



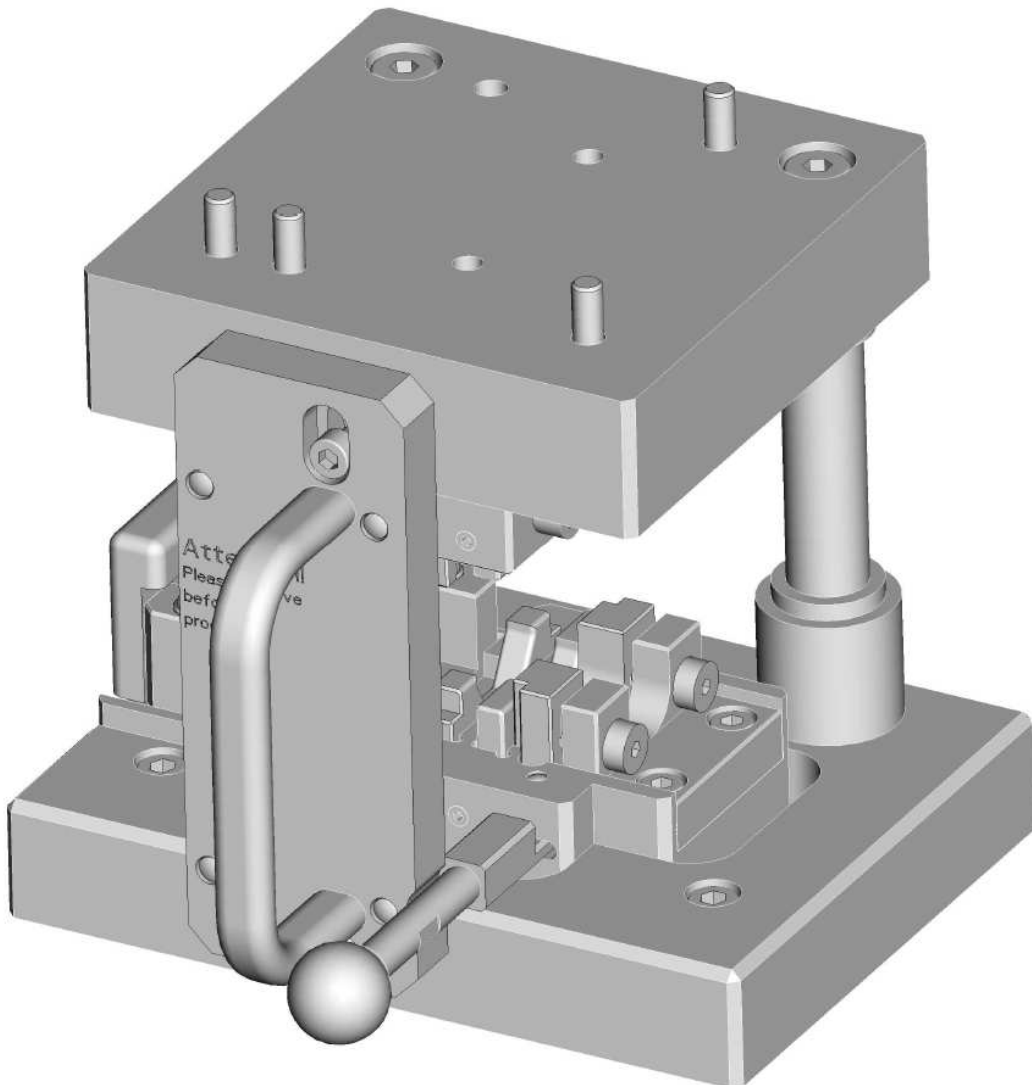
## Mounting instructions

HV Tool HV 180 25mm<sup>2</sup> shield

P/N 541875-2



411-18542/1-744504-8  
06.032013, RG, Rev. A  
The original version is in  
German.



English version

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**Manufacturer:**

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## 1 Mounting instructions

### 1.1 Using these mounting instructions

These mounting instructions must be available at the tool at all times. All persons using this tool must have read and understood the mounting instructions. These mounting instructions must be followed when working on or with the machine.

