114-5142-2

Application Specification

Crimping of Universal Power Contact

1. Scope:

This specification covers the requirements for crimping AMP Universal Power Contacts of the part numbers specified below.

Product Descriptions	Product Part Nos.	Applicable Wire Size (mm^2)	Insulation Diameter (mm)	Loose Piece Contact Part Nos.
Tab Contact	175149-2	0.12 / 0.35	1.2 - 2.0	175153-2
	175150-2	0.5 / 1.42	2.0 - 3.3	175154-2
Receptacle Contact	175151-2	0.12 / 0.35	1.2 - 2.0	175155-2
	175152-2	0.5 / 1.42	2.0 - 4.0	175156-2

2. Crimping Conditions:

No.	Check Points	Specified Requirements
(1)	Insulation Stripping Length	3.2 $\pm$0.5 mm
(2)	Cut-Off Tab Length	0.5 mm max.
(3)	Front Bellmouth Length	—〃—
(4)	Rear Bellmouth Length	0.1 - 0.7 mm
(5)	Bend-Up	3° max.
(6)	Bend-Down	3° max.
(7)	Twisting	4° max.
(8)	Rolling	15° max.
(9)	Wire End Protrusion Length	0.1 - 1.1 mm

LTR	REVISION RECORD	DR	CHK	DATE
0	Released RFA-1679		M.S	5/13/91

DR: M. Shide 13th MAY 1991

APP: Y. Fujita 13 MAY '91

AMP (Japan), Ltd. TOKYO, JAPAN

LOC: J A | NO: 114-5142-2 | REV: 0

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NAME: Application Specification AMP Universal Power Contact, Crimping of

PRINT DIST

AMP 1-522

Tab Contact

Receptacle Contact

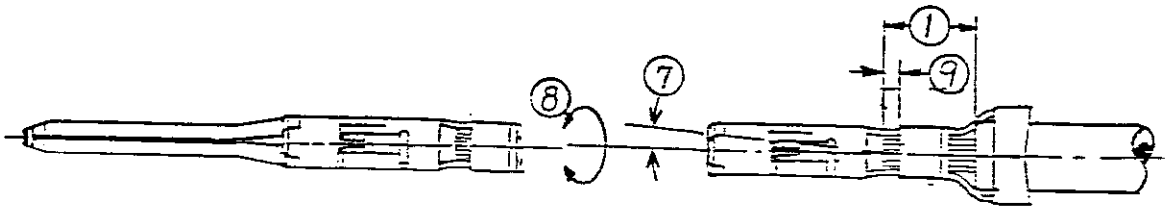

Fig. 1

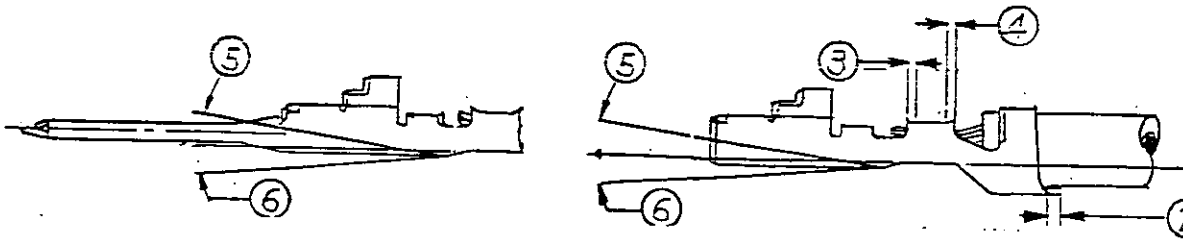

Fig. 2

Basic line for measuring contact bend.

