

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 [.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 AMP* .062 Diameter Pin and Socket Contacts and Housings. Requirements are applicable to hand or automatic machine crimping tools.

When corresponding with AMP 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.

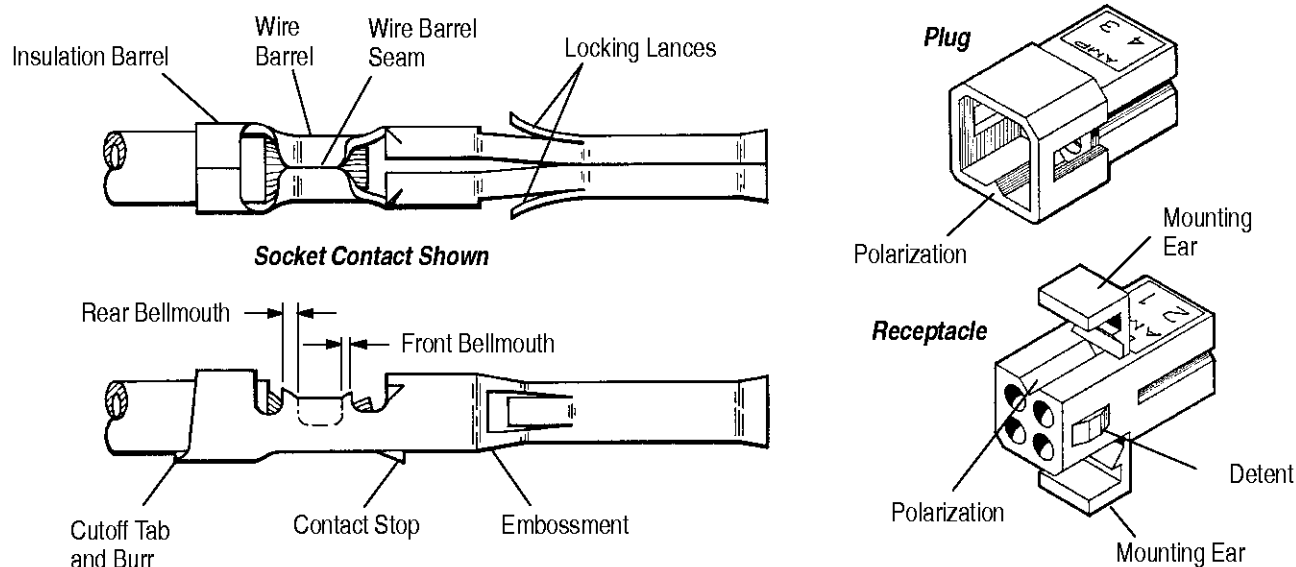


Figure 1

2. REFERENCE MATERIAL

2.1. Revision Summary

This paragraph is reserved for a revision summary of changes and additions made to this specification. The following changes have been made for this revision:

Per EC 0990-1392-98

- Changed strip length 3.56 [.140] to 3.05 [.120] in Figure 2
- Combined automatic machine and hand tool crimp dimensions into one table in Figure 2
- Updated format to current standards

2.2. Customer Assistance

Reference Part Number 350628 and Product Code 2133 are representative numbers of the AMP .062 Diameter product line. Use of these numbers will identify the product line and expedite your inquiries through an AMP service network established to help you obtain product and tooling information. Such information can be obtained through a local AMP Representative (Sales Engineer, Field Service Engineer, etc.) or, after purchase, by calling the Tooling Assistance Center or the AMP FAX/PRODUCT INFORMATION numbers at the bottom of this page.

2.3. 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.

2.4. Specifications

AMP Product Specification 108-1037 provides applicable performance requirements for the contacts.

2.5. Instructional Material

The following list includes AMP instruction sheets (408-series) that provide assembly procedures for product, operation, maintenance and repair of tooling; and customer manuals (409-series) that provides setup, operation, and maintenance of AMP machines.

Document Number	Document Title
408-8040	Heavy Duty Miniature Quick-Change Applicators (Side Feed) 466686-[]
408-4370	AMP Extraction Tool 318831-1
408-7347	AMP Insertion Tool 91002-1
408-9965	PRO-CRIMPER II Hand Tool Assembly 90870-1 with Die
408-9964	PRO-CRIMPER II Hand Tool Assembly 90869-1 with Die
408-4390	Applicator 2000 (For Side-Feed Applicators)
409-5128	AMP-O-ELECTRIC Model "K" Terminating Machine 565435-[]
409-5842	AMP-O-ELECTRIC Model "G" Terminating Machine 354500-[]

3. REQUIREMENTS

3.1. Wire Preparation

A. Wire Selection

The contacts will accept stranded wire ranging in size from 18 to 30 AWG. Wire insulation diameter shall have minimum and maximum dimensions according to the wire sizes indicated in Figure 2.

