

Technical Service Information



TSI-05-08-10

Date: December, 2005

Subject File: ELECTRICAL

Subject: Cinch 1.5 mm Sealed Header Connector Assembly Instructions

Model: 4200, 4300, 4400, 7300, 7400, 7500, 7600, 7700, 8500 and 8600

Start Date: 11/01/2000

DESCRIPTION

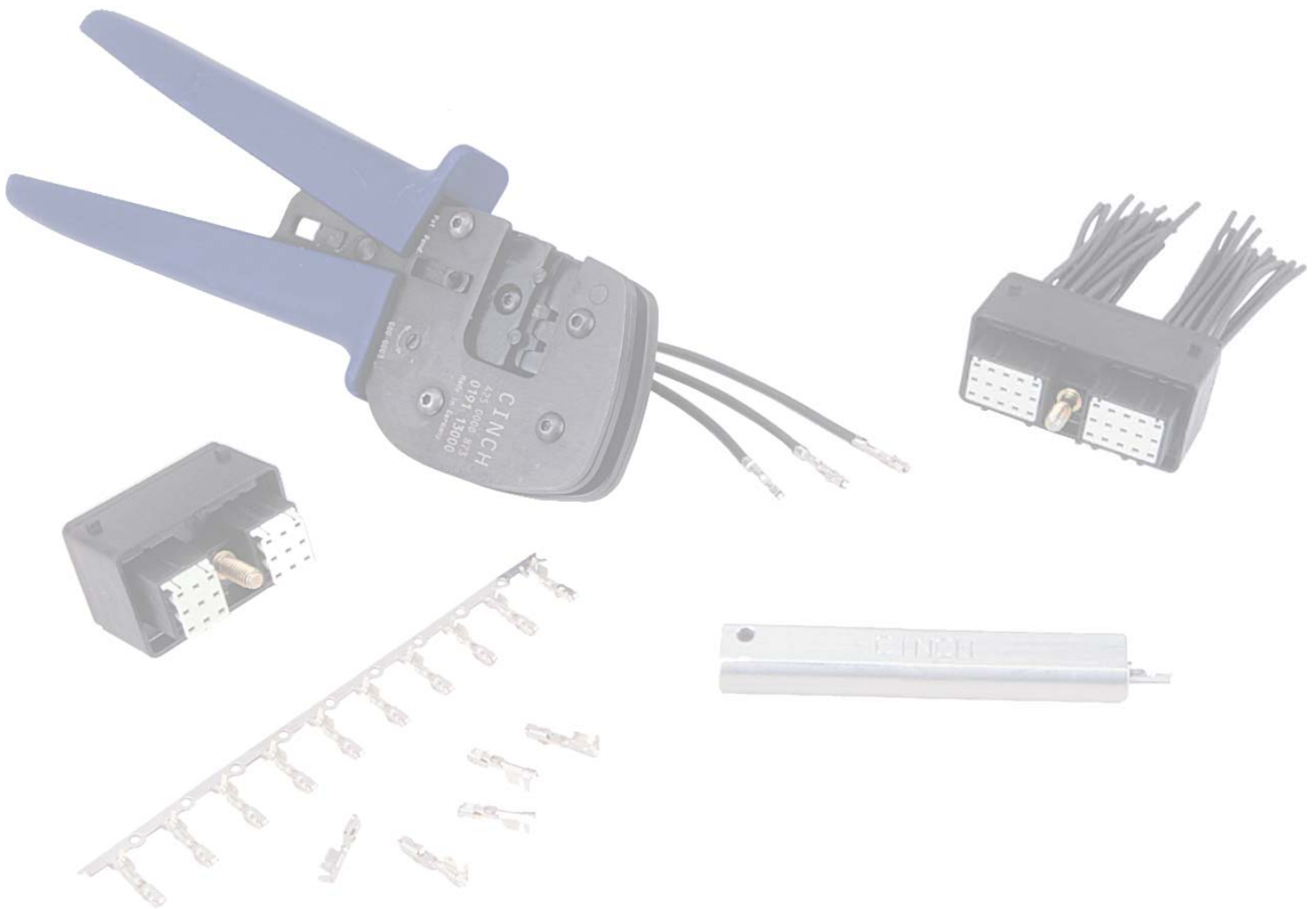
The Cinch 1.5 mm Sealed Header Connectors require specific instructions for assembly and disassembly. The attached Cinch Bulletin provides instructions and tool numbers to assist in servicing the connector assemblies.

