


**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  $\pm 0.13$  [ $\pm .005$ ] 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 requirements for application of Coaxial Snap-Lock pc board low-profile jack connector bracket assemblies. The jack connector bracket assemblies are used for mating the pc board electrical interface of a radio to an antenna. The assembly is available with a mounting hook or with alignment tabs.

When corresponding with personnel, use the terminology provided in this specification to facilitate your inquiries for information. Basic terms and features of this product are provided in Figure 1.

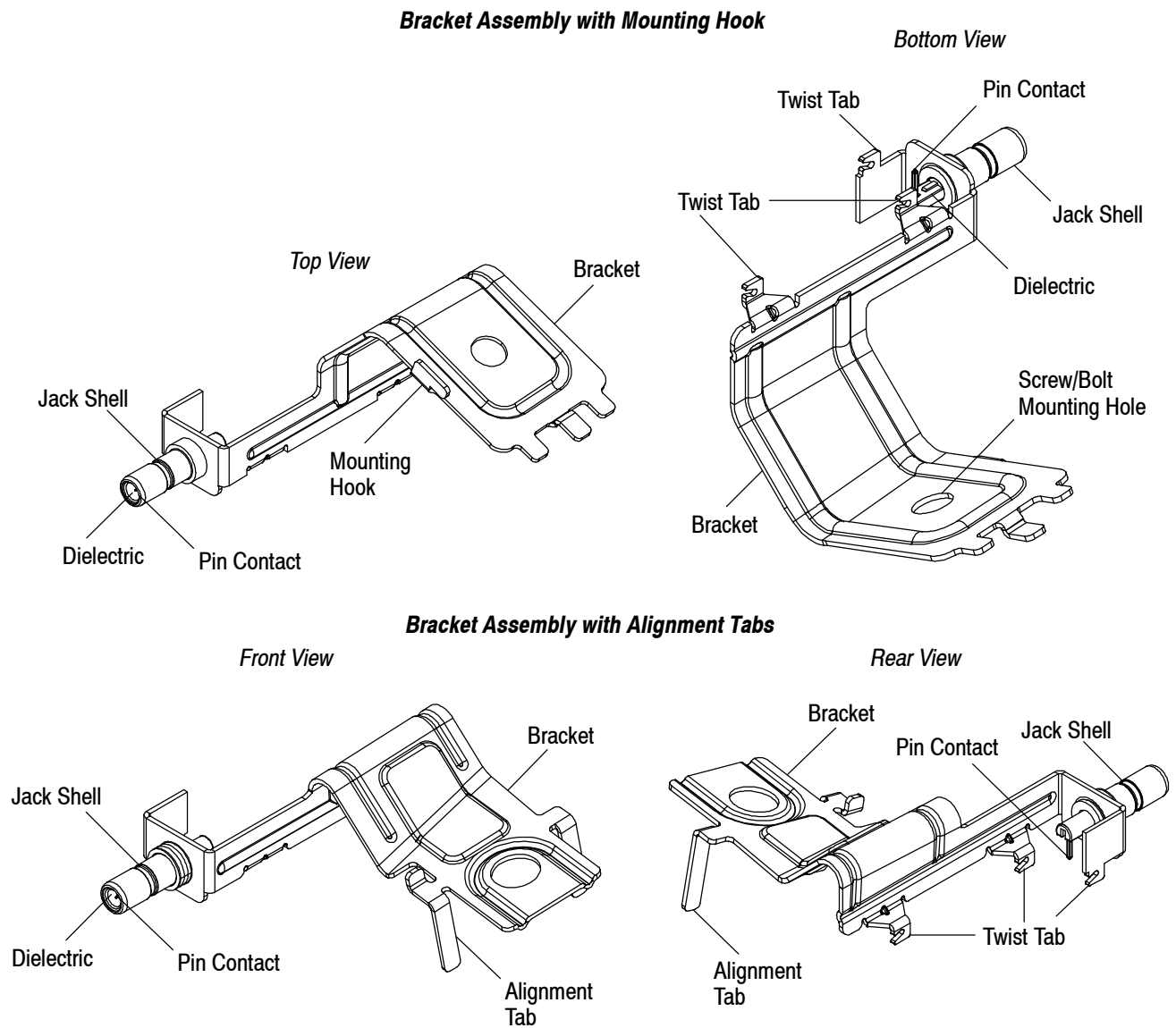


Figure 1

## 2. REFERENCE MATERIAL

### 2.1. Revision Summary

Revisions to this application specification include:

- Updated application specification to corporate requirements
- Removed “except where noted” from Figure 2 and “for standard temperature” from Paragraph 3.4,C

### 2.2. Customer Assistance

Reference Product Base Part Numbers 1438577 and 776668 and Product Code D958 are representative of Coaxial Snap-Lock pc board low-profile jack connector bracket assemblies. 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 Representative or, after purchase, by calling PRODUCT INFORMATION at the number at the bottom of page 1.

### 2.3. Drawings

Customer Drawings for product part numbers are available from the service network. If there is a conflict between the information contained in the Customer Drawings and this specification or with any other technical documentation supplied, the information contained in the Customer Drawings takes priority.

### 2.4. Manuals

Manual 402-40 can be used as a guide to soldering. This manual provides information on various flux types and characteristics with the commercial designation, flux removal procedures, and a guide for information on soldering problems.

### 2.5. Instructional Material

Instruction Sheets (408-series) provide product assembly instructions or tooling setup and operation procedures and Customer Manuals (409-series) provide machine setup and operating procedures. There are no documents available that pertain to this product.

## 3. REQUIREMENTS

### 3.1. Storage

#### A. Ultraviolet Light

Prolonged exposure to ultraviolet light may deteriorate the chemical composition used in the product material.

#### B. Shelf Life

The jack connector bracket assemblies are packaged and shipped in protective anti-static tube or tray containers. To prevent damage to these assemblies, they should remain in the container until ready for installation. To prevent possible storage contamination, the assemblies should be used on a first in, first out basis.

#### C. Chemical Exposure

Do not store assemblies near any chemical listed below as they may cause stress corrosion cracks in the assemblies.

Alkalies	Ammonia	Citrates	Phosphates	Citrates	Sulfur Compounds
Amines	Carbonates	Nitrites	Sulfur Nitrites		Tartrates

#### NOTE

*Where the above environmental conditions exist, phosphor-bronze assemblies are recommended.*



### 3.2. PC Board

#### A. Material and Thickness

The pc board material shall be glass epoxy (FR-4, G-10). The pc board thickness shall be 1.6 [.063]. Contact PRODUCT INFORMATION at the number at the bottom of page 1 for suitability of other pc board materials and thicknesses.

**B. Tolerance**

The maximum bow of the pc board shall be 0.25 [.010] over the length of the jack connector bracket assembly.

