-Row Rcpt	532434, 532840, 532903, 532920	
3-Row Pin	532432, 532438, 532447, 532839, 532919, 533061, 533092, 533093, 533094, 533294, 533296	
3-Row Rcpt	532431, 532838, 532918, 533268	
2-Row Pin	532429, 532446, 533060, 533090, 533091	
2-Row Rcpt	532428, 532825	

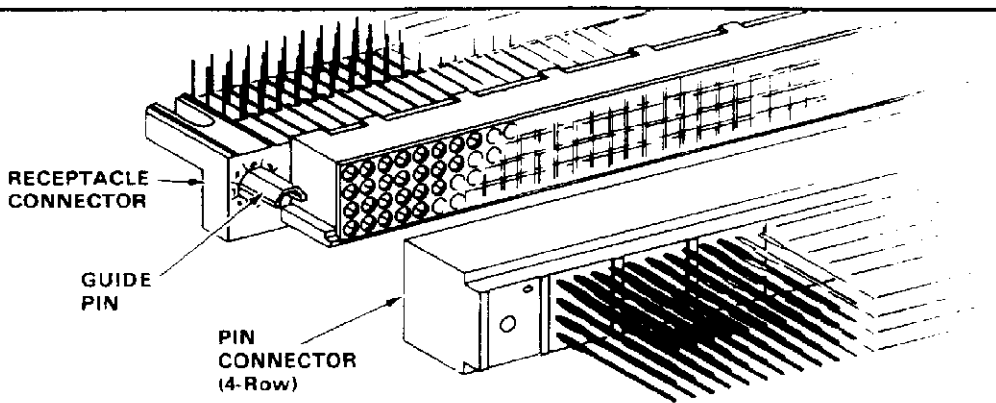


Fig. 1

1. INTRODUCTION

This instruction sheet (IS) covers the contacts, accessories, mounting procedures, and printed circuit (pc) board layout dimensions recommended for the AMP-HDI connectors listed in Figure 1.

Read these instructions carefully before installing or assembling the connectors.

NOTE

All dimensions on this instruction sheet are in inches.

2. DESCRIPTION (Figure 1)

AMP-HDI pin and receptacle connectors are available with two, three, or four rows of contacts, on a .100-in. grid, totaling a maximum of 684 positions.

The connectors feature pin headers with AMP★ ACTION PIN★ contacts; four-point, box-type receptacle contacts; and a 64-combination keying arrange-

ment. One or two guide pins are used to facilitate reliable mating of long connectors.

3. INSTALLING AMP-HDI CONNECTORS

A. Pin Connectors

NOTE

When installing a pin connector into a pc board, use of an insertion fixture is recommended to protect the posts of the ACTION PIN contacts and to support the connector and pc board in the machine base. The insertion fixture is designed by the customer for the specific connector size.

The connectors can be inserted into the pc board by using the insertion tool listed in Figure 2 and by using an AMP H-Frame Power Unit which is required for larger connectors and larger pc boards. Refer to AMP Customer Manual CM 5567, packaged with the power unit, for insertion instructions.

