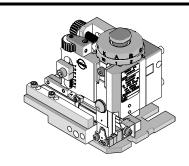


Mini-Mac Applicator Application Tooling Specification Mechanical Feed-Metal Strip Order No. 63881-0900



FEATURES

- Directly adapts to most crimp presses and automatic wire processors
- Applicator designed to industry-standard mounting and shut height of 135.80mm (5.346")
- Conductor and insulation rings allow quick adjustment for conductor and insulation crimp height change
- Quick set-up time; plus the crimp height, track and feed adjustments can be set without removing the applicator from the crimp press

SCOPE

Products: Avikrimp® QD Terminals 14-16 AWG

Testing

Mechanical

The tensile test, or pull test, is a means of evaluating the mechanical properties of the crimped connections. The following chart shows the UL and government specifications (MIL-T-7928) for various wire sizes. The tensile strength is shown in pounds and indicates the minimum acceptable force to break or separate the terminal from the conductor.

Color Code	Wire Size (AWG)	*UL - 486 A	*UL – 486 C	*UL – 310	*Military Class 2
Yellow	26	3	N/A	N/A	7
Yellow	24	5	N/A	N/A	10
Red	22	8	8	8	15
Red	20	13	10	13	19
Red	18	20	10	20	38
Blue	16	30	15	30	50
Blue	14	50	25	50	70
Yellow	12	70	35	70	110
Yellow	10	80	40	80	150
Red	8	90	45	N/A	225
Blue	6	100	50	N/A	300

^{*}UL - 486 A - Terminals (Copper conductors only)

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^{*}UL - 486 C - Butt Splices, Parallel Splices, Closed End Connectors, and Wire Nuts

^{*}UL - 310 - Quick Disconnects, Flag and Couplers

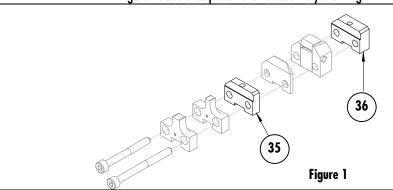
^{*}Military Class 2- Military Approved Terminals only as listed

Product List

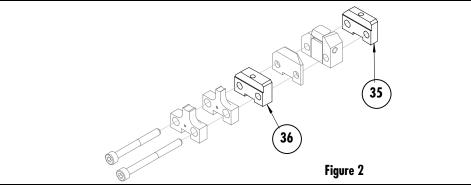
The following is a partial list of the product order numbers and their specifications that this tool is designed to run. Updates to this list are available on www.molex.com.

Terminal No.	Terminal Eng. No.	Wire Size		Insulation Di	Strip Length		
		AWG	mm²	mm	ln.	mm	ln.
19019-0079	BBZ-8138	14-16	2.00-1.30	3.60	.142	6.35	.250
19019-0080	BBZ-8138-032	14-16	2.00-1.30	3.50	.138	6.35	.250
19019-0112	SPL-0471	14-16	2.00-1.30	3.50	.138	6.35	.250

Note: To process these terminals, assemble spacers with cutoff tooling as shown in Figure 1. See also parts list and assembly drawing.



Terminal No.	Terminal Eng. No.	Wire Size		Insulation Di	Strip Length				
		AWG	mm²	mm	ln.	mm	ln.		
19019-0036	BBZ-8141	14-16	2.00-1.30	3.50	.138	6.35	.250		
Note: To process this terminal, assemble spacers with cutoff tooling as shown in Figure 2. See also parts list and assembly drawing.									



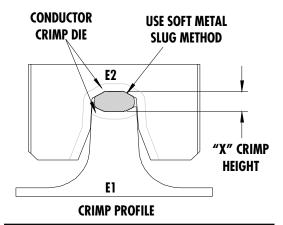
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Tool Calibration

To recalibrate this applicator, make sure the power is completely shut off on the press.

