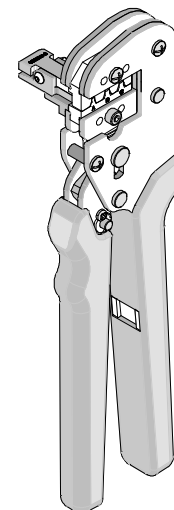




ServiceGrade™ Hand Crimp Tool Specification Sheet Order No. 64016-0205



FEATURES

- A full cycle ratcheting hand tool ensures complete crimps
- Ergonomic soft grip handles for comfortable crimping
- For crimps conforming to WHMA-IPCA620 Class 2, use hand crimp tools 11-01-0185, 63811-3300, and/or 63811-7500.

SCOPE

Products: 0.156" KK™ and 0.062" pin and socket terminals, 18-30 AWG

0.062” Terminals (WHMA-IPCA620 equivalent hand tool: 63811-3300)										
Terminal Series No.	Terminal Order No.				Wire Size		Insulation Diameter		Strip Length	
	Loose Piece		Reel		AWG	mm²	mm	In.	mm	In.
1560	02-06-2103	02-06-6119	02-06-2101	02-06-6118	18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
	02-06-6102	39-00-0327	02-06-6100	39-00-0278						
	02-06-6103	39-00-0330	02-06-6101	39-00-0329						
	02-06-6104									
1561	02-06-1103	02-06-5109	02-06-1101	02-06-5105	18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
	02-06-5102	39-00-0331	02-06-1118	02-06-5108						
	02-06-5103	39-00-0334	02-06-5100	39-00-0279						
	02-06-5104		02-06-5101	39-00-0333						
1786	02-06-2202		02-06-2201		18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
	02-06-6202		02-06-6201							
1787	02-06-1202		02-06-1201	02-06-5201	18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
1799	08-30-0110	08-34-0108	08-30-0109	08-35-0105	18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
	08-34-0106	08-35-0106	08-34-0105							
4529	02-06-1105	02-06-5208	02-06-1104	02-06-5207	18-24	0.82-0.20	1.52-3.05	.060-.120	2.41-3.04	.095-.120
5005	08-70-0042		08-70-0001		18-24	0.82-0.20	1.30-3.00	.051-.118	2.30-2.95	.090-.116
5006	08-70-0043		08-70-0002		18-24	0.82-0.20	1.30-3.00	.051-.118	2.30-2.95	.090-.116

0.062” Terminals (WHMA-IPCA620 equivalent hand tool: 11-01-0185)										
Terminal Series No.	Terminal Order No.				Wire Size		Insulation Diameter		Strip Length	
	Loose Piece		Reel		AWG	mm²	mm	In.	mm	In.
1854	02-06-2132	02-06-6144	02-06-2131	02-06-6143	24-30	0.20-0.05	1.02-2.29	.040-.090	3.17-3.96	.125-.156
	02-06-6135	04-01-0811	02-06-6130	04-01-0809						
	02-06-6136	39-00-0335	02-06-6137	39-00-0280						
	02-06-6139	39-00-0337	02-06-6138	39-00-0336						
1855	02-06-1132	02-06-5148	02-06-1131	02-06-5147	24-30	0.20-0.05	1.02-2.29	.040-.090	3.17-3.96	.125-.156
	02-06-5135	04-01-0812	02-06-1141	04-01-0810						
	02-06-5139	39-00-0339	02-06-1143	39-00-0338						
		39-00-0341	02-06-5130	39-00-0340						
			02-06-5138							