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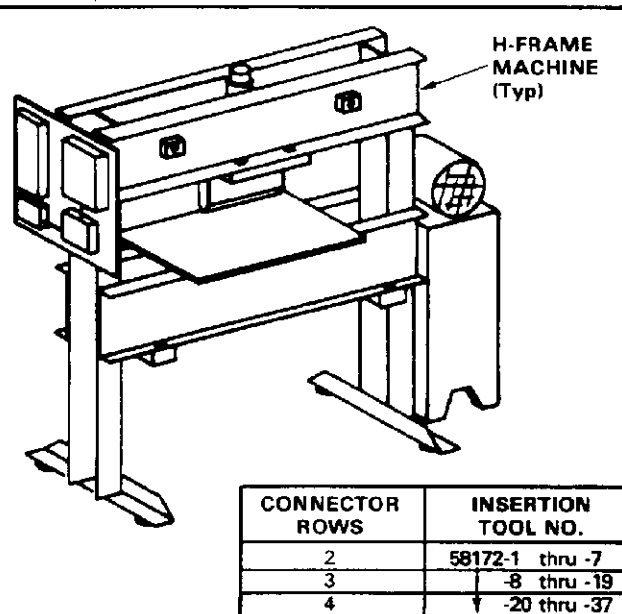
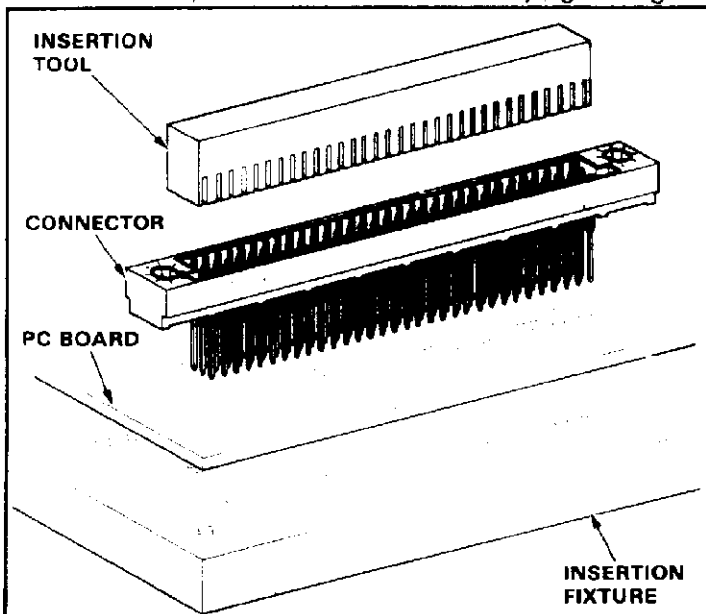


Fig. 2

Proceed as follows:

1. Place the pc board on top of the insertion fixture.
2. Align pc board holes with insertion fixture holes, and loosely press connector contact posts through holes in pc board and insertion fixture.
3. Select the appropriate insertion tool, and position the tool in the top of the connector. See Figure 2.
4. Adjust H-Frame machine to correct shut-height (see CM 5567).
5. Center connector under power unit and cycle machine to insert connector.
6. Remove connector from power unit.

NOTE *The maximum allowable gap between seated connector and pc board is .010 in.*

B. Receptacle Connectors (Figure 3)

NOTE *Receptacle connectors are installed into pc boards by using an AMP Alignment Tool 532925 which aids in the insertion of the connector into the pc board. The tool is available in three lengths which incorporate 75, 135, and 180 contact positions, and the tool features a cam-actuated lever to "open" and "close" the tool on the receptacle contacts.*

Refer to Figure 3 and proceed as follows:

1. Determine number of contact positions in the assembly being mounted. Make a layout on the pc board, using the recommended dimensions provided in Figure 7.

