

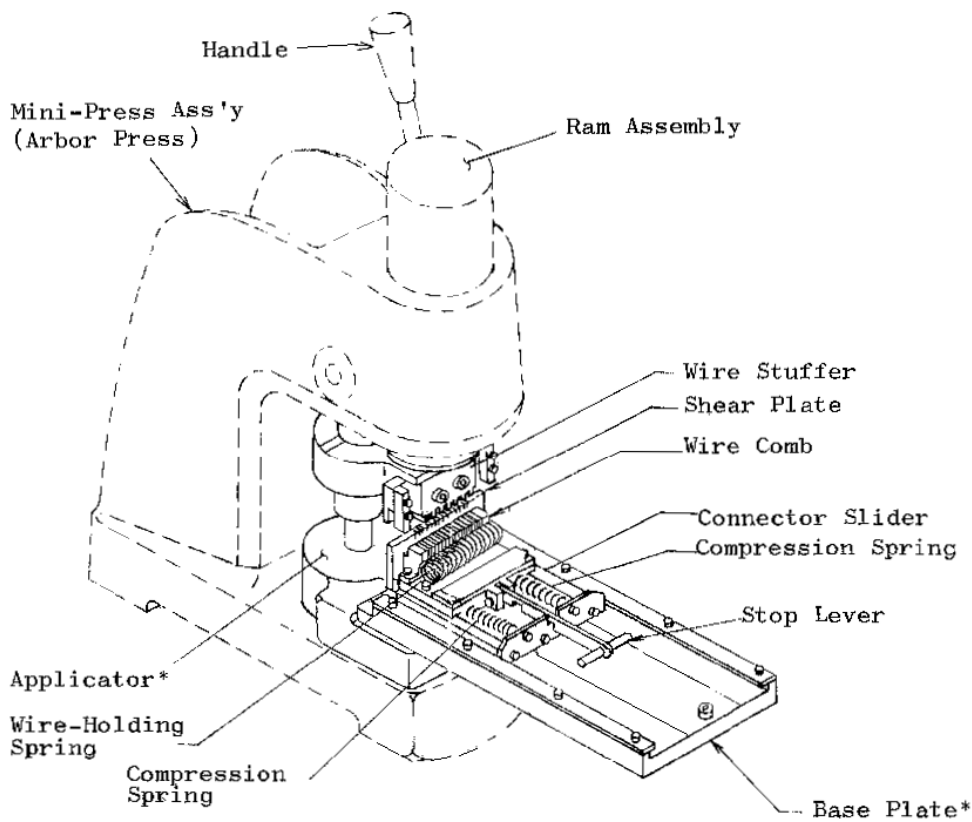
**MINI PRESS FOR DISCRETE WIRE  
P/N 723860-1**

**NOTES : Japanese version is 411-5102-1.**

INTRODUCTION:

TE mini-press w/applicator assembly, P/N 723860-1 has been designed to terminate discrete wires on Mass Termination, "EI" Series Connectors by means of TE Wire Displacement Technique. Read this instruction sheet carefully, before you start assembly.

1 NOMENCLATURE AND GENERAL DESCRIPTIONS:



(1) Hand Operated Mini-Press (Arbor Press) Assembly:

Hand operated mini-press assembly is a specially prepared arbor press, consisting of aluminum-cast frame body, tooling base upon which applicator is mounted, ram assembly and handle assembly which drives ram up and down as it is operated.

(2) Applicator Assembly:

Applicator assembly is consisting of upper tooling including wire stuffer, shear guide plate which guides shear palte and shank that connects upper tooling with ram assembly, and lower tooling including wire comb, connector slider and base which allows sliding of cable holder.

(3) Cable Holder:

Cable holder has the function to accept discrete wires to be terminated and hold them in the proper positions during terminating cycle. The cable holder assembly consists of shear plate, wire comb, wire hold spring, connector slider and stop lever. This assembly allows operator to facilitate wire setting and removal of terminated connector, as it slides forward into and back from under the ram along the guide rails of base plate. (See Fig. 1.)

2. TERMINATING PROCEDURE:

2.1 Preparation of Connector and Wires:

The connectors and wires must be placed near the working area accordingly. The wire sizes and insulation colors should be confirmed when mixed wires are used, as well as the part numbers of connectors i.e. 172051 thru 172054 to be applicable.

2.2 Set-Up of Connector Locator:

Before starting termination, it is necessary to adjust connector locator position where the terminating connector is aligned normally at the correct position under the wirecomb. The set-up method is described in Para. 3.2 in Page 6. Read carefully and obtain the correct position.

