

AMP		AMP INCORPORATED Harrisburg, Pa. 17105	HOTLINE 1 800 722-1111 AMP FAX 1 800 522-6752	APPLICATION SPECIFICATION 114-6046
REV	REASON	CHAMP* .050 SERIES II RIGHT-ANGLE RECEPTACLE HEADER ASSEMBLY		ENGINEERING RELEASE DATE 5-13-92
				APPROVAL BILL CHANDLER

1. INTRODUCTION

This specification covers the requirements for application of AMP* CHAMP .050 Series II right-angle printed circuit (pc) board receptacle header assemblies. The connectors are available in 14- and 26-position sizes. Figure 1 shows product features and terminology that will be used throughout this specification.

NOTE

All dimensions in this specification are in millimeters [with inch equivalents in brackets].

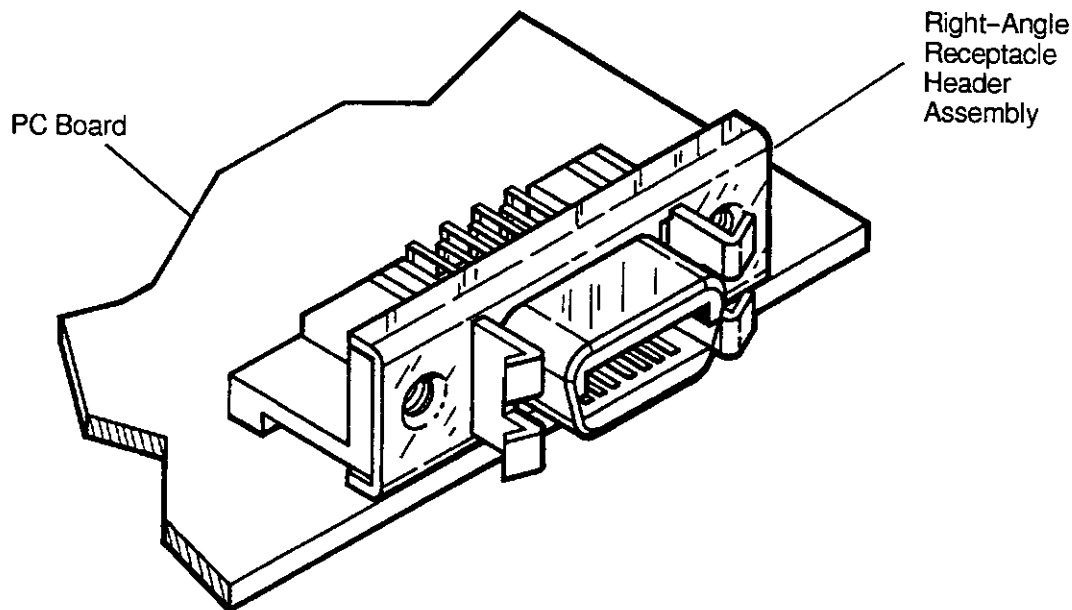


Fig. 1. Product Features

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2. REFERENCE MATERIAL

2.1. Customer Assistance

Reference Part Number 557153 and Product Code 0683 are assigned to the AMP CHAMP .050 Series II Connectors. These numbers are used in the AMP network of customer service to access tooling and product application information. This service is provided by your local AMP representative (Field Sales Engineer, Field Application Engineer, etc) or, after purchase, by calling the CUSTOMER HOTLINE number at the top of this page.

2.2. Engineering Drawings

Customer Drawings for specific products are available from the responsible AMP Engineering Department via the service network. The information contained in the Customer Drawings takes priority if there is a conflict with this specification or with any other technical documentation supplied by AMP Incorporated.

2.3. Product Specification

AMP Product Specification 108-1383 provides performance criteria for these connectors.

2.4. Instructional Material

AMP Corporate Bulletin No. 52 is available upon request and can be used as a guide in soldering. This bulletin provides information on various flux types and characteristics along with the commercial designation and flux removal procedures. A checklist is attached to the bulletin as a guide for information on soldering problems.