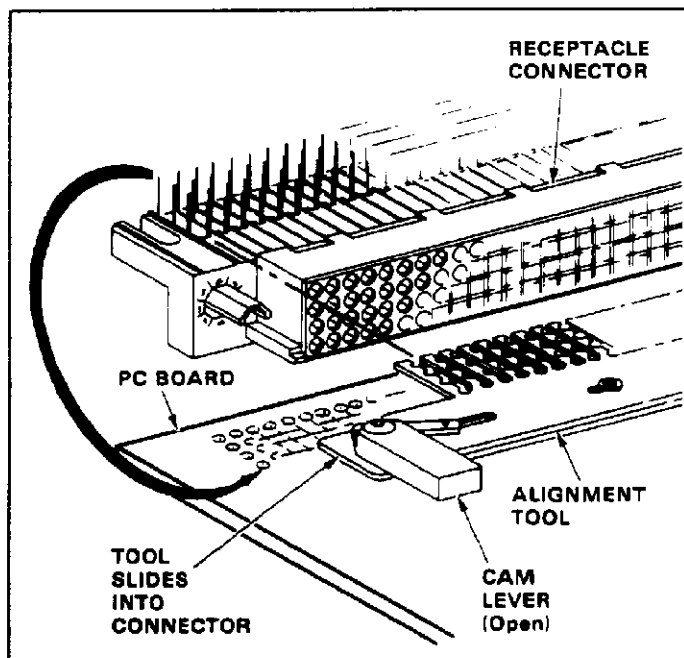


Fig. 3

2. Select proper tool, and adjust cam lever to vertical position to place tool in "open" position.
3. Place contacts in alignment holes of tool, and adjust lever to horizontal position to "close" the alignment tool on contacts.
4. Place receptacle contacts through pc board holes to position connector on pc board.
5. Adjust lever of tool to "open" position and slide alignment tool from between the connector and pc board.
6. Fasten connector to the pc board with appropriate hardware.
7. Solder contacts to pc board using a standard soldering technique.

4. REPLACING DAMAGED CONTACT

The AMP pin and contact replacement tool, shown in Figure 4, is used to replace ACTION PIN contacts on pc boards and panels.

The tool features a spring-loaded, internally-threaded tip. The removal and replacement tips are designed to remove or replace contacts of specific types and sizes.

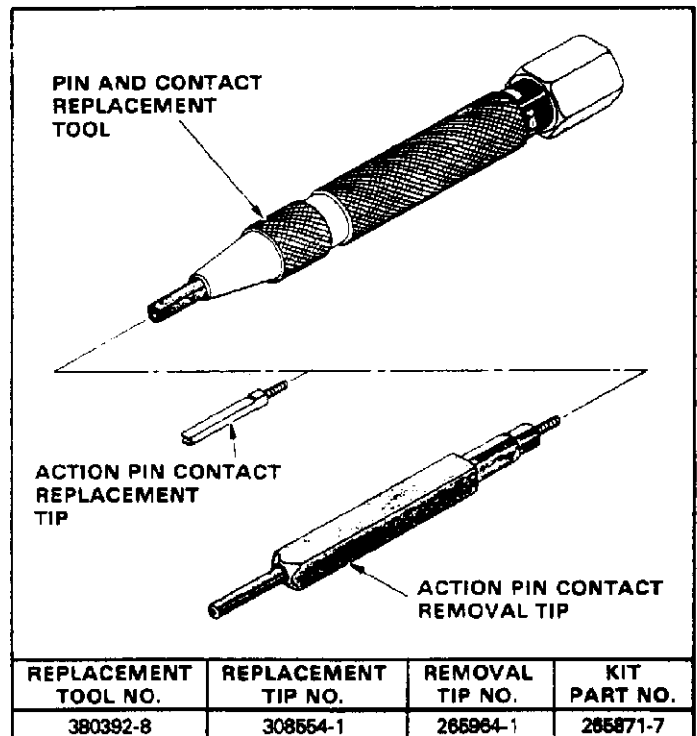


Fig. 4

The replacement tool tip is threaded into the tip of the standard tool and fits onto the appropriate contact to be replaced.

NOTE *For proper removal and replacement of the contact, the specified tool tips must be used. Replacement tips can be obtained through your local AMP representative.*

A. Contact Removal (Figure 5)

1. Thread the contact removal tip into the tip of the replacement tool.
2. Position contact removal tip over square post of contact.
3. Holding replacement tool and pc board firmly, push contact out of the pc board and housing.

NOTE

If the pc board or panel has been soldered, contact removal requires use of a soldering iron along with the replacement tool for Steps 2 and 3. Hold hot tip of soldering iron against the pin to be removed, NOT against the pc board or panel. After the contact is removed, use a .038-in. drill bit to clean and size the hole for contact replacement. Do NOT re-use ACTION PIN contacts that have been removed.