2.3 Terminating Operation:

- (1) Raise stop lever and pull it back toward you until the first notch is reached, where again raising it upward, pull back to open the connector placing area wider. When the second notch is reached, just hook down the lever to **keep** hold the target area open.
- (2) Place the desired connector you prepared, into the connector placing area, and have it resting snug in position. (See Fig. 2 and Fig. 3.)

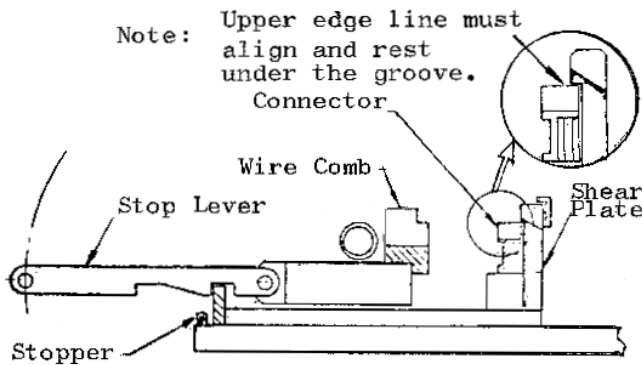


Fig. 2

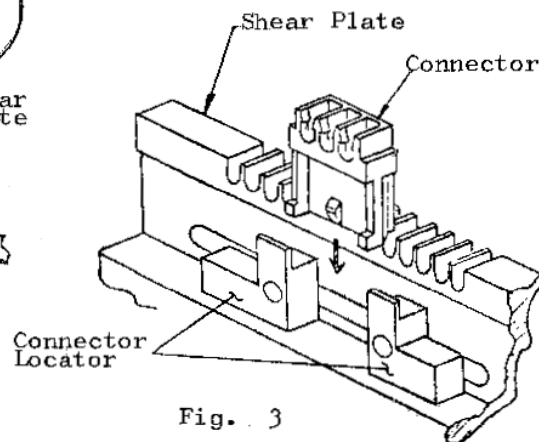


Fig. 3

- (3) Raise stop lever to unhook the lever, so that it returns forward automatically by the spring tension to securely lock the connector in place of termination target area. (See Fig. 4.)

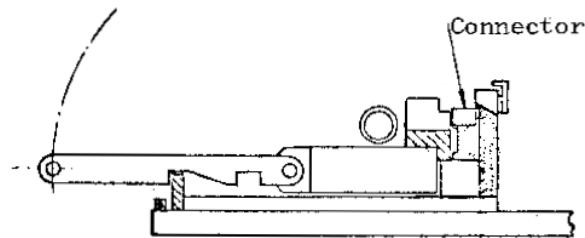


Fig. 4

- (4) Take up one discrete wire, and insert its end into the groove of the desired contact position straight forward until it bumps against the wire stopper. The wire end must be directly bottomed against the wire stopper. Then, depress the wire into the wire groove of the comb to have it settled by the fingers. Repeat insertion of the wires until all the connector positions are filled with the wires in line side by side. (See Fig. 5 and Fig. 6.)

The lead-out of the wires should be **pinched** in the coil slots of the wire-holding spring as shown in Fig. 5.

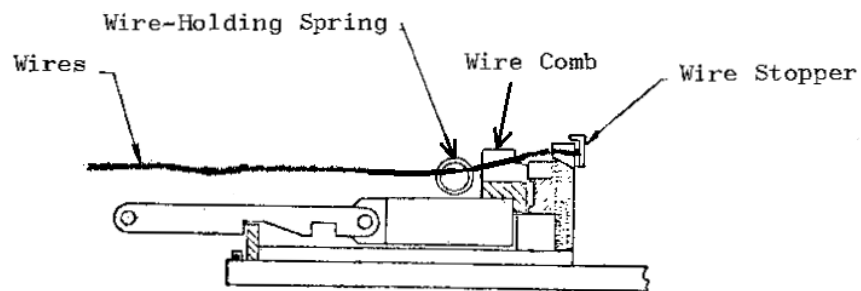


Fig. 5

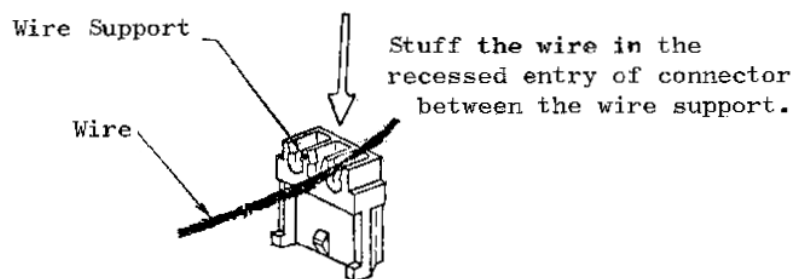


Fig. 6

- (5) Transfer cable holder to under the press ram