B. Wire Preparation

The wire strip length shall be as indicated in Figure 2. Reasonable care shall be taken during the stripping operation to ensure the conductor is not nicked, scraped, or cut.

3.2. Crimped Contacts

Contacts shall be crimped in accordance with the material packaged with the tooling; refer to Figure 5.

NOTE

The applied crimp dimension (within the function range of the product) is dependent on the termination tooling being used. Refer to the AMP documentation (applicator logs and instruction sheets) supplied with the termination tooling for the applied crimp height. See Section 5, TOOLING.

A. Carrier Cutoff Tab

Cutoff tab shall not exceed 0.38 [.015].

WIRE CRIMP DIMENSIONS						
WIRE			WIRE BARREL		INSULATION BARREL	
SIZE (AWG)	INSULATION DIAMETER	STRIP LENGTH	CRIMP HEIGHT ± 0.05 [.002]	CRIMP WIDTH	CRIMP HEIGHT (REF)	CRIMP WIDTH (REF)
30	1.52 [.060] Max.	3.05 [.120]	0.58 to 0.64 [.023 to .025]	1.07 [.042]	2.29 [.090] Max.	1.78 [.070]
28			0.58 to 0.64 [.023 to .025]			
26			0.64 to 0.71 [.025 to .028]			
24			0.64 to 0.71 [.025 to .028]			
24	1.27-2.79 [.050-.110]		0.81 to 0.84 [.032 to .033]	1.40 [.055]		2.79 [.110]
22			0.81 to 0.91 [.032 to .036]			
20			0.99 to 1.02 [.039 to .040]			
18			0.99 to 1.19 [.039 to .047]			

Figure 2

B. Wire Barrel Crimp Inspection

1. Crimp height and width shall be as shown in Figure 2.
2. The wire barrel seam shall be closed adequately to confine all strands of the wire. There shall be no loose wire strands. Wire strands should not be embedded in the seam of the wire barrel.
3. The rear bellmouth shall be 0.13–0.76 [.005–.030]. The front bellmouth shall be 0.24 [.010] maximum.
4. The end of the wire shall be flush with the front end of the wire barrel, or extend 1.02 [.040] maximum. Both insulation and conductor shall be visible between the insulation barrel and wire barrel. Care shall be taken not to allow insulation to be crimped in the wire barrel.

C. Insulation Barrel Crimp Inspection

1. Crimp height and width shall be as shown in Figure 2.
2. Care shall be taken not to cut or break the insulation during the crimping operation.

D. Alignment

The crimped insulation barrel shall fall into an area defined by a 3.25 [.128] diameter circle. See Figure 3. There shall be no twist or roll in crimped portion that will impair usage of the contact.

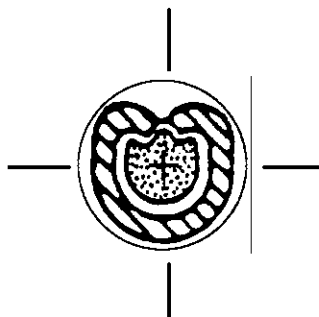


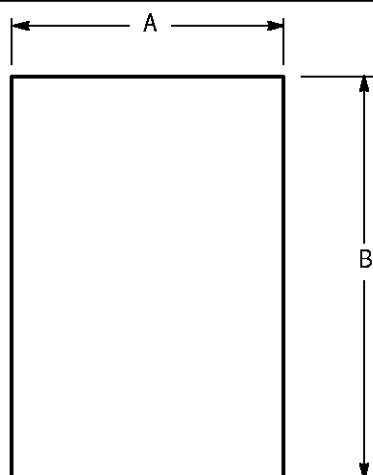
Figure 3

3.3. Housings

Housings are available in receptacle and plug versions. Receptacles are available with mounting ears and detents or with detent only. Plugs are available with or without mounting ears.

3.4. Panel-Mounting Cutouts

Panel-mounting cutouts shall be as indicated in Figure 4.



