

Product Specification  
108-5047  
Crimping Bulkhead Contacts

1. Scope:

This specification covers general requirements for crimping 2Ø pin and pin receptacle contacts, 4Ø MATE-N-LOK pin and socket contacts used on Bulkhead Connectors.

2. Crimping 4Ø MATE-N-LOK socket contacts of the following part numbers:  
61210-1, 61233-1, 61085-1, 170114-1

The following figures show points to be checked and paragraph numbers in which detailed requirements are specified.

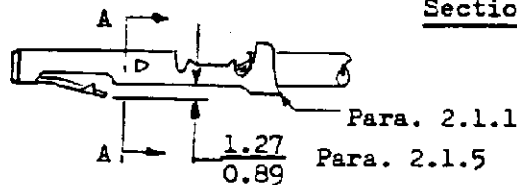
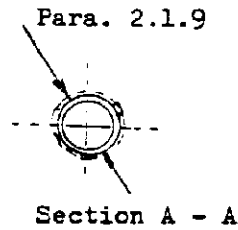
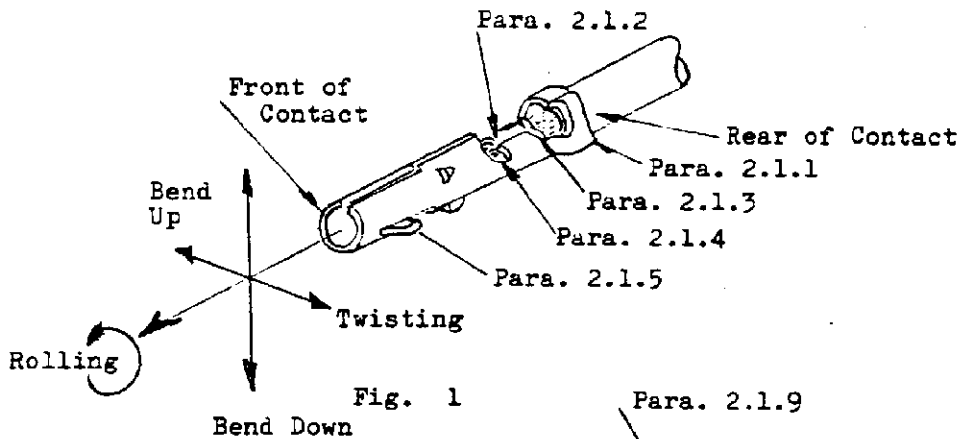


Fig. 2

		DR <i>J. Nakamura</i> 7-1-76	<b>AMP</b>	AMP (Japan), Ltd. TOKYO, JAPAN		
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		<i>J. Nakamura</i> 7-1-76		J	A	D
D Revised RFA 73-91		SHEET	108-5047		Product Specification	
REVISION RECORD		i OF 8	Crimping Bulkhead Contacts			

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 Customer Release  
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**Crimping Requirements**  
(Refer to Figs. 1 and 2)

- 2.1.1 Length of cut-off tab shall be not exceeding 0.5mm.
- 2.1.2 Front bellmouth on the wire barrel shall be not exceeding 0.25mm.
- 2.1.3 Rear bellmouth on the wire barrel shall be within the range of 0.13-1.5mm.
- 2.1.4 Wire end shall not protrude more than 1.2mm from front edge of wire barrel.
- 2.1.5 Locking lance shall stand out in the range of 0.89 - 1.27mm, when measured from the bottom line of contact body.
- 2.1.6 Crimped contact shall not bend more than the limit specified in Para. 2.1.8.
- 2.1.7 Contact is designated to accept one wire only for crimping.
- 2.1.8 Wire-crimped insulation barrel must lie within a peripheral circle of 6.5mm from the contact axis. This is interpreted to limit bend-up within 10°, no bend-down, twisting within 3° and rolling within 5°, respectively.
- 2.1.9 Embossment of contact shall not protrude more than 5.77mm from contact axis after crimping.
- 2.1.10 Specified data for wire crimping are shown in Table 1, below.

Tolerance for crimp height must be within  $\pm 0.05\text{mm}$  (.002).

