

PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.

Crimping Dies 576711, 576714, 576715, 576716, 576720, 576723, 576742

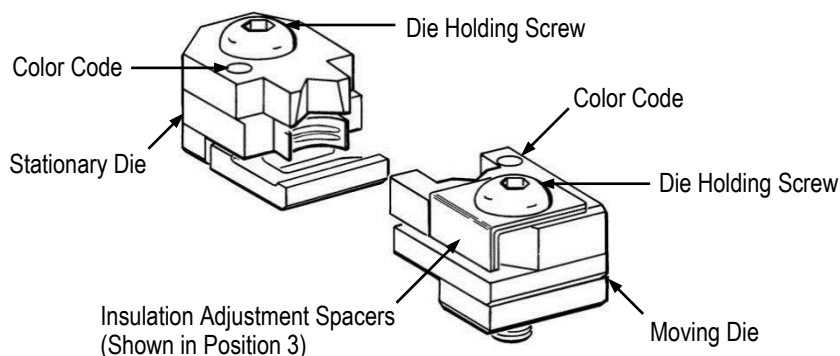


Figure 1

1. INTRODUCTION

The terminal crimping dies listed in Figure 1 are designed to be used with hand tool 69710-1 to crimp PIDG STRATO-THERM terminals onto wire sizes 24 through 10 AWG. Refer to instruction sheet [408-2095](#) for information concerning the hand tool. For other compatible tooling, call the number at the bottom of this page.

Reasons for re-issue of this instruction sheet are provided in Section 7, REVISION SUMMARY.

2. DIE INSTALLATION AND REMOVAL

1. Position the stationary die in the stationary die holder and the moving die in the moving die holder of the tool. Turn each die holding screw just enough to hold the dies in place. Do not tighten the screws.
2. Position a terminal and wire in the dies as described in steps 1 through 3 of Section 3, then close the tool handles until the dies bottom.
3. Tighten both the die holding screws while dies are bottomed.



NOTE

Check die alignment and tighten the die holding screws at least twice daily.

4. Continue to close the tool handles until the ratchet control releases. Allow the handles to open, then remove the terminal.
5. To remove the dies, loosen the die holding screws.

3. CRIMPING

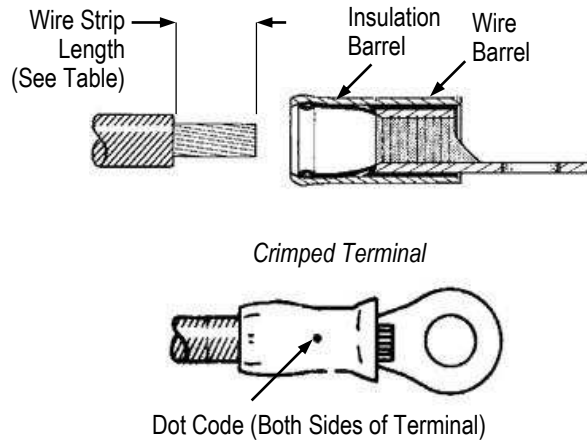
1. Strip the wire to the dimension provided in Figure 2.
2. Place the terminal in the stationary die as shown in Figure 3, then close the tool handles until the terminal is held firmly in place.



NOTE

These dies will not accommodate a terminal having a tongue width exceeding 11.91 mm [.469 in.].

3. Insert the stripped wire into the terminal insulation barrel until the wire butts against the locator.



DIE		CRIMPED TERMINAL DOT CODE	WIRE	
PN	COLOR CODE		SIZE (AWG)	STRIP LENGTH (mm [in.])
576711	Brown	2	24-22	5.56-6.35 [.219-.250]
576720	Gray	1	20	
576715	Orange	2	18	
576714	Orange	1	16	
576716	White	2	14	
576742	White	1	12	7.62-8.38 [.300-.330]
576723	Black	1	10	