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3. Crimp Data:

3.1 Applicator Crimp:

Contact Part No. (Strip Form)	Applicator Number	Wire Size			Insulation Stripping Length ±0.5 mm	Wire Barrel Crimp			Insulation Crimp	Insulation Diameter (mm)	Crimp Tensile Strength (kg) min.	
		No. of Wires	mm²	(AWG)		Width (mm)	Crimp Height ±0.05 mm	Disc Ltr.	Width (mm)			
175149-2	913981-1(1)	1	0.14	(#26)	3.2	1.4 "F"	0.80	C	2.29 "F"	1.2-2.0	3	
		1	0.22	(#24)			0.85	B		↑	4	
175151-2	913981-2(2)	1	0.34	(#22)			0.93	A		1.2-2.0	5	
175150-2	913713-1(1)	1	0.51	(#20)	3.2	1.78 "F"	1.06	B	3.3 "F"	2.0-3.3	6	
		1	0.89	(#18)			1.25	A		↕	7	
175152-2	913713-2(2)	1	1.27	(#16)			1.25	A		2.0-3.3	8	
175152-2	2-913713-1(1) 2-913713-2(2)	1	0.83	(#18)	3.2	1.78 "F"	1.25	A	3.3 "F"	3.5-4.0	7	SPT-2

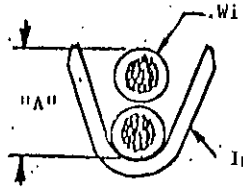
(1) For AMP-O-MATOR (2) For AMP-O-LECTRIC® Auto-Machine (Air Feed Type)

Notes: 1. For two-wire crimp, use the wire having insulation diameter of the ranges specified in Fig. 3.

2. For two-wire application, the tensile strength of the total lead assembly is defined by the tensile strength of any one of the smaller wire size used for termination.

3. Insulation crimp height shall not exceed 3.6mm, When it exceeds 3.6mm, the use of extraction tool may become obstructed.

A TWO-WIRE CRIMP



Part No.	"A"	Insulation Diameter
175150-2 175152-2	3.4	1.2 - 2.2 (mm)

Fig. 3

3.2 Loose Piece Contacts Hand Tool Crimp:

Contact Part No.	Hand Tool Part No.	Wire Size			Crimp Symbols	Wire Barrel Crimp Height (mm)	Wire Stripping Length (mm)	Insulation Diameter (mm)	Crimp Tensile Strength (kg)
		Number of	mm^2	(AWG)					
175153-2 175155-2	914181-1	1	0.12 - -0.37	(#26- -#22)	A	0.83-0.91	$3.2^{+0.5}$	1.2 - 2.9	See Note 1.
175154-2 175156-2		1	0.5 - - 0.89	(#20- - #18)	B	1.05-1.15		2.0 - 2.7	
		1	1.25- -1.42	(#16)	C	1.42-1.52		2.5 - 3.3	

Notes:

1) For tensile strength of the crimped wire, refer to the tensile strength value in Para. 3.1.
2) For two-wire application, the tensile strength of the total lead assembly is defined by the tensile strength of any of the smaller wire size used for termination.
3) For two-wire termination, the crimp height of insulation barrel shall not exceed 3.6mm. When it exceeds 3.6mm, the use of extraction tool may become obstructed.
4) For multi-wire crimping termination, the tensile strength of the total lead assembly is defined by the tensile strength of any of the smallest wire size used for termination.
5. For multi-wire crimping application, use the wire barrel crimp height that is closer to the wire size, cross-sectionally totalized over the wires used for termination.

4. Instructions for Wire Crimping:

4.1 When stripping the wire, care must be taken not to nick, cut or damage the wire conductors, and the stripped wire end must appear straight and neat.

4.2 The inner part of the wire barrel must be kep clean, being free from the contamination by foreign particles and lubrication.

4.3 The wire conductors must be crimped within wire barrel, and any part of the conductors shall not loose out from the wire barrel seam.

4.4 Never allow any portion of wire insulation to be crimped in the wire barrel.

4.5 After crimping, wire insulation shall be securely gripped within the insulation barrel crimp.

Application Tooling Design Approval	
Design Engineer	J. Koga
Approved by:	