Contact Number	Wire Size mm <sup>2</sup>	Wire Crimp Width mm (inch)	Wire Crimp Height mm (inch)	Insulation Crimp Height mm (inch)
61210-1	3.0	3.56 (.140)"F"	2.21 (.087)	5.33 (.210)"F"
61233-1	5.0	3.56 (.140)"F"	2.69 (.106)	5.33 (.210)"F"
170114-1				
61085-1	2.0	2.54 (.100)"F"	1.96 (.077)	3.94 (.155)"F"
	1.25	2.54 (.100)"F"	1.70 (.067)	3.94 (.155)"F"
	0.85	2.54 (.100)"F"	1.55 (.061)	3.94 (.155)"F"
	0.5	2.54 (.100)"F"	1.47 (0.58)	3.94 (.155)"F"

Table 1

SHEET				AMP (Japan), Ltd. TOKYO, JAPAN	
2 OF 8		LOC J	A	NO 108-5047	REV D
NAME		Product Specification			
		Crimping Bulkhead Contacts			

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3. Crimping 4Ø MATE-N-LOK pin contacts of the following part numbers:  
61211-1, 61234-1, 61086-1, 170115-1

The following figures show points to be checked and paragraph numbers in which detailed requirements are specified.

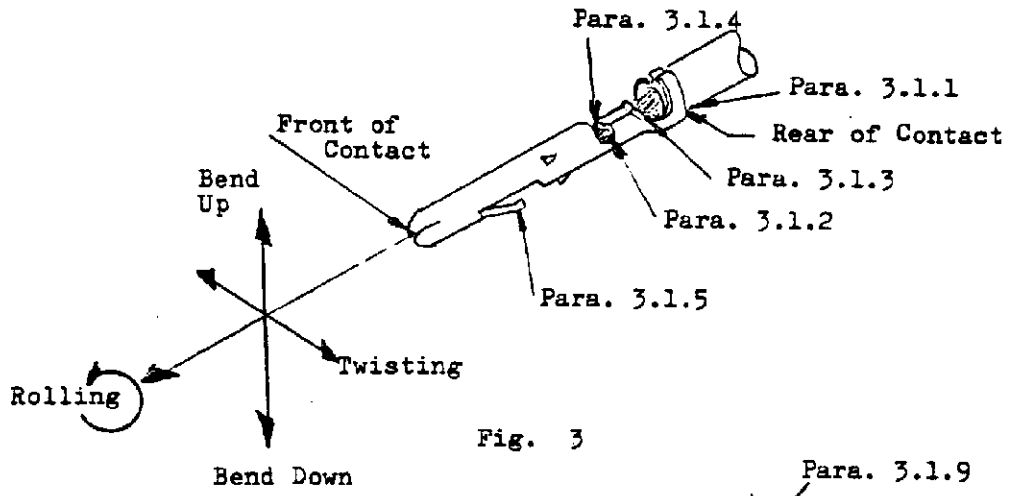


Fig. 3

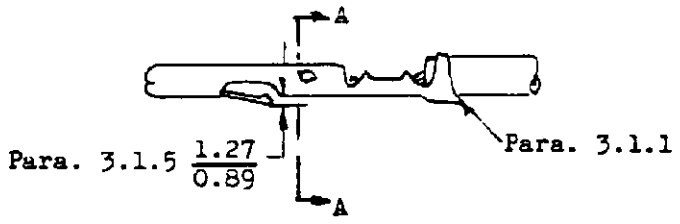
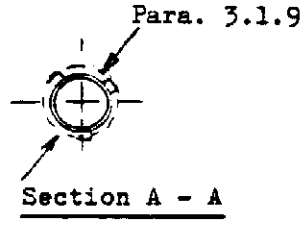


Fig. 4

SHEET	<b>AMP</b>		AMP (Japan), Ltd. TOKYO, JAPAN	
<u>3 OF 8</u>	LCC	NO	REV	
	J	A	108-5047	D
NAME	Product Specification			
	Crimping Bulkhead Contacts			

Crimping Requirements  
(Refer to Figs. 3 and 4)

- 3.1.1 Length of cut-off tab shall be not exceeding 0.5mm.
- 3.1.2 Fron bellmouth on the wire barrel shall be not exceeding 0.25mm.
- 3.1.3 Rear bellmouth on the wire barrel shall be within the range of 0.13-1.5mm.
- 3.1.4 Wire end shall not protrude more than 1,2mm from front edge of wire barrel.
- 3.1.5 Locking lance shall stand out in the range of 0.89-1.27mm, when measured from the bottom line of contact body.
- 3.1.6 Crimped contact shall not bend more than the limit specified in Para.3.1.8.
- 3.1.7 Contact is designated to accept one wire only for crimping.
- 3.1.8 Wire-crimped insulation barrel must lie within a peripheral circle of 6.5mm from the contact axis. This is interpreted to limit bend-up within 10°, no bend-down, twisting within 3° and rolling within 5°, respectively.
- 3.1.9 Embossment of contact shall not protrude more than 4.75mm from contact axis after crimping.
- 3.1.10 Specified data for wire crimping are shown in Table 2, below.  
Tolerance for crimp height must be within  $\pm 0.05\text{mm}$  (.002).

