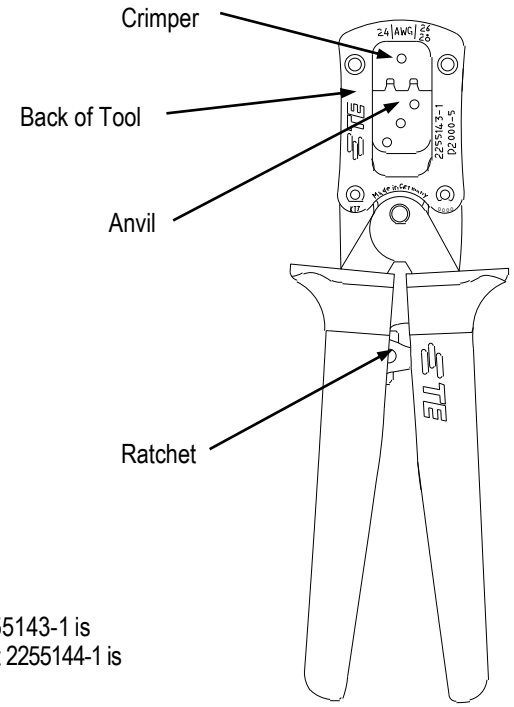
ORIGINAL INSTRUCTIONS

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.



NOTE: 2255143-1 is Shown, but 2255144-1 is Similar

Figure 1

1. INTRODUCTION

This instruction sheet covers the use of TE Connectivity Hand Crimping Straight Action Hand Tools (SAHT) 2255143-1 and 2255144-1 with flip locators which crimp D2000 Dynamic Series contacts listed in Figure 2.

NOTE
Dimensions are in metric units with [inches in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Read these instructions thoroughly before crimping any contacts.

2. DESCRIPTION (Figure 1 and Figure 3)

The FRONT OF TOOL (contact side), is where the contact is inserted. The BACK OF TOOL (wire side), is where the wire is inserted and has the wire size markings above each crimp section.

Each tool features a fixed die (crimper), a movable die (anvil), two crimp sections with applicable wire size markings, a flip locator, a wire stop, and a ratchet release lever.

Once engaged, the ratchet will not release until the handles have been FULLY closed.

CAUTION
The ratchet ensures full crimping of the contact. This is a design feature that ensues maximum electrical and tensile performance of the crimp. Do NOT readjust the ratchet.

The flip locator positions the contact in the crimping die, and the wire stop aids in locating the wire in the contact. In use, it rests in the transition area of the connector. See Figure 1 and Figure 3

© 2015 TE Connectivity family of companies
All Rights Reserved
*Trademark

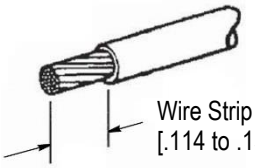
TE Connectivity, TE connectivity (logo), and TE (logo) are trademarks. Other logos, product, and/or company names may be trademarks of their respective owners.

The flip locator prevents the contact from bending during the crimping procedure.

The ratchet release lever enables the user to open the partially closed tool handles when necessary.

The ratchet is used to control the crimp height of the terminal's wire barrel and ensures full crimping of the terminal.

The ratchet is used to control the crimp height of the terminal's wire barrel and ensures full crimping of the terminal.



WIRE SIZE (AWG)	CONTACT		CRIMP SECTION (WIRE SIZE MARKING)	HAND TOOL
28-26	S	1318108-1	28-26	2255143-1
24		1318112-1	24	
22-20	M	1318107-1	22-20	2255144-1
18		1318111-1	18	

Figure 2

3. CRIMPING PROCEDURE

Refer to the table in Figure 2 and ensure compatibility between the wire, contact, and crimping tool. Wire size must be within the specified range for the contact. Strip the wire to the length indicated.

CAUTION
Do NOT cut or nick the wire strands.

The hand crimping tool must be the one designed for crimping the wire and contact. Identify the appropriate crimp section (according to the wire size markings on the BACK of the tool).

Refer to Figure 3 and proceed as follows:

1. Hold tool so BACK (wire side) is facing you.
2. Make sure the ratchet is released by squeezing the tool handles and allowing them to open FULLY.
3. Open flip locator. Insert contact into the flip locator (make sure contact is inserted properly).
4. Close flip locator.
5. Pre-close the handles slightly, and insert the wire into the contact.
6. Close the handles until the automatic ratchet releases.
7. Open flip locator. Take wire with contact out of locator.

