

NOTE


All numerical values are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Unless otherwise specified, dimensions have a tolerance of ± 0.13 [$\pm .005$] and angles have a tolerance of $\pm 2^\circ$. Figures and illustrations are for identification only and are not drawn to scale.

1. INTRODUCTION

This specification covers the application requirements of 110Connect Printed Circuit (PC) Board Connecting Block Assemblies. The assemblies feature flame retardant, polycarbonate 2- and 4-pair housings loaded with insulation displacement contacts. The contacts have compliant solder tines designed for use in plated through holes in 1.57 mm [.062 in.] thick pc boards. The 2-pair blocks are not intended for use with patchcord assemblies.

When corresponding with Tyco Electronics Personnel, use the terminology provided in this specification to help facilitate your inquiry for information. Basic terms and features of components are provided in Figure 1.

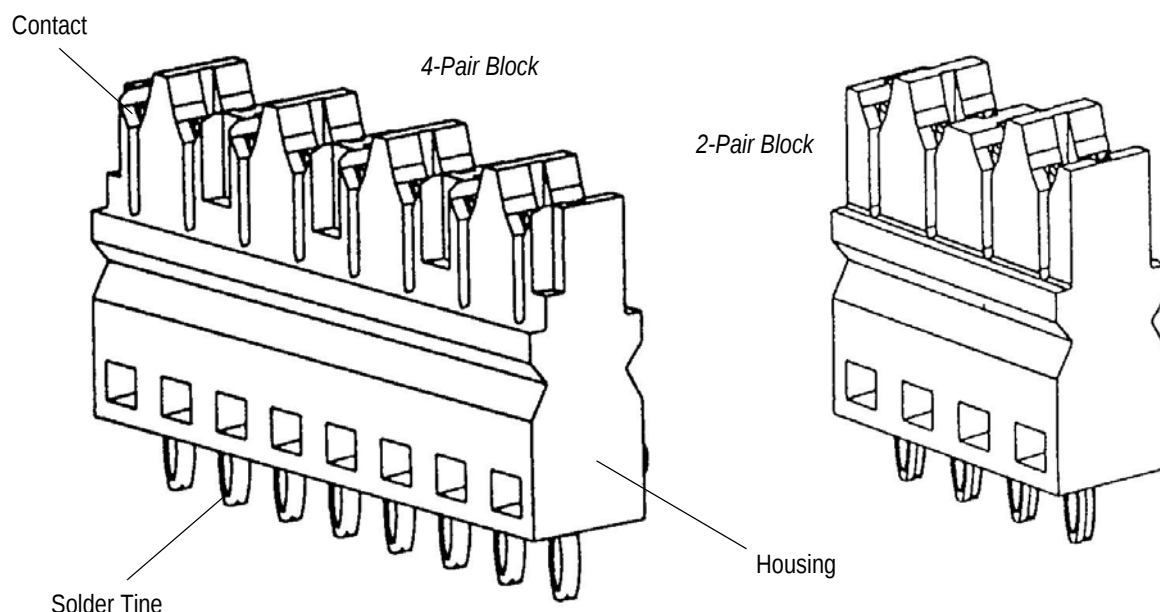


Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

- Updated document to corporate requirements

2.2. Customer Assistance

Reference Part Number 558817 and Product Code 2333 are representative numbers of the 110Connect pc board connecting block product line. Use of these numbers will identify the product line and expedite your inquiries through a service network established to help you obtain product and tooling information. Such information can be obtained through a local Tyco Electronics Representative or, after purchase, by calling the Tooling Assistance Center or the Product Information number at the bottom of this page.

2.3. Drawings

Customer Drawings for specific products are available from the responsible Tyco Electronics 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 Tyco Electronics.

2.4. Specifications

Product Specification 108-1588 provides applicable performance requirements for the 110Connect pc board connecting block assemblies.

2.5. Manuals

Manual 402-40 is available from the service network. This manual provides information on various flux types and characteristics along with the commercial designation and flux removal procedures. A checklist is attached to the manual as a guide for information on soldering problems.

3. REQUIREMENTS

3.1. Conductors

The connecting block assemblies accept 22, 24, and 26 AWG solid or stranded conductors.

3.2. Printed Circuit Board

The 110Connect assemblies are available with solder tine lengths to fit plated through holes in 1.57 mm [.062 in.] thick pc boards. Refer to Figure 2 for the pc board layout dimensions for placement of an assembly. The compliant solder tines hold the assembly in place on the pc board during wave soldering.