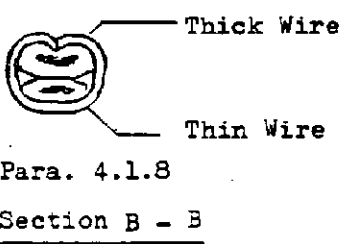
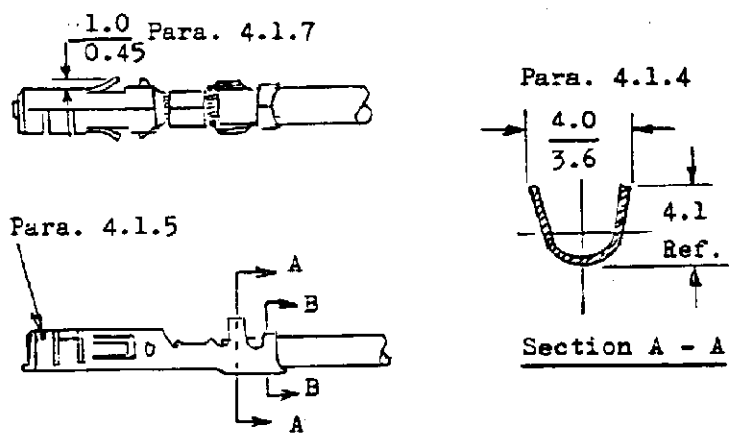
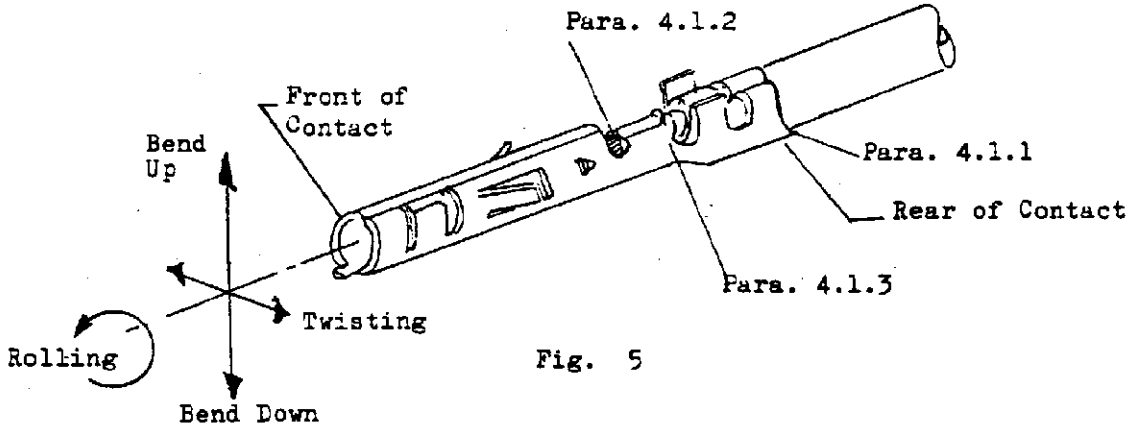
Contact Number	Wire Size mm <sup>2</sup>	Wire Crimp Width mm (inch)	Wire Crimp Height mm(inch)	Insulation Crimp Height mm (inch)
61211-1	3.0	3.56 (.140)"F"	2.21 (.087)	5.33 (.210)"F"
61234-1	5.0	3.56 (.140)"F"	2.69 (.106)	5.33 (.210)"F"
170115-1				
61086-1	2.0	2.54 (.100)"F"	1.96 (.077)	3.94 (.155)"F"
	1.25	2.54 (.100)"F"	1.70 (.067)	3.94 (.155)"F"
	0.85	2.54 (.100)"F"	1.55 (.061)	3.94 (.155)"F"
	0.5	2.54 (.100)"F"	1.47 (.058)	3.94 (.155)"F"

Table 3

SHEET				AMP (Japan), Ltd. TOKYO, JAPAN
4 OF 8	LOC J   A	NO 108-5047	REV D	
NAME Product Specification				
Crimping Bulkhead Contacts				

4. Crimping 2 $\phi$  Pin Receptacle contacts of the following part numbers.  
170099-2, 170112-1, 170139-1

The following figures show points to be checked and paragraph numbers in which detailed requirements are specified.



