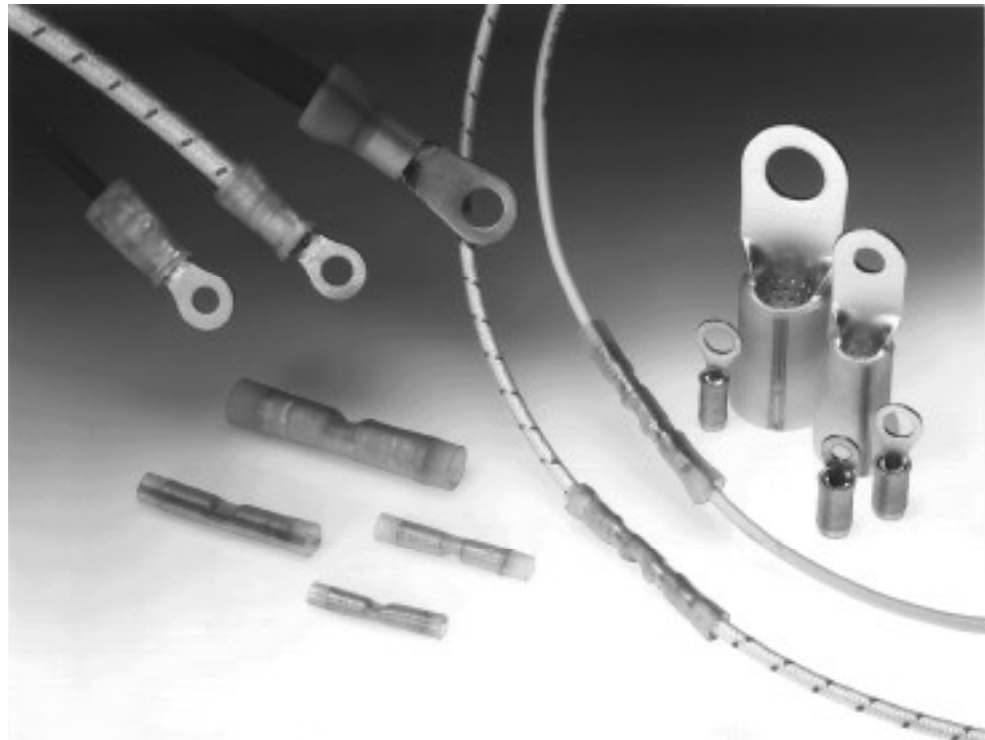


**Product Facts**

- Select items have MIL-T-7928 approval under M7928/4 and /6
- Insulation is polyvinylidene fluoride (PVF<sub>2</sub>) for high radiation resistance (to 200 megarads)
- Withstands 4 days of steam/chemical spray washdown which simulates LOCA (loss of coolant accident) conditions
- Temperature range of 2658C to 11508C
- Uses AMP standard PIDG and PLASTI-GRIP tooling
- Color coded for easy wire and tool match
- Covers wide range of wire sizes — AWG 26-2/0 [0.12-70 mm<sup>2</sup>]
- Tin-plated per MIL-T-10727
- Butt splice for wire sizes — AWG 26-10 [0.12-6 mm<sup>2</sup>]



The line of AMP Radiation Resistant/150°C Pre-Insulated Terminals and Splices includes terminals and splices of the well-known PIDG and PLASTI-GRIP terminal designs. Radiation Resistant Terminals are made of fine grade, high conductivity copper with bright tin-plating and feature polyvinylidene fluoride (PVF<sub>2</sub>) insulation for high resistance to radiation and solvents. PIDG terminals meet the performance requirements of MIL-T-7928. They are also tested by Tyco Electronics and an independent test facility and have fulfilled all requirements including radiation testing to 200 megarads, operating temperature range from -65°C to +150°C and resistance to steam and various chemical solvents to simulate LOCA (loss of coolant accident) conditions.

These terminals and splices feature the outstanding

qualities of standard AMP terminals such as tapered entry ramps to help eliminate bent wire strands and insulation support for stronger, more reliable connections. Serrated or dimpled wire barrels provide maximum contact and tensile strength after crimping, and color coded insulation with wire size stamped on the terminal tongue identifies the product and assists in proper terminal-wire match.

AMP Radiation Resistant/150°C Terminals are designed and engineered to successfully withstand extreme vibration, shock and structural stresses, and other conditions which can adversely affect the critical circuit requirements in complex equipment.