NOTICE

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1.5mm Sealed Header System

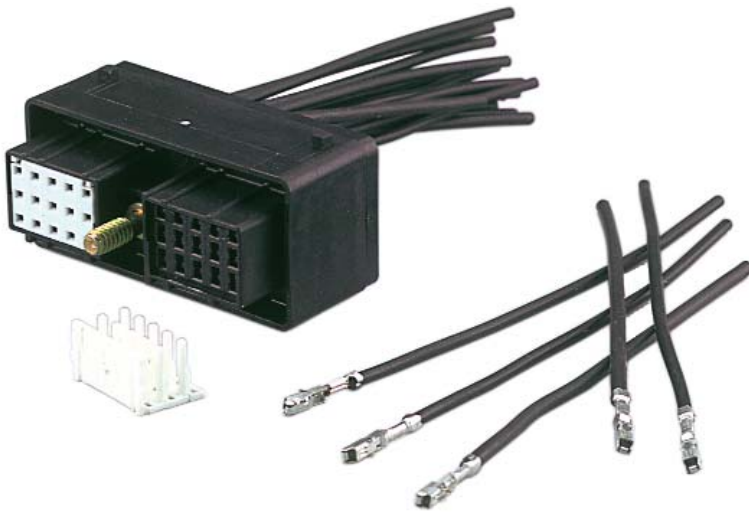
- Connector Assembly Instructions
- Terminal Removal Instructions
- Hand Crimping Process Instructions



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Connector Assembly Instructions



The Cinch 1.5mm SHS Harness Connector has been developed to respond to an industry preference for push-to-seat technology. The harness manufacturer has been the focus of development with the objective of offering:

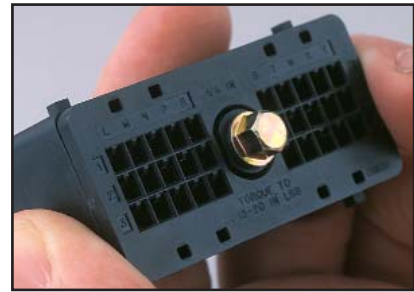
- Push-to-Seat Technology
- Labor related cost reductions
- Ease of assembly
- Robust Design
- Sealing integrity related to harsh environment

1

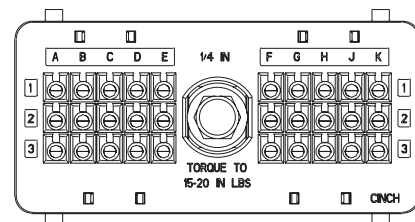


To initiate assembly verify the secondary locks are in the pre-stage/open position. (Shown above).

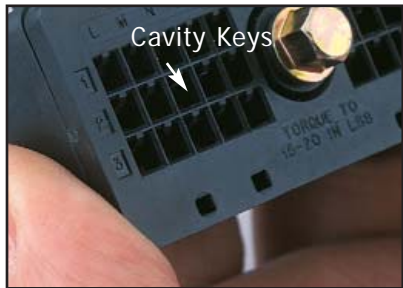
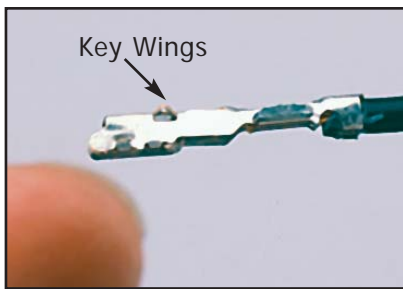
2



Secure the insulator in place by holding it in one hand. Make sure that Cavity Identification letters are in the upright position. (Shown below).



3



Grasp connector with cavity letter and number identification in the upright position.

Grasp the terminated wire closely behind the crimped terminal with key wings in the upright position.

This is the proper terminal orientation for insertion into the connector.



4

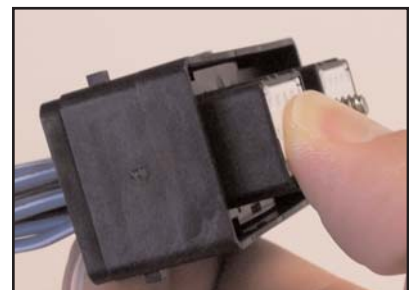
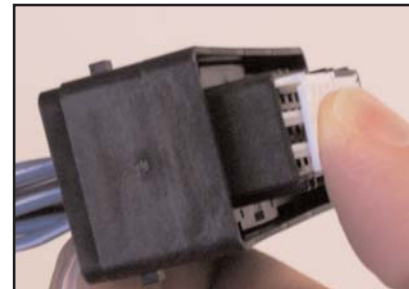


Push-Click-Tug

Complete terminal insertion by pushing the terminated wire through the connector backplate and wire grommet until the terminal bottoms out into the cavity.

Verify proper terminal seating with a light tug on the wire.

5



Repeat step 4 until all wires are inserted. Use seal plugs in unused cavities.

Finally secure the inserted wires by closing the secondary locks. If a resistance is felt while closing the secondary lock, do not force to close: Check for unseated terminal.