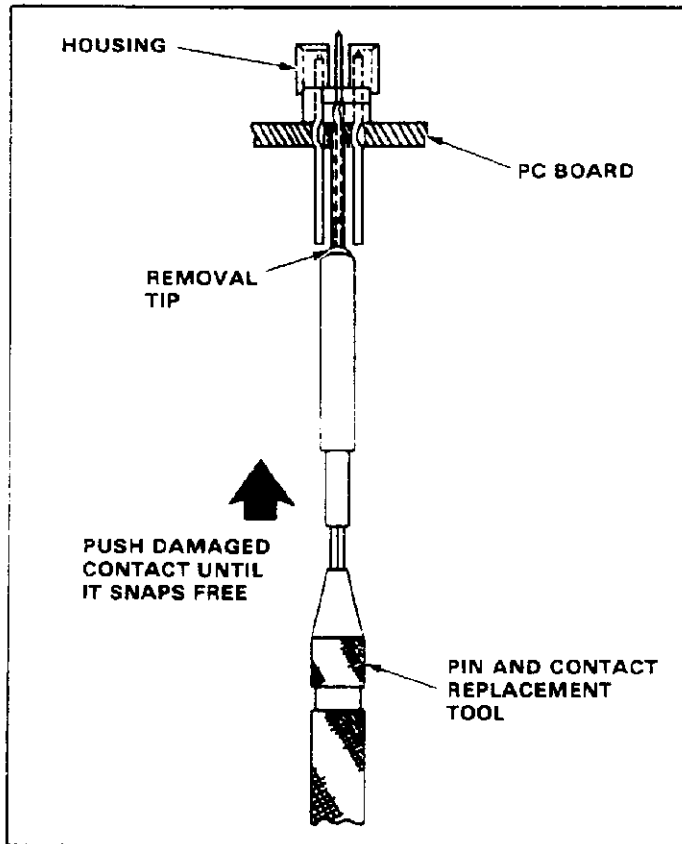


Fig. 5

B. Replacing Pin Contacts (Figure 6)

1. Thread appropriate ACTION PIN contact replacement tip into tip of replacement tool.
2. After removing damaged contact, insert replacement contact.
3. Fit hole in replacement tip over contact, rotate tool 90° to locate contact in position, and apply force in direction of arrow. See Figure 6.

NOTE

The shoulder of contact must align with slot of replacement tip before applying force to replacement contact.

4. After applying force on contact to fully seat the contact, the contact shoulder should be flush with housing.
5. Remove replacement tool from contact.