The matching AMP tooling precisely crimps all terminations. This uniformity increases reliability and also serves as a built-in quality control factor.

**Technical Documents:  
Instruction Sheets**

- IS 1559 DAHT's for 26-10 AWG connectors
- IS 1724 Crimping dies for 8-2/0 AWG connectors

**Need More Information?**

Call Technical Support at the numbers listed below.

Technical Support is staffed with specialists well versed in all Tyco Electronics products. They can provide you with:

- Engineering Support
- Catalogs
- Technical Documents
- Product Samples
- Tyco Electronics Authorized Distributor Locations

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AMP, AMPLI-PRESS, AMP-TAPETRONIC, CERTI-CRIMP, DYNA-CRIMP, PIDG, PLASTI-GRIP, TERMINYL, T-HEAD, AUTO-PRO, AMP-O-LECTRIC, AMPOMATOR, and TYCO are trademarks.

### PIDG Terminal Style

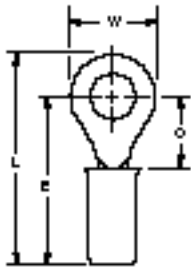
#### Ring Tongue Terminals

#### Material and Finish:

**Terminal Body**—Copper per QQ-C-576 with tin plating per MIL-T-10727 or gold plating per MIL-G-45204 over nickel per QQ-N-290

**Insulation Support Sleeve**—Copper per QQ-C-576 with tin plating per MIL-T-10727

**Insulation Sleeve**—PVF<sub>2</sub>, natural color



#### Related Product Data:

**Application Tooling**—pages 5–8

**Technical Documents**—page 1

Wire Range		Tongue Thickness Max.	Wire Ins. Dia. Max.	Stripe Color Code	Stud Size	Dimensions				Part Numbers		
AWG	CMA					C Min.	W	E Max.	L Max.	Gold Plate Loose	Tin Plate Tape	Loose
26-24	202-509	.029 0.74	.082 2.09	Yellow	2	.211	.203	.632	.736	—	—	53400-1
					M2	5.35	5.16	16.06	18.7	—	—	53401-1
					4	.211	.203	.632	.736	—	—	53401-1
					M4	5.35	5.16	16.06	18.7	—	—	53402-1
					6	.243	.250	.664	.792	—	—	53402-1
					M3.5	6.17	6.35	16.87	20.12	—	—	53403-1
24-20	320-1,290	.025 0.64	.100 2.54	White	8	.250	.281	.671	.814	—	—	53403-1
					M4	6.35	7.13	17.05	20.68	—	—	53404-1
					10	.281	.312	.702	.861	—	—	53404-1
					M4	7.13	7.92	17.84	21.87	—	—	53809-1
					4	.250	.281	.631	.774	—	—	53809-2
					M3.5	6.35	7.13	16.03	19.66	—	—	53405-1
22-16	509-3,250	.033 0.84	.125 3.18	Red	4	.156	.218	.560	.672	—	—	53405-1
					M3.5	3.96	5.54	14.23	17.07	—	—	53406-1
					6	.156	.218	.560	.672	—	—	53407-1
					M3.5	3.96	5.54	14.23	17.07	—	—	53407-2
					6	.250	.281	.631	.774	—	—	53408-1
					M3.5	6.35	7.13	16.03	19.66	—	—	53408-2
					8	.281	.312	.685	.844	—	—	53408-1
					M4	7.13	7.92	17.4	21.44	—	—	53409-3
					10	.281	.312	.685	.844	53409-3	—	53409-1
					M6	11.09	11.91	21.37	27.39	—	—	53410-2
					5/16	.437	.469	.841	1.078	—	—	53411-1
					M8	11.09	11.91	21.37	27.39	—	—	53412-1
3/8	.546	.531	.950	1.218	—	—	53412-1					
1/2	.530	.713	.934	1.293	—	—	53413-1					
M12	13.46	18.11	24.13	32.85	—	—	53414-3					
16-14	2,050-5,180	.033 0.84	.150 3.81	Blue	4	.171	.250	.575	.703	53414-3	—	53414-1
					M3.5	4.34	6.35	14.61	17.86	—	—	53415-1
					6	.171	.250	.575	.703	—	—	53415-1
					M3.5	4.34	6.35	14.61	17.86	—	—	53416-2
					6	.281	.312	.685	.844	—	—	53416-1
					M3.5	7.13	7.92	17.4	21.44	—	—	53417-3
					8	.281	.312	.685	.844	53417-3	—	53417-1
					M4	7.13	7.92	17.4	21.44	—	—	53418-2
					10	.281	.312	.685	.844	—	—	53418-1
					M6	11.09	11.91	21.37	27.39	—	—	53419-1
					5/16	.437	.469	.841	1.078	—	—	53420-1
					M8	11.09	11.91	21.37	27.39	—	—	53421-1
3/8	.546	.531	.950	1.218	—	—	53421-1					
1/2	.530	.713	.934	1.293	—	—	53422-1					
M12	13.46	18.11	23.73	32.85	—	—	53422-1					

For Design Specification and additional ordering information, contact Tyco Electronics.

