

**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 may be available.

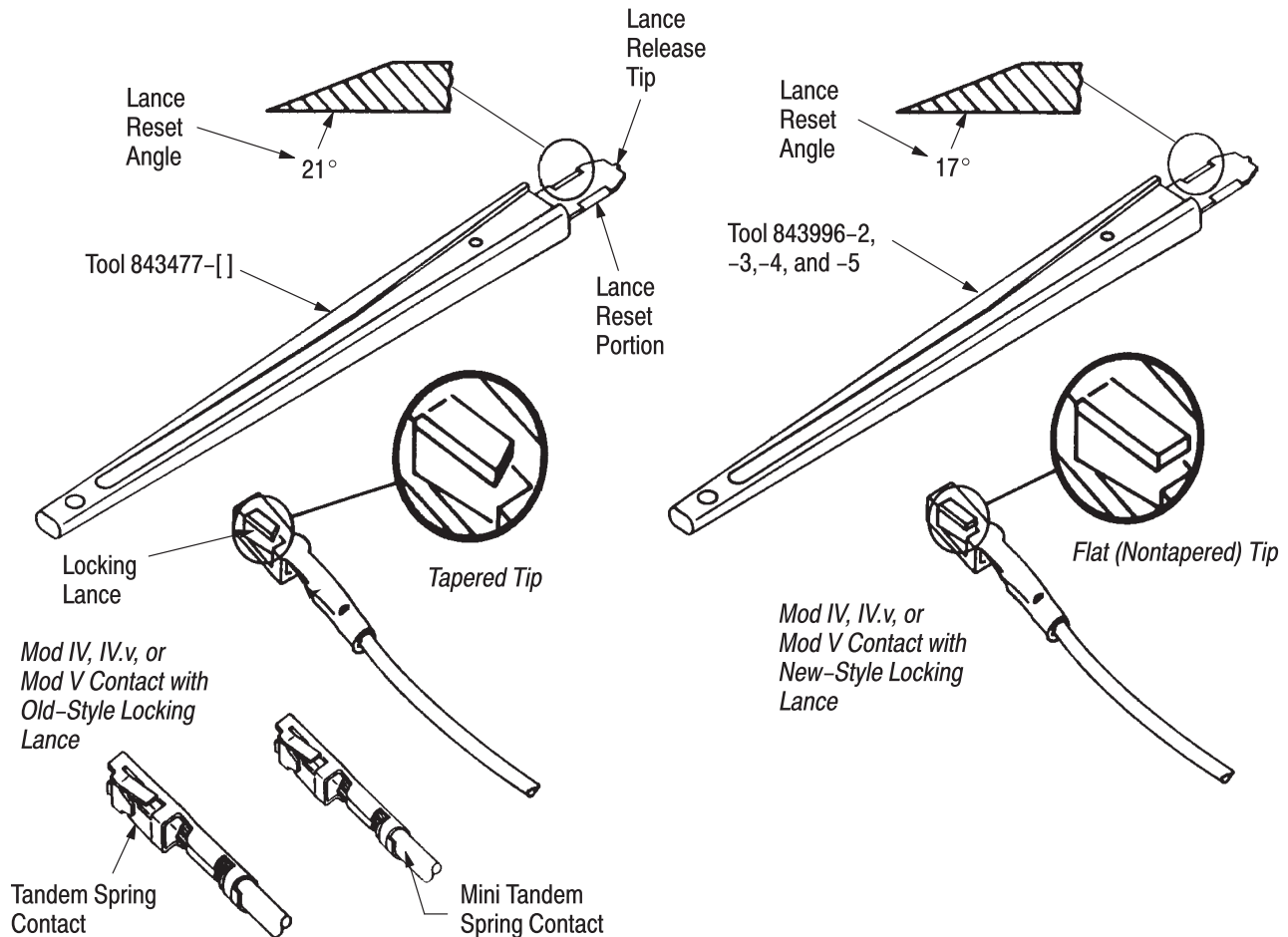


Figure 1

**1. INTRODUCTION**

This instruction sheet describes the use of Extraction/Lance Reset Tools 843477-[ ] and 843996-2, -3, -4, and -5. These tools are designed to remove MTE\*, Mod IV, Tandem Spring, and Mini Tandem Spring contacts from housings and reset the overly depressed contact locking lances of the removed contact (see Figure 1). The two tool types are basically the same except for the lance reset angles. The reset angle of tool 843477-[ ] is 21° and the reset angle of tool 843996-2, -3, -4, and -5 is 17°. This is to accommodate the different designs of the locking lances of Mod IV, Mod IV.v, Mod V contacts, as shown in Figures 1 and 2. The 843477-[ ] tools are used with contacts having the old style locking lance design and 843996-2, -3, -4, and -5 tools are used with the contacts with the new style locking lance design.