0.156" KK™										
(WHMA-IPCA620 equivalent hand tool: 63811-7500)										
Terminal Series No	Terminal Order No				Wire Size		Insulation Diameter		Strip Length	
	Loose Piece		Reel		AWG	mm²	mm	In.	mm	In.
2477	08-50-0110	08-56-0114	08-50-0109	08-56-0113	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125
2478	08-50-0006	08-55-0134	08-50-0001	08-52-0073	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125
	08-50-0016	08-56-0106	08-50-0014	08-52-0114						
	08-50-0045	08-56-0154	08-50-0015	08-52-0811						
	08-50-0046	08-58-0104	08-50-0047	08-53-0004						
	08-50-0056	08-58-0115	08-50-0055	08-53-0811						
	08-50-0064	08-58-0122	08-50-0063	08-55-0103						
	08-50-0074	08-65-0115	08-50-0073	08-55-0133						
	08-50-0093	39-00-0342	08-50-0091	08-56-0105						
	08-50-0106	39-00-0344	08-50-0105	08-56-0153						
	08-50-0120	39-00-0348	08-50-0119	08-58-0103						
	08-50-0147	39-00-0350	08-50-0146	08-58-0114						
	08-52-0024	40-01-1120	08-50-0271	08-58-0121						
	08-52-0045	50-29-1762	08-50-0281	08-65-0114						
	08-52-0047	50-30-4428	08-51-0001	39-00-0286						
	08-52-0072	50-30-4429	08-51-0720	39-00-0343						
	08-52-0074		08-52-0023	39-00-0347						
	08-52-0115		08-52-0027	39-00-0349						
	08-52-0812		08-52-0044	40-01-1118						
	08-53-0812		08-52-0046	50-29-1689						
	08-55-0104		08-52-0071	50-29-1768						
2878	08-50-0116	08-58-0128	08-50-0115	08-55-0138	18-20	0.80-0.50	1.52-2.79	.060-.110	2.54-3.17	.100-.125
	08-52-0127	08-65-0119	08-51-0109	08-58-0127						
			08-52-0126	08-65-0118						
			08-53-0814							
4838	08-50-0132	08-55-0143	08-50-0131	08-55-0142	18-22	0.80-0.35	1.52-2.41	.060-.095	2.54-3.17	.100-.125
	08-55-0140	08-55-0146	08-55-0125	08-55-0145						
	08-55-0141	08-55-0148	08-55-0139	08-55-0147						
5167	08-70-0013	08-70-1034	08-70-0012		18-24	0.80-0.20	1.39-2.48	.055-.098	2.54-3.17	.100-.125
	08-70-0097									
6438	08-50-0165	08-56-0139	08-50-0164	08-56-0135	18-20	0.80-0.50	1.52-2.41	.060-.095	2.54-3.17	.100-.125
	08-51-0802	08-58-0189	08-51-0801	08-56-0137						
	08-56-0133		08-53-0813							
6838	08-50-0029	08-58-0119	08-50-0024	08-58-0105	18-20	0.80-0.50	1.52-2.79	.060-.110	2.54-3.17	.100-.125
	08-50-0189	08-58-0132	08-50-0026	08-58-0108						
	08-50-0251	08-60-0002	08-50-0028	08-58-0110						
	08-51-0107	50-29-1763	08-50-0187	08-58-0118						
	08-52-0113	50-29-1879	08-50-0275	08-58-0131						
	08-53-1102		08-51-0106	08-58-0187						
	08-58-0106		08-52-0112	08-60-0001						
	08-58-0109		08-53-1101	50-29-1639						
	08-58-0111		08-58-0102							
8818	08-50-0023	08-58-0136	08-50-0008	08-58-0135	18 - 22	0.80-0.35	1.52-2.79	.060-.110	2.54-3.17	.100-.125
	08-50-0706	08-65-0129	08-50-0705	08-65-0128						
	08-52-0132		08-52-0131	40-01-1181						
	08-56-0188		08-56-0187	40-01-1182						
8993	08-50-0276		08-50-0011	08-50-0277	18-24	0.80-0.20	1.39-2.79	.055-.110	2.54-3.17	.100-.125

Crimping Information:

Crimp the terminal and appropriate gauge wire in the specified profile.

Terminal Series No	Wire Size		Pull Force Min. ▼		Tool Crimp Profile		
	AWG	mm ²	N	Lb.	A	B	C
1854, 1855	24	0.20	35.6	8.0			
	26	0.12	22.2	5.0			
	28	0.08	13.3	3.0			
	30	0.05	8.9	2.0			
1560, 1561, 1786, 1787, 4529, 5005, 5006	18	0.82	89	20			
	20	0.52	58	13			
	22	0.32	35.6	8			
	24	0.20	22	5			
1799, 2478, 2878, 4838, 5167, 6438, 6838, 8818, 8993	18	0.82	89	20			
	20	0.52	58	13			
	22	0.32	35.6	8			
	24	0.20	28.9	6.5			

▼ Pull force test samples should not have the wire insulation crimped.