SHEET	<b>AMP</b>		AMP (Japan), Ltd. TOKYO, JAPAN	
5 OF 8	LOC <b>J</b>	NO <b>A</b>	108-5047	REV <b>D</b>
NAME Product Specification				
Crimping Bulkhead Contacts				


**Crimping Requirements**  
 (Refer to Figs. 5 and 6)

- 4.1.1 Length of rear cut-off tab shall be not exceeding 0.5mm.
- 4.1.2 Front bellmouth on the wire barrel shall be not exceeding 0.25mm.
- 4.1.3 Rear bellmouth on the wire barrel shall be within the range of 0.13-1.5mm.
- 4.1.4 Dimensions of stabilizers must be conforming to requirements in Fig. 6.
- 4.1.5 Bending of contacts must be within the specified limit, i.e. bend-up, bend-down and twisting must be within 3°, and rolling must be within 5° from contact axis after crimping.
- 4.1.6 Specified data for wire crimping are shown in Table 3, below.  
Tolerance for crimp height must be within  $\pm 0.05\text{mm}$  (.002).

Contact Number	Wire Size mm <sup>2</sup>	Wire Crimp Width mm (inch)	Wire Crimp Height mm (inch)	Insulation Crimp Height mm (inch)
170099-2	0.5	2.29 (.090)"F"	1.22 (.048)	3.30 (.130)"F"
	0.85	2.29 (.090)"F"	1.35 (.053)	3.30 (.130)"F"
	1.25	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
170112-1	2.0	2.29 (.090)"F"	1.78 (.070)	3.30 (.130)"F"
	0.5 + 0.85	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
	0.5 + 0.5	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
170139-1	0.3	2.03 (.080)"F"	0.99 (.039)	3.30 (.130)"F"
	0.5	2.03 (.080)"F"	1.09 (.043)	3.30 (.130)"F"
	0.85	2.03 (.080)"F"	1.22 (.048)	3.30 (.130)"F"

Table 3

- 4.1.7 Locking lance must stand out in the range of 0.45-1.0mm, when measured from the bottom line of contact body.
- 4.1.8 When to crimp two wires in one barrel simultaneously, place two wires to stack on the barrel with thin wire bottomed.

SHEET			AMP (Japan), Ltd. TOKYO, JAPAN
6 OF 8	LOC J	NO A	108-5047
NAME		REV D	
Product Specification			
Crimping Bulkhead Contacts			

5. Crimping 2Ø pin contacts of the following part numbers.  
170100-2, 170113-1, 170138-1

The following figures show points to be checked and paragraph numbers in which detailed requirements are specified.

