1.25mm
WIRE-TO-BOARD

(CRIMP-TO-WIRE)

HAND TOOL P/N: 10118656-1000

FCI MANUAL P/N 10118656-9090

Introduction

General Description

This instruction manual covers the use and maintenance of the 1.25mm WTB crimp-to-wire hand tool, as designed for the strip version of 1.25mm WTB terminal with use of 28-32 awg wire.

Cautions

- This tool is designed to be used with the strip form of the reeled product
    - The reeled product should be cut into strips of 25mm to 50mm in length
    - Loose-piece terminals cannot be terminated with this tool and should not be attempted
- This tool is designed for prototype or field repair work only and is not intended for production
    - Request information regarding the availability of a Mini-Applicator from FCI for production quantities using the reeled fed terminals.
    - Do not add extensions to the handles or install this hand tool into any power assisted device.
        - Doing so will damage the hand tool and void any remaining warranty.

    ******Please read these instructions thoroughly before using the hand-tool******

Safety

Eye Protection: Eye protection should be worn at all times when operating or servicing hand tools. Safety glasses equipped with side-shields will increase protection against flying debris resulting from other operations in the proximity.

CHECK DAMAGED PARTS. Before further use of the tool, a misused hand tool that appears to be damaged should be carefully checked to determine that it would operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect the operation.

Operation

Wire Stripping

Verify that the stripped length of the wire is within the range of 1.65mm +/-0.25.
- 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.

Terminal Loading

1. The reeled product should be cut into strips of 25mm to 50mm in length.
   - This tool is not designed to terminate loose-piece terminals.
2. Cut the carrier strip even with the left side of the first terminal being inserted. Slide the pre-cut terminal strip beneath the terminal guide cover, positioning the strip such that the insulation tines of the terminal are under the cover and the conductor tines are on the outside of the cover (see picture below).
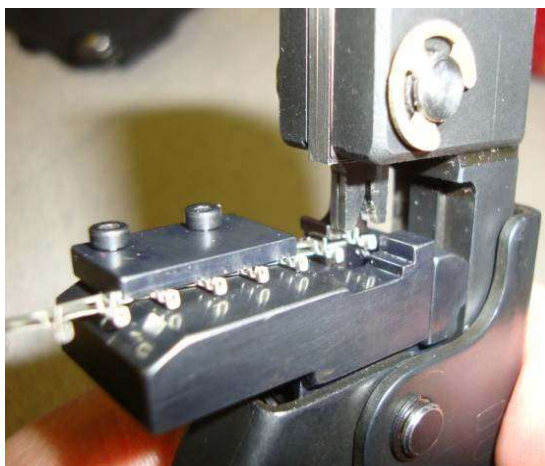
3. The terminal is located in the proper crimping area of the tooling when the "ball-detent" feature of the tool locates the feed hole of the terminal carrier strip and restricts the side-to-side movement of the strip.

   - The strip may be removed when the handles are fully open.

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Crimping Procedure

(1) Hold the handles with the tool positioned as shown below, facing the operator. Feed terminals one at a time (using pre-cut strips), into the crimping area of the hand-tool, through terminal guide by hand.

(2) Straighten wire before placing in hand-tool. Insert the stripped end of the wire into wire barrel of terminal, verifying that all conductor strands are contained within the terminal's conductor tines.

(3) Close handles with wire held in crimping area until the ratchet feature releases.
   - In order to obtain the appropriate crimp condition, this hand-tool is provided with a ratchet-release mechanism. Close the handle fully to reach the proper crimp condition and allow for opening of the hand tool. Remove terminal after crimping.

(4) Move the terminal strip to locate another terminal into position for the next termination.

(5) Lightly oil every third to fourth wire and insulation terminal barrels using terminal lubrication (i.e.: Chemlube #1102).