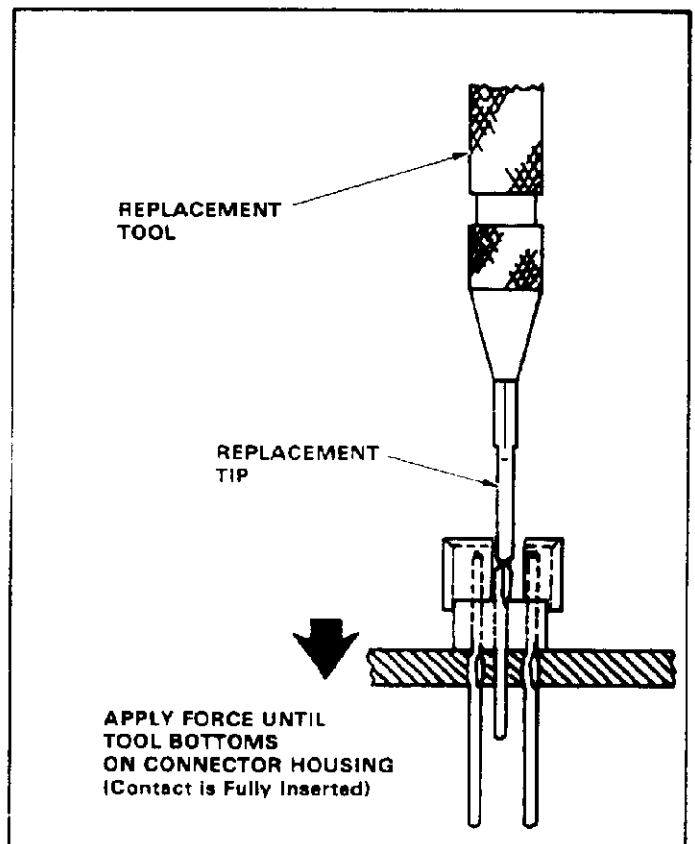


Fig. 6

RECOMMENDED BOARD LAYOUTS

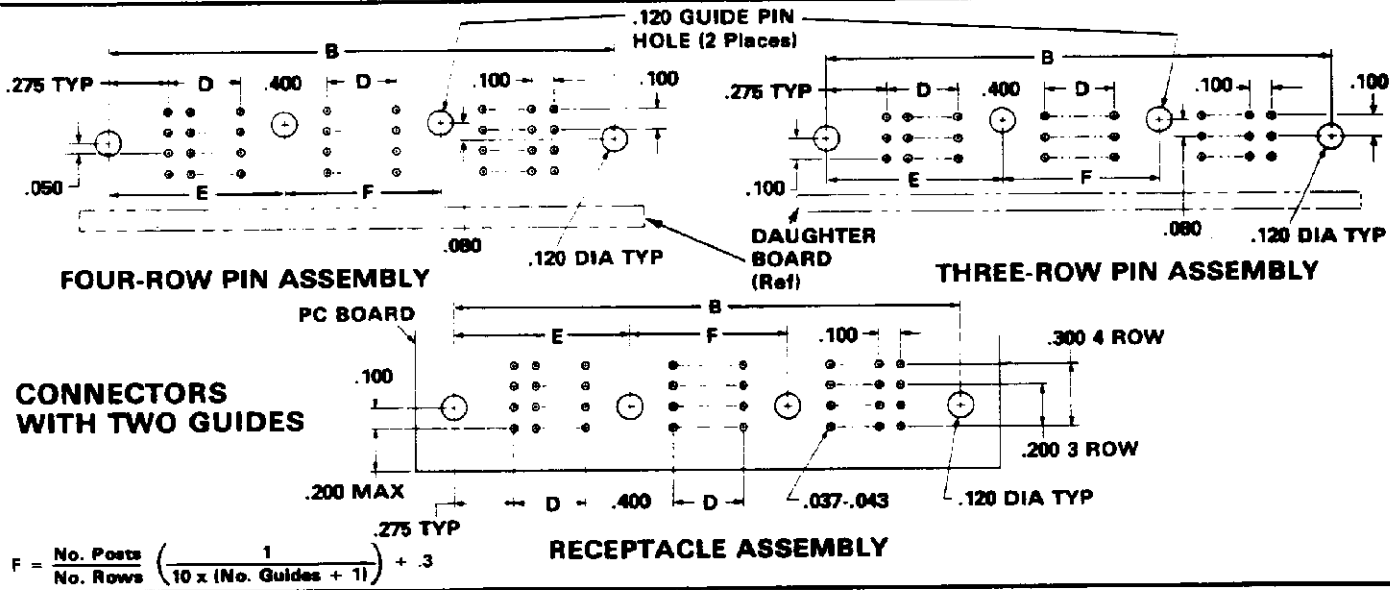