### PIDG Terminal Style

#### Ring Tongue Terminals (Continued)

Wire Range		Tongue Thickness Max.	Wire Ins. Dia. Max.	Stripe Color Code	Stud Size	Dimensions				Part Numbers			
AWG	CMA					C Min.	W	E Max.	L Max.	Gold Plate Loose	Tin Plate Tape	Loose	
16-14 Heavy Duty	2,050-5,180	.050	.230	5.84	Black	6	.281	.343	.872	1.046	—	—	53964-1
						M3.5	7.13	8.71	22.15	26.57	—	—	53982-1
						8	.281	.343	.872	1.046	—	—	53983-1
						M4	7.13	8.71	22.15	26.57	—	—	53984-1
						10	.281	.343	.872	1.046	—	—	53966-1
						M6	11.09	13.49	26.12	32.92	—	—	53967-1
						3/8	.437	.531	1.028	1.296	—	—	53423-1*
						M12	15.87	19.05	30.89	40.49	—	—	53424-1*
						6	.302	.375	.893	1.083	53423-3	—	53424-1*
						M3.5	7.67	9.53	22.69	27.51	—	53424-2	53425-1*
12-10	5,180-13,100	.042	.230	5.84	Yellow	8	.302	.375	.893	1.083	—	—	53425-1*
						M4	7.67	9.53	22.69	27.51	—	53425-2	53426-1*
						10	.302	.375	.893	1.083	—	—	53426-1*
						M6	11.88	13.48	26.78	33.58	—	—	53427-1*
						1/4	.468	.531	1.054	1.322	—	—	53428-1*
						M8	11.88	13.48	26.78	33.58	—	—	53429-1*
						5/16	.468	.531	1.054	1.322	—	—	53429-1*
						M8	11.88	13.48	26.78	33.58	—	—	53429-1*
						3/8	.531	.593	1.115	1.414	—	—	53429-1*
						M12	12.04	18.16	26.77	35.92	—	—	53429-1*

\*Brazed Body

### PIDG Splice Style

#### Butt Splices

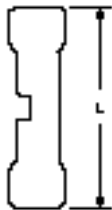
##### Material and Finish:

**Splice Body**—Copper per QQ-C-576 with tin plating per MIL-T-10727

**Insulation Support Sleeve**—Copper per QQ-C-576 with tin plating per MIL-T-10727

**Insulation Sleeve**—PVF2, natural color

Wire Range		Barrel I.D. Min.	Stripe Color Code	Wire Ins. Dia. Max.	Dim. L Max.	Part Numbers	
AWG	CMA					Tape	Loose
26-22	202-810	.029 0.73	Yellow	.082 2.09	.859 21.82	—	53546-1
24-20	320-1,290	.043 1.09	White	.100 2.54	.968 24.59	53547-2	53547-1
22-16	509-3,260	.061 1.54	Red	.125 3.18	1.265 32.14	53548-2	53548-1
16-14	2,050-5,180	.085 2.15	Blue	.150 3.81	1.265 32.14	—	53549-1
12-10	5,180-13,100	.129 3.27	Yellow	.220 5.59	1.656 42.07	—	53550-1



#### Related Product Data:

**Application Tooling**—pages 5–8

**Technical Documents**—page 1

For Design Specification and additional ordering information, contact Tyco Electronics.

