

# RCY21151W

Manual Crimp Hand Tool  
For Minitek Contacts AWG 26-30  
User's Manual



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[www.foehrenbach.be](http://www.foehrenbach.be)

## 1. Purpose

Crimping of Minitek AWG 26-30 contacts onto dedicated stranded wire.



## 2. Tool description

- Cat. No.: RCY21151W
- Single head crimp tool. The tool crimps one contact per cycle.
- Short set-up times.
- Releasable ratchet ensures the complete crimping process.
- Ergonomically handles for comfortable working.
- Optimal force transmission ratio.
- The hand tool features a terminal guide that accepts Minitek contacts on a regular carrier strip. The terminal guide is equipped with a manual contact feeder. During each crimping cycle, the tool separates the contact in process from the carrier strip.

The tool kit consists of:

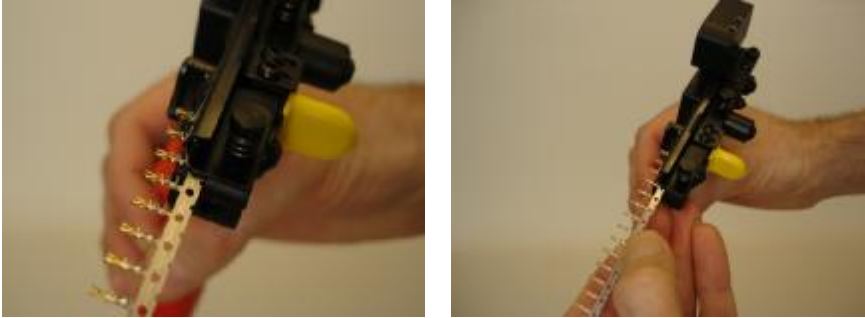
- The hand tool
- This user's manual
- A plastic protection case
- A set of two Alan keys
- A crimp height adjustment key



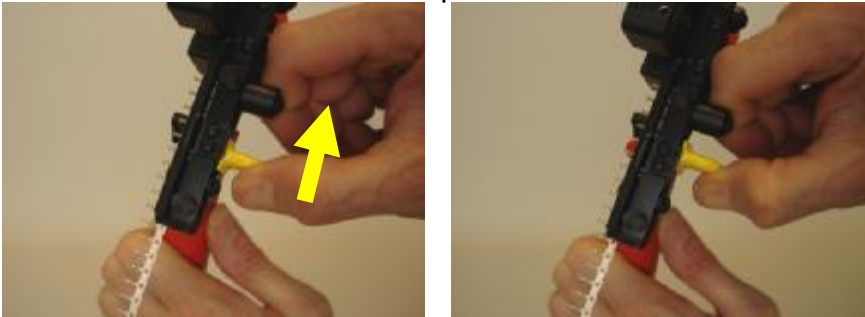
### 3. The process

Be sure that the tool is open. If not, close the handles until the ratchet releases. Further you must open the handles of the tool.

Insert a strip of contacts (cut to the proper length) into the terminal guide of the tool.



Once 50 mm of the contact strip is introduced into the terminal guide, the contacts can be fed one by one towards the crimp area. In order to do so, activate the manual feeder as shown on the pictures.



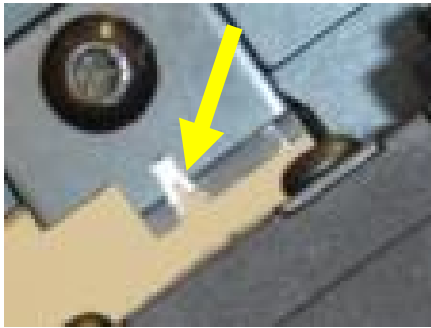
Feed a terminal into the crimping area of the hand tool.



As shown on the picture, insert the strands of a stripped and straightened wire into the slot of the wire positioner. The insulation of the wire should be pouched to the surface of the wire positioner.

Make sure that the stripped length of the wire is in the range of 1.2 to 2.2 mm. Be careful not to make cuts or nicks in the strands during the stripping operation.

The use of improperly prepared wire may cause insufficient crimp performance obtained.



Whilst keeping carefully the wire in position, close the handles until the ratchet releases.



Open the tool and take the crimped wire.



The tool is not cutting the carrier strip. In order to work properly, the operator has to cut the carrier strip on a regular base.

Before making the next crimp, feed terminal by one pitch. And repeat the crimping process.



## 4. Adjustments

- The tool is adjusted by Föhrenbach Application Tooling engineers. In order to maintain the performance of the tool, don't carry out any adjustments.
- Depending on the applied wire, it could be possible that you need to adjust the conductor crimping height. In order to do this, remove the locking screw as shown on the picture



Be sure that the tool is open. Adjust the crimping height by means of the crimping height adjustment key. Attention! A miss adjusted crimping height can damage the tool.