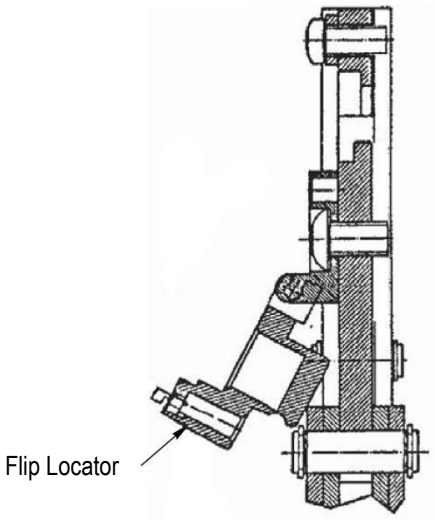


Figure 3

4. TOOL CERTIFICATION

These instructions have been approved by TE Design, Production, and Quality Control Engineers to provide documented maintenance and inspection procedures.

Through TE test laboratories and the inspection of production assembly, the procedures described herein have been established to ensure quality and reliability of TE hand crimping tools.

5. INSPECTION PROCEDURES

5.1. Daily Maintenance

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

1. Remove dust, moisture, and other contaminants with a clean brush, or a soft lint-free cloth. Do NOT use objects that could damage the tool.
2. Make sure the proper retaining pins are in place and secured with the proper retaining rings.
3. Make certain all pins, pivot points, and bearing surfaces are protected with a THIN coat of any good SAE No. 20 motor oil. Do NOT oil excessively.
4. When the tool is not is use, keep the handles closed to prevent objects from becoming lodged in the crimping dies and store the tool in a clean dry area.

5.2. Periodic Inspection

Regular inspections should be performed by quality control personnel. A record of scheduled inspections should remain with the tool and/or be supplied to supervisory personnel responsible for the tool. Through recommendations call for at least one inspection a month, the inspection frequency should be based on the amount of use, ambient working conditions, operator training and skill, and established company standards. These inspections should be performed in the following sequence:

A. Visual Inspection

1. Remove all lubrication and accumulated film by immersing the tool (handles partially closed) in a suitable commercial degreaser that will not affect paint or plastic material.
2. Make certain all retaining pins are in place and secured with retaining ring.
3. Close the tool handles until the ratchet releases, then allow handles to open freely. If they do not open quickly and fully, return the tool to TE for evaluation and repair.

Inspect the head assembly with special emphasis on checking for worn, cracked, or broken die. If damage to any part of the head assembly is evident, return the tool to TE for evaluation and repair.

B. Crimp Height Inspection

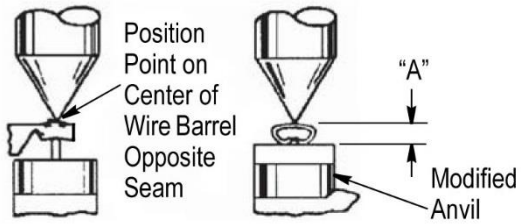
This inspection requires the use of a micrometer with a modified anvil as shown in Figure 4.

Proceed as follows:

Refer to the table in Figure 4 and select a contact and a wire (maximum size) for each crimp section listed in the table.

1. Refer to Section 3, CRIMPING PROCEDURE and crimp the contact(s) accordingly.
2. Using a crimp height comparator, measure the wire barrel height as shown in Figure 4. If the crimp height conforms to that shown in the table, the tool is considered dimensionally correct. If not, return the tool to TE for evaluation and repair.

TE does not market crimp height comparators. Refer to Instruction Sheet 408-7424 for detailed information on obtaining and using a crimp height comparator.



HAND TOOL	CONTACT		CRIMP SECTION (WIRE SIZE MARKING)	CRIMP HEIGHT DIMENSION "A"
2255143-1	S	1318108-1 1318112-1	28-26	0.64 ±0.06 [.025 ±.002]
			24	0.705 ±0.065 [.0277 ±.0025]
2255144-1	M	1318107-1 1318111-1	22-20	0.95 ±0.08 [.037 ±.003]
			18	1.15 ±0.09 [.045 ±.003]

Figure 4

6. REVISION SUMMARY

- Changed format.