OPERATION

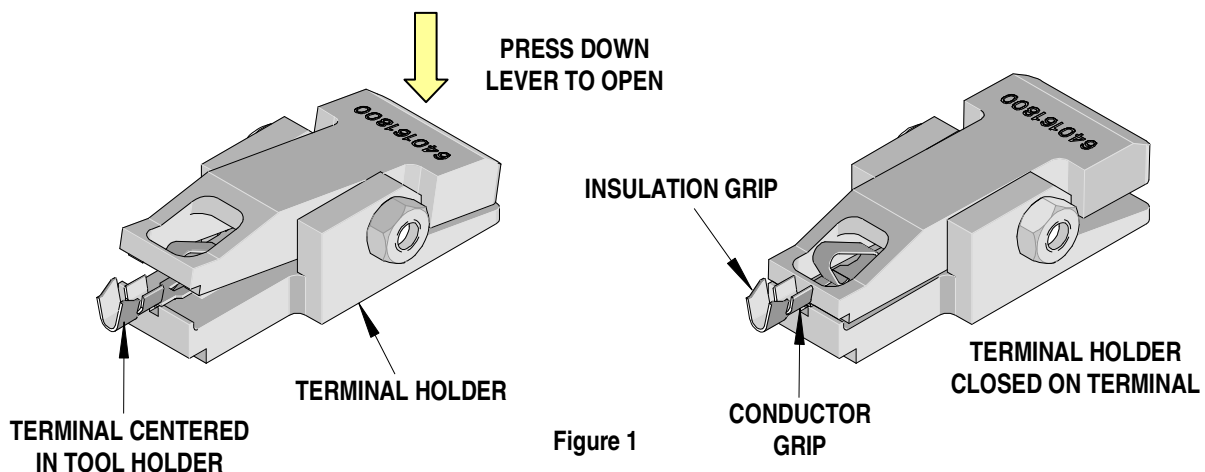
CAUTION: Install only Molex terminals listed above with this tool. Do not crimp hardened objects as damage can occur to the tool or die.

Remove the terminal holder from the tool and set it aside.

Open the hand tool by squeezing the handles together; at the end of the closing stroke the anti-backup ratchet will release. Release the handles and the hand tool will open.

Crimping Terminals

1. Select the desired terminal listed in the preceding charts.
2. Open the terminal holder by pressing down the lever and place the terminal in the holder.



Note: The above illustration is a general representation. Some of the terminals may look different and be held in a different area of the terminal.

3. Release the lever to hold the terminal in place. See Figure 1.
4. Carefully place the terminal holder on the shelf of the hand tool and center the terminal as shown over the appropriate tool crimp profile. See Figure 2.

Note: Some terminals may have a large insulation grip; extra care should be taken when loading these terminals into the tool to avoid terminal damage.