3. REQUIREMENTS

3.1. PC Board

A. Material

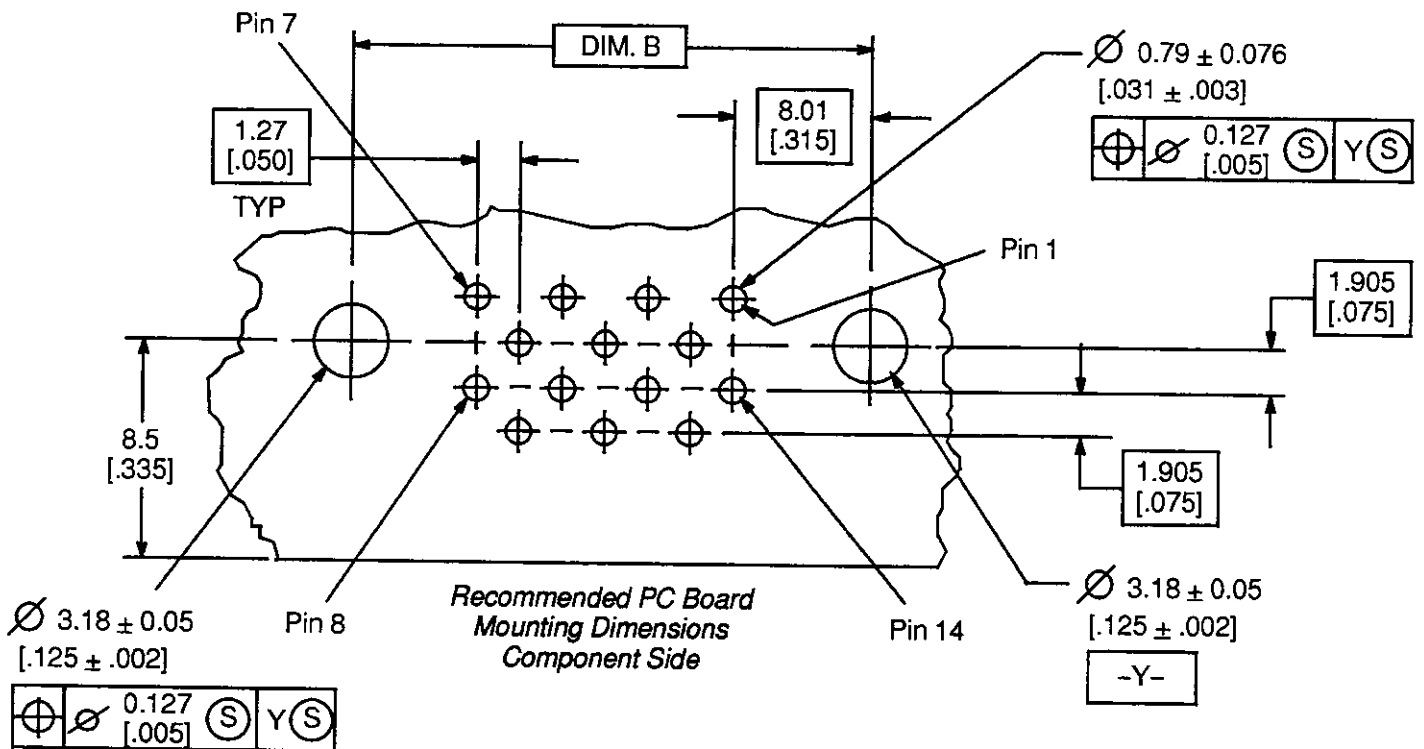
The board should be composed of glass/epoxy material; use of less dimensionally stable material may present problems when inserting the components.

B. Thickness

The connectors may be installed on 0.79 to 1.58 [.031 to .062] thick pc boards. Board thickness may vary depending upon application; however, terminal length becomes important for wave solder operations. A recommended minimum of 1.02 [.040] terminal should protrude through the pc board.

3.2. PC Board Layout

PC board layouts shall be as shown in Figure 2.



NO. OF POSITIONS	DIMENSIONS
	B
14	23.64 [.931]
26	31.26 [1.231]

Fig. 2. PC Board Layout

3.3. Attaching Header Assembly

The header can be secured to the pc board with two screws prior to soldering.

— **Soldering**

1. Flux Selection – The solder tails must be fluxed prior to soldering with a rosin base flux. Selection of the proper flux will depend on the type of printed circuit board and other components mounted on the board. Additionally, the flux will have to be compatible with the wave solder line, manufacturing, and safety requirements.
2. Cleaning – After soldering, removal of fluxes, residues, and activators is necessary. Consult with the supplier of the solder and flux for recommended cleaning solvents. The following list of common cleaning solvents will not affect the connectors for a period of 5 minutes at 105° C [221° F].

Trichloroethane
Prelete●
Allied Genesolv†

Freon TMS■
Freon TA■
Freon TE■

Freon TF■
Freon TMC■

●Trademark of London Chemical Co., Inc.