Read these instructions thoroughly before attempting to remove any contacts or resetting the locking lances.

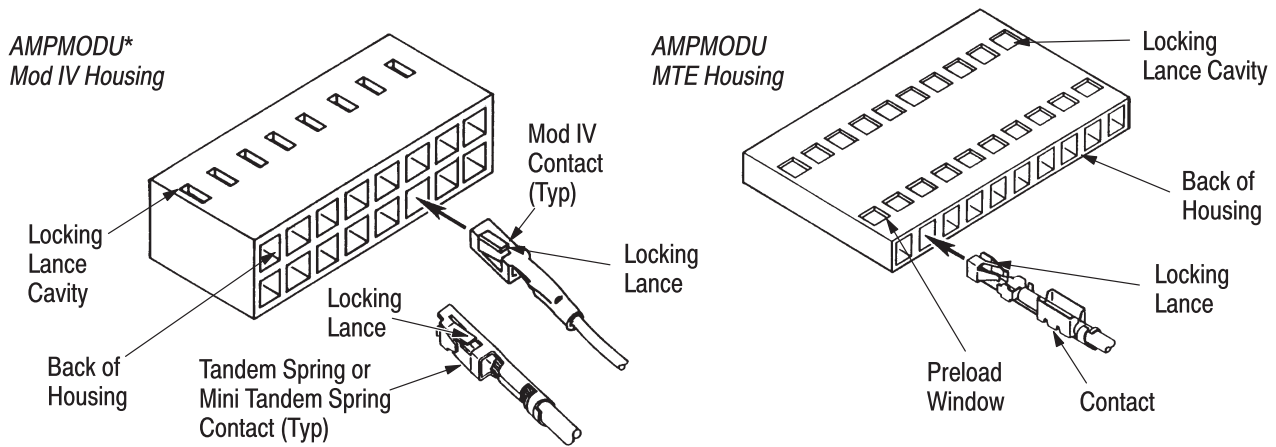
**NOTE**

All dimensions are in millimeters [followed by inches in brackets]. Figures and illustrations are for reference only and are not drawn to scale.

Reasons for revision of this document can be found in Section 6, REVISION SUMMARY.

**NOTE**

Since Mod IV housings will accept contacts with both the old style and the new style locking lance, the selection of the correct tool depends on which contact is being extracted. Information about the contacts and housings can be found in Catalog 1307819. Contacts with the old style locking lances will gradually be phased out.



**NOTE:** Contacts shown are typical except that the Mini Tandem Spring contacts are used with Mini Tandem Spring housings only. Also, Mini Tandem Spring contacts are oriented as shown in Figure 3, View B, before insertion into the housing. Refer to Catalog 1307819 for Mod IV, Tandem Spring contacts and mini Tandem Spring contacts.

Figure 2

## 2. DESCRIPTION

Each tool features a handle marked with the specific part number, a contact lance release tip, a locking lance reset portion, and a tool stop. The contact lance release tip depresses the contact locking lance to allow extraction of the contact. The tool stop prevents over-insertion of the tip. The lance reset portion repositions an overly depressed locking lance to the proper height — assuring retention of the contact in the housing.

Generally, all tools except tools 843477-5 and 843996-5 can be classified as top release tools in that — during the extraction process — they are inserted into the top of the housing to depress the locking lance from the top, as shown in Figure 3, View A. On the other hand, tools 843477-5 and 843996-5 are called side release tools. Although they are inserted from the top (see View B, Figure 3), each side release tool is designed for a contact which is retained in the housing with its locking lance lodged into the side of the housing cavity. Housings of this style are called side release housings. Note that tools 843477-5 and 843996-5 have a tapered tip to facilitate removal of the contact (see Figure 3, View B).

## 3. EXTRACTION PROCEDURE

If extracting Mod IV, Mod IV.v, or Mod V contacts, first determine whether the contact has an old style or a new style locking lance. Then select the tool recommended for your particular contact. Use Figure 2 when extracting MTE, tandem spring, or mini tandem spring contacts. When you are sure you have the correct tool for your particular application, proceed to Paragraph 3.1 or 3.2.