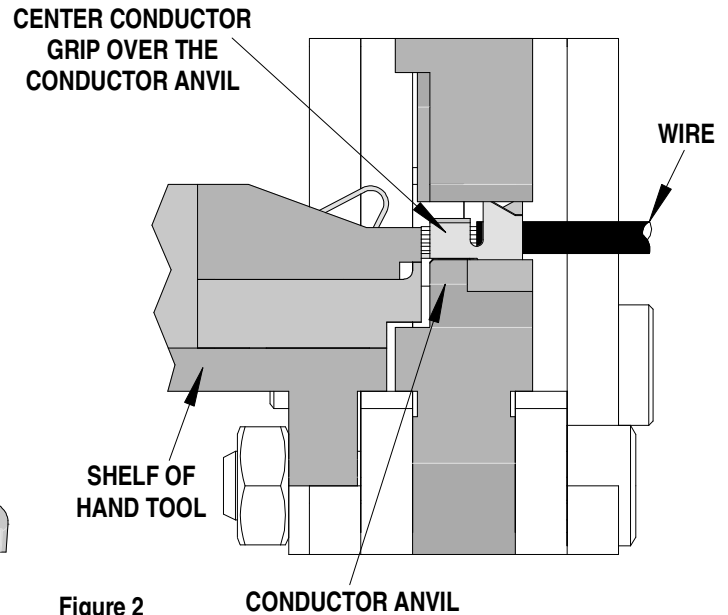
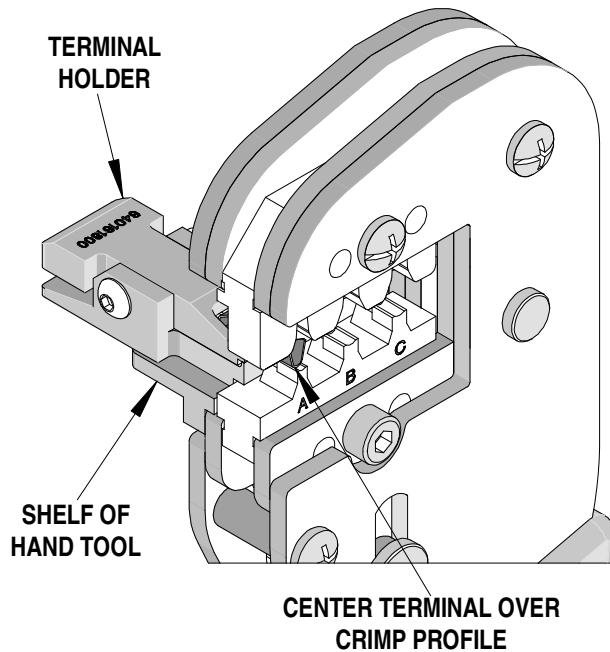


Figure 2

5. Place a pre-stripped wire into the terminal (see Scope chart for recommended strip lengths). Position the wire so the conductor lies in the conductor grip.
6. While holding the wire in place, slowly close the handles of the tool. If excessive resistance is felt, there may be a jam. If this occurs, stop closing the tool and release the anti-backup ratchet by lifting up the lever near the top of the moving handle. See figure 3.
7. Continue to close the tool handles until the anti-backup ratchet releases. Allow the handles to open.
8. Remove the crimped terminal and terminal holder from the tool.
9. Press down the lever on the terminal holder and remove the crimped terminal.
10. Inspect the crimp for loose wire strands, missing crimp, or other damage. Any minor terminal bending may be straightened by hand.

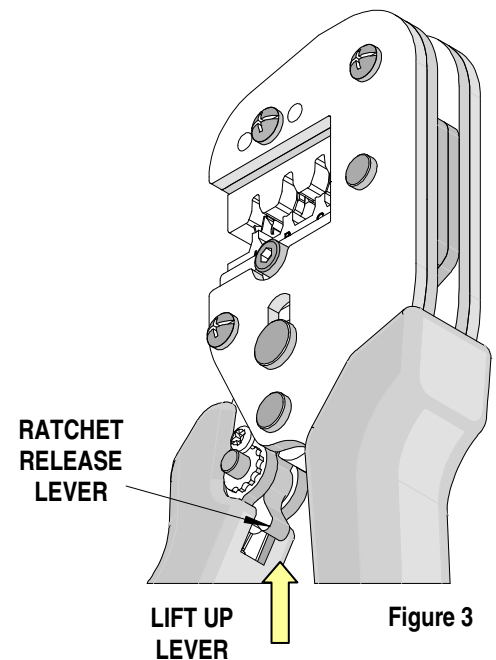


Figure 3

Note:

An occasional, destructive, pull force test with the terminal and wire crimped should be performed to check hand tool crimp. The pull force value must exceed the terminal's minimum pull force specifications listed on page 3. If values do not exceed the minimum pull force when all instructions are followed then a new tool is required.

