

## 1. SCOPE

This specification covers the requirements for application of .110", .250", .312" and .375" series FASTIN-FASTON\* Tab & Receptacle contacts. These requirements are applicable to automatic machine crimping tools. For specific wire and insulation ranges relative to the products covered in this specification, see Figure 4.

### 1.1 Reference Specification

For applicable performance requirements, see AMP Product Specification 108-20020.

## 2. NOMENCLATURE

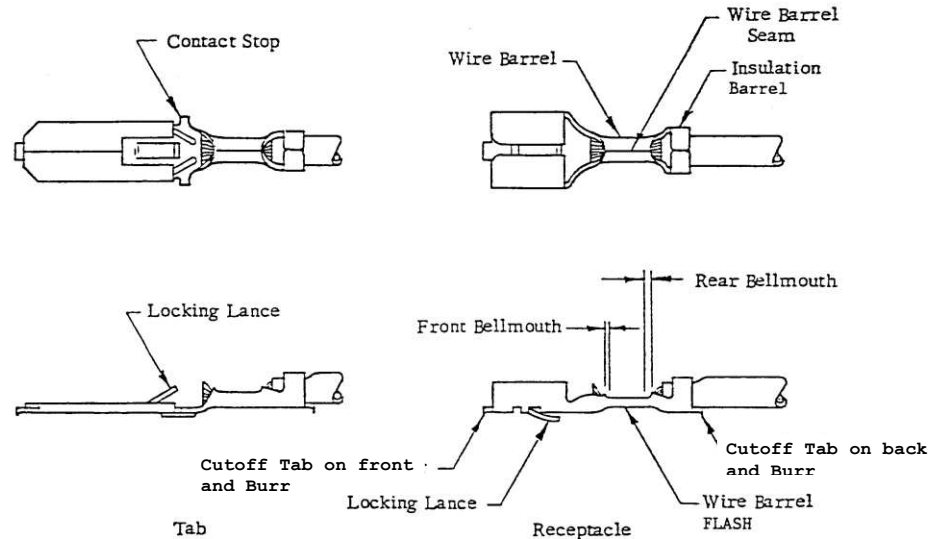


Figure 1

## 3. CRIMP AND DIMENSIONAL REQUIREMENTS

### 3.1 Wire Preparation

A- **Strip Length:** Insulation shall be stripped as indicated in Figure 4.

B- **Workmanship:** Reasonable care shall be taken not to nick, scrape or cut any strands during the stripping operation.

### 3.2 Carrier Cutoff Tab and Burr.

A- **Cutoff Tab on front:** Cutoff tab on front shall not exceed 0.38 mm [.015 in.].

B- **Cutoff Tab on back:** Cutoff tab on back shall not exceed 0.38 mm [.015 in.] and only for contacts P/N 280756-2 and 280756-4 shall not exceed 0.64 mm [.025 in.].

C- **Burr:** Burr on cutoff shall not exceed 0.13 mm [.005 in.].

### 3.3 Barrel Crimp.

- A- **Crimp Dimensions and Type:** Crimp height, width and type shall be as shown in Figure 4.
- B- **Wire Barrel Flash:** Shall not exceed 0.13 mm [.005 in.].
- C- **Wire Barrel Seam:** Shall be completely closed and there shall be no evidence of loose wire strands or wire strands visible in the seam.
- D- **Bellmouth:**
  - (1) Rear bellmouth length shall be 0.25 to 0.76 mm [.010 to .030 in.].
  - (2) Front bellmouth length shall be 0.13 to 0.64 mm [.005 to .025 in.].
- E- **Conductor location:**
  - (1) End of the wire shall be flush with the front end of the wire barrel or extend 0.76 mm [.030 in.] maximum after crimping.
  - (2) 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.

### 3.4 Insulation Barrel Crimp.

- A- **Crimp Dimensions and Type:** Crimp width and type shall be as shown in Figure 4.
- B- **Workmanship:** Reasonable care shall be taken not to cut or break the insulation during the crimping operation.

### 3.5 Locking Lance.

Locking lance shall not be deformed and shall meet requirements of product drawing after crimping.

### 3.6 Contact Stop.

Contact stop shall not be deformed and shall meet requirements of product drawing after crimping.