*Recommended Cutout for
1.52 [.060] Max. Thick Panel*

NUMBER OF CIRCUIT POSITIONS	DIMENSIONS			
	RECEPTACLE		PLUG	
	A	B	A	B
2	6.73 [.265]	12.83 [.505]	8.08 [.318]	15.47 [.609]
3	6.73 [.265]	16.51 [.650]	8.08 [.318]	19.15 [.754]
4 SQUARE	10.16 [.400]	12.85 [.506]	11.81 [.465]	15.62 [.615]
4 IN-LINE	6.60 [.260]	19.94 [.785]	7.92 [.312]	21.97 [.865]
6	12.83 [.505]	14.02 [.552]	15.42 [.607]	15.62 [.615]
9	14.02 [.552]	16.51 [.650]	15.62 [.615]	19.10 [.752]

Figure 4

3.5. Repair

Connectors can be repaired by removing the contact from the housing and making the repair. When extracting a contact, the lances should be reset to their original position. Consult the AMP customer print for the correct setting. See SECTION 5 for tooling.

4. QUALIFICATIONS

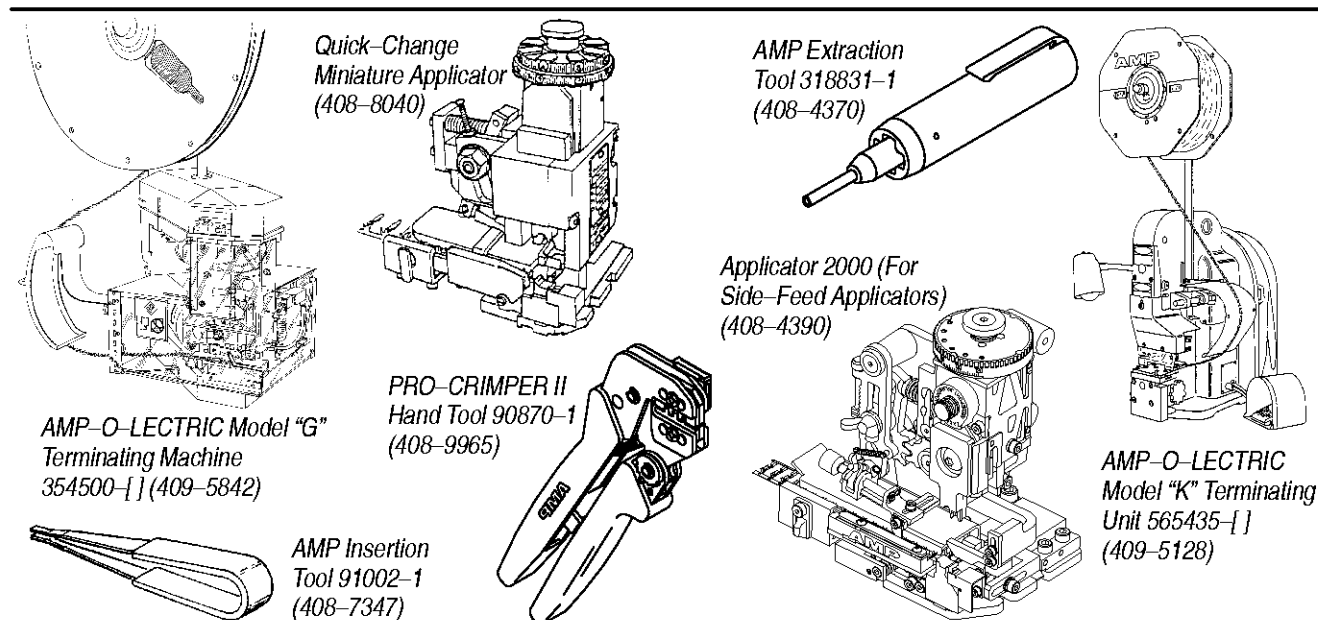
AMP .062 Diameter Housings are recognized by Underwriters Laboratories Inc. under UL File Number E28476 and certified with the Canadian Standards Association under CSA File number LR7189.

5. TOOLING (Figure 5)

AMP .062 Diameter Contacts are terminated by automatic machine or hand crimping tools. Figure 2 lists tooling used for crimping these contacts. Use Insertion Tool 91002 (408-7347) to insert crimped pin and socket contacts in housing. Use Extraction Tool 318831-1 (408-4370) to remove pin and socket contacts from the housing.

NOTE

The Model "K" AMP-O-LECTRIC Terminating Machine PN 565435-5 has been superseded by the Model "G" Terminating Machine PN 354500-1 for new applications. For existing applications, the Model "K" is still recommended because of the large number of installed machines.



