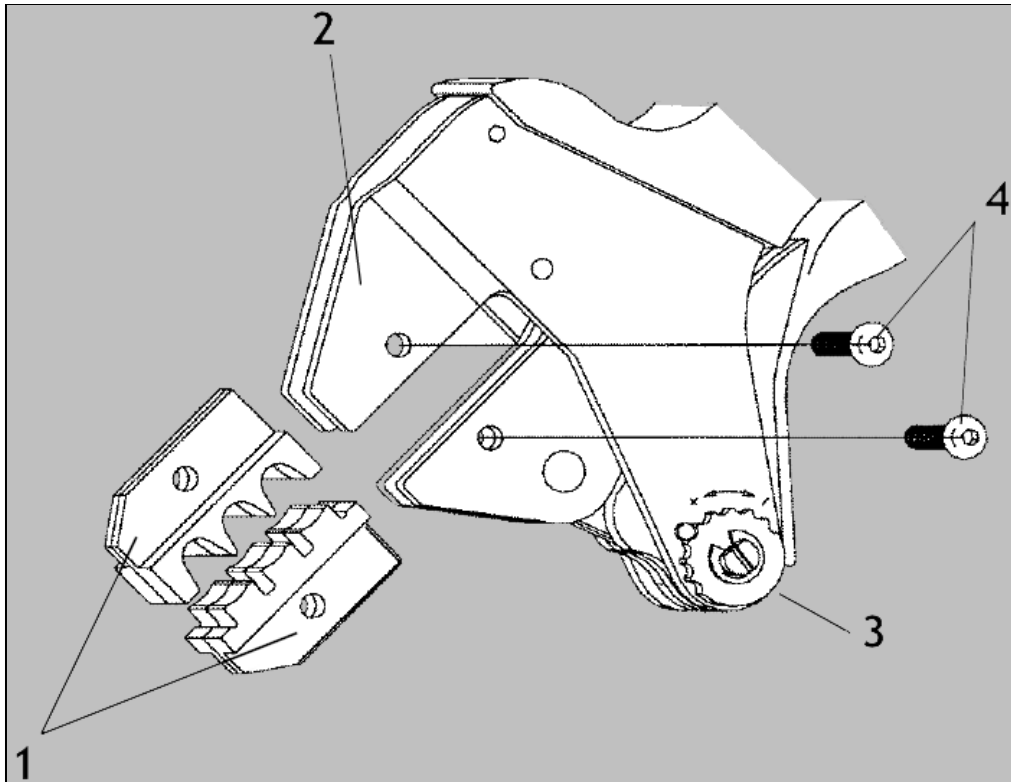


Proper use guidelines

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 is available for extended-use production operations. The Ergocrimp hand tool is a commercial-grade tool. Product crimped with this tool meets the wire barrel crimp height requirement for hand tools in the appropriate 114 application specification but might not comply with other feature parameters of the specification.

Figure 1: Ergocrimp Commercial Die Assembly 1-1105652-8



- 1** Die set 1-1105652-8
- 2** Ergocrimp Frame 539635-1
- 3** Ratchet adjustment wheel
- 4** Die-retaining screws

1. Introduction

ERGOCRIMP crimp Commercial Hand Tool Assembly 1-1105652-8 for the HSS industrial power connectors is the tool and die set shown in Figure 1. The tool consists of the ERGOCRIMP Crimp Frame Assembly 539635-1 (instruction sheet [408-35143](#)) and the die assembly listed in Figure 1. This tool is used to crimp the connector part numbers listed in Table 1.

Table 1: Crimping specifications

Die Assembly	Terminals	Wire Size mm ²	Strip Length mm
1-1105652-8	3-1105150-1 3-1105150-2 3-1105151-1 3-1105151-2	6	12
	6-1105150-1 6-1105151-1	25	



NOTE

Dimensions in this instruction sheet are in millimeters with [inches in brackets]. Figures are for reference only and are not drawn to scale.

Read these instructions thoroughly before crimping connectors.

2. Description

The tool frame features two jaws, a handle, a ratchet adjustment wheel, and an emergency ratchet release. The die set consists of a crimper (upper die) and an anvil (lower die). The tool frame holds a die assembly with two crimping chambers. Two SCR Mach M4x14.0 die-retaining screws are used to secure the dies in the tool frame.

The tool features a ratchet and an adjustment wheel with a range of settings. The ratchet ensures that the tool has completed the cycle and does not release until the handles have been **fully** closed, unless the emergency ratchet release is rotated to manually release the ratchet. The adjustment wheel controls the amount of handle pressure exerted on the dies during the crimping procedure.



CAUTION

The dies bottom before the ratchet releases. This design feature ensures maximum electrical and tensile performance of the crimp. **Do not** re-adjust the ratchet unless you have verified that the crimp height is incorrect (see section 7, *Adjusting the ratchet*) (see section 7, **Adjusting the ratchet**).

