

Application Specification

1.0 SCOPE

1.1 Content

This specification covers the requirements for application of AMP Multi-Lock .040 Series tab contacts to thin wall automotive cable. These requirements are applicable to hand or automatic machine crimping tools. For specific wire and insulation ranges relative to the products covered in this specification see figure 3 and 4.

1.2 Applicable Documents

Crimp inspection sheet GB3006.

For performance requirements see AMP Specification 108-.....

1.3 Applicable Contacts

See figure 3 and 4.

2.0 NOMENCLATURE

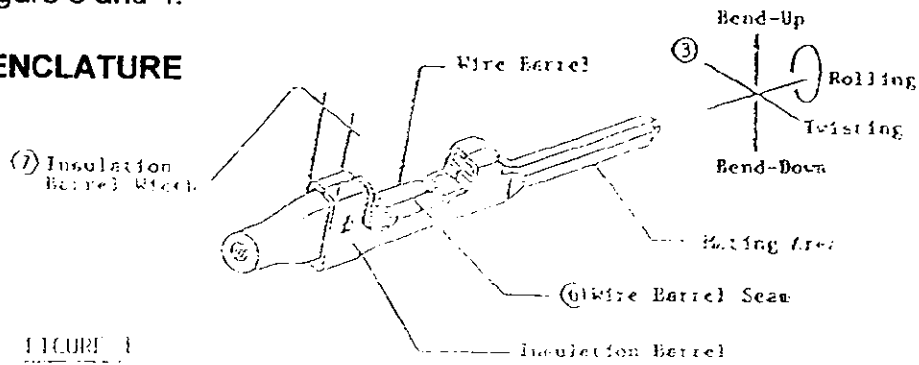


FIGURE 1

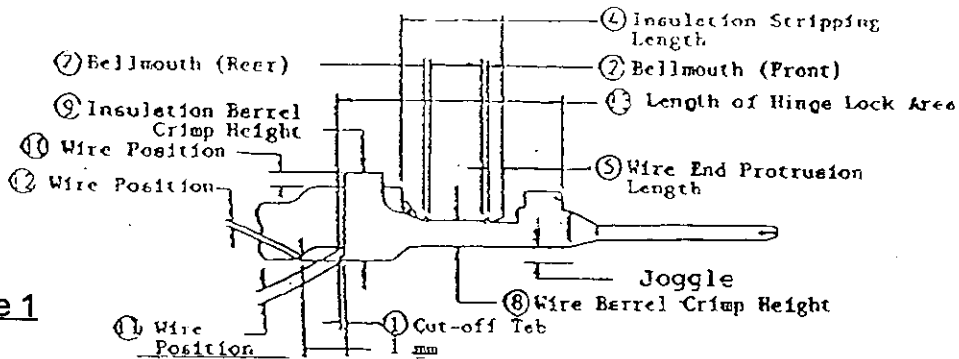


Figure 1

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				DR	AMP TERMINAL HOUSE, STANMORE, of Great Britain Ltd. MIDDLESEX.		
				M.Mistry			
				CHK	LOC	NO	REV
				D.A.Barratt			
C	EB00 0045 97	MM	11/2/97	APP	TITLE Application specification crimping .040 series tab contact		
B	EB00 055 96	MM	5/2/96	M.Mistry			
A	EB00 0651 94	MM	22/12/94				
0	Rel for Prodn. EB00 0543 93	MM	22/12/93				
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LTR	REVISION RECORD	APP	DATE				

02-11-97

3.0 CRIMP AND DIMENSIONAL REQUIREMENTS

3.1 Wire Preparation

A. Strip Length

Insulation shall be stripped as indicated in figure 3 and 4.

B. Workmanship

Reasonable care shall be taken not to nick, scrape or cut any strands or the solid wire during the stripping operation.

3.2 Carrier Cut-off Tab and Burr

A. Cut-off tab

Cut-off tab shall not exceed 0.13.

B. Burr

Burr on cut-off tab shall not exceed 0.10.

3.3 Wire Barrel Crimp

A. Crimp Dimensions and Type

Crimp height width and type shall be as shown in figure 3 and 4.

B. Tensile Strength

Minimum crimp tensile strength shall be as shown in figure 2.