WIRE		APPLICATOR (Instruction Sheet 408-8040)	POWER UNIT (DOCUMENT)	HAND TOOL (DOCUMENT)
SIZE (AWG)	INSULATION DIA			
30	1.52 [.060] Max.	466686-[]●	354500-1 (409-5842) or 565435-5 (409-5128)	90870-1 (408-9965)
28				
26				
24				
24	1.27 - 2.79 [.050 - .110]	687996-[]●	1016021-1 (408-4390)	90869-1 (408-9964)
22				
20				
18				

● Use dash 1 (-1) for a "T" type machine and dash 2 (-2) for a "K" type machine.

Figure 5

6. VISUAL AID (Figure 6)

The following illustrations are to be used by production personnel to ensure properly applied product. The views suggest requirements for good applications. Applications considered visually incorrect should be inspected using the information in the main body of this document

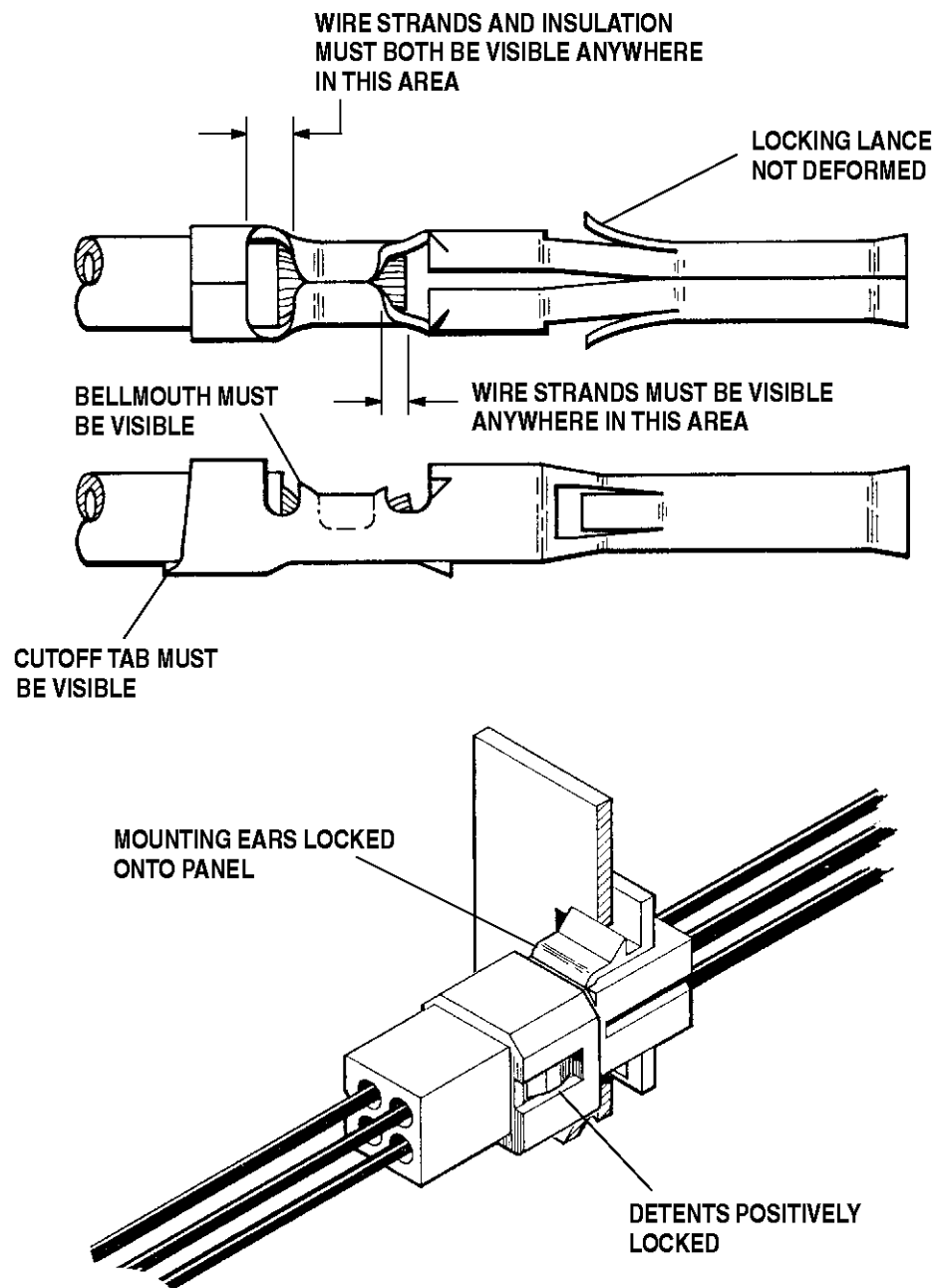


FIGURE 6. VISUAL AID