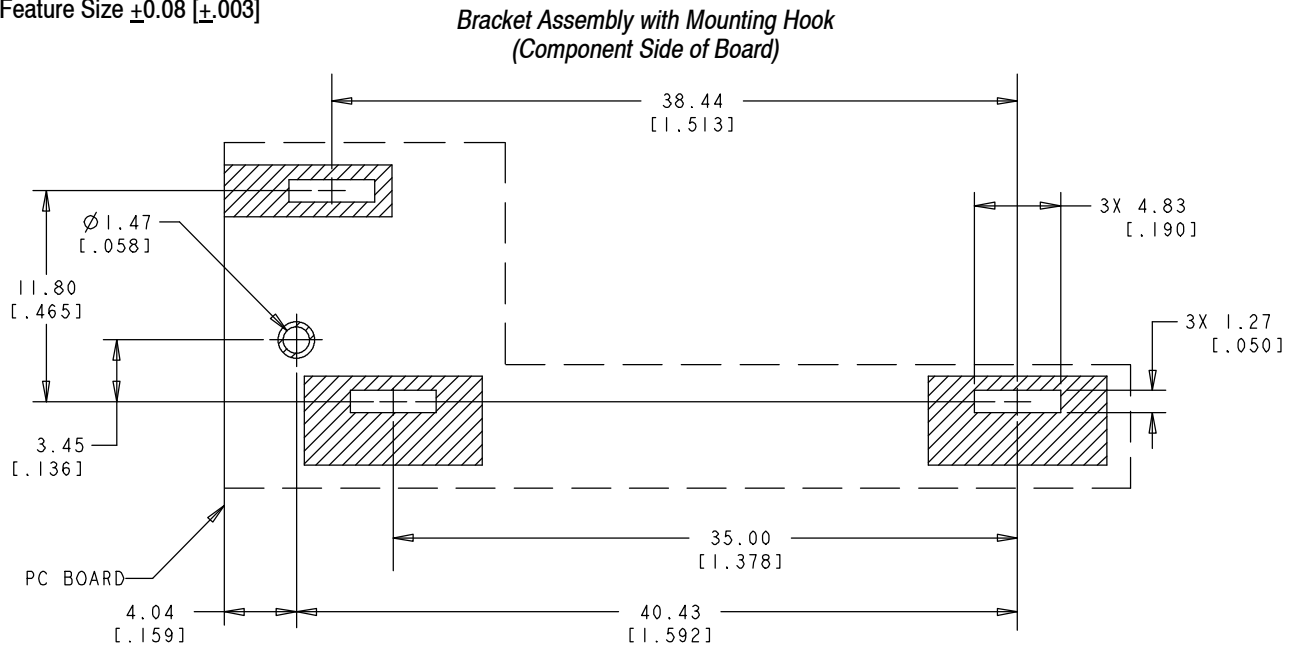
**C. Layout**

The holes in the pc board must be precisely located to ensure proper placement and optimum performance of the jack connector bracket assembly. The pc board must be designed using the dimensions provided in Figure 2.

**Recommended PC Board Layout**

PC Board Layout Tolerances:

Location (True Position) and Feature Size  $\pm 0.08$  [ $\pm .003$ ]



*Bracket Assembly with Alignment Tabs  
(Component Side of Board)*

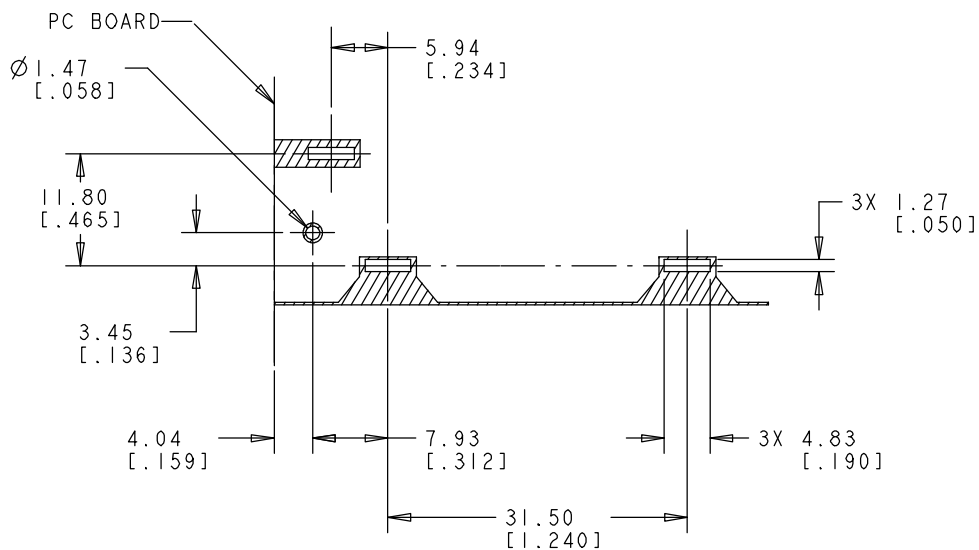
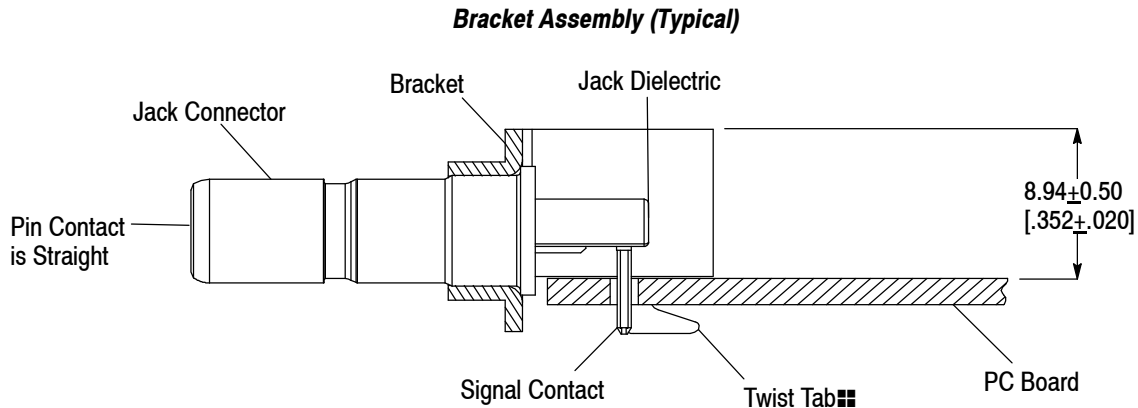