TE Connectivity disclaims all liability for any damage resulting from failure to observe information on the tool or in the mounting instructions.

These mounting instructions must be supplemented by the machine user with instructions based on existing national regulations for the prevention of accidents and environmental protection.

**The German original version is legally binding.**

**These mounting instructions must be retained for subsequent use.**

### 1.2 Safety symbols used in the operating instructions

The following safety symbols are used in the individual sections and chapters to draw attention to various levels of risk:

#### **DANGER!**



Draws attention to **hazardous voltage** liable to cause serious injury or death on contact.

#### **DANGER!**



Draws attention to an **immediate danger** liable to cause serious injury or death if not avoided.

#### **WARNING!**



Draws attention to a **potential danger** liable to cause serious injury or death if not avoided.

#### **CAUTION!**



Draws attention to a **potentially dangerous situation** liable to cause moderate or minor injury or damage to property if not avoided.

#### **NOTE!**



Failure to observe this information can disrupt operation.

## **2 General safety instructions**

The tool is designed and constructed in line with current industry standards and the recognised safety regulations.

When carrying out work such as installation, commissioning, setup, operation, changing operating conditions and operational modes, maintenance and repair of the tool, the switch off procedures specified in the mounting instructions must be observed.

### **RoHS information**

Information on the occurrence and location of all substances subject to RoHS directives (Restriction on Hazardous Substances) can be found on the following website:

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

On this website, select "Find Compliance Status..." and enter the respective part numbers.

### **2.1 Responsibility**

The tool must only be operated by trained and authorised personnel. The responsibilities to be observed by operating, setup and maintenance personnel must be clearly defined by the tool user. To be defined in particular are the responsibilities for working on the electrical equipment. This work must only be carried out by trained specialists.

Unauthorised changes to the tool will exclude all liability of the manufacturer or supplier for any resulting damage.

## **3 Safety**

### **3.1 Intended use**

The "HV Tool HV 180 25mm<sup>2</sup> shield" with the P/N 541875-2 is designed for the "HV crimping machine" P/N 528008-4 (crimping speed 10mm/s) of TE Connectivity .  
This tool is designed exclusively for processing the P/N 9-2177090-3 shield crimp barrel.

Procedures for the preparation of the shield crimp barrel and the cables to be used are described in the respective processing specification 114-94130 of TE Connectivity.

## **4 Delivery**

### **4.1 Packaging:**

Carefully unpack the components of the "HV Tool HV 180 25mm<sup>2</sup> shield" and check the contents against the documents. Keep the original packaging for subsequent dispatch and tool storage.