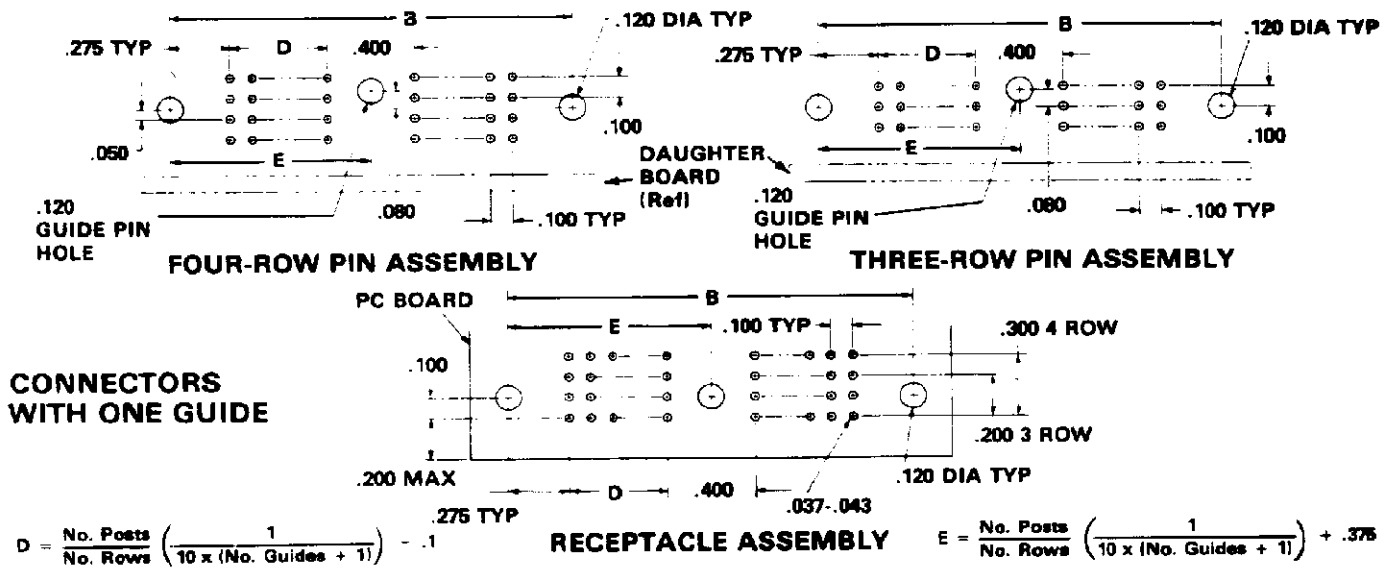
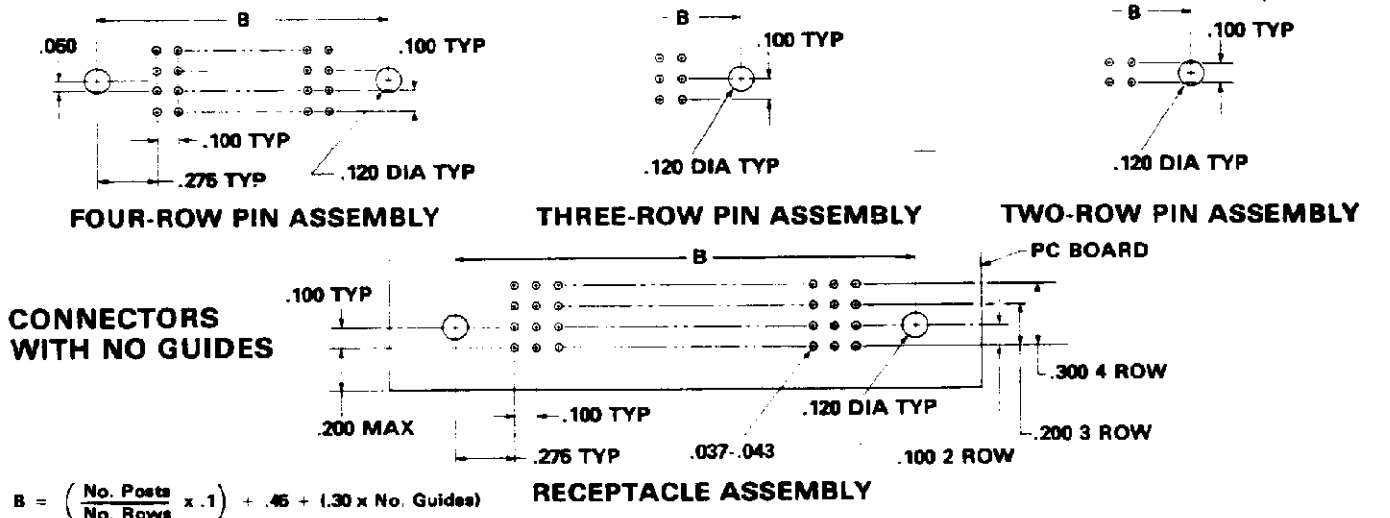


Fig. 7