Figure 2

### 3.3. Seating

The jack connector bracket assembly shall be seated to within the dimension and meet the requirement given in Figure 3.



■ It is recommended to turn each twist tab approximately 45 degrees to retain assembly on pc board prior to soldering.

Figure 3

### 3.4. Soldering

#### A. Flux Selection

The signal leg and solder tines of the jack connector bracket assembly must be fluxed prior to soldering with a mildly active, rosin base flux. Selection of the flux will depend on the type of pc board and other components mounted on the pc board. Additionally, the flux must be compatible with the wave solder line, manufacturing, health, and safety requirements. Call PRODUCT INFORMATION at the number at the bottom of page 1 for consideration of other types of flux. Flux that is compatible with these assemblies are provided in Figure 4.

FLUX TYPE	ACTIVITY	RESIDUE	COMMERCIAL DESIGNATION	
			KESTER	ALPHA
RMA	Mild	Noncorrosive	186	611

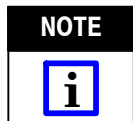
Figure 4

#### B. Cleaning

After soldering, removal of fluxes, residues, and activators is necessary. Consult with the supplier of the solder and flux for recommended cleaning solvents. A list of common cleaning solvents and time and temperature that will not affect these assemblies is specified in Figure 5.



*Consideration must be given to 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. Trichloroethylene and Methylene Chloride is not recommended because of harmful occupational and environmental effects. Both are carcinogenic (cancer-causing).*



*If you have a particular cleaning solvent that is not listed, contact PRODUCT INFORMATION at the number at the bottom of page 1.*

#### C. Drying

When drying cleaned assemblies, make certain that temperature limitations are not exceeded: -40° to 85°C [-40° to 185°F]. Excessive temperatures may cause degradation.

KESTER and ALPHA are trademarks.

CLEANER		TIME (Minutes)	TEMPERATURE (Maximum)
NAME	TYPE		
ALPHA 2110	Aqueous	1	132°C [270°F]
BIOACT EC-7	Solvent	5	100°C [212°F]
Butyl CARBITOL Solvent	Solvent	1	Ambient Room
Isopropyl Alcohol	Solvent	5	100°C [212°F]
KESTER 5778	Aqueous	5	
KESTER 5779	Aqueous	5	
LONCOTERGE 520	Aqueous	5	
LONCOTERGE 530	Aqueous	5	
Terpene Solvent	Solvent	5	

Figure 5

#### D. Guidelines

These assemblies can be soldered using wave or equivalent soldering techniques. It is recommended using SN60 or SN62 solder for these assemblies. The temperatures and exposure time shall be within the ranges specified in Figure 6.

SOLDERING PROCESS	WAVE TEMPERATURE	TIME (At Max Temperature)
Wave	260°C [500°F]	5 Seconds

Figure 6

### 3.5. Replacement and Repair

Damaged or defective jack connector bracket assemblies must be replaced by new ones. The jack connector bracket assemblies may be removed by standard de-soldering methods.

