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1 Using the operating manual

The operating manual must be constantly within reach of the tool.

Each person entrusted with the job of operating the tool must be familiar with the operating manual and strictly observe the instructions therein.

TE Connectivity decline to accept any liability for damages that are incurred due to the fact that the instructions on the tool or in the operating manual have been disregarded.

The user is responsible for supplementing the operating manual with any instructions resulting from current national regulations for accident prevention and protection of the environment.

2 Basic safety instructions

The tool has been constructed according to state-of-the-art technology and the acknowledged technical safety regulations.

When carrying out jobs such as installation, commissioning, set-up, operation, changing the conditions of use and the mode of operation or carrying out maintenance and service jobs, it is important to observe the procedures described in the operating manual.

RoHS information

Information on the presence and location of any substances subject to RoHS (Restriction on Hazardous Substances) can be found at the following website:

<http://www.tycoelectronics.com/customersupport/rohssupportcenter/>

Click on “Find Compliance Status...” and enter equipment part number.

2.1 Responsibilities

The tool may only be operated by suitably trained and authorized personnel.
The user must clearly define and observe the responsibilities of the personnel for operation, set-up, maintenance and service.

It is particularly important to define who is responsible for work on the equipment. Such work should only be carried out by specially trained staff.

Should the user make any changes to the tool without consulting the manufacturers or the suppliers, the latter will not be liable for any damage that may result.

2.2 Notes on setting up and operating the tool

The tool may only be set up and operated in perfect technical condition, observing all the safety regulations and considering any possible dangers.

If you suspect that the tool cannot be operated safely, it must be put out of operation.

The tool may only be used for the purpose specified in the operating manual.

The manufacturers and suppliers will not be liable for any damages which may result due to the tool being used for a purpose other than that for which it was intended. This is done entirely at the user's own risk.

2.3 Notes on service and maintenance

Prior to operation the tool must be in a proper and clean condition. Any residues should be removed with a soft brush or cloth.

The joints should be oiled regularly with light precision mechanics oil and protected against soiling.

Once the hand tool is no longer required it should be dry and clean stored.

3 Intended use

The Solarlok PV4 crimp hand tool has been especially designed to apply Solarlok PV4 socket and pin contacts with open crimp sleeves. Wire sizes 4 and 6 mm² as well as AWG12 and AWG 10 can be applied with this crimp hand tool.

Following Solarlok PV4 contacts can be applied:

Pin contact PN 1971857	(4/6 mm ² and AWG12/AWG10)
Socket contact PN 1971858	(4/6 mm ² and AWG12/AWG10)

The crimp hand tool is only to be used for the contacts listed above. The contacts may only be used in combination with Solar-Wire approved by TE Connectivity.

Note:

Dimensions on this instruction sheet are in millimetres [mm]. Figures and illustrations are not drawn to scale.

Note:

The crimp hand tool is to be used only and exclusively for the purpose described.

Application Notes:

Cumulative trauma disorders can result from a prolonged use of manually powered hand tools. TE Connectivity hand tools are intended for occasional use and low volume applications. For extended use or production operations TE Connectivity offers a wide selection of powered application equipment.

4 Crimp hand tool description

The Solarlok PV4 crimp hand tool consists in essence of a crimp head, two movable handles, two fixing pins for the crimp head and an emergency ratchet release. The slotted design of the crimp head holder allows easy mounting and removal of the crimp head (see figures 1 and 2).