Figure 2

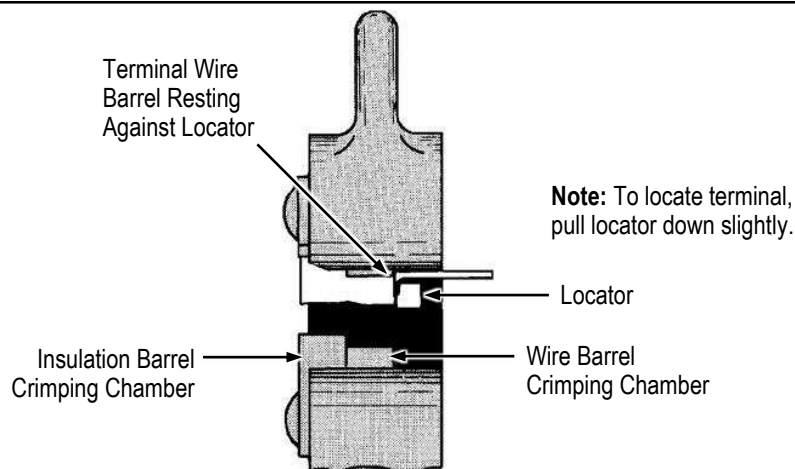


Figure 3

- Close the tool handles until the ratchet control releases. Allow the handles to open, then remove the terminal.
- Inspect the crimped terminal for the dot code on both sides of the terminal according to Figure 2.


CAUTION

Do not use damaged terminals. If a damage is evident, the terminal should be cut from the wire and replaced with a new one. Do not re-terminate a terminal.

4. INSULATION CRIMP ADJUSTMENT

- Remove the moving die from the tool.
- Turn both insulation crimp adjustment spacers so that they fit into the notch in the side of the moving die for position 3—loose. See Figure 1.
- Insert the moving die into the moving die holder.
- Turn the die holding screw enough to hold the moving die firmly in place. Do not tighten the screw.
- Insert an unstripped wire into only the insulation barrel of the terminal.
- Position the terminal in the dies as shown in Figure 3, then close the tool handles until the dies bottom.

7. Tighten the die holding screw while the moving die is bottomed, then complete the crimping cycle.
8. Remove the terminal from the dies, and check the insulation grip by bending the wire back and forth once. The terminal should retain the grip on the wire insulation. If the wire pulls out, set the insulation crimp adjustment to the next position as follows:
 - a. Remove the moving die from the tool.
 - b. Turn the bottom insulation adjustment spacer 90 degrees so that it fits between the moving die and the moving die holder for position 2—medium. For position 1—tight, place both adjustment spacers between the moving die and the moving die holder.
 - c. Repeat the test crimp, and adjust as necessary until the desired insulation crimp grip is obtained.

5. MAINTENANCE AND INSPECTION

Frequency of an inspection depends on: (1) the care, amount of use, and handling of the dies, (2) type and size of terminal applied, (3) degree of operator skill, (4) presence of abnormal amounts of dust and dirt, and (5) established standards.

5.1. Cleaning

Do not allow deposits of dirt, grease, and foreign matter to accumulate in the die closure area and on the bottoming surfaces of the dies. These deposits may prevent the dies from bottoming fully and may also cause excessive wear in the die closure surfaces, thereby affecting the quality of the crimp. The dies should be wiped clean frequently with a clean, soft cloth.

5.2. Visual Inspection

Visually inspect the die closure surfaces for broken, chipped, and pitted surfaces. Although dies may gage within permissible limits, worn or damaged die closure surfaces are objectionable and can affect the quality of the crimp.

5.3. Die Closure Inspection

Inspect the die closure using two plug gages. Refer to Figure 4 for recommended plug gage design, then proceed as follows:

1. Remove traces of oil or dirt from the die crimping areas and plug gage members.
2. Turn both insulation adjustment spacers of the moving die so that they fit into the notch in the side of the die (position 3—loose). See Figure 1.
3. Insert both dies in the tool.



NOTE

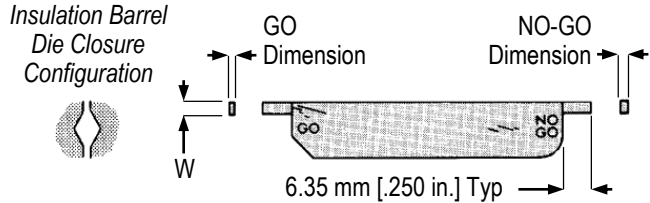
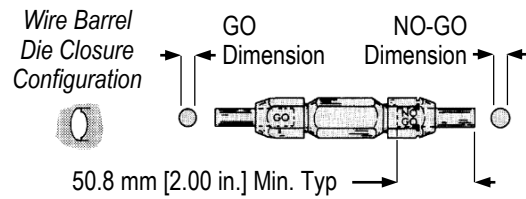
Some dies prevent gaging the wire barrel crimping chamber when in the tool. Remove the dies, rotate the locator 180 degrees, and place the dies in a vise using light pressure.