### 3.1. Extraction Tools 843477-1, -2, -3, -4 and Tools 843996-2, -3, -4 (Figure 3, View A)

Tools represented in View A of Figure 3 release the locking lance from the top of the housing cavity as shown.

**NOTE**

*The tip of the locking lance will be visible in housings requiring these tools.*

These steps are recommended:

1. Orient the wide part of tip with the narrow part of locking lance cavity.
2. Insert tool tip into BACK of lance cavity until tool stop bottoms on housing.
3. Holding tool in position, grip wire and pull contact out of housing.
4. Remove tool from housing.
5. Repeat Steps 1 through 4 for AMPMODU MTE housings when contact reaches preload window (see Figure 2).

### 3.2. Extraction Tools 843477-5 and 843996-5 (Figure 3, View B)

Tools 843477-5 and 843996-5 release the locking lance from the side of the housing cavity.

**NOTE**

*The edge of the locking lance will be visible in housings requiring this tool.*

Proceed as follows:

1. Align tool so that wide part of tip is oriented with long part of lance cavity, and tip taper is opposite locking lance.
2. Insert tool tip between locking lance and housing until the tool stop bottoms.

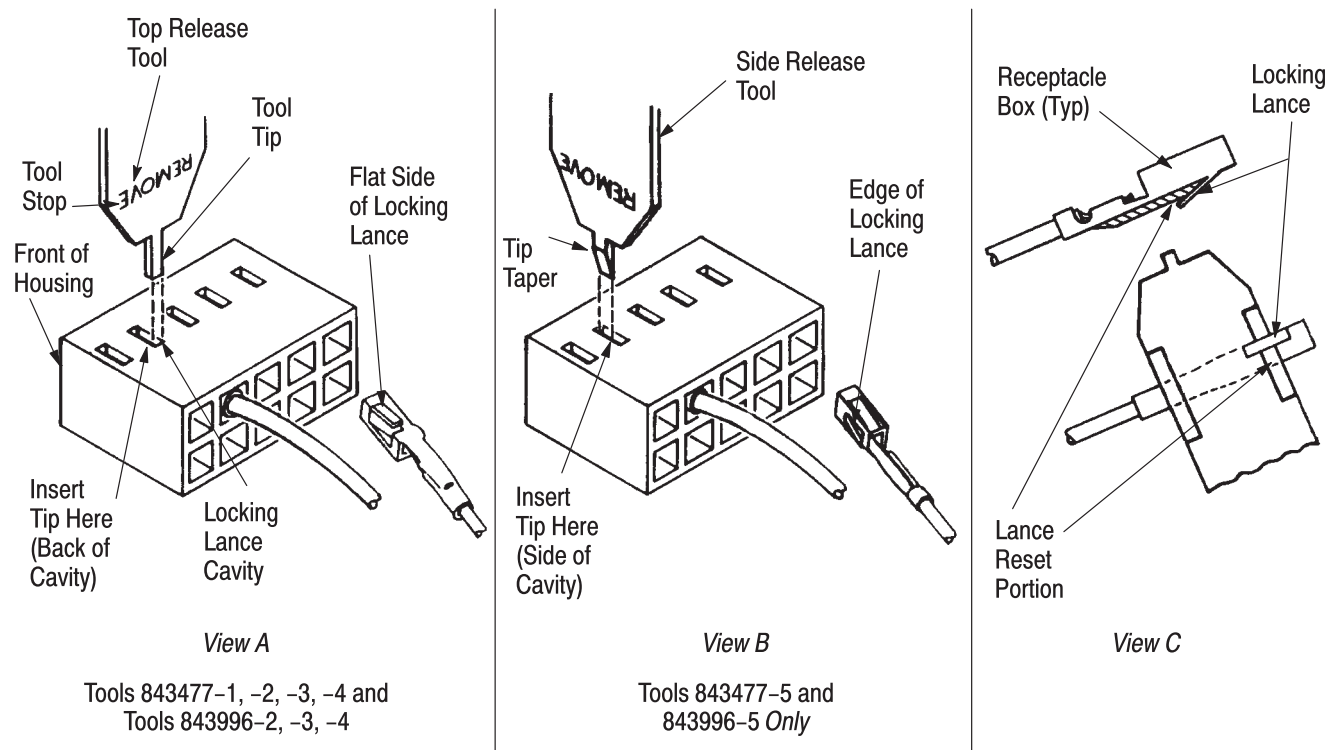


Figure 3

3. Pull back lightly on the wire and, if necessary, move tool just enough to release the lance.
4. Remove the contact from the housing; then remove the tool.