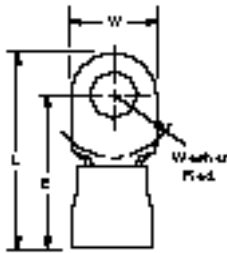
### PLASTI-GRIP Terminal Style

#### Ring Tongue Terminals

##### Material and Finish:

**Body**—Copper per QQ-C-576 with tin plating per MIL-T-10727

**Insulation Sleeve**—PVF2 natural color



##### Related Product Data:

**Application Tooling**—pages 5–8  
**Technical Documents**—page 1

Wire Range		Tongue Thickness Max.	Wire Ins. Dia. Max.	Stripe Color Code	Stud Size	Max. Washer Rad.	Dimensions			Part Number
AWG	CMA						W	E Max.	L Max.	
8	13,100-20,800	.043 1.1	.380 9.66	Red	10	.437 11.1	.431 10.95	1.344 34.14	1.562 39.68	53978-1
					1/4 M6	.437 11.1	.478 12.14	1.344 34.14	1.586 40.29	53943-1
					5/16 M8	.500 12.7	.587 14.91	1.402 35.62	1.702 43.24	54947-1
6	20,800-33,100	.048 1.22	.436 11.08	Blue	3/8	.500 12.7	.587 14.91	1.406 35.72	1.702 43.24	53944-1
					10	.421 10.7	.468 11.89	1.482 37.65	1.719 43.67	53975-1
					1/4 M6	.421 10.7	.500 12.7	1.622 41.2	1.898 48.21	53946-1
4	33,100-52,600	.051 1.3	.515 13.09	Yellow	3/8	.515 13.09	.625 15.88	1.591 40.42	1.905 48.42	53947-1
					10	.531 13.49	.546 13.87	1.672 42.47	1.948 49.48	53949-1
					1/4 M6	.531 13.49	.546 13.87	1.672 42.47	1.948 49.48	53980-1
2	52,600-83,700	.060 1.53	.560 14.23	Red	3/8	.531 13.49	.679 17.25	1.672 42.47	2.014 51.16	53950-1
					1/2 M12	.531 13.49	.679 17.25	1.672 42.47	2.014 51.16	53951-1
					10	.578 14.69	.711 18.06	1.731 43.97	2.089 53.07	53952-1
2/0	119,500-150,500	.083 2.11	.775 19.69	Yellow	3/8	.578 14.69	.711 18.06	1.731 43.97	2.089 53.07	53953-1
					1/2 M12	.578 14.69	.855 21.72	1.731 43.97	2.161 54.9	53954-1
2/0	119,500-150,500	.083 2.11	.775 19.69	Yellow	3/8	.625 15.88	.926 23.52	2.082 52.89	2.477 62.92	53971-1

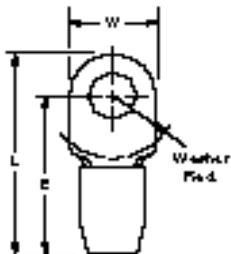
### TERMINYL Terminal Style Ring Tongue Terminals

#### Ring Tongue Terminals

##### Material and Finish:

**Body**—Copper per QQ-C-576 with gold plating per MIL-G-45204 over nickel per QQ-N-290

**Insulation Sleeve**—PVF2, natural color



##### Related Product Data:

**Application Tooling**—pages 5–8  
**Technical Documents**—page 1

Wire Range		Barrel I.D. Min.	Wire Ins. Dia. Max.	Tongue Thickness Max.	Stripe Color Code	Stud Size	Max. Washer Rad.	Dimensions			Loose Form Part Numbers	
AWG	CMA							W	E Max.	L Max.	Gold	Unplated
8	13,100-20,800	.172 4.37	.252 6.40	.043 1.09	Red	5/16 M8	.500 12.7	.587 14.91	1.246 31.65	1.542 39.17	—	53506-3
						6	20,800-33,100	.224 5.69	.309 7.85	.048 1.22	Blue	1/4 M6

For Design Specification and additional ordering information, contact Tyco Electronics.

### Application Tooling

Loose Form Terminal  
and Splice Tooling  
for Wire Range  
26-10 AWG [0.12-6.0 mm<sup>2</sup>]

#### CERTI-CRIMP Hand Tools



Short Handle Tool



Long Handle Tool



Heavy Head Tool



T-HEAD Tool

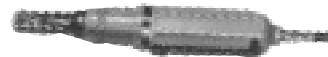
#### Pneumatic Tools



Part Nos.  
69005 & 69010



Part No. 69365



Part No. 46110-2

Note: This tool is not to be used for crimping splices.



