

PROPER USE GUIDELINES

Cumulative Trauma Disorders can result from the prolonged use of manually powered hand tools. Hand tools are intended for occasional use and low volume applications. A wide selection of powered application equipment for extended-use, production operations is available.

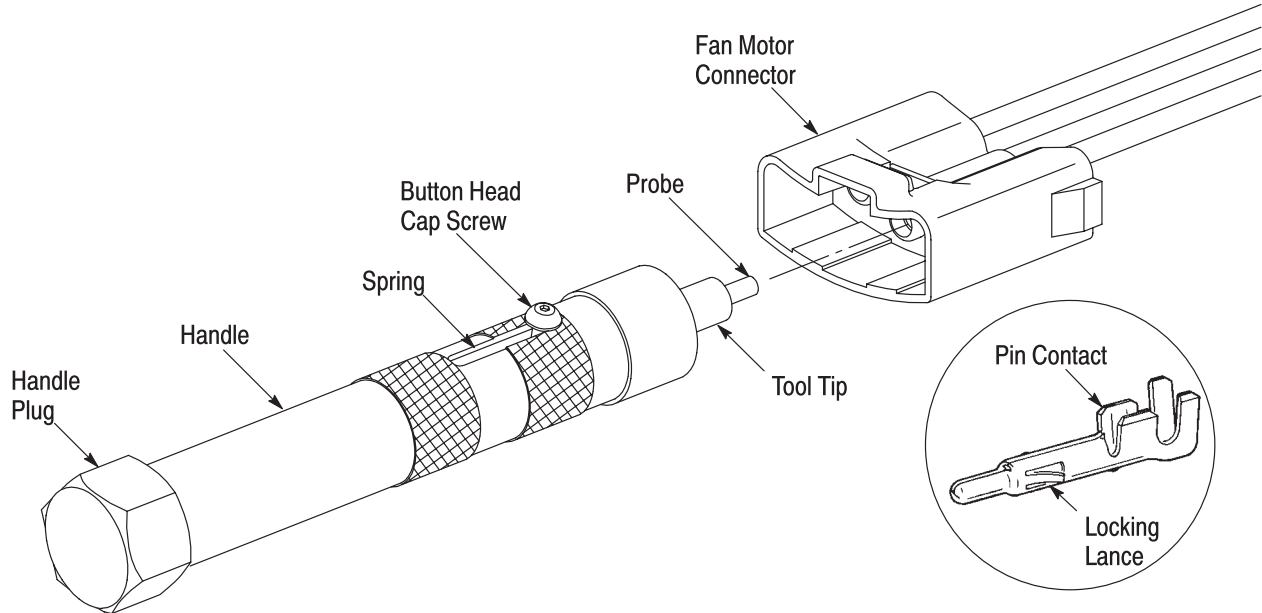


Figure 1

1. INTRODUCTION

Contact Retention Tool 1586700-1 is designed to test the retention of MATE-N-LOK universal pin contacts in MATE-N-LOK Fan Motor Connector 794099-1.

NOTE



All numerical values in this instruction sheet are in metric units [with U.S. customary units in brackets]. Dimensions are in millimeters [and inches]. Figures are not drawn to scale.

Reasons for reissue of this instruction sheet are provided in Section 6, REVISION SUMMARY.

2. DESCRIPTION

The tool consists of a handle, tip, and probe.

The tip is designed to enter the contact cavity of the connector at the front of the connector. When the tip contacts the pin contact, the tip of the probe will compress the spring inside of the tool as force is exerted. The probe will recede into the tool to create force on the pin contact to test for retention.

3. RETENTION PROCEDURE (Figure 1)

1. Hold the connector firmly with one hand and grasp the tool handle with the other hand, then

slide the tool tip into the contact cavity of the connector and over the pin contact to be tested. Making sure that the tool is properly aligned and parallel to the pin contact, exert a linear force on the pin contact so that the spring within the retention tool begins to compress.

CAUTION



DO NOT grab the tool in the area of the button head cap screw. This will inhibit the spring from properly compressing.