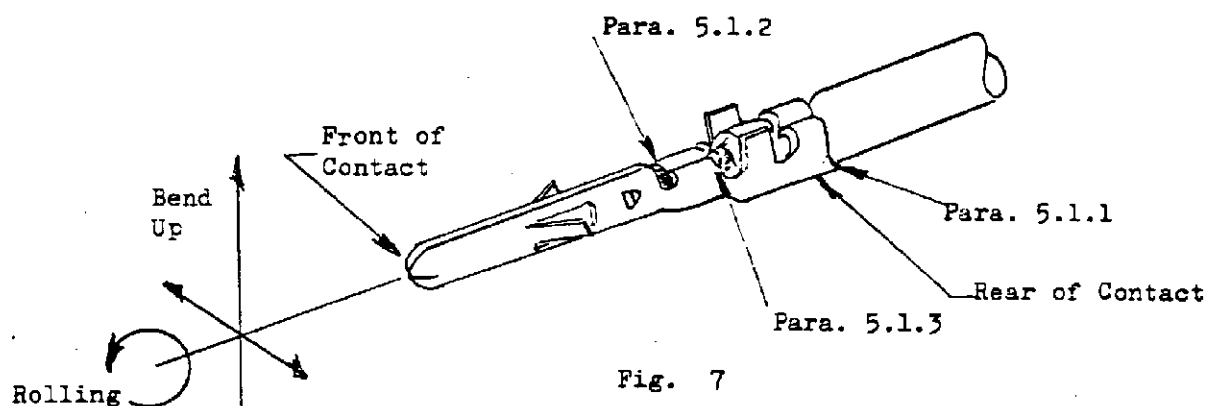


Fig. 7

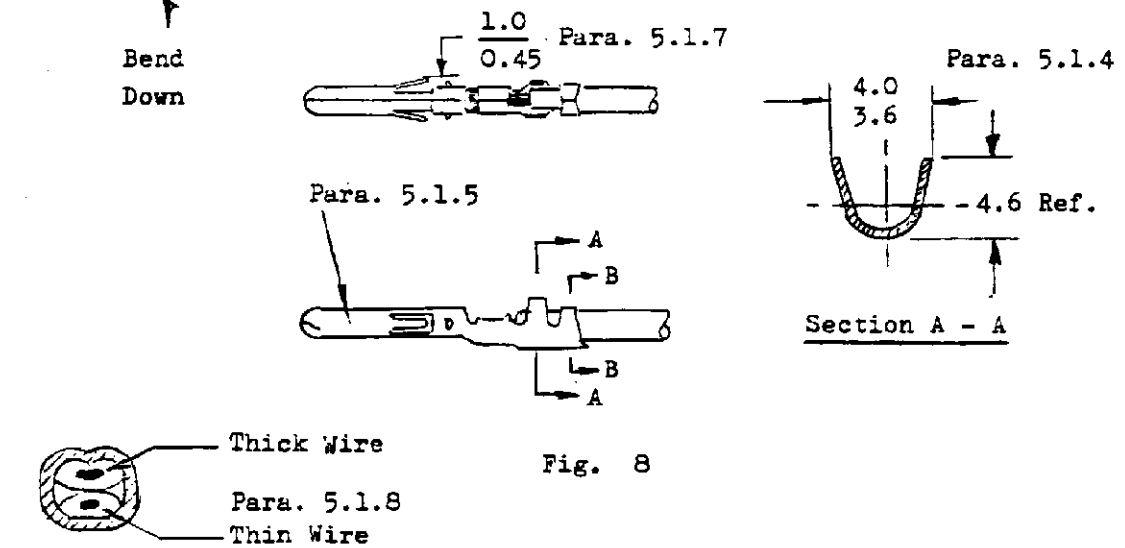


Fig. 8

Section B - B

SHEET		<b>AMP</b>		AMP (Japan), Ltd. TOKYO, JAPAN	
7 OF 8		LOC <b>J</b>	NO <b>A</b>	NO 108-5047	REV <b>D</b>
NAME Product Specification Crimping Bulkhead Contacts					

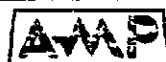
**Crimping Requirements**  
 (Refer to Fig. 7 and 8.)

- 5.1.1 Length of rear cut-off tab shall be not exceeding 0.5mm.
- 5.1.2 Front bellmouth on the wire barrel shall be not exceeding 0.25mm.
- 5.1.3 Rear bellmouth on the wire barrel shall be within the range of 0.13 - 0.64mm.
- 5.1.4 Dimensions of stabilizers must be conforming to requirements in Fig. 8.
- 5.1.5 Bending of contacts must be within the specified limit, i.e. bend-up, bend down and twisting must be within 3°, and rolling must be within 5° from contact axis after crimping.
- 5.1.6 Specified data for wire crimping are shown in Table 4, below.  
Tolerance for crimp height must be within ±0.05mm (.002).

Contact Number	Wire Size mm <sup>2</sup>	Wire Crimp Width mm (inch)	Wire Crimp Height mm(inch)	Insulation Crimp Height mm (inch)
170100-2	0.5	2.29 (.090)"F"	1.22 (.048)	3.30 (.130)"F"
	0.85	2.29 (.090)"F"	1.35 (.053)	3.30 (.130)"F"
	1.25	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
	2.0	2.29 (.090)"F"	1.78 (.070)	3.30 (.130)"F"
170113-1	0.5 + 0.85	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
	0.5 + 0.5	2.29 (.090)"F"	1.50 (.059)	3.30 (.130)"F"
	0.5 + 1.25	2.29 (.090)"F"	1.78 (.070)	3.30 (.130)"F"
	0.85 + 0.85	2.29 (.090)"F"	1.78 (.070)	3.30 (.130)"F"
	0.85 + 1.25	2.29 (.090)"F"	1.78 (.070)	3.30 (.130)"F"
170138-1	0.3	2.03 (.080)"F"	0.99 (.039)	3.30 (.130)"F"
	0.5	2.03 (.080)"F"	1.09 (.043)	3.30 (.130)"F"
	0.85	2.03 (.080)"F"	1.22 (.048)	3.30 (.130)"F"

Table 4

- 5.1.7 Locking lance must stand out in the range of 0.45 - 1.0mm, when measured from the bottom line of contact body.
- 5.1.8 When to crimp two wires in one barrel simultaneously, place two wires to stack on the barrel with thin wire bottomed.

SHEET				AMP (Japan), Ltd. TOKYO, JAPAN
8 OF 8	LOC J	NO A	108-5047	REV D
NAME Product Specification				
Crimping Bulkhead Contacts				