Terminal Removal Instructions

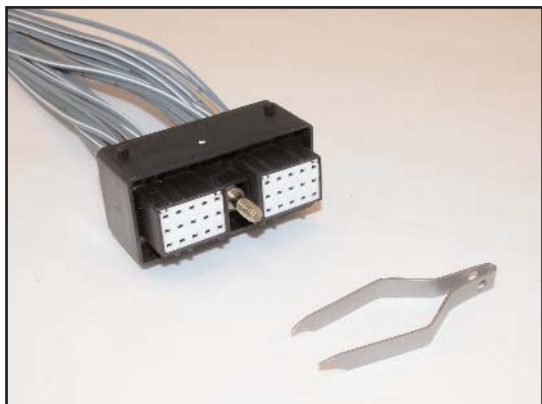
Removing the terminal from the Sealed Header System (SHS) connector is a two step process. The first step is removing the secondary lock. The second step is removing the terminal itself.

Specific Cinch tools are required for both operations.

Tools work for both the 18 and the 30 position harness connector. (30 position shown here after).

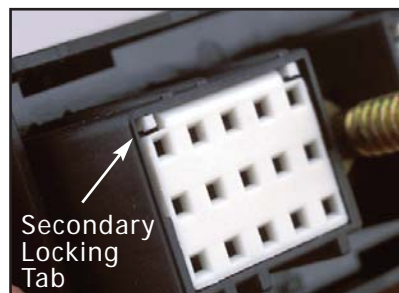
Step 1

Removing the Secondary Lock



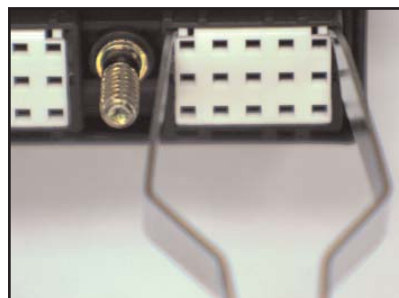
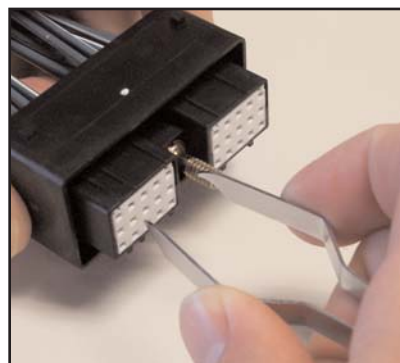
Use tweezer tool – **Part # 599-11-11-628**

1



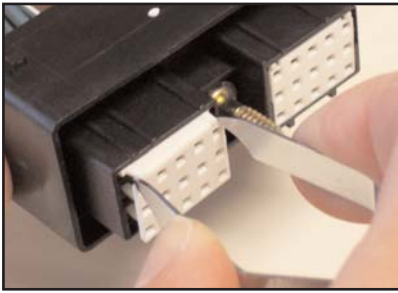
Position connector so secondary lock looking tabs are in an upright position. Locate the 2 locking tabs.

2

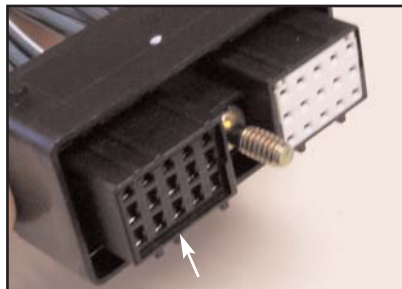
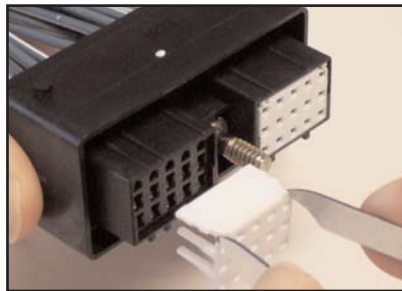


Insert tips of the tool besides the secondary lock locking tabs.

3



Push Tweezer in and squeeze to depress the locking tabs. Hold squeeze and pull secondary lock out of the connector.



Access for terminal removal tool.

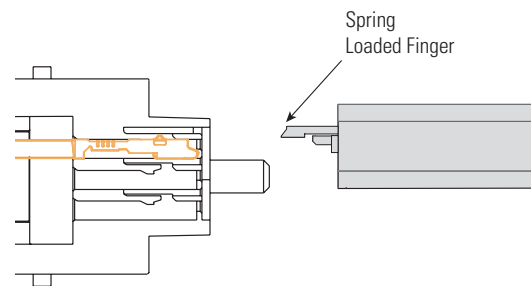
Step 2

Terminal Removal

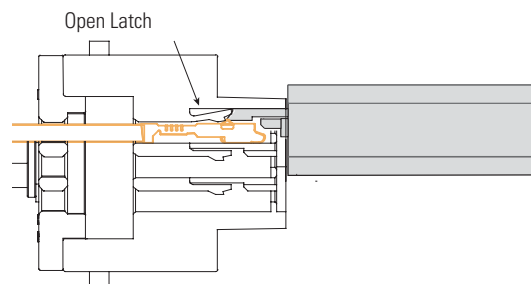


The universal terminal removal tool is designed to unlatch and push out the terminated wires.