3. Installing the die.

1. Open the tool handles.
2. Remove the two die-retaining screws from the tool jaws (see Figure 1).
3. Insert the lower hex die in the moving jaw of the tool frame with the chamfered side and the marked surface facing outward.
4. Insert one die-retaining screw through the jaw and through the lower hex die. Tighten the screw just enough to hold the die in place. Do not tighten the screw completely.
5. Insert the upper hex die in the stationary jaw of the tool frame with the chamfered side and the marked surface facing outward.
6. Insert the other die-retaining screw through the jaw and through the upper hex die. Tighten the screw just enough to hold the die in place. Do not tighten the screw completely.
7. Carefully close the tool handles, making sure the lower and upper dies align properly. Continue closing the tool handles until the ratchet in the tool frame has engaged sufficiently to hold the dies in place.
8. Tighten both die-retaining screws.

4. Removing the die set.

1. Close the tool handles until the ratchet releases.
2. Remove the two die-retaining screws.
3. Slide the dies out of the tool jaws.

**NOTE**

The ratchet release has detents with audible clicks as the handles are closed. The ratchet releases on the sixth click.

5. Crimping

**NOTE**

*The tool is provided with a crimp adjustment feature. Initially, the crimp height should be verified as specified in Figure 3. Refer to section 6, **Inspecting the crimp height**, and section 7, **Adjusting the ratchet**, to verify crimp height before using the tool.*

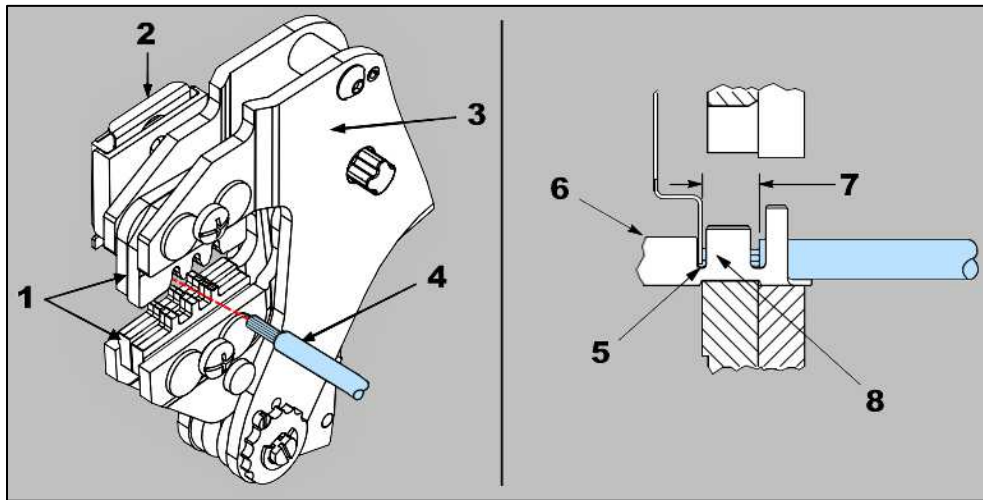
1. Select a wire of the correct size and insulation diameter for the terminal (see Table 1).
2. Strip the wire to the length listed in Table 1. **Do not nick or cut wire strands.**
3. Select an applicable contact and identify the appropriate crimp section according to the wire size markings on the tool.
4. Hold the tool so that the back (wire side) is facing you. (See Figure 2.) Squeeze the tool handles together and allow them to open fully.
5. While holding the contact by the mating end, insert the contact through the front of the tool and into the appropriate crimp section.
6. Position the contact so that the U of the wire barrel faces the top of the tool.
7. Insert the contact up into the nest so that the wire barrel butts against the spring-loaded locator.

**CAUTION**

*Make sure that both sides of the wire barrel are started evenly into the crimping section. **Do not** attempt to crimp an improperly positioned contact).*

8. Close the handles of the tool until the contact is lightly held by the die set but is not deformed to the point where the wire cannot enter freely.
9. Insert the wire into the crimp barrel of the contact until it butts against the spring-loaded locator.
10. While holding the wire in place, fully cycle the tool until the ratchet releases and allows the handle to open.

Figure 2: Locator



- | | | | |
|---|-----------------------------------|---|---------------------------|
| 1 | Die assembly (for reference only) | 5 | Locator in wire stop slot |
| 2 | Locator | 6 | Contact (typical) |
| 3 | Back of tool (wire side) | 7 | Strip length |
| 4 | Wire | 8 | Wire inserted to stop |

6. Inspecting the crimp height

Crimp height inspection is performed using a micrometer with a modified anvil, commonly referred to as a crimp-height comparator. TE Connectivity does not manufacture or market crimp height comparators. Detailed information on obtaining and using crimp-height comparators can be found in instruction sheet [408-7424](#).