- The Mini-Mac applicator must be properly installed in the press.
- 2. Crimping dies must be properly installed in the Mini-Mac applicator.
- 3. The recommended method of measuring the crimp height of the conductor dies is the soft metal slug method, (See Figure 3).
- 4. The slug must have a diameter 0.51mm (.020") larger than the "X" No Go dimension before crimping.
- Place the soft metal slug (solder) into the nest of the bottom die and crimp (by hand cycling the press) similar to a terminal. The crimp height can be measured with a blade type micrometer or dial caliper, (Dimension "X").
- 6. Adjustment of the crimp height can be accomplished by indexing the conductor cam. The letter "A" gives the loosest position and "K" gives the tightest position. A total adjustment of 0.50mm (.020") can be achieved by adjusting the conductor cam.

Note: If the crimp height is too tight on the setting "A", check the shut height of the press. See the Industrial Mini-Mac Applicator Manual Section 2.1 for adjustments.



Use soft metal slug (solder) method to measure the "X" dimension. Verify tooling crimp height calibration by referring to the Go/No Go dimensions shown in the chart below.

Figure 3

CRIMP SPECIFICATIONS

Wire	Size	"X" Dimension Conductor Crimp						Pull Force Min.		
AWG mm ²		Mean		Go		No Go		Lbs	N	
AWG		In	mm	In	mm	In	mm	rn2	IN :	
16	1.30	.094	2.39	.091	2.31	.098	2.49	30.0	133.5	
14	2.00	.094	2.39	.091	2.31	.098	2.49	50.0	222.6	

Terminal Series No.	Cut-off Tab Max.			
Terminur Series No.	mm	ln.		
19019-00**	0.25	.010		

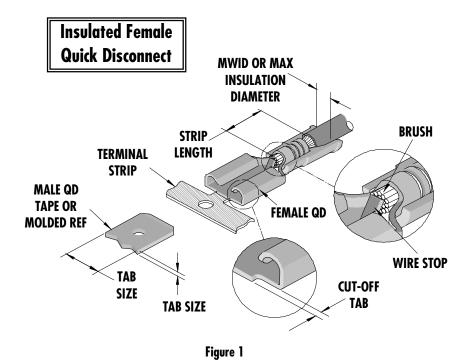
Pull Force should be measured with no influence from the insulation crimp. The above specifications are guidelines to an optimum crimp.

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DEFINITION OF TERMS

The following illustrations are a generic terminal representation and not an exact image of any terminal listed in the scope.