Maintenance

It is recommended that each operator of the tool be made aware of, and responsible for, the following maintenance steps:

1. Remove dust, moisture, and other contaminants with a clean brush, or soft, lint free cloth.
2. Do not use any abrasive materials that could damage the tool.
3. Make certain all pins; pivot points and bearing surfaces are protected with a thin coat of high quality machine oil. Do not oil excessively. Light oil (such as SAE30W oil) applied at the oil points, shown in Figure 3, every 5,000 crimps or 3 months, is recommended.
4. Wipe excess oil from hand tool, particularly from crimping area. Oil transferred from the crimping area onto certain terminations may affect the electrical characteristics of an application.
5. When tool is not in use, keep the handles closed to prevent objects from becoming lodged in the crimping dies, and store the tool in a clean, dry area.

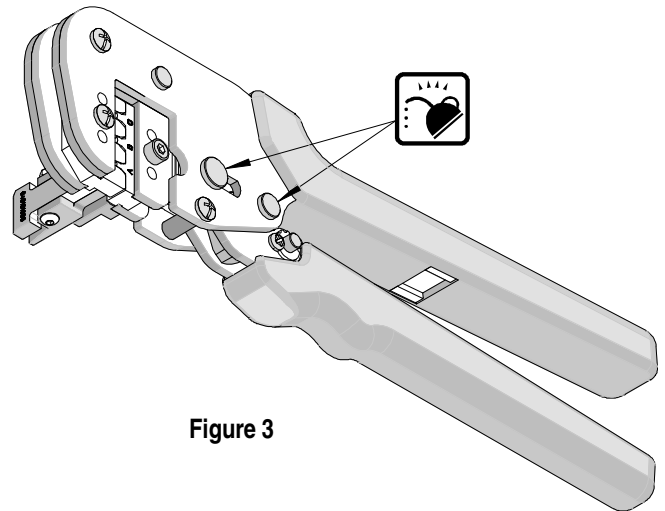


Figure 3

Miscrimps or Jams

If the tool ever becomes jammed in a partially closed position, **DO NOT force the handles open or closed**. The tool will open by lifting the ratchet release lever. See Figure 2.

Tool Handle Preload

Tool handle preload cannot be adjusted.

This hand tool is set to a preload that will fully close the tool jaws without excessive force from the operator. Over the life of the tool the tool linkage can wear and handle preload force may decrease. It is the operator's responsibility to periodically perform a tensile pull test on the crimped wire. If the pull test value falls below specification, the tool should be replaced.

Warranty

This tool is for electrical terminal crimping purposes only. All tools are warranted to be free of manufacturing defects for a period of 30 days. Should such a defect occur, the tool will be exchanged free of charge. This exchange will not be applicable to altered, misused, or damaged tools. This tool is designed for hand use only. Any clamping, fixturing, or use of handle extensions voids this warranty.

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

CAUTIONS:

1. Manually powered hand tools are intended for low volume or field repair. This tool is **NOT** intended for production use. Repetitive use of this tool should be avoided.
2. Insulated rubber handles are not protection against electrical shock. **NEVER** perform crimps on active electrical circuits.
3. Wear eye protection at all times.
4. Use only the Molex terminals specified for crimping with this tool.

Certification

Molex does not certify or re-certify ServiceGrade™ hand tools but rather supplies the following guidelines for customers to maintain their hand tools.

- % This tool is qualified to pull force only. To re-certify, crimp a terminal to a wire, which has been stripped 12.7mm (1/2") long, so there is no crimping of the insulation. Pull the terminal and wire at a rate no faster than 25mm (1.00") per minute. See the Molex web site for the Quality Crimp Handbook for more information on pull testing.
- % When the hand tool is no longer capable of achieving minimum pull force, it should be replaced.

Americas Headquarters
Lisle, Illinois 60532 U.S.A.
1-800-78MOLEX
amerinfo@molex.com

Far East North Headquarters
Yamato, Kanagawa, Japan
81-462-65-2324
feninfo@molex.com

Far East South Headquarters
Jurong, Singapore
65-6-268-6868
fesinfo@molex.com

European Headquarters
Munich, Germany
49-89-413092-0
eurinfo@molex.com

Corporate Headquarters
2222 Wellington Ct.
Lisle, IL 60532 U.S.A.
630-969-4550
Fax: 630-969-1352

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