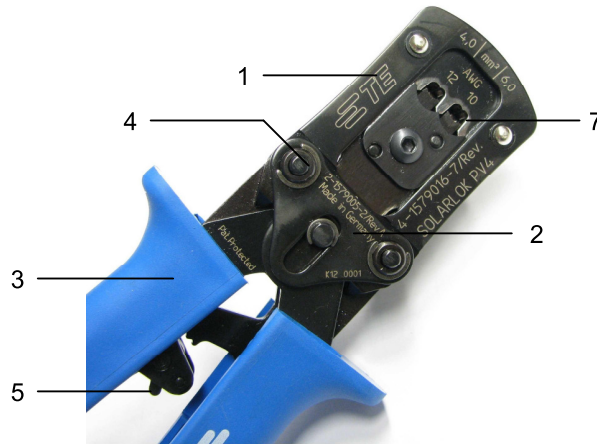


Figure 1

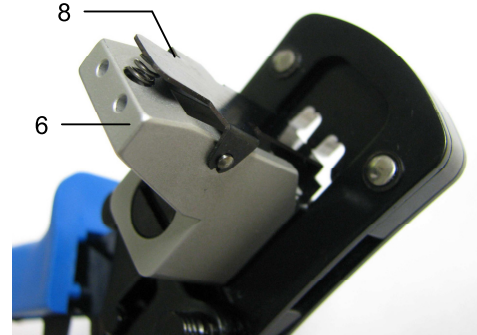


Figure 2

- | | |
|---------------------|-----------------------------|
| 1 Crimp head | 5 Emergency release ratchet |
| 2 Crimp head holder | 6 Contact locator |
| 3 Movable handles | 7 Crimp cavity |
| 4 Retaining pins | 8 Contact holder |

5 Crimping head removal and mounting

Removal

1. Close the tool handles until the ratchet releases and allows the handles to open fully (see figure 3).
2. Loosen and pull out the retaining pins (see figure 4).
3. Now take the crimp head off from the crimp head holder (see figure 5).



Figure 3

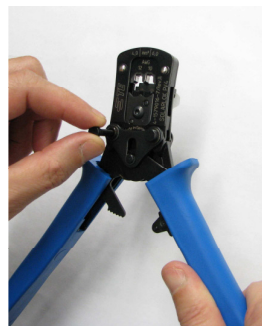


Figure 4



Figure 5

Mounting

1. Open the tool handles and pull out the two retaining pins from the crimp head holder.
2. Keep the tool handles open and insert the crimp head into the crimp head holder.
3. Push the retaining pins into the crimp head holder.

Note:

The emergency release ratchet has detents that are audible "clicks" as the handles are closed. The ratchet releases on the last "click".

6 Crimping procedure

Note:

Solarlok PV4 contacts will be applied in compliance to application specification 114-106078. According to this, following crimp heights and stripping lengths have to be complied for the specified wire sizes :

Wire Size mm ² / AWG	Crimp Height mm	Stripp Length mm
4,0 / 12	2,14 ± 0,05	6,5 + 1,0 - 0,05
6,0 / 10	2,49 ± 0,05	6,5 + 1,0 - 0,05

Select a wire size and insulation diameter from table 1. Strip the wire to the specified length taking care not to bend or to damage the wire strands. Choose the according contact and identify the appropriate crimp section according to the wire size marking on the crimping head.

Crimping Solarlok PV4 contacts proceed as follows:

1. Strip the wire insulation to the specified length from the table above, taking care not to bend or to damage the wire strands.
2. Hold the crimp hand tool so that the crimping cavities of crimp head are facing you. Squeeze the hand tool handles together and allow them to open fully.
3. Choose the according crimp cavity for the wire size you apply. Crimp wire sizes are marked on the crimp head.
4. Push the contact holder of contact locator and slide the contact in the crimp cavity, taking care to slide the contact up to stop in the contact locator (see figure 6).

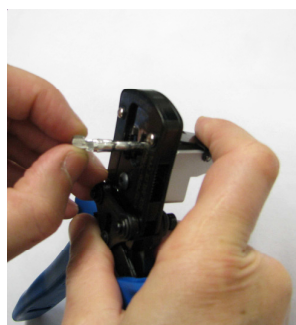


Figure 8

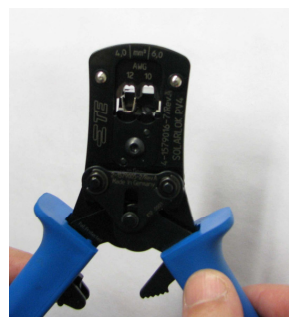


Figure 9

5. Loosen the contact holder which clamps the contact in the contact locator (see figure 7).
6. Hold the contact in position but do not squeeze the tool handles together. Make sure you do not deform the crimp sleeve of the contact. (see figure 7).
7. Insert the stripped wire into the contact crimp sleeve up to stop (see figure 8).