AMPLI-PRESS Bench Press  
Part Nos.  
69011 & 69012

Wire Size Range		Hand Tools		Pneumatic Tools		
AWG	mm <sup>2</sup>	Style	Part Number	Part Number	Die Number	Head Number
24-20	0.16-0.65	Short Handle	47907	69365	69342	—
		Long Handle	47907-1	46110-2	69342	—
		T-HEAD Tool	59275	—	—	—
		T-HEAD Tool	59300	—	—	—
26-22	0.1-0.4	Short Handle	48518	69365	69344	—
		Long Handle	46121	—	—	—
		T-HEAD Tool	59275	69005	—	47469
		—	—	—	—	—
26-24 & 22-16	0.1-0.2 & 0.26-1.65	Short Handle	47386-2	69365	47806-2	—
		Long Handle	47386	46110-2	47806-2*	—
		T-HEAD Tool	59250	69011	—	47498
		T-HEAD Tool	59300	69012	—	46283
—	—	—	69005	—	47516	
—	—	—	69010	—	46282	
22-16	0.26-1.65	Long Handle	69151-1**	—	—	—
16-14	1.04-2.62	Short Handle	47387-2	69365	47807-1	—
		Long Handle	69152-1**	46110-2	47807-1*	—
		Long Handle	47387	69011	—	47499
		T-HEAD Tool	59250	69012	—	46285
		—	—	69005	—	47517
—	—	—	69010	—	46284	
16-14 HD	1.04-2.62	Heavy Head	59239-4	69365	47808-6	—
		Heavy Head	69150-1**	69012	—	47500-1
		—	—	69010	—	47518-1
12-10	2.62-6.64	Heavy Head	59239-4	69365	47808-6	—
		Heavy Head	69150-1**	69012	—	47500-1
		—	—	69010	—	47518-1

\*Maximum tongue width of terminals for use with these dies is .469 [11.91] when used in tool 46110-2. Flat tongues only.

\*\*For wires with thin wall insulation.

For Design Specification and additional ordering information, contact Tyco Electronics.

### PIDG Terminal Style

#### DYNA-CRIMP Tooling for Loose Form Terminals, Wire Range 8-2/0 AWG [7-70 mm<sup>2</sup>]

##### Ordering Information:

To insure that all applicable AMP part numbers are specified in your order we recommend that you make your selection in four (4) steps:

1. Select either Electric Hydraulic Tool 69120, Foot Operated Tool 69325-3 or Hand Tool 59974-1.
2. Select a head if using either the Electric Hydraulic or Foot Operated Tools.
3. Select dies from the table on this page.
4. Select Control and Hose Mechanism from Accessories List on page 7 when using 69120.

#### Electric/Hydraulic Power Unit

This unit provides crimping for terminals in the wire range of 8-2/0 AWG [7-70 mm<sup>2</sup>]. Heads and dies are listed in the table below.

##### Part Numbers:

Power Unit Only (Includes pressure release on unit)  
**115 Volts 60 Hz—69120**  
**230 Volts 60 Hz—69120-2**



#### Crimping Heads and Dies for Tools 69120-1, 69325-3 and 59974-1

Wire Size		PLASTI-GRIP Style Terminals	
AWG	mm <sup>2</sup>	Dies for Head 69066	Dies for Head 69051 and 59974-1
8	7-8	48858-1	48752-1 47820* <sup>1</sup>
6	18-15	48859-1	48753-1 47821* <sup>1</sup>
4	21	48860-1	48754-1 47822*
2	34-35	48861-1 47239-1**	48755-1 47823*
1/0	50-60	48756-1 47824 47378-1**	—
2/0	67-70	48757-1 47825	—

<sup>1</sup>No insulation crimp.

<sup>2</sup>Large expansion.

<sup>3</sup>Dies may be used on TERMINYL product.

For Design Specification and additional ordering information, contact Tyco Electronics.

### Application Tooling

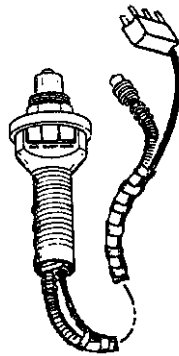
#### Accessory Power Controls and Hoses

Control and hose accessories must be ordered separately.

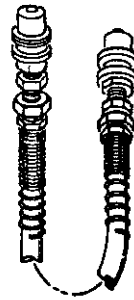
If electric hydraulic tool is to be used in portable applications, a handle control and hose assembly should be used.

For stationary applications, a foot switch assembly and hose assembly will be necessary.

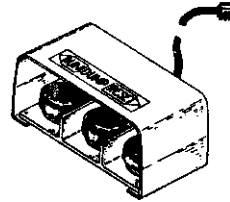
Multidirectional valves are used when more than one crimping head is permanently attached to the tool.