### 3.7 Alignment.

#### A- Straightness:

- (1) The contact, including the cutoff tab and burr shall not be bent above or below the datum line more than the amount shown in Figure 2.

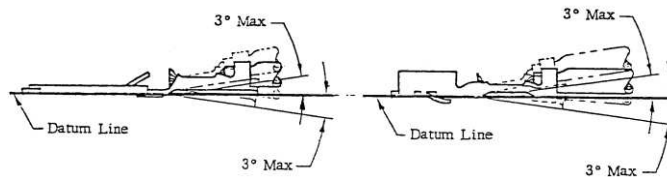


Figure 2

- (2) The side to side bending of the contact shall not exceed the limits specified in Figure 3.

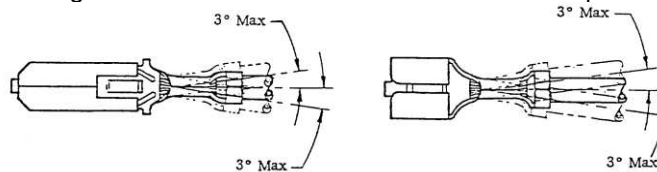


Figure 3

B- **Twist or Roll:** There shall be no twist or roll in crimped portion that will impair usage of the contact.

C- **Assembly.** The following list of do's and don'ts are to be followed when assembling contacts into housing cavities.

#### (1) do's:

- a) Do insert contacts fully.
- b) Do check for proper insertion by pulling back lightly.
- c) Do ensure proper handling of contacts to eliminate lance deformation.

#### (2) Don'ts:

- a) Don't insert contact into housing at an angle.
- b) Don't rock connectors while mating.
- c) Don't tie harness closer than 38.1 mm [1.50 inches] to back of housing.
- d) Don't dress wires sharply to one side of housing.

## AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS

S E R I E S	L O G	PART N°		WIRES		INSULATION DIA.	STRIP LENGHT APPROX.	WIRE BARREL CRIMP			INSULATION BARREL CRIMP	
		TAB	REC.	N°	SIZE mm2			WIDTH	HEIGHT	T Y P E	WIDTH	T Y P E
.110"		188352		1	0.50	2.29-3.05 [.090-.120]	4.57 [.180]	2.29 [.090]	1.47 [.058]	F	3.30 [.130]	F
		160743		1	20 (AWG)				1.47 [.058]			
		160762		1	0.75				1.52 [.060]			
		1		18 (AWG)	1.58 [.062]							
		1		1.00	1.58 [.062]							
		1		16 (AWG)	1.75 [.069]							
		1		1.50	1.75 [.069]							
.110"		160887		1	0.50	1.40-2.29 [.055-.090]	4.50 [.177]	2.03 [.080]	1.42 [.056]	F	2.79 [.110]	O V
		1		0.70	1.50 [.059]							
		1		0.75	1.52 [.060]							
		1		0.85	1.55 [.061]							
		1		1.00	1.60 [.063]							
.110"		160926		1	1.50	2.11-3.10 [.083-.122]	4.57 [.180]	2.79 [.110]	1.70 [.067]	F	3.56 [.140]	O V
		1		2.00	1.83 [.072]							
		1		2.50	1.98 [.078]							
.110"		160888		1	1.00	1.91-2.29 [.075-.090]	4.57 [.180]	2.29 [.090]	1.55 [.061]	F	2.79 [.110]	O V
		1		1.25	1.65 [.065]							
		1		1.35	1.68 [.066]							
		1		1.50	1.73 [.068]							
.110"			160366	1	0.20	1.02-2.03 [.040-.080]	4.01 [.158]	1.58 [.062]	0.81 [.032]	F	2.03 [.080]	F
			1	24 (AWG)	0.81 [.032]							
			1	0.30	0.89 [.035]							
			1	22 (AWG)	0.89 [.035]							
			1	0.40	0.94 [.037]							
			1	0.50	0.99 [.039]							
1	20 (AWG)	0.99 [.039]										
.110"			160864	1	0.50	1.40-2.29 [.055-.090]	4.01 [.158]	1.78 [.070]	1.04 [.041]	F	2.54 [.100]	O V
			1	0.70	1.14 [.045]							
			1	0.75	1.17 [.046]							
			1	0.85	1.19 [.047]							
			1	1.00	1.27 [.050]							
.110"		160776		1	26 (AWG)	-	-	1.78 [.070]	F	-	-	
		1		24 (AWG)	0.97 [.038]							
		1		22 (AWG)	0.99 [.039]							
.110"		160923		1	0.20	1.02-1.6 [.040-.063]	4.57 [.180]	1.78 [.070]	1.09 [.043]	F	2.29 [.090]	F
		1		0.25	1.12 [.044]							
		1		0.35	1.17 [.046]							
		1		0.50	1.24 [.049]							
.250"	785314	280096		1	0.35	2.29-3.30 [.090-.130]	5.54 [.218]	2.03 [.080]	1.35 [.053]	F	3.30 [.130]	F
		1		0.50	1.40 [.055]							
		1		0.75	1.45 [.057]							
.250"	785316		280095	1	0.35	2.29-3.30 [.090-.130]	5.54 [.218]	2.03 [.080]	1.17 [.046]	F	3.30 [.130]	F
			1	0.50	1.24 [.049]							
			1	0.75	1.30 [.051]							
.250"	785129		282178	1	0.35	1.45-1.91 [.057-.075]	5.54 [.218]	2.03 [.080]	1.17 [.046]	F	3.05 [.120]	F
			1	0.50	1.24 [.049]							
			1	0.75	1.30 [.051]							
.250"	687839	42098		1	0.75	3.05-4.06 [.120-.160]	5.54 [.218]	2.79 [.110]	1.45 [.057]	F	4.06 [.160]	F
		42460		1	1.00				1.52 [.060]			
		280081		1	1.50				1.65 [.065]			
		280425		1+1	0.75+0.75				1.65 [.065]			
		1		2.50	1.91 [.075]							