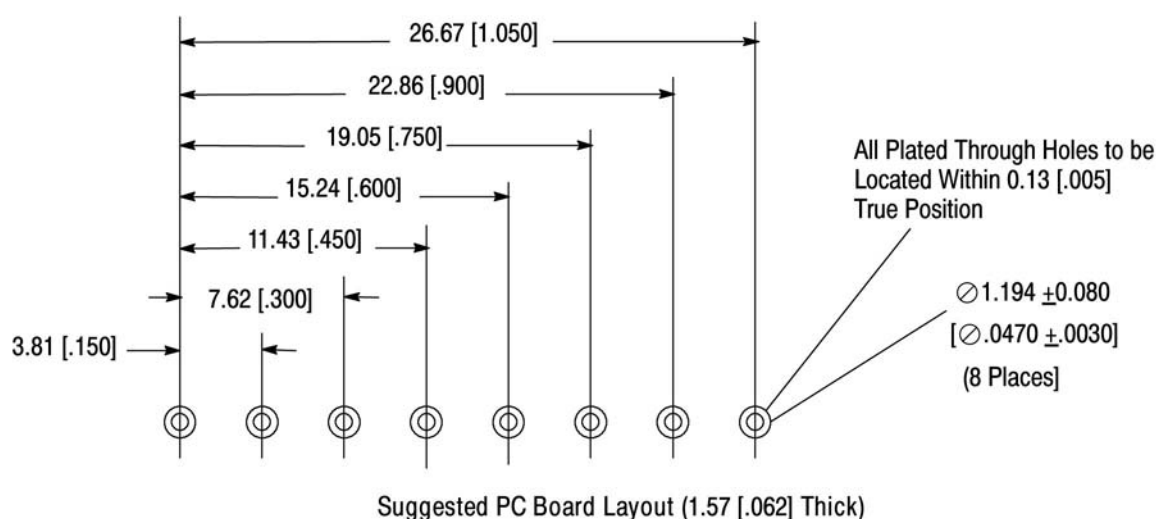


Figure 2

3.3. Soldering

A. Soldering Guidelines

Refer to Paragraph 2.5 for instructional material that is available for establishing soldering guidelines.

B. Fluxing

Solder tines must be fluxed prior to soldering. Selection of the flux will depend on the type of pc board and other components mounted on the board. However, caution should be exercised due to the polycarbonate resin used for the housing. Certain combinations of chemical, environments, temperature, and stress can adversely affect thermoplastic resins, polycarbonate resin included. Tyco Electronics recommends using a water based flux to avoid any adverse effects to the connector due to wave solder processing. Refer to Material Standard 204-5 for further information on polycarbonate resin.

C. Cleaning

After soldering, removal of fluxes, residues, and activators is necessary. Cleaning methods depend on the type of flux used. Consult the supplier of solder and flux for recommended cleaning solvents. Caution should be used due to the polycarbonate resin used for the housing. Certain combinations of chemical, environments, temperature, and stress can adversely affect thermoplastic resins, polycarbonate resin included. Tyco Electronics recommends using water at a temperature limit of 60°C [140°F] to clean the flux from the soldered assemblies. Refer to Material Standard 204-5 for information on polycarbonate resin.



Consider toxicity and other safety requirements recommended by the solvent manufacturer. Refer to the manufacturer's Material Safety Data Sheet (MSDS) for characteristics and handling of cleaners.

D. Drying

When drying the cleaned, soldered assemblies, do not exceed the temperature limits of -55° to 60°C [-67° to 140°F].



Excessive temperatures may cause housing degradation.

4. QUALIFICATIONS

The 110Connect pc board assemblies are Recognized by Underwriters Laboratories Inc. (UL), in UL File Number E81956, and Certified by CSA International, in File Number LR7189A-257.

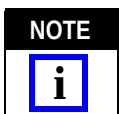
5. TOOLING

A press or robotic equipment, capable of exerting at least 44.5 N [10 lb] of force per solder tine, may be used to insert the assemblies in the pc board. The insertion force should be applied perpendicular to the top surfaces of the block (over the entire insertion stroke) and distributed evenly on the top and middle “towers” of the connecting block. The insertion force of the equipment should not exceed 533.8 N [120 lb] for the 2-pair block and 667.2 N [150 lb] for the 4-pair block. This will prevent deformation of the connecting block.



Do NOT press on the outer “towers”.

Terminate conductors using Impact Tool 569994-1, AT&T• D-814 Impact Tool, or KRONE• Universal Wire Insertion Tool. See Figure 3.



Always use the low-impact setting of the impact tool. The cutoff blade may be used to trim conductors.