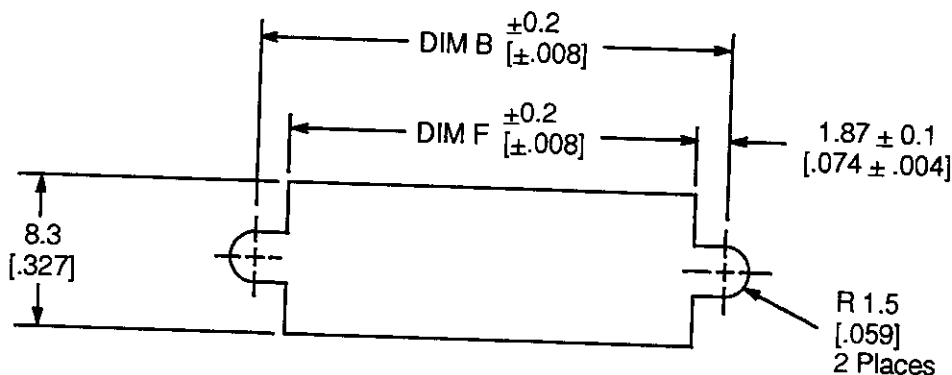
†Trademark of Allied-Signal, Co.

■Trademark of E.I. DuPont de Nemours and Co., Inc.

3. Drying – When drying cleaned assemblies and printed circuit boards, make certain that temperature limitations of -55° to 105° C [-67° to 221° F] are not exceeded. Excessive temperatures may cause housing degradation.
4. Soldering Guidelines – Refer to Paragraph 2.4. for instructional material that is available for establishing soldering guidelines.

3.4. Panel Mounting

The panel cutout shall be as shown in Figure 3.



NO. OF POSITIONS	DIMENSIONS	
	B	F
14	23.64 [.931]	19.9 [.783]
26	31.26 [1.231]	27.52 [1.083]

Fig. 3. Panel Mounting

3.5. Polarization

The connector is inherently polarized. The keystone configuration of the mating face prohibits the accidental inversion of a mating connector.

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4. VISUAL AID

Figure 4 depicts a typical CHAMP .050 Series II pc board header after it has been installed and soldered onto a pc board. The illustration shows visual conditions that production personnel should check to ensure a proper installation. For dimensional inspection, refer to the details in the preceding pages of this specification.

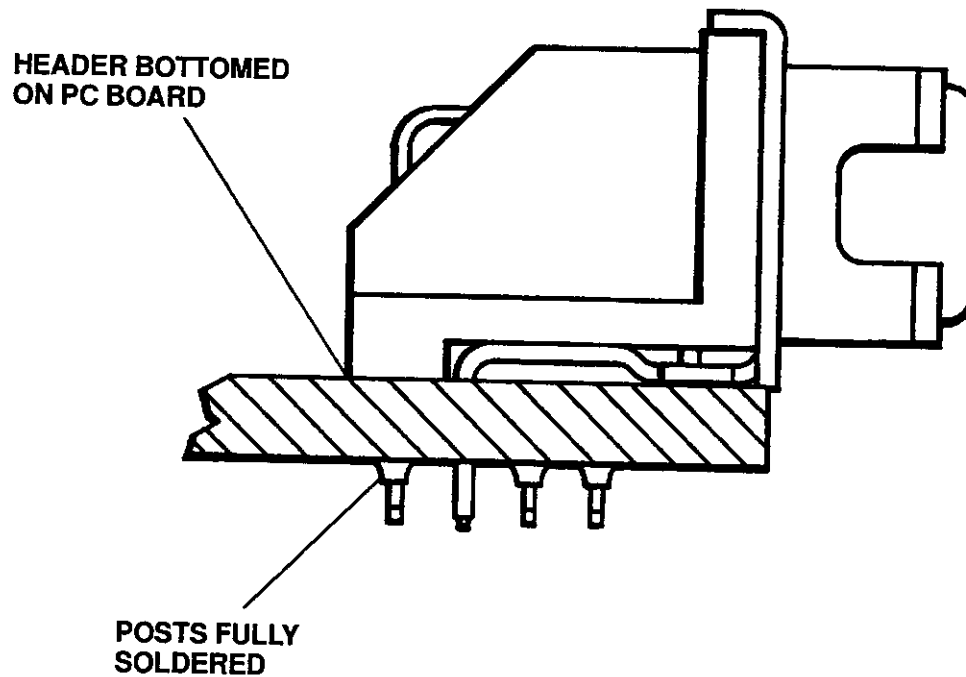


FIG. 4. VISUAL AID

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