4. When using pneumatic tools, reduce air supply pressure to a range between 103 and 138 kPa [15 and 20 psi]. Actuate the tool to bottom the dies.

When using the hand tool, close the tool handles until the dies bottom. Do not apply additional pressure to the tool handles.
5. With the dies bottomed, hold the GO member in a straight alignment with the wire barrel crimping chamber and carefully insert it without forcing it. The GO member must pass completely through the wire barrel crimping chamber. Do the same with NO-GO member. The NO-GO member may enter partially, but must not pass completely through the wire barrel crimping chamber. See Figure 4.
6. Re-position the insulation adjustment spacers to position 1.
7. With the dies bottomed, check the insulation barrel crimping chamber using the plug gage in the same manner as step 5. See Figure 4.

If both crimping chambers meet the plug gage conditions, the dies are dimensionally correct. If either crimping chamber does not conform, contact TE.

Recommended Plug Gage Design



DIES	WIRE BARREL PLUG GAGE (mm [in.])		INSULATION BARREL PLUG GAGE (mm [in.])			
	GO	NO-GO	GO	NO-GO	W (Width)	
576711	2.591-2.598 [.1020-.1023]	2.690-2.692 [.1059-.1060]	0.813-0.820 [.0320-.0323]	1.217-1.219 [.0479-.0480]	4.06 [.160]	
576720	2.591-2.598 [.1020-.1023]	2.690-2.692 [.1059-.1060]	1.067-1.074 [.0420-.0423]	1.471-1.473 [.0579-.0580]	4.39 [.173]	
576715	3.048-3.056 [.1200-.1203]	3.147-3.150 [.1239-.1240]	0.940-0.947 [.0370-.0373]	1.344-1.346 [.0529-.0530]	5.89 [.232]	
576714	3.124-3.132 [.1230-.1233]	3.223-3.226 [.1269-.1270]	0.940-0.947 [.0370-.0373]	1.344-1.346 [.0529-.0530]	5.89 [.232]	
576716	3.327-3.335 [.1310-.1313]	3.426-3.429 [.1349-.1350]	1.067-1.074 [.0420-.0423]	1.471-1.473 [.0579-.0580]	6.63 [.261]	
576742	3.683-3.691 [.1450-.1453]	3.782-3.785 [.1489-.1490]	1.067-1.074 [.0420-.0423]	1.471-1.473 [.0579-.0580]	6.63 [.261]	
576723	4.775-4.783 [.1880-.1883]	4.874-4.877 [.1919-.1920]	1.676-1.684 [.0660-.0663]	2.080-2.083 [.0819-.0820]	8.43 [.332]	

