# APP Anderson Power Products\*

An IDEAL Company

## **1309 Series Crimp Tool** Instructions for Operation & Maintenance

NOTE: Use of non-Anderson Power Products (APP) crimp tools can affect UL & CSA approval. See website for comprehensive application tooling data and the most current versions of documents, including this one.

## **Operating Procedure**

- 1. Strip cable according to manufacturer's specifications.
- 2. Select the appropriate cavity for the contact being crimped per below chart.
- 3. Place contact on lower die with the contact wings or crimp barrel crease facing towards the upper die (See Figure 1). Press the contact fully back into the locator until the wire stops or the crimp barrel end is slightly inside the locator (See Figure 2).
- 4. Close tool carefully until jaws grip the contact.
- 5. Insert the properly stripped wire into the contact.
- Holding the wire in place, close the tool past the ratchet release position and allow the jaws to open. (A ratchet release lever is provided to allow removal of an incorrectly placed or oversized contact).
- 7. Remove and inspect the crimp. There should not be any noticeable distortion in the angle of the contact blade (See Figure 3).
- 8. Test by holding contact and pulling firmly on cable.

Tooling		Wire Size	Pullout Values (lbs)**	
Part Number	Contacts	AWG(mm²)	(per UL standard 486A)	<b>Tool Cavities</b>
1309G1 *	1202G1	#14-16 (2.5-1.5)	50-30	А
	1203G1	#14-16 (2.5-1.5)	50-30	A
1309G2	1331	#12-16 (4.0-1.5)	70-30	30
	1332	#16-20 (1.5-0.5)	30-13	15
	262G1-LPBK	#16-20 (1.5-0.5)	30-13	15
	200G2L-LPBK	#16-20 (1.5-0.5)	30-13	15
	269G2-LPBK	#16-20 (1.5-0.5)	30-13	15
1309G3	261G1-LPBK	#12-14-16 (4.0-2.5-1.5)	70-50-30	A
	261G2-LPBK	#14-16 (2.5-1.5)	50-30	A
	261G2-LPBK	#10-14 (6.0-2.5)	80-70	В
	269G1-LPBK	#12-16 (4.0-1.5)	70-30	A
	269G3-LPBK	#10-14 (6.0-2.5)	80-50	А
1309G4*	1307	#6 (16.0)	100	Large
	5900	#6 (16.0)	100	Large
	5914	#10-12 (6.0-4.0)	80-70	Small
	5915	#10-12 (6.0-4.0)	80-70	Large
	5952	#8 (10.0)	90	Large
	903G1	#6 (16.0)	100	Large
	904G1	#10-12 (6.0-4.0)	80-70	Large
	1339G2	#6 (16)	100	Large
	1339G3	#10-12 (6-4)	80-70	Large
	1339G5	#8 (10)	90	Large
1309G5 / G6	200G1L-LPBK	6mm, #10-14	80, 80-50	В
	201G1H-LPBK	6mm, #10-14	80, 80-50	В
1309G6	1830G1-LPBK	6mm, #10-14	80, 80-50	В
1309G9	2003G1-LPBK	#12 (4.0)	70	Large
	2003G1-LPBK	#14, 16, 18 (2.5 - 1.5)	50, 30, 20	Small
1309G10***	2003G2-LPBK	#12 (4.0)	70	Front
	2003G2-LPBK	#10 (60)	80	Rear

\* No locator

\*\* Anderson Power Products' (APP) crimp recommendations are only recommendations and are based on the specific wire used by APP in APP specific testing. Wire will vary by type, material, class, and manufacturer's rating & specifications. APP crimp recommendations are intended to be used as a guide towards achieving UL & CSA compliant crimps that enable the best performance of our connector systems. It is incumbent upon those assembling / manufacturing with APP connectors to perform pull-out strength, mV drop, and other testing as needed to ensure that crimps meet the customer specific requirements.

\*\*\* Should only be used with 2003G2-LPBK contacts.



#### \* Open Barrel Contact









Correct

Closed Barrel Contact

To far out from





Correct

Not Correct

Figure 2



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#### **Tool Maintenance**

- 1. Maintenance and inspection should be performed regularly.
- 2. Verify the tool preload force to ensure it is properly calibrated. See "How to Adjust Tool Preload".
- 3. Check the locator tension to ensure it is properly calibrated (Not applicable for 1309G4 or 1309G1). See "How to Adjust Locator Tension".
- 4. Wipe tool clean with special emphasis on the crimping cavities.
- 5. Tool may be cleaned by immersing in a suitable commercial solvent or cleaner which does not attack plastic material or paints.
- 6. Lubricate tool after cleaning using a light film of medium weight oil on moving parts.
- 7. A light coating of lithium grease may be used on die cavities.
- 8. When not in use, keep handles closed, but without significant force on the dies. Store in a clean dry area.

#### How to Adjust Tool Preload

- 1. Measure current tool preload force by placing the end of one of the handles on a scale and pushing the other grip until the ratchet releases. The amount of force should be measured 1 3/4 inches from handle end as shown (See Figure 4).
- 2. To adjust tool to obtain proper force values, open the handles and remove the cam locking screw with the hex key wrench (See Figure 5).
- 3. Rotate the cam clockwise to increase handle load or counterclockwise to decrease handle load.
- 4. Position odd numbers on the cam in the locking screw hole adjacent to the letter "L" and even numbers adjacent to the letter "T".
- 5. Lock the cam at the desired handle load setting by inserting the locking screw and remeasure the force. Continue adjustment if necessary.

Proper Force Values: 1309G1-1309G6 (25 lbs. min) 1309G9-10 (55 lbs. min)

### How to Adjust Locator Tension

- 1. Using 9 mm or 11/32" wrench, tighten the nut on the locator stud until it bottoms out (do not over torque or the locator may crack).
- 2. LOOSEN THE NUT ONE COMPLETE TURN. This is required for correct tool operation.

NOTE: Distortion of the contacts can occur if the locator is not adjusted properly so that it is allowed to move. There should not be any noticeable distortion in the angle of the contact blade after crimping (See Figure 3).

## **Replacing Dies and Locators**

#### Disassemble

- Inspect tool frame to ensure good mechanical condition. If not in good condition then 1. replace entire tool.
- 2 Remove the nut, wavy washer and locator.
- Unscrew the top and bottom die screws. 3.
- 4 Remove the dies from the frame. The tool can now be assembled with a different dieset configuration.

#### Reassemble

- Assemble the desired die in the top position with the supplied short screw. 1. (See Figure 7)
- Place the bottom anvil die in the frame. (See Figure 7) 2.
- 3. Tighten the screws until they bottom on the frame and loosen 1/2 turn.
- Place the locator, wavy washer and nut on the screw; in that order. 4. (See Figure 6 & Figure 8)
- 5. Follow steps under "How to Adjust Locator Tension".
- Follow steps under "How to Adjust Tool Preload". If tool is no longer able to provide "Proper 7. Figure 8 Force Values" then replace the entire tool.

All tools except 1309G9-10: Apply torque as shown until ratchet releases. The force at a point 1-3/4" from handle end should be 25 pounds minimum for most crimping situations For the 1309G9-10 set at 55 pounds minimum.













Figure 7



#### For additional updates see APP website

All Data Subject To Change Without Notice

#### 15882 1S6373 REV 14

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