Wire Size mm ²	Tensile (N)
0.35	41
0.5	65
0.2	50

Figure 2

C. Effective Crimp Length

Effective crimp length shall be 1.95 minimum and is defined as that portion of the barrel, excluding bellmouth, fully formed by the crimping tool.

D. Wire Barrel Flash

Wire barrel flash shall not exceed 0.25.

E. Wire Barrel Seam

The wire barrel seam shall be closed adequately to confine all strands of the wire. There shall be no loose wire strands or wire strands embedded in the outside of the wire barrel.

- F. (1) Rear bellmouth length shall be 0.15 - 0.60.
(2) Front bellmouth permissible.

G. Conductor Location

- (1) End of the wire shall be flush with the front end of the wire barrel or extend 1.00 maximum after crimping.
(2) Both insulation and conductor shall be visible between the insulation and wire barrel. Care shall be taken not to allow insulation to be crimped in the wire barrel.

3.4 Insulation Barrel Crimp

A. Crimp Dimensions and Type

Crimp height, width and type shall be as shown in figure 3 and 4. Insulation crimp width, after crimping, shall not exceed 2.05 at widest point.

- B. Special design insulation crimp provides secondary locking with the anti-backout on the moulding. The wire position shown in figure 1 must meet the following requirements.

Wire Position	Upper side (10)	0.35 min
	Lower Side (11)	0.35 min
	Lower Side (12)	0 min

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C. Workmanship

Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

D. Joggle

Wire to insulation barrel joggle 0.45-0.55, no lean back permissible (see figure 1).

3.5 Length of Hinge Lock Area

A. The total length of the hinge lock area, as shown in figure 1 must not exceed 10.10.

3.6 Alignment

A. Bending

Bending up and down as shown in figure 1 shall be minus one degree nominal, plus or minus one degree.

B. Twisting

Twisting as shown in figure 1 shall be within 3 degrees.

C. Rolling

Rolling as shown in figure 1 shall be within 5 degrees.

3.7 Checking Gauge

The items in 3.6 plus cut-off tab and insulation crimp can also be checked using gauge no. 347784-1. To achieve inspection with the gauge, the crimped product must be fully inserted into the gauge. For the product to be acceptable full insertion must occur without resistance. The tab bend up/bend down checking feature can be enhanced to a go/no go gauge electrically.

4.0 Applicable Wire

Thin wall automotive cable classified as HT1 and HT2 as follows:-

Nominal CSA (mm ²)	Strand / Diameter Number (mm)	Temp Class	Ins. Dia. Range mm
0.50	7 / 0.30	HT2	1.6 - 1.8
	19 / 0.20	HT1	1.6 - 1.8
0.35	7 / 0.26	HT2	1.2 - 1.3
*0.22	7 / 0.2	*	1.6 - 1.8

* Thermocouple cable as classified by Jaguar specification JDS.02.06

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Strip Part Number	Wire Size mm ²	Insulation Diameter Range mm	Strip Length Pre Crimp mm	Wire Barrel Crimp		Insulation Crimp		Log No.		
				Height ±0.05	Width (ref)	Type	Height ±0.1		Width (ref)	Type
345164	0.35	1.2-1.3	4.0-4.5	0.91 (0.036")	1.57	'F'	3.7	1.78 See 3.4A	Special	8-576047-2
	0.5	1.6-1.8								
	**0.2	1.6-1.8								

Automotive Machine Wire Crimp Dimensions - Figure 3

Loose Piece Part Number	Wire Size mm ²	Insulation Diameter Range mm	Strip Length Pre Crimp mm	Wire Barrel Crimp		Insulation Crimp		Hand Tool Part Number		
				Height ±0.05	Width (ref)	Type	Height ±0.1		Width (ref)	Type
*175063	0.5	1.6-1.8	4.0-4.5	0.99 (0.039")	1.57	'F'	3.7	1.78 See 3.4A	Special	525338-1

Hand Tool Wire Crimp Dimensions - Figure 4

* Note: Only pre-formed loose piece product is to be used with hand tools

* Extraction tool part number 755430-1 (IS 288J)

** For Jaguar thermocouple cable only.