AUTOMATIC MACHINE WIRE GRIMP DIMENSIONS  
(continuation)

S E R I E S	L O G	PART N°		WIRES		INSULATION DIA.	STRIP LENGHT APPROX.	WIRE BARREL CRIMP			INSULATION BARREL CRIMP	
		TAB	REC.	N°	SIZE mm2			WIDTH	HEIGHT	T Y P E	WIDTH	T Y P E
.250"	785320		42100	1	0.75	2.54-4.31 [.100-.170] 3.05-4.06 [.120-.160]	5.54 [.218]	2.54 [.100]	1.24 [.049]	F	4.57 [.180]	F
			280098	1	1.0				1.32 [.052]			
			280923	1	1.5				1.42 [.056]			
			180375	1	2.5				1.63 [.064]			
			284340	-	-				-			
			293212	-	-				-			
.250"	785127		282171	1	1.0	1.91-3.00 [.075-.118]	5.54 [.218]	2.54 [.100]	1.32 [.052]	F	3.56 [.140]	F
			282176	1	1.5				1.42 [.056]			
			282177	1	2.0				1.52 [.060]			
				1	2.5				1.63 [.064]			
.250"	677705	180352 280080	1+1	1.5+1.5	3.43-5.08 [.135-.200]	6.10 [.240]	4.06 [.160]	1.83 [.072]	F	5.33 [.210]	F	
			1	4.0				1.96 [.077]				
			1	5.0				2.16 [.085]				
			1	6.0				2.34 [.092]				
.250"	466675		180560	1+1	1.5+1.5	3.43-5.08 [.135-.200]	6.10 [.240]	4.06 [.160]	1.83 [.072]	F	5.33 [.210]	F
			180351	1	4.0				1.96 [.077]			
				1	5.0				2.16 [.085]			
				1	6.0				2.34 [.092]			
.250"	7- 1529168- 1		180351	1+1	1.5+1.5	3.43-5.08 [.135-.200]	6.10 [.240]	4.06 [.160]	1.83 [.072]	F	5.33 [.210]	F
					4.0				1.96 [.077]			
					2.5+1.5				1.96 [.077]			
					5.0				2.16 [.085]			
					2.5+2.5				2.16 [.085]			
					[10AWG]				2.21 [.087]			
					6.0				2.34 [.092]			
.250"	785126	282170		1	1.0	1.91-3.00 [.075-.118]	5.49 [.216]	2.79 [.110]	1.52 [.060]	F	3.94 [.155]	F
				1	1.5				1.65 [.065]			
				1	2.0				1.78 [.070]			
				1	2.5				1.91 [.075]			
.250"	785135	282186		1	0.35	1.45-1.91 [.057-.075]	5.49 [.216]	2.03 [.080]	1.35 [.053]	F	3.05 [.120]	F
				1	0.50				1.40 [.055]			
				1	0.75				1.45 [.057]			
.250"		160645 160691		1	0.30(22AWG)	2.16-3.18 [.085-.125]	5.54 [.218]	2.29 [.090]	1.14 [.045]	F	3.56 [.140]	F
				1	0.50(20AWG)				1.22 [.048]			
				1	0.75(18AWG)				1.32 [.052]			
.312"			160920	1	3.00	3.30-4.50 [.130-.177]	6.48 [.255]	3.30 [.130]	2.16 [.085]	F	5.33 [.210]	F
				1	3.50				5.26 [.089]			
				1	4.00				2.36 [.093]			
.312"			160557	1	0.50	2.29-3.30 [.090-.130]		2.29 [.090]	1.42 [.056]	F	3.30 [.130]	F
				1	0.75				1.47 [.058]			
				1	1.00				1.54 [.060]			
				1	1.50				1.58 [.062]			
.375"		280075		1+1	0.75+2.50	3.81-5.08 [.150-.200]	6.86 [.270]	4.06 [.160]	2.69 [.106]	F	6.35 [.250]	F
				1	4.00				3.00 [.118]			
				1	6.00				3.20 [.126]			
.375"	785489		280077	1	3.00	3.00-5.08 [.118-.200]	6.86 [.270]	4.06 [.160]	2.79 [.110]	F	6.35 [.250]	F
			280756	1	4.00				3.00 [.118]			
				1	6.00				3.20 [.126]			