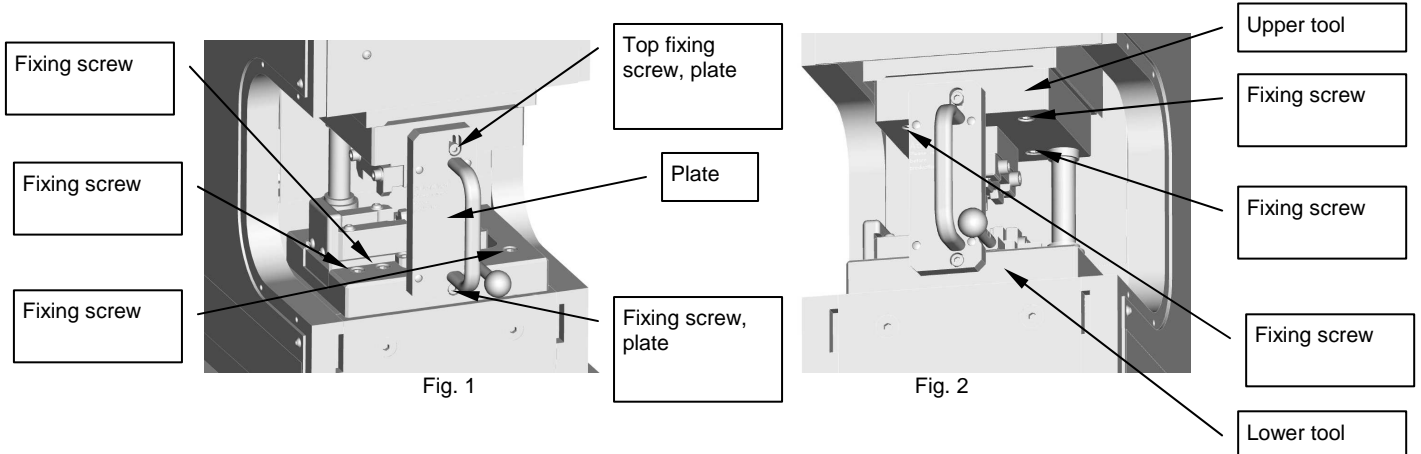
## 5 Tool mounting/removal



### **DANGER!**

- Risk of fingers being crushed. Never attempt to reach into the danger zone.
- Before changing tools, disconnect the power supply at the main switch.
- Measures must also be taken to prevent accidental reconnection of the machine. For this purpose, the power supply can be interrupted by disconnecting the mains plug.

1. The HV tool is fixed in the HV crimping machine with seven fixing screws (see Figs. 1 and 2).
2. Before mounting the tool, it must be ensured that the upper tool is in alignment with the lower tool (see Section 7.3 "Die changing").
3. Place the tool in the HV crimping machine and loosely tighten the lower tool with three fixing screws so that it is still possible to align the tool in the machine.
4. Loosen the top plate fixing screw and screw the upper tool to the crimping machine with four fixing screws.
5. Tighten all tool fixing screws and remove the plate.  
The plate with the two fixing screws is a part of the tool and must be kept in the vicinity of the tool. The plate must be attached to the tool outside the HV crimping machine.



6. Removal of the tool takes place in reverse order.

**Attention:** it must be ensured when loosening the fixing screws that the upper tool does not fall uncontrolled on to the lower tool (see Fig. 2). Before loosening the upper tool fixing screws, the plate (see Fig. 1) must be fixed to the tool with two fixing screws. The top plate fixing screw can be tightened when the upper tool is detached from the crimping machine.

## 6 Operation/production sequence

### 6.1 Crimping height adjustment

To adjust the height of the HV crimping machine P/N 528008-4, see Section "10.1.7 Height adjustment" in the operating instructions 412-18954.

The required crimping height is reached when the shield crimping dies have moved to block (see Fig. 3).

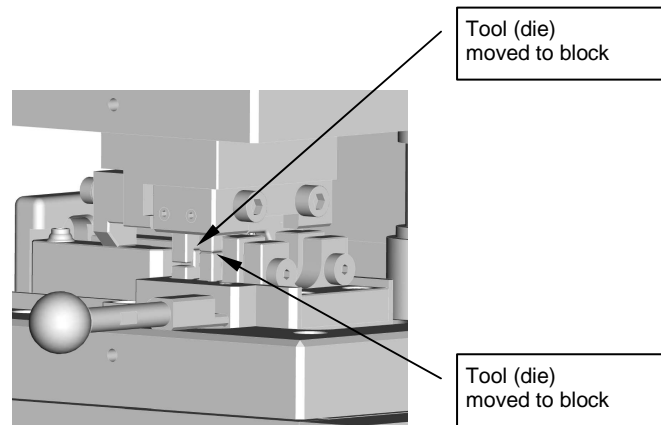


Fig. 3

### 6.2 Tool

1. Before mounting the tool in the HV crimping machine, it must be ensured that the crimping dies are correctly aligned (see Section 7.3). It must be guaranteed that the ball-bearing guides of the guide pins do not escape from the tool when it is closed (crimping dies moved to block).
2. Prepare the cable as described in the TE Connectivity specification.
3. The procedure for connector assembly and preparation of the specified cable are described in the processing specification 114-94130.
4. Place the connector sleeve (see Fig. 4) in the groove (see Fig. 5). Push the connector against the stop (see Fig. 6) and place in the tool.