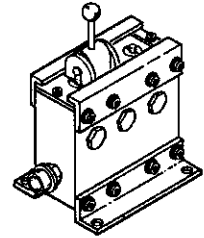
Handle Control



Hose Assembly



Foot Control



Multidirectional Valve

For use with Power Unit No.	Accessory Description	Accessory Part Number	Remarks
69120-1 69120-2	7 ft. [2.13 m] Handle Control Assembly—Hose and Cord	59907-7	
	15 ft. [4.57 m] Handle Control Assembly—Hose and Cord	1-59907-5	
	15 ft. [4.57 m] Handle Control Assembly—Cord (Less Hose)	1-59908-5	
	21 ft. [6.4 m] Handle Control Assembly—Hose and Cord	2-59907-1	
	21 ft. [6.4 m] Handle Control Assembly—Cord (Less Hose)	2-59908-1	
	28 ft. [8.53 m] Handle Control Assembly—Hose and Cord	2-59907-8	
	15 ft. [4.57 m] Foot Switch Assembly	68284-1	Needs Hose Assembly
	3 ft. [0.91 m] Hose Assembly	59909-3	68284-1 Foot Switch Assembly needed with these Hose Assemblies
	7 ft. [2.13 m] Hose Assembly	59909-7	
	15 ft. [4.57 m] Hose Assembly	1-59909-5	
	21 ft. [6.4 m] Hose Assembly	2-59909-1	
69120-1 69120-2	3-Way Multi-Directional Valve	59220	For use with Foot Switch only
	3-Way Multi-Directional Valve (Elec. Control)	59220-2	
	6-Way Multi-Directional Valve	59221	
	6-Way Multi-Directional Valve (Elec. Control)	59221-2	



Hydraulic Hand Tool  
Part No. 59974-1

This unit offers tooling for wire range 8-2 AWG [7-35 mm<sup>2</sup>]. Dies for this tool are listed in the table on page 6 under Head No. 69051.



Foot Operated Tool  
Part No. 69325-3  
(Head, dies and hose not included)

This tool will handle a wire range of 8-4/0 AWG [7-150 mm<sup>2</sup>] and is designed for intermittent service where outside power sources are not available. See table on page 6 for heads and dies.

For Design Specification and additional ordering information, contact Tyco Electronics.



### Application Tooling

#### Tape Form Terminal and Splice Tooling for Wire Range 24-10 AWG [0.2-6 mm<sup>2</sup>]

AMP application tools are designed to produce a carefully controlled, uniform pressure crimp, whether manually or pneumatically powered. All tools feature matching dies that fully "bottom" at the completion of the crimp, resulting in a proper crimp height. These dies are color coded to aid in matching tool to wire size.



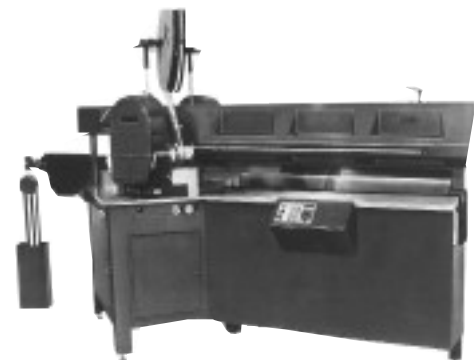
**AMP-TAPETRONIC Machine 69875**  
(Requires Dies)



**AUTO-PRO Machine 818380-1**  
(Requires Applicator and Dies)



**AMP-O-LECTRIC Machine 565435-5**  
(Requires Applicator and Dies)



**AMPOMATOR CLS II Machine 815800-1**  
(Requires Applicator and Dies)

#### Applicators and Dies

Tape Mounted Terminal Dies for 69875 Machine; and Applicators 818057-2\*, 567200-2\*\* and 687658-1\*\*\*

Wire Range		Dies
AWG	mm <sup>2</sup>	
24-20	0.2-0.6	69878
22-16	0.3-1.4	69872
16-14	1.25-2	69873
12-10	3-6	69874

\*For AUTO-PRO machine 818380-1

\*\*For AMP-O-LECTRIC machine 565435-5

\*\*\*For AMPOMATOR machine 815800-1

#### Terminal Packaging

Wire Size		Quantity and Type Package
AWG	mm <sup>2</sup>	
24-14	0.2-2	5,000-Reel (24 [609.6] Dia.)
12-10	3-6	2,500-Reel (24 [609.6] Dia.)

**Note:** Other items can be supplied in tape-mounted form. Consult AMP Incorporated for information on special orders.