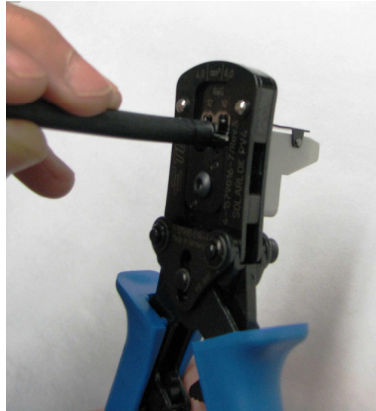


Figure 8

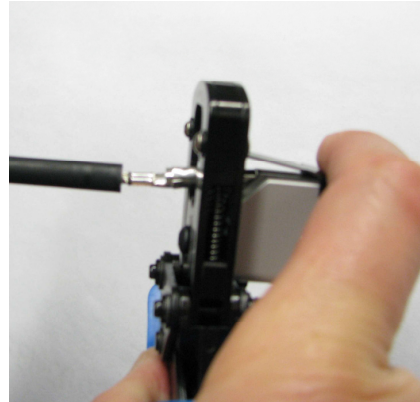


Figure 9

8. Hold the wire in place against stop and squeeze the tool handles together until the ratchet releases. Allow the tool handles to open fully, push the contact holder and remove the crimped contact (see figure 9).



Figure 10

9. Check the crimp height of the crimped contact. For this exclusively refer to the data in the application specification 114-106078 from TE Connectivity.

7 Maintenance / Inspection

Daily maintenance

TE Connectivity recommends that operators of the tool are made aware of and responsible for the following steps of daily maintenance:

1. Remove dust, moisture, and any other contaminants from the tool with a clean and soft brush, or a clean and soft lint-free cloth. Do not use hard or abrasive objects that could damage the tool.
2. Make sure that the retaining pins are in place and that they are secured with the retaining plates.
3. All pins, pivot points, and bearing surfaces should be protected with a thin coat of any good SAE No. 20 motor oil. Do not oil excessively.
4. When the tool is not in use, keep the handles closed and store it in a clean and dry area.

Periodic Inspection

Regular inspections of the tool should be performed by quality control personnel. A record of scheduled inspections should remain with the tool or be supplied to supervisory personnel responsible for the tool. Inspection frequency should be based upon amount of usage, working conditions, operator training and skill and established company standards.

1. Make sure that the retaining pins are in place and secured with retaining plates.
2. Close the tool handles until the ratchet releases and then allow them to open freely. If they do not open quickly and fully, the springs of the crimp head are defective and must be replaced.
3. Inspect the hand tool for wear or damage, paying particular attention to the crimp zone and pivot points.

8 Spare and wear parts

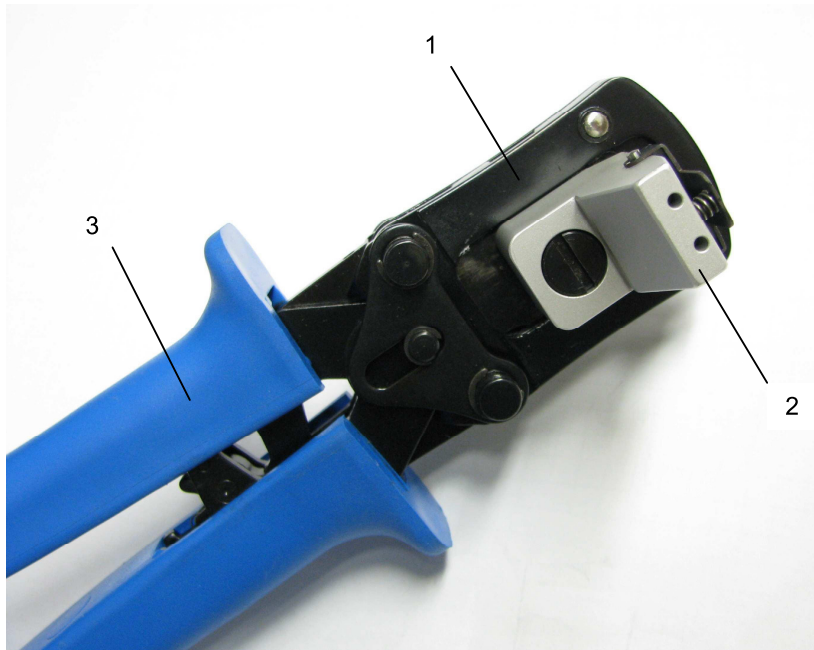


Figure 11

Spare Part	Description	TE PN	Quantity
1	Crimp Head	4-1579016-7	1
2	Contact Locator	7-1579025-3	1
3	Handles	2-1579005-2	1