#### 4. LOCKING LANCE RESET PROCEDURE

(Figure 3, View C)

The tools described on this sheet are designed to reposition depressed locking lances to ensure retention in the housing. Check compatibility of the contact and tool; then proceed as follows:

1. Orient the reset tip so the taper is facing the locking lance.
2. Keep the reset tip flat against the receptacle box and slide it toward the base of the locking lance until it bottoms.
3. Remove tool tip and contact will be ready for re-insertion into the housing.

#### CAUTION

*Damaged product should not be used. If a damaged contact is evident, it should be cut from the wire and replaced with a new one. If a damaged housing is evident, it should be replaced.*

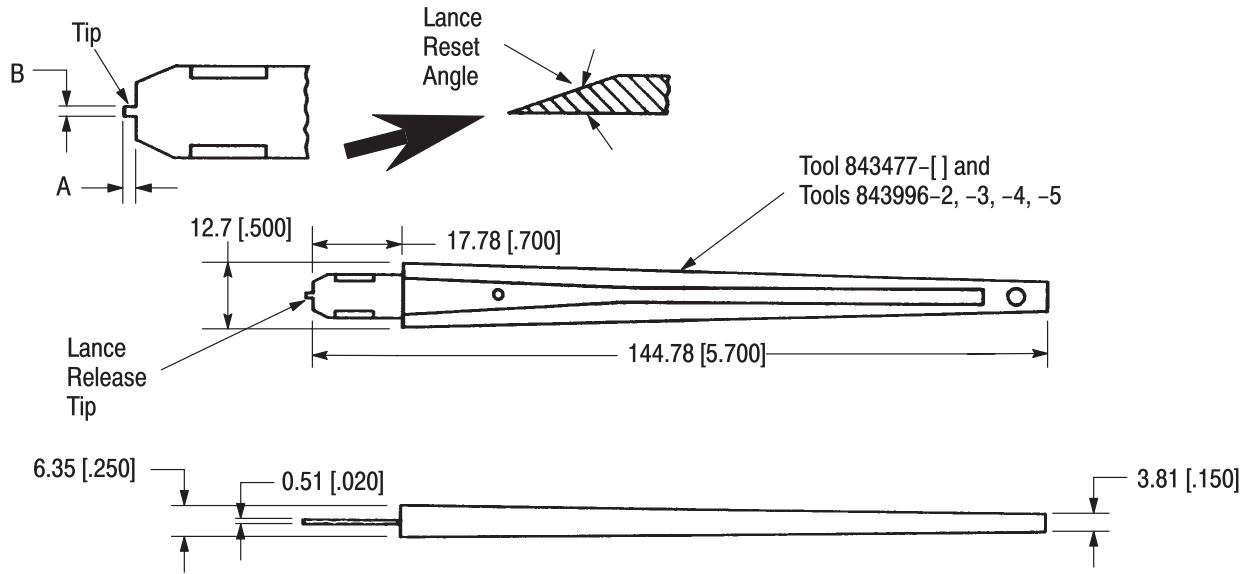
#### 5. TOOL INSPECTION/MAINTENANCE

Tools 843477-[ ] and 843996-[ ] should conform to the dimensions listed in Figure 4. It is recommended that each tool be inspected upon its arrival to be sure it has not been damaged in transit and at regularly scheduled intervals to be sure it remains functional.

#### 6. REVISION SUMMARY

Since the previous release of this sheet, the following changes were made:

- Update document to corporate requirements
- Changed reference product catalog from 65816 to 1307819 in NOTE in Section 1, INTRODUCTION; and in NOTE in Figure 2
- Corrected dimensions in Figure 4 and table in Figure 4



PART NUMBER		DIMENSIONS		LANCE RESET ANGLE
TOOL 843477-[ ]	TOOL 843996-[ ]	A	B	
843477-1	---	0.46 [.018]	0.81 [.032]	The Lance Reset Angle for All 843477-[ ] Tools is 21°; the Lance Reset Angle for Tools 843996-2, -3, -4, and -5 is 17°.
843477-2	843996-2	0.76 [.030]		
843477-3	843996-3	1.02 [.040]		
843477-4	843996-4	1.27 [.050]		
843477-5‡	843996-5‡	2.79 [.110]		

‡ Tools 843477-5 and 843996-5 Have a Tapered Tip to Facilitate Side Removal Contacts

Figure 4