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PARTS LIST

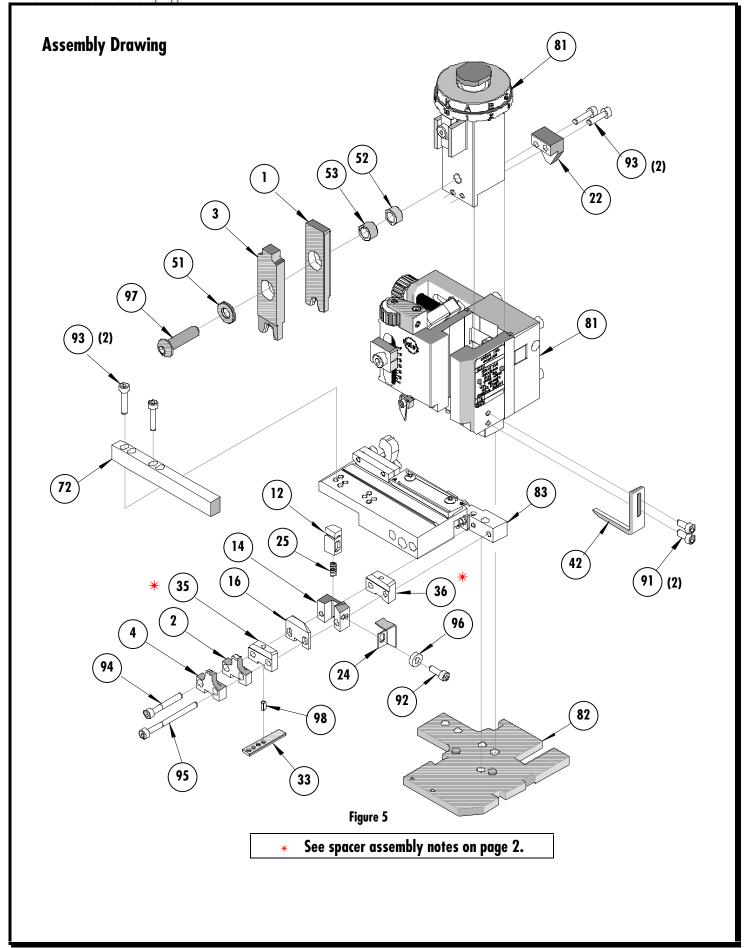
_		Mini-Mac Appl	licator 63881-0900					
ltem	Order No	Engineering No.	Description	Quantity				
Perishable Tooling								
	63881-0970	63881-0970	Tool Kit (All "Y" Items)	REF				
1	63465-0026	63465-0026	Conductor Punch	1 Y				
2	63464-0025	63464-0025	Conductor Anvil	1 Y				
3	63463-0025	63463-0025	Insulation Punch	1 Y				
4	63462-0027	63462-0027	Insulation Anvil	1 Y				
12	63466-0201	63466-0201	Cut-off Plunger Rear	1 Y				
14	63466-0301	63466-0301	Rear Plunger Retainer	1 Y				
16	63466-0002	63466-0002	Cut-Off Blade	1 Y				
		Other Compo	nents (REF 10250)	•				
22	63466-0403	63466-0403	Cut-off Plunger Striker (Rear)	1				
24	63466-0101	63466-0101	Scrap Chute	1				
25	63700-0539	63700-0539	Cut-Off Plunger Spring	1				
33	63443-0021	63443-0021	Lower Tooling Key	1				
* 35	63466-1054	63466-1054	Spacer	1				
* 36	63466-1075	63466-1075	Spacer	1				
42	63466-0921	63466-0921	Terminal Stripping Blade	1				
51	63600-1290	63600-1290	Washer	1				
52	63890-0866	63890-0866	Collar-6.40 Lg.	1				
53	63890-0867	63890-0867	Collar-7.70 Lg.	1				
72	63801-4510	63801-4510	Terminal Guide Front	1				
96	63600-0110	63600-0110	M4 Washer, 3mm Thick	1				
			Frame					
81	63801-3201	63801-3201	Mechanical Feed Applicator Frame Head	REF				
82	63801-3281	63801-3281	Base	REF				
83	63801-4550	63801-4550	Track Assembly	REF				
		Ho	ardware					
91	N/A	N/A	M4 by 10 Lg SHCS	2**				
92	N/A	N/A	M4 by 12 Lg SHCS					
93	N/A	N/A	M4 by 20 Lg SHCS 4*					
94	N/A	N/A	M4 by 40 Lg. SHCS	1**				
95	N/A	N/A	M4 by 45 Lg. SHCS	1**				
97	N/A	N/A	M8 by 30 Lg. BHCS	1**				
98	N/A	N/A	3mm by 6 Lg. Roll Pin	1**				
	** Available fro	om an industrial suppl	y company such as MSC (1-800-645-7270)					

* See spacer assembly notes on page 2.

Note: Crimp profiles used in 63881-0900 are equivalent to 19292-0005/MMZ-BB-575, (UL file number E79133).

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NOTES

- Molex recommends an extra perishable tooling kit be maintained at your facility.
- Verify tooling alignment by manually cycling the press with applicator before crimping under power. Check that all screws are tight.
- Slugs, terminals, dirt, and oil should be kept clear of work area.
- 4. Wear safety glasses at all times.
- 5. For recommended maintenance refer to the Mini-Mac Applicator Manual (Document no. 63880-0000).

CAUTION: This applicator should only be used in a press with a shut height of 135.80 mm (5.346"). Tooling damage could result at a lower setting.

CAUTION: To prevent injury, never operate this applicator without the guards supplied with the press or wire-processing machine in place. Reference the press or wire processing manufacturer's instruction manual.

CAUTION: Molex crimp specifications are valid only when used with Molex terminals, applicators and tooling.

Contact Information

For more information on Molex application tooling please contact Molex at 1-800-786-6539.

Molex Application Tooling Group

1150 E. Diehl Road Naperville, IL 60563 Tel: (630) 969-4550

Fax: (630) 505-0049

Visit our Web site at http://www.molex.com

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