After the adjustment, install the locking screw again. Do never crimp without the locking screw in position.



- For any support, please contact Föhrenbach Application Tooling:

Föhrenbach Application Tooling  
Krijgsbaan 128  
B – 2640 Mortsel  
Belgium

Tel : +32 (0)3 216 19 98  
Fax : +32 (0)3 216 15 07  
e-mail : [application.tooling@foehrenbach.be](mailto:application.tooling@foehrenbach.be)  
Website : [www.foehrenbach.be](http://www.foehrenbach.be)

## **6. General specifications**

- Colour : Black metal with red levers.
- Weight (tool) : 0,55 kg
- Weight (tool + box) : 1,45 kg
- Size (protective box) : l: 390 mm x w: 300 mm x h: 100 mm

## **7. Input material and functional requirements**

### 7.1. Wire

- Stranded wire dedicated for the mentioned contacts. AWG 26-30 (0.13 – 0.05 mm<sup>2</sup>).

### 7.2. Components

- Minitex contacts type 77138-001.



## **8. Process output**

- Due to the manual process, the output capacity is highly depended on the skills of the operator.

## **9. Safety and ergonomics**

- Apply the tool only for the target as mentioned in chapter 1. Purpose.
- For operator safety, it's necessary to apply eye protection.
- Apply the tool only in a dry and clean environment.
- Apply the tool only in a well lighted environment (1000 Lux).
- Only skilful operators who are trained by Föhrenbach Application Tooling engineers are allowed to apply the tool.
- In normal operation, the hand tool can only be opened after a complete closing cycle. In order to open the tool before completing the entire crimp cycle, turn the release handle in the counter clock wise direction.



## **10. Environmental conditions**

### 10.1. Ambient temperature

The ambient temperature is measured at a height of 1.5 m above the floor.

- |    |  |                 |
|----|--|-----------------|
| a. | Normal range                             | : + 15 to +30°C |
| b. | Average value                            | : ± 23°C        |
| c. | Maximum variation within a 5 min. period | : ± 5°C         |

### 10.2. Humidity

- |    |   |                  |
|----|---|------------------|
| a. | Normal range (no condensation)                      | : 40 to 70% R.H. |
| b. | Range not resulting in constantly reduced operation | : 10 to 90% R.H. |

### 10.3. Atmospheric pressure

Normal range: 533 - 1060 m bar.

## **11. Power connections**

### 11.1. Electrical

No electrical supply required.

### 11.2. Pneumatic

No air supply required.

## **12. Warranty**

Please refer to our Terms and Conditions of Sale.

## **13. Spare parts**

- Die set : RCY21151WA1

## **Appendix A: Release the feeding finger**

In order to release the feeding finger, pouch the release lever in the direction as shown by the red arrow on the tool body. With your other hand, you can carefully slide the strip of contacts out of the tool.

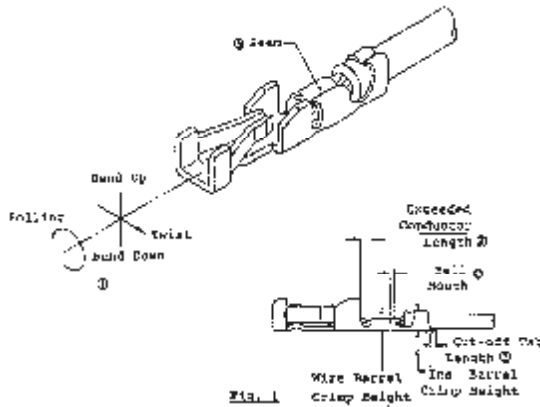




## Appendix B: Crimp conditions

The wire specified by UL-1007 (AWG # 26-#30) or equivalent wires shall be crimped in accordance with the following conditions.

Terminal P/N	Wire range AWG (mm <sup>2</sup> )	Wire barrel		Ins. Barrel		Crimp strength (kg)
		Width (mm)	Height (mm)	Width (mm)	Height (mm)	
77138-001	#26 -#28 (0.13-0.08)	1.0	0.60- 0.65	1.5 MAX	1.4 MAX	1.2 MIN
	#28-#30 (0.08-0.05)		0.57- 0.62			0.7 MIN



No.	Item	Requirement
1	Bend up	3° MAX
	Bend down	3° MAX
	Twist	3° MAX
	Rolling	8° MAX
2	Bell mouth	0.1 – 0.4 mm
3	Cut off tab length	0 – 0.3 mm
4	Exceeded conductor length	0 – 0.8 mm
5	Seam	No evidence of seam opening. No strands exist out of wire barrel.
	Wire strip length (REF.)	1.2 - 2.2mm

## Appendix C:

In order to apply the mentioned Minitex contacts, Föhrenbach Application Tooling provides also mini-applicators and other dedicated semi-automatic equipment.



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