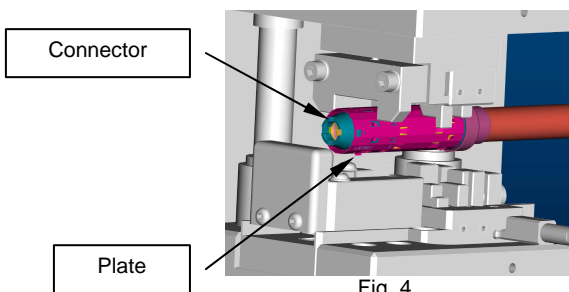


Fig. 4

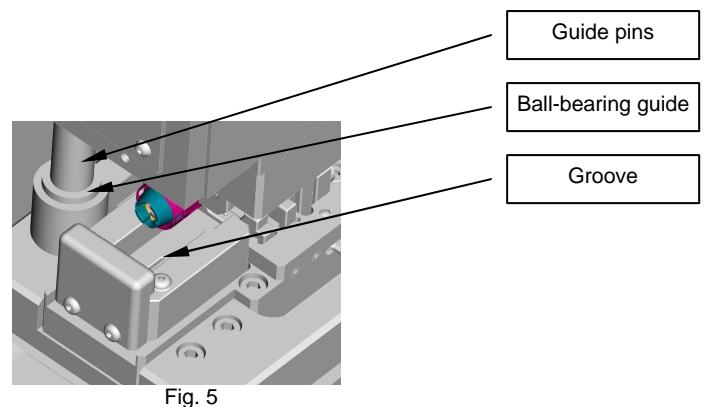
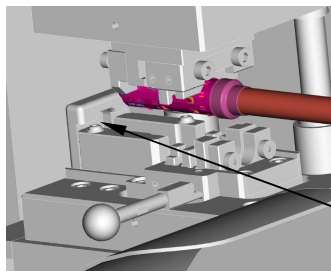


Fig. 5



Stop for connector

Fig. 6

5. Open the cable clamp by operating the foot valve (see Fig. 7). Place the prepared cable in the cable clamp. The cable clamp is closed when the foot valve is released (see Fig. 8).

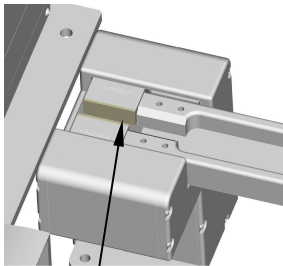


Fig. 7

Cable clamp open

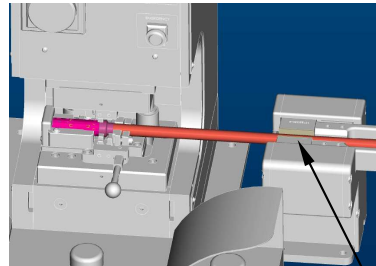


Fig. 8

Cable clamp closed

5. Start the crimping process with the two-hand control (see Fig. 9). Press and hold the buttons of the two-hand control simultaneously until the crimping process is completed.

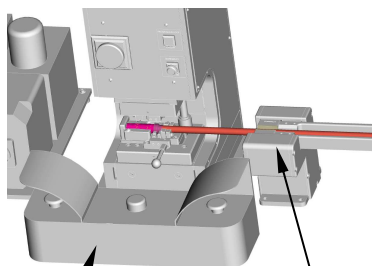


Fig. 9

Two-hand control

Cable clamp

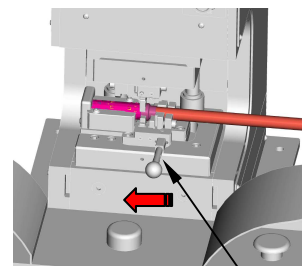


Fig. 10

Lever

6. When the crimping process is completed, the cable clamp can be opened and the crimped connector with cable removed. Open the cable clamp by operating the foot switch. If the connector is clamped in the tool, the clamp can be released by moving the lever to the left (see Fig. 10).



## 7 Maintenance

### 7.1 Maintenance and lubrication schedule



**DANGER!**

Risk of fingers being crushed. Never attempt to reach into the tool without the machine being safely switched off.