2. After ample force has been applied, reduce the applied force allowing the spring within the retention tool to uncoil to its original position.

NOTE



If the probe “bottoms out” on the connector, there is approximately a 22.24-N [5-lb] force being induced on the pin contact.

If the pin contact does NOT dislodge, then it has been properly seated. If the pin contact becomes dislodged, then the locking lances must be reset to their original position of 0.76 [.030] as shown in Figure 1. The pin contact may then be inserted properly into the connector.

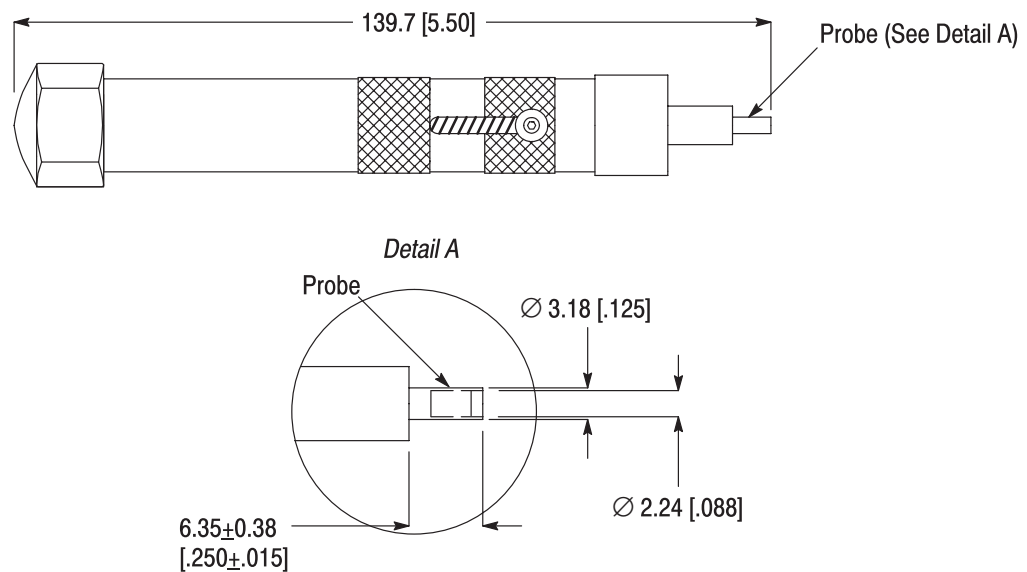


Figure 2

4. INSPECTION AND MAINTENANCE

The retention tool should conform to the dimensions given in Figure 2. It is recommended that the tool be inspected upon arrival and at regular scheduled intervals thereafter to ensure that the tool has not become damaged during handling.

5. CALIBRATION

The amount of spring pressure is controlled by adjusting the tension plug with a $\frac{1}{4}$ -in. hex wrench. Proceed as follows:

1. Remove the handle plug and jam nut from the handle. See Figure 3.
2. To *increase* the spring pressure, turn the tension plug **CLOCKWISE**. To *decrease* the spring pressure, turn the tension plug **COUNTER-CLOCKWISE**. Refer to the connector specifications for proper retention force. To verify the proper retention force, use a platform scale or similar calibrated weight device.



The spring within the tool exercises a force ranging from 8.89 to 26.68 N [2 to 6 lbs] depending on the amount of compression.

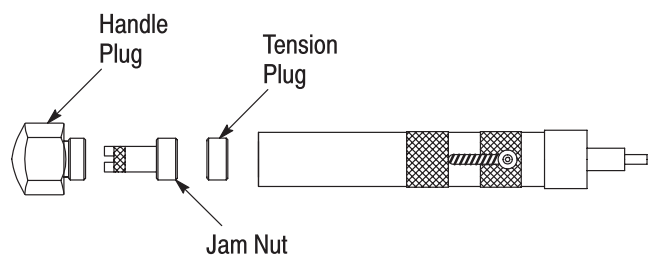


Figure 3

6. REVISION SUMMARY

Revisions to this instruction sheet include:

- Updated document to corporate requirements
- Removed "alternate probe" from Step 1 of Section 5