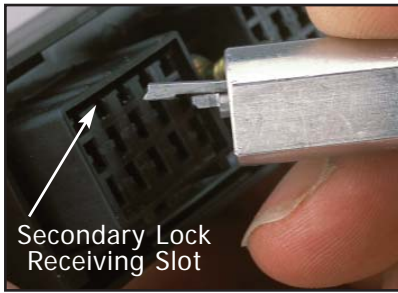
Tool - **Part # 581-01-18-920**



The tool is designed so that the longer spring loaded finger lifts the latch out of the terminal locking window. The shorter finger is stationary and will push out the terminal once the latch is lifted.

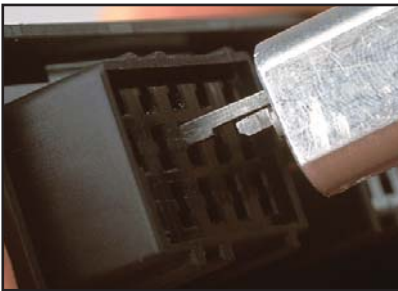


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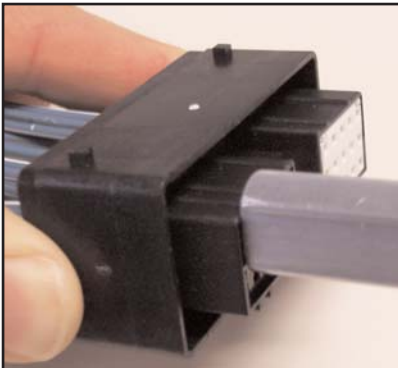
Hold connector with cavity letter and number identification in the upright position. Terminal removal tool is to be inserted in the front of the cavity, opposite to the wires.

2



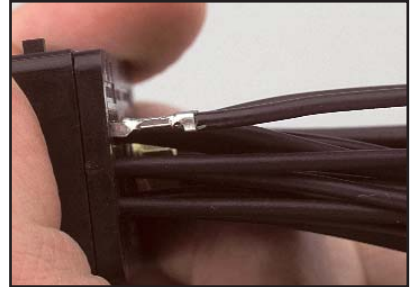
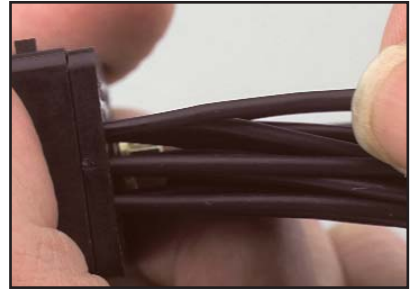
Locate wire to be extracted and its cavity in the front of the connector. Insert removal tool straight in with the spring loaded finger in the upright position.

3



Push removal tool straight in so it bottoms against the connector.

4



Remove the tool from the connector. Pull the wire out.

If the repair is done on a finished wire assembly with a tied bundle of wires:
It is necessary to hold the tool in place while pulling the terminal out.

Wires might need to be untied for ease of repair.

Hand Crimp Process Instructions

Cinch offers two hand crimp tools. These are for use with two terminals and wire ranges from 20 awg TXL to 16 awg GXL.

Tool Pt. No.	Terminal Pt. No.	Wire Gauge Range
599-11-11-615	425-00-00-872	20 awg GXL 18 awg TXL
599-11-11-616	425-00-00-873	18 awg GXL 16 awg TXL 16 awg GXL

1



Grip the hand crimp tool securely and squeeze, ratcheting the mechanism until it bottoms out. Then allow it to open completely.

2



With hand tool in ready position, (open handle) open the terminal receptacle.

3



Insert an individual terminal into the proper window as directed by wire gauge indicators on the tool.

Terminal can only be positioned in the window with the crimp wings facing up.

4

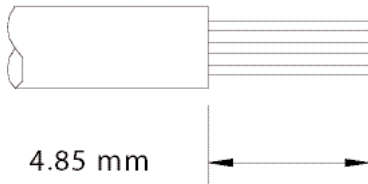


Close the terminal receptacle.

5



Pre-strip wire to required specification shown below (4.85 mm / 0.191 inches). Insert the pre-stripped wire into the terminal located in the hand tool.



6



With the terminal and wire set in the proper position, (see above) hold the wire stationary and squeeze the tool together. Complete the crimp by squeezing the tool until the ratchet releases. Remove the terminated wire from the tool.

A properly terminated wire would look similar to the drawing below. The arrow shows the approximate point where the end of the insulation should be placed.