Typical Impact Tool for 110Connect Connectors

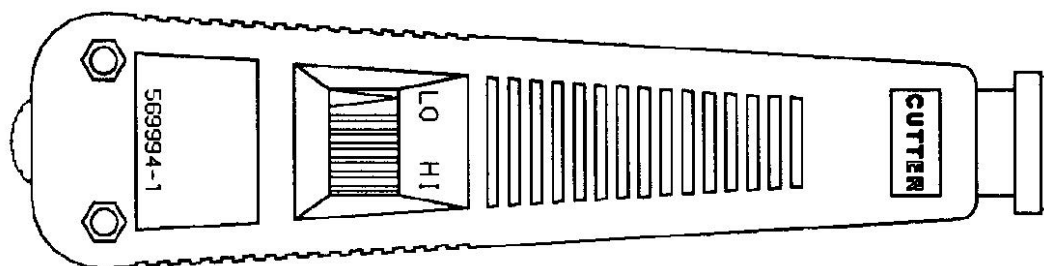


Figure 3

•AT&T and KRONE are trademarks.

6. VISUAL AID

Figure 4 shows a typical application of a 110Connect PC Board Connecting Block Assembly. This illustration should be used by production personnel to ensure a correctly applied product. Applications which DO NOT appear correct should be inspected using the information in the preceding pages of this specification and in the instructional material shipped with the product.

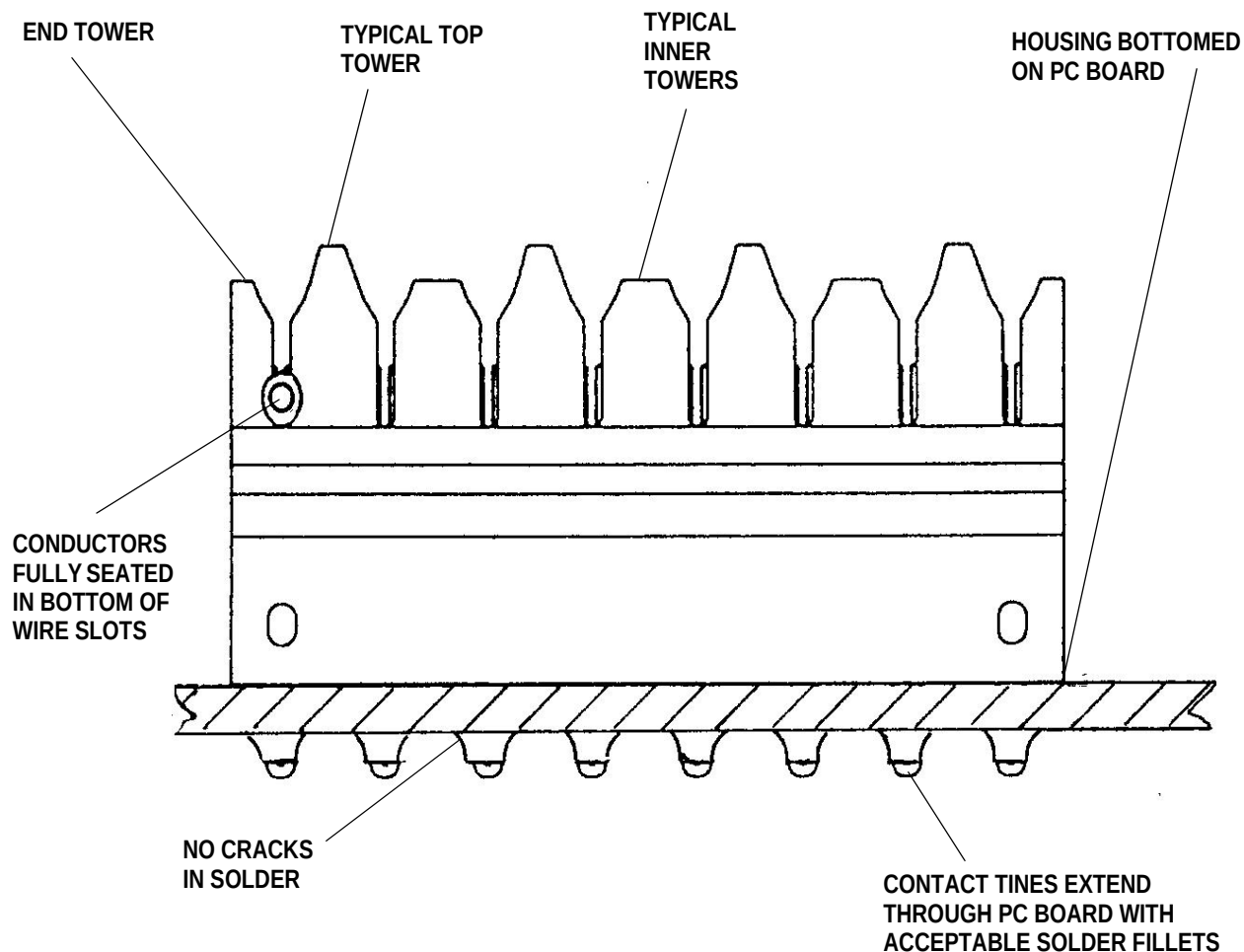


Figure 4 (VISUAL AID)