TERMINAL PART NUMBER	WIRE SIZE AWG	INSULATION DIAMETER mm	INSULATION STRIP LENGTH mm
10114827-001LF	28 - 32	1.00 Max	1.40 - 1.90
10114827-002LF	28 - 32	1.00 Max	1.40 - 1.90
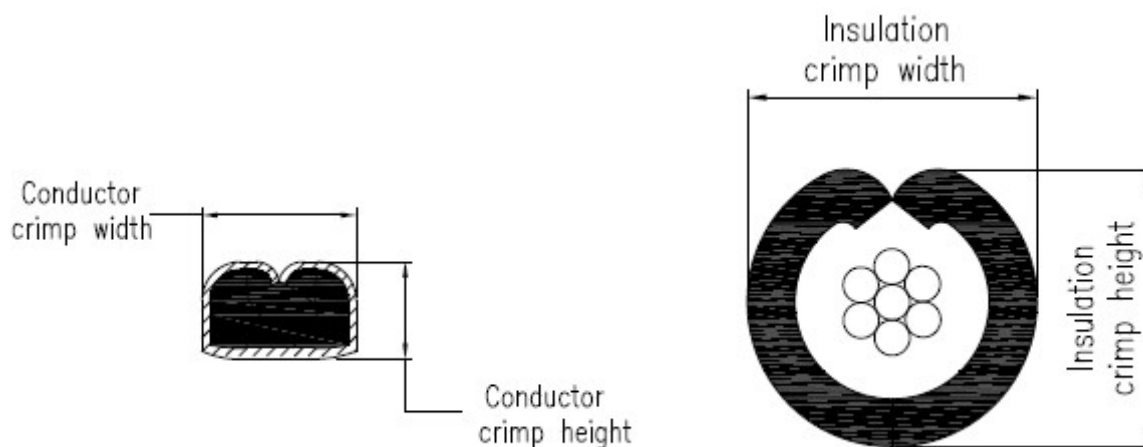
AWG	Conductor Crimp Width	Conductor Crimp Height	Insulation Crimp Width	Insulation Crimp Height
28-32	0.82 Ref	0.55+/-0.04	1.00 Ref	0.90 Ref

SPARE PARTS

PART NUMBER	DESCRIPTION	QTY.
10118656-0001	Insulation Crimper	1
10118656-0002	Wire Crimper	1
10118656-0003	Anvil	1
10118656-0004	Cut-Off	1

Maintenance

It is recommended that each operator of the tool be made aware of, and responsible for, the following maintenance steps:
1. The tool utilizes a "floating shear" to cut the terminal from the carrier strip during the crimping process and to cut the carrier strip from the previous termination into small, manageable strips. It is good practice to keep the scrap strips clear of the hand tool.
2. Remove dust, moisture, and other contaminants with a clean brush, or soft, lint free cloth.
3. Do not use any abrasive materials that could damage the tool.
4. If an instance should occur of a crimped terminal remaining in the upper crimp tooling, do not use any sharp instruments to remove the terminal as this might scratch the tooling.
5. Make certain all pivot points, pins and bearing surfaces are protected with a thin coat of high quality machine oil. Do not oil excessively.
6. When tool is not in use, store in a clean, dry area.

Jams

Should this tool ever become stuck or jammed in a partially closed position: **Do not attempt to pull the handles open or "clamp" the handles closed as damage to the ratchet mechanism may result.**
- Depending on the situation, the tool may either be cleared by removing the upper tooling bolt or, using a bypass to release the ratchet pawl.

Notes

1. This tool should only be used for the terminals and wire gauges specified within this manual.
2. This tool is not adjustable.
   a. Variations in tools, terminals, and wire stranding and insulation types may affect crimp height.
3. The tool may not give a good insulation wrap (crimp) for all insulation sizes. This tool is intended for standard conductor sizes.
4. FCI does not repair hand tools (see warranty). If the crimp tooling is damaged or worn, replacement tooling must be purchased.
5. FCI does not certify crimp hand tools.
6. Check for damaged parts. Before further use of the tool, determine that it would operate properly and perform its intended function – check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect the operation.

Service

• In order to assure that continued use of the hand-tool can be made under the proper conditions, pay attention to following:
- Don't drop, throw or use the hand-tool as a hammer.
- Periodically lubricate bearing surfaces to prevent rust build-up.
- After use of the hand-tool, wipe the tool, particularly the crimping area, to remove any debris and to prevent rust or scratches. Keep the handles partially closed to protect the crimping area from dirt and foreign particles when the hand-tool in not in use.

WHAT TO DO IF YOU NEED SERVICE:

In the event service or technical help regarding this hand tool is needed, FCI Electronics at 1-800-843-6911.