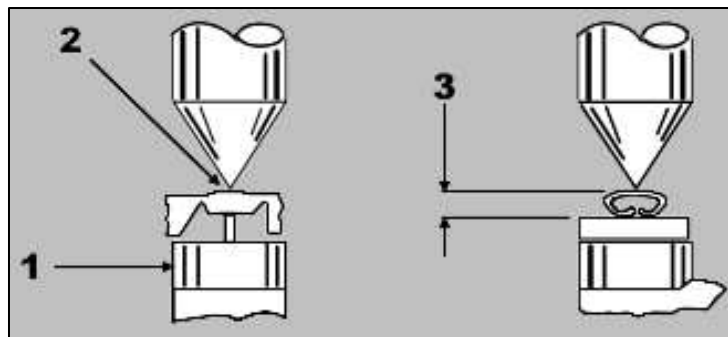
1. Refer to Table 1 and select a wire (maximum size) for each connector listed.
2. Refer to section 5, **Crimping**, and crimp the contacts accordingly.
3. Using a crimp height comparator, measure the wire barrel crimp height.
 - If the crimp height and spread are consistent with the specification, the tool is considered dimensionally correct.
 - If not, adjust the tool. Refer to section 7, **Adjusting the ratchet**.



CAUTION

Do not use damaged product. If a damaged contact is evident, replace it. Do not re-terminate contacts.

Figure 3: Crimp height



- 1 Modified anvil
- 2 Position point on center of wire barrel opposite seam
- 3 Crimp height

7. Adjusting the ratchet

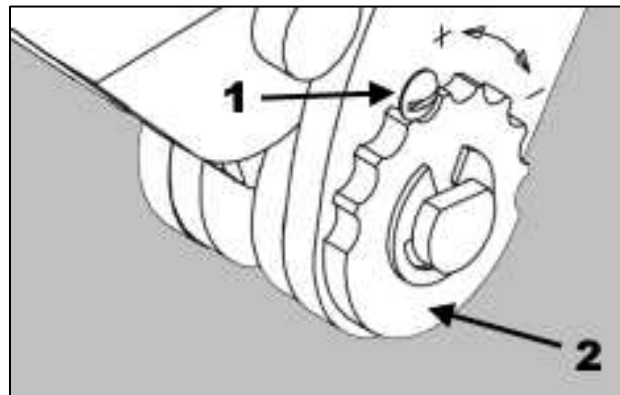
The ratchet is preset before shipment. Verify the crimp height using a micrometer or caliper. Use and wear can cause the tool to go out of adjustment. Inspect the crimp height and adjust the ratchet, if necessary, on a regular basis.

To adjust the ratchet, complete the following steps.

1. Remove the ratchet wheel lock screw (Figure 4).
2. Rotate the adjustment wheel.
 - If the crimp height is larger than recommended, rotate the adjustment wheel counter-clockwise (+) to a higher setting.
 - If the crimp height is smaller than recommended, rotate the adjustment wheel clockwise (-) to a lower setting.
3. Reinstall the lock screw.
4. Make a sample crimp and measure the crimp height.
5. Repeat as required.

If the crimp height cannot be made to conform to the recommended crimp height, replace the tool or die set. See section 9, **Replacement and repair**.

Figure 4: Ratchet adjustment



- 1** Lock screw
2 Ratchet adjustment wheel

8. Maintenance and inspection

8.1. Maintenance

- Remove dust, moisture, and other contaminants with a clean, soft brush or soft, lint-free cloth. **Do not** use objects that could damage the dies or tool.
- When the tool is not in use, keep the handles closed to prevent objects from becoming lodged in the dies.
- Remove all lubrication and accumulated film by immersing the dies in a suitable commercial degreaser.
- Store the tool in a clean, dry area.

8.2. Visual inspection

- Inspect the tool and dies on a regular basis to ensure that they are not worn or damaged.
- Make sure that the die retaining screws are properly secured.
- Inspect the crimping chambers of the die assembly for flattened, chipped, worn, or broken areas.
- If damage or abnormal wear is evident, replace the tool or dies. Refer to section 9, **Replacement and repair**.

9. Replacement and repair

If the dies are damaged or worn excessively, they must be replaced. Order replacement dies through your TE representative, or go to TE.com and click the **Shop TE Store** link at the top of the page.

For field service, go to the [Service and Repair](#) page on the TE website, or send an e-mail to the address for your region in Table .

Figure 5: Service and repair



Table 2: Field service e-mail addresses

Region	Address
Asia	Tefe1ap@te.com
EMEA (including India)	Tefe1@te.com
North America	Fieldservicesnorthamerica@te.com
South America	FSE@te.com

10. Revision summary

Revisions to this instruction sheet include:

- Initial Release.