Inspection

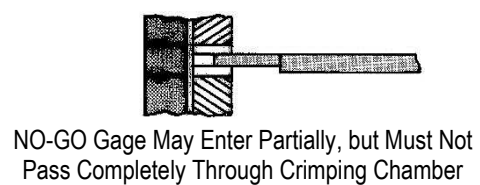
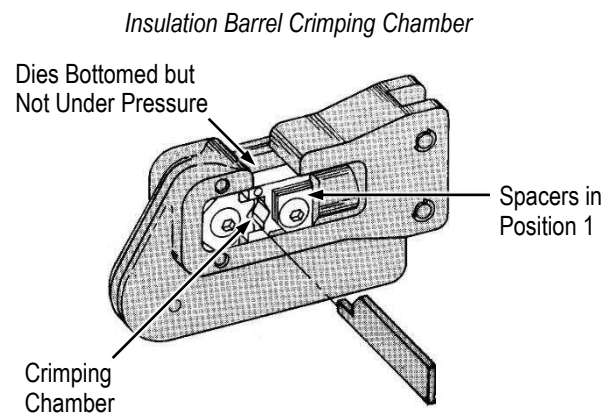
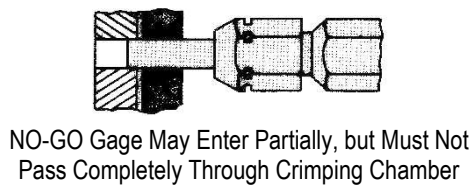
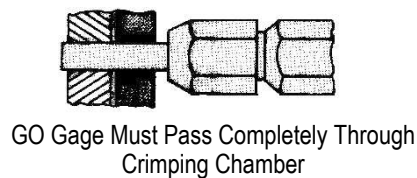
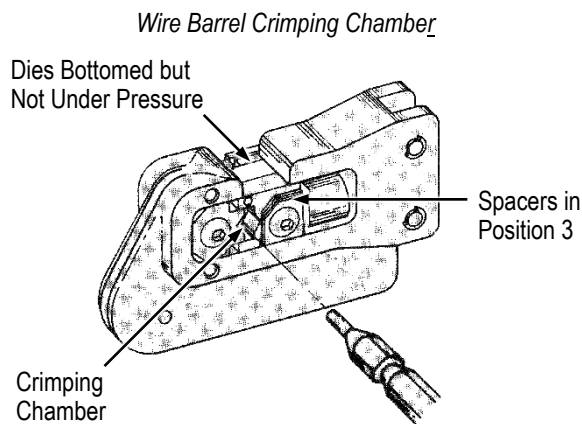
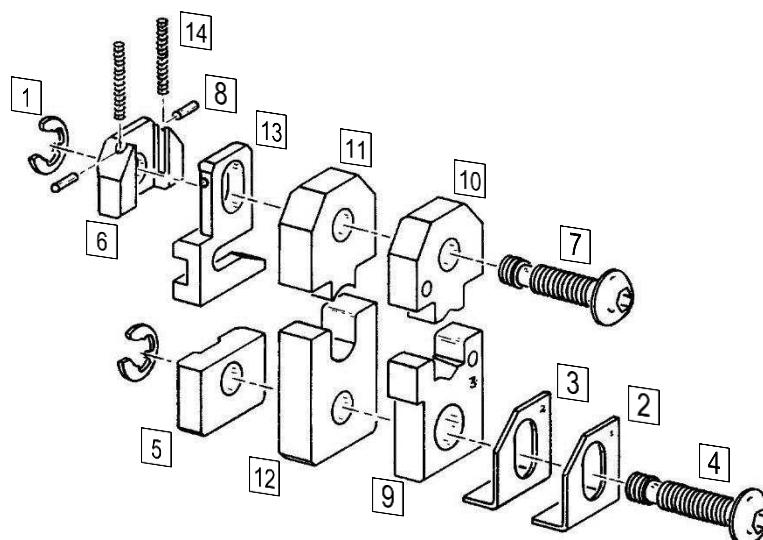


Figure 4

6. REPLACEMENT AND REPAIR

Customer-replaceable parts are given in Figure 5. To return dies for evaluation and repair, call 1-800-526-5136.



ITEM	DESCRIPTION	DIES							QTY PER DIE
		576711	576714	576715	576716	576720	576723	576742	
1	RING, Retaining	1-21046-3	1-21046-3	1-21046-3	1-21046-3	1-21046-3	1-21046-3	1-21046-3	2
2	SPACER	1-306027-5	306027-6	306027-6	306027-6	1-306027-5	306027-9	306027-6	1
3	SPACER	1-306027-6	306027-7	306027-7	306027-7	1-306027-6	1-306027-0	306027-7	1
4	SCREW, Special	1-306131-6	1-306105-1	1-306105-1	1-306105-1	1-306131-6	2-306131-3	1-306105-1	1
5	SPACER	2-305832-8	2-305832-8	2-305832-8	2-305832-8	2-305832-8	2-305832-8	2-305832-8	1
6	SPACER, Locator	2-305832-9	2-305832-9	2-305832-9	2-305832-9	2-305832-9	2-305832-9	2-305832-9	1
7	SCREW, Special	2-306131-1	1-306131-6	1-306131-6	1-306131-6	2-306131-1	3-306131-4	1-306131-6	1
8	PIN, Coiled	21949-1	21949-1	21949-1	21949-1	21949-1	21949-1	21949-1	2
9	INDENTER, Insulation	576712-1	576712-2	2-45931-2	2-45931-3	576712-3	2-45931-4	2-45931-3	1
10	ANVIL, Insulation	576713-1	576713-2	576713-4	1-45932-8	576713-3	1-45932-9	1-45932-8	1
11	ANVIL	576718-7	576718-8	576718-1	576718-2	576718-5	576718-4	576718-6	1
12	INDENTER, Barrel	576719-8	576719-7	576719-1	576719-2	576719-5	576719-4	576719-6	1
13	LOCATOR	576771-1	576771-1	576771-1	576771-1	576771-1	576771-5	576771-1	1
14	SPRING, Compression	7-59683-4	7-59683-4	7-59683-4	7-59683-4	7-59683-4	7-59683-4	7-59683-4	2

Figure 5

7. REVISION SUMMARY

Revisions to this instruction sheet include:

- Changed company name and logo
- Corrected errors in Figure 5 and incorporated new TE logo