**DANGER!**

Prior to maintenance and disassembly, the crimping machine must be isolated from the mains supply by disconnecting the mains plug. Contact with live parts can cause fatal injury!

Regular cleaning and maintenance of externally accessible parts will maintain the availability of the tool. Do not use linting materials such as cotton waste or similar for cleaning the tool. The tool must not be cleaned with compressed air. The tool must not be cleaned with hard objects such as scrapers, steel wool or similar. Coarse dirt and abrasive particles must be removed by vacuuming.

### 7.2 Greasing the tool guide bolts



**DANGER!**

Prior to maintenance and disassembly, the crimping machine must be isolated from the mains supply by disconnecting the mains plug. Contact with live parts can cause fatal injury!



**WARNING!**

- Strictly observe replacement and maintenance intervals.
- Wear suitable protective gloves and safety goggles during lubrication. Thoroughly clean skin coming into contact with lubricating grease with clear water and soap. Change clothing contaminated with hydraulic fluid.

- The tool guide bolts must be lubricated with universal grease or multifunction oil.
- Avoid excessive lubrication.
- Immediately remove excess grease.
- Do not use any sharp or pointed objects for greasing as these can damage the guide bolts.

### 7.3 Die changing



#### **DANGER!**

Risk of fingers being crushed. Never attempt to reach into the tool without the machine being safely switched off.



#### **DANGER!**

Prior to maintenance and disassembly, the crimping machine must be isolated from the mains supply by disconnecting the mains plug. Contact with live parts can cause fatal injury!