.375"	1529063		280756	1	4.00	3.00-5.08 [.118-.200]	6.86 [.270]	4.06 [.160]	2.59 [.102]	F	6.35 [.250]	F
	1339559			1	6.00				2.79 [.110]			
.375"	1529095		280756	1	4.00	3.00-5.08 [.118-.200]	6.86 [.270]	4.57 [.180]	2.41 [.095]	F	6.35 [.250]	F
				1	5.00				2.59 [.102]			
				1	6.00				2.77 [.109]			
.375"	783282	280074		1	6.00	5.08-6.99 [.200-.275]	7.11 [.280]	4.57 [.180]	3.23 [.127]	F	7.62 [.300]	F
				1	10.0				3.63 [.143]			
.375"	782678		280755	1	6.00	5.08-6.99 [.200-.275]	7.11 [.280]	4.57 [.180]	3.23 [.127]	F	7.62 [.300]	F
			281089	1+1	6.00+2.50				3.50 [.138]			
			280076	1	10.0				3.63 [.143]			
			281091									
.375"	1529136		280755	1	6.00	5.08-6.99 [.200-.275]	6.60 [.260]	4.57 [.180]	3.23 [.127]	F	7.62 [.300]	F
			280076	1	8.00				3.43 [.135]			
			281091	1	8.50				3.50 [.138]			
			1	10.0	3.63 [.143]							

<b>D15</b>	REVISED PER ECR-21-105754	SS	24 JUN 2021	EW	06 JUL 2021
<b>D14</b>	REVISED: Addition of metric units	SS	27 MAR 2020	DL	27MAR2020
<b>D13</b>	REVISED: - cut off exception for P/Ns 280756-2 and 280756-4 - allowed overlap insulation crimp for parts 180351 with 4mm <sup>2</sup> or 6mm <sup>2</sup> single wire	D.C.	22 AUG 2014	D.C.	22 AUG 2014
<b>D12</b>	UPDATED	H.Y.	23 FEB 2009	G.T.	23 FEB 2009
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<b>D8</b>	UPDATED	H.Y.	31 MAR 2005	G.T.	31 MAR 2005

rev letter	rev. record	DR	Date	CHK	Date
DR.		APVD			DATE
H. YAALI		C. TARTARI	30 AUGUST 2001		30 AUGUST 2001

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