FASTIN-FASTON* Connectors, .110", .250", .312" & .375" srs. TAB & RECEPTACLE CONTACTS

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

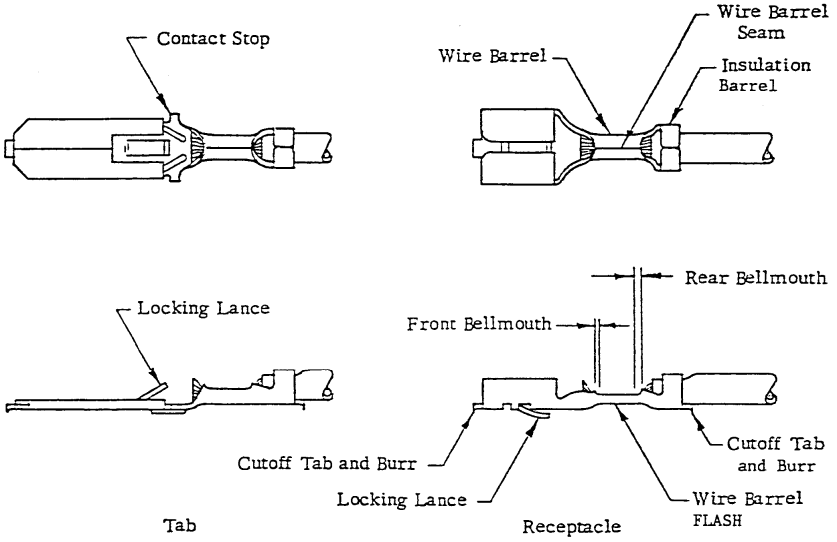

Figure 1

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**: Cutoff tab shall not exceed .015.

B- **Burr**: Burr on cutoff shall not exceed .005.

rev letter	rev. record	DR	Date	CHK	Date
D12	UPDATED	H.Y.	23 FEB 2009	G.T.	23 FEB 2009
D11	UPDATED	H.Y.	13 DEC 2006	G.T.	13 DEC 2006
D10	ADDED P/N 293212	H.Y.	10 AUG 2006	G.T.	10 AUG 2006
D9	UPDATED	H.Y.	18 JAN 2006	G.T.	18 JAN 2006
D8	UPDATED	H.Y.	31 MAR 2005	G.T.	31 MAR 2005

DR.	DATE	APVD	DATE
H. YAALI	30 AUGUST 2001	C. TARTARI	30 AUGUST 2001

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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 .005.

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 .010-.030.

(2) Front bellmouth length shall be .005-.025.

E- **Conductor location**:

(1) End of the wire shall be flush with the front end of the wire barrel or extend .030 maximum after crimping.

(2) (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.

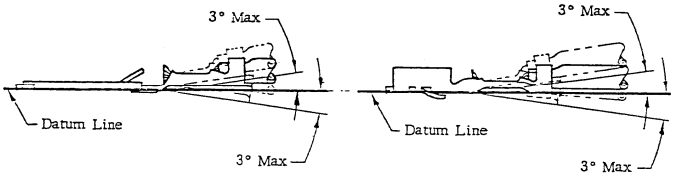

Figure 2

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

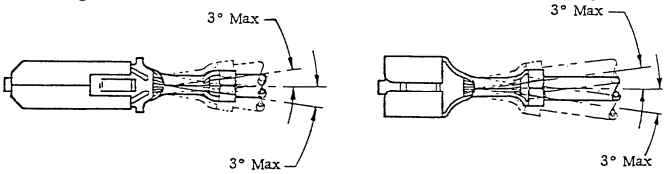

Figure 3

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 1.50 inches to back of housing.

d) Don't dress wires sharply to one side of housing.

AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS

SERIES	LOG	PART N°		WIRES		INSULATION DIA.	STRIP LENGHT APPROX.	WIRE BARREL CRIMP			INSULATION BARREL CRIMP	
		TAB	REC.	N°	SIZE mm2			WIDTH	HEIGHT	TYPE	WIDTH	TYPE
.110"		188352 160743 160762		1	0.50	.090-.120	.180	.090	.058	F	.130	F
				1	20 (AWG)				.058			
				1	0.75				.060			
				1	18 (AWG)				.062			
				1	1.00				.062			
				1	16 (AWG)				.069			
				1	1.50				.069			
.110"		160887		1	0.50	.055-.090	.177	.080	.056	F	.110	OV
				1	0.70				.059			
				1	0.75				.060			
				1	0.85				.061			
				1	1.00				.063			
.110"		160926		1	1.50	.083-.122	.180	.110	.067	F	.140	OV
				1	2.00				.072			
				1	2.50				.078			
.110"		160888		1	1.00	.075-.090	.180	.090	.061	F	.110	OV
				1	1.25				.065			
				1	1.35				.066			
				1	1.50				.068			
.110"			160366	1	0.20	.040-.080	.158	.062	.032	F	.080	F
				1	24 (AWG)				.032			
				1	0.30				.035			
				1	22 (AWG)				.035			
				1	0.40				.037			
				1	0.50				.039			
				1	20 (AWG)				.039			
.110"			160864	1	0.50	.055-.090	.158	.070	.041	F	.100	OV
				1	0.70				.045			
				1	0.75				.046			
				1	0.85				.047			
				1	1.00				.050			
.110"		160776		1	26 (AWG)	-	-	.070	.038			
				1	24 (AWG)				.039	F	-	-
				1	22 (AWG)				.042			
.110"		160923		1	0.20	.040-.063	.180	.070	.043	F	.090	F
				1	0.25				.044			
				1	0.35				.046			
				1	0.50				.049			
.250"	785314	280096		1	0.35	.090-.130	.218	.080	.053			
				1	0.50				.055	F	.130	F
				1	0.75				.057			
.250"	785316		280095	1	0.35	.090-.130	.218	.080	.046	F	.130	F
				1	0.50				.049			
				1	0.75				.051			
.250"	785129		282178	1	0.35	.057-.075	.218	.080	.046	F	.120	F
				1	0.50				.049			
				1	0.75				.051			
.250"	687839	42098 42460 280081 280425		1	0.75	.120-.160	.218	.110	.057	F	.160	F
				1	1.00				.060			
				1	1.50				.065			
				1+1	0.75+0.75				.065			
				1	2.50				.075			

AUTOMATIC MACHINE WIRE CRIMP DIMENSIONS
(continuation)

SERIES	LOG	PART N°		WIRES		INSULATION DIA.	STRIP LENGHT APPROX.	WIRE BARREL CRIMP			INSULATION BARREL CRIMP	
		TAB	REC.	N°	SIZE mm2			WIDTH	HEIGHT	TYPE	WIDTH	TYPE
.250"	785320		42100	1	0.75	.120-.160	.218	.100	.049	F	.180	F
			280098	1	1.0				.052			
			280923	1	1.5				.056			
			180375	1	2.5				.064			
			284340	-	-				-			
			293212	-	-				-			
.250"	785127		282171	1	1.0	.075-.118	.218	.100	.052	F	.140	F
			282176	1	1.5				.056			
			282177	1	2.0				.060			
				1	2.5				.064			
.250"	677705	180352		1+1	1.5+1.5	.135-.200	.240	.160	.072	F	.210	F
		280080		1	4.0				.077			
				1	5.0				.085			
				1	6.0				.092			
.250"	466675		180560	1+1	1.5+1.5	.135-.200	.240	.160	.072	F	.210	F
			180351	1	4.0				.077			
				1	5.0				.085			
				1	6.0				.092			
.250"	7-1529168-1		180351	1+1	1.5+1.5	.135-.200	.240	.160	.072	F	.210	F
					4.0				.077			
					2.5+1.5				.077			
					5.0				.085			
					2.5+2.5				.085			
					[10AWG]				.087			
					6.0				.092			
.250"	785126	282170		1	1.0	.075-.118	.216	.110	.060	F	.155	F
				1	1.5				.065			
				1	2.0				.070			
				1	2.5				.075			
.250"	785135	282186		1	0.35	.057-.075	.216	.080	.053	F	.120	F
				1	0.50				.055			
				1	0.75				.057			
.250"		160645		1	0.30(22AWG)	.085-.125	.218	.090	.045	F	.140	F
		160691		1	0.50(20AWG)				.048			
				1	0.75(18AWG)				.052			
.312"			160920	1	3.00	.130-.177	.255	.130	.085	F	.210	F
				1	3.50				.089			
				1	4.00				.093			
.312"			160557	1	0.50	.090-.130		.090	.056	F	.130	F
				1	0.75				.058			
				1	1.00				.060			
				1	1.50				.062			
.375"		280075		1+1	0.75+2.50	.150-.200	.270	.160	.106	F	.250	F
				1	4.00				.118			
				1	6.00				.126			
.375"	785489		280077	1	3.00	.118-.200	.270	.160	.110	F	.250	F
			280756	1	4.00				.118			
				1	6.00				.126			
.375"	1529063		280756	1	4.00	.118-.200	.270	.160	.102	F	.250	F
	1339559			1	6.00				.110			
.375"	1529095		280756	1	4.00	.118-.200	.270	.180	.095	F	.250	F
				1	5.00				.102			
				1	6.00				.109			
.375"	783282	280074		1	6.00	.200-.275	.280	.180	.127	F	.300	F
				1	10.0				.143			
.375"	782678		280755	1	6.00	.200-.275	.280	.180	.127	F	.300	F
			281089	1+1	6.00+2.50				.138			
			280076	1	10.0				.143			
			281091									
.375"	1529136		280755	1	6.00	.200-.275	.260	.180	.127	F	.300	F
			280076	1	8.00				.135			
			281091	1	8.50				.138			
				1	10.0				.143			

Figure 4