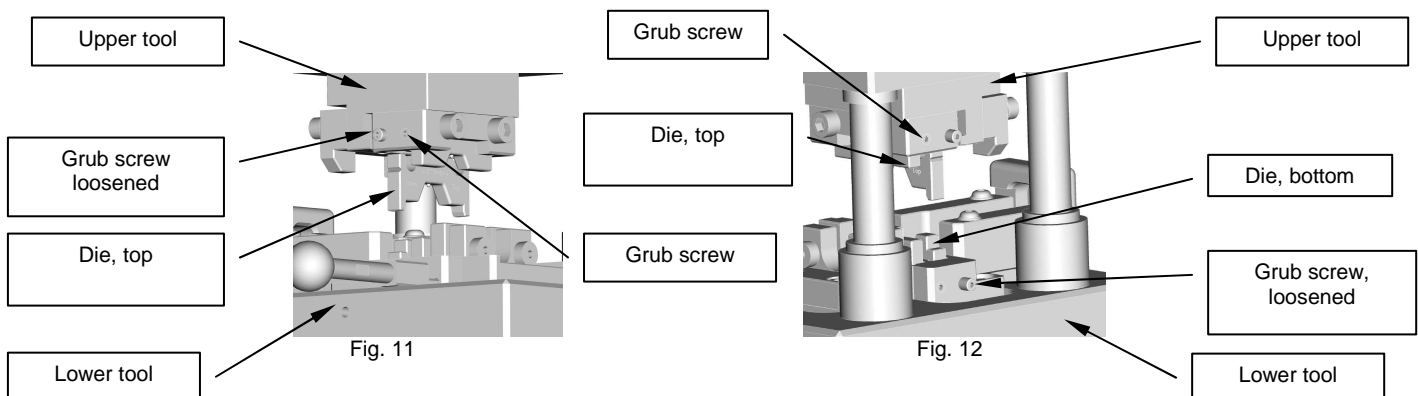


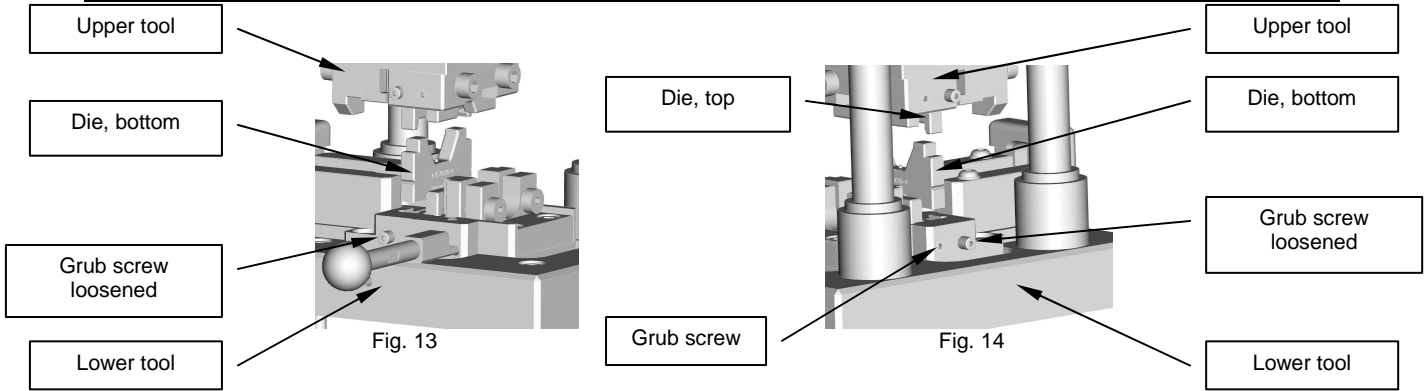
#### **WARNING!**

- Maintenance must only be carried out by trained and authorised persons.
- Protective covers and tools must only be removed when the machine is stationary and disconnected from the mains supply. Housings and covers in particular must only be removed by trained personnel.

### Die removal

The dies are inserted in the top and bottom tool and each fixed with two grub screws. To remove the dies, the grub screws must be unscrewed until the dies can be removed from the tool (see Figs. 11 and 12).

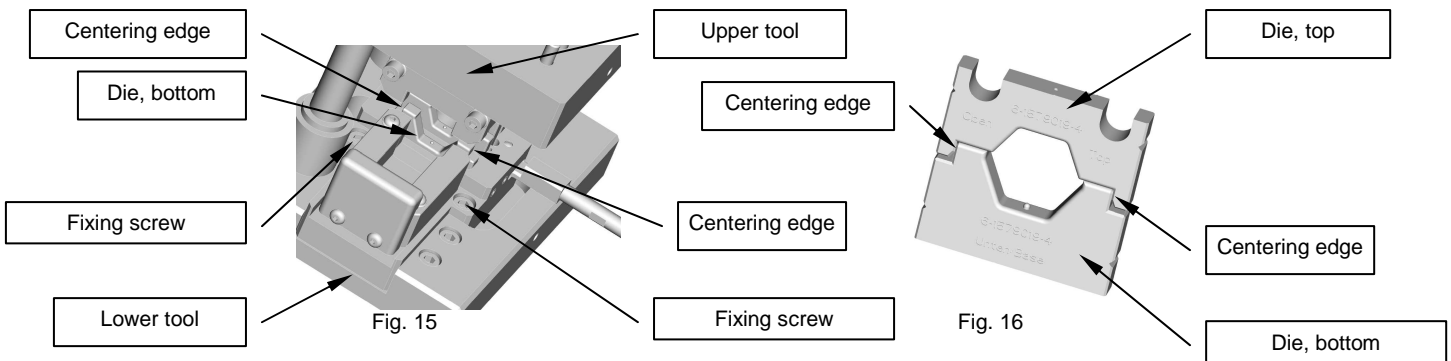




Mounting of the dies takes place in reverse order.

### Alignment of top die and bottom die

Before mounting the tool in the HV crimping machine, it must be ensured that the dies are mutually aligned (see Figs. 15 and 16).



The top die is aligned with the bottom die by loosening the two fixing screws shown in Fig. 15 and pushing the tool together. When the top die is positioned above the bottom die (as illustrated in Fig. 16), the two fixing screws can be tightened (see Fig. 15). The tool can now be mounted in the HV crimping machine.

## 8 Storage



**NOTE:**  
The tool should be stored in a dry location at room temperature in the original packaging.