## 4. QUALIFICATIONS

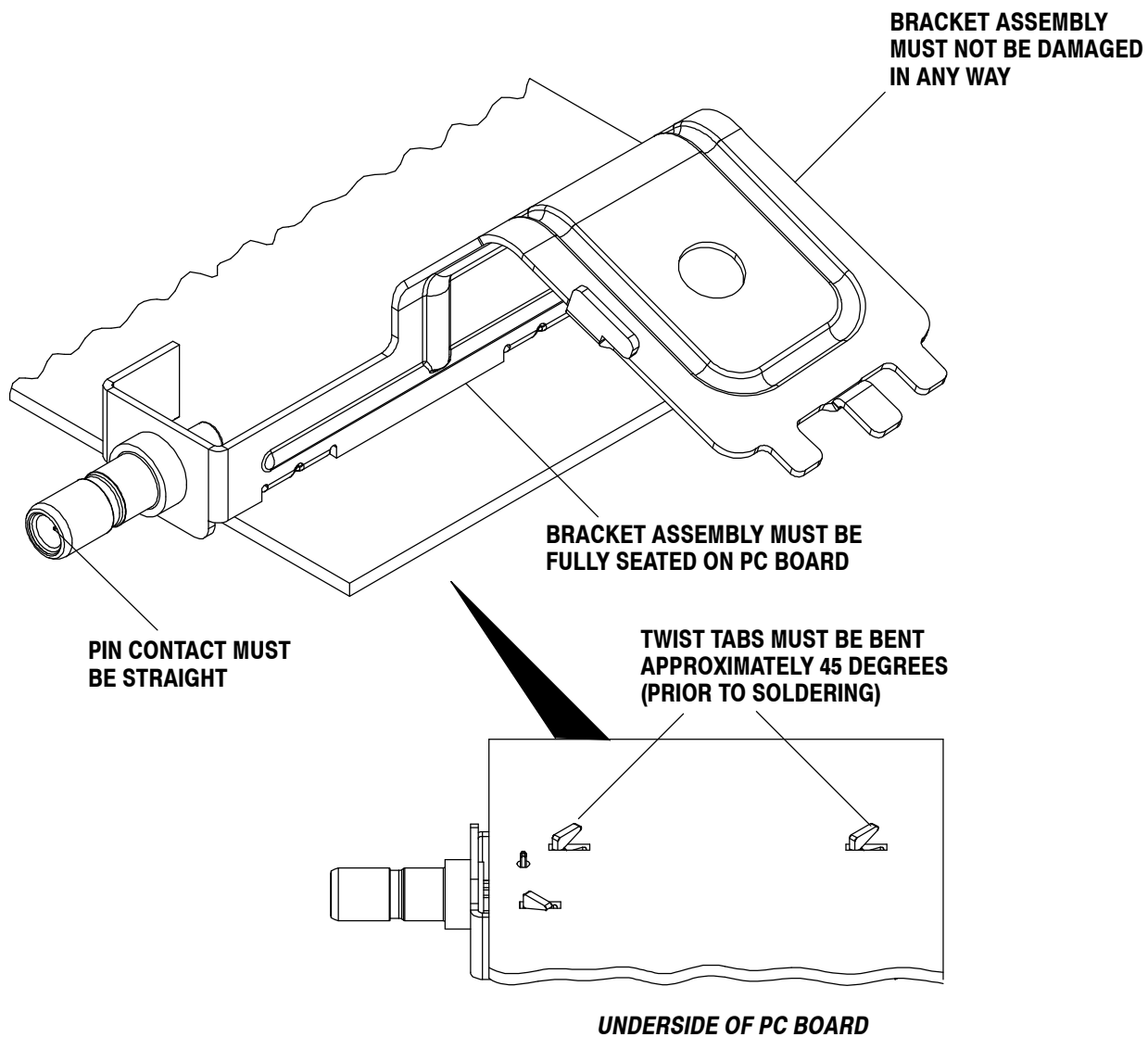
Coaxial Snap-Lock pc board low-profile jack connector bracket assemblies do not require agency approval.

## 5. TOOLING

No special tooling is required for the application of these assemblies.

## 6. VISUAL AID

The illustration below shows a typical application of Coaxial Snap-Lock pc board low-profile jack connector bracket assemblies. 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 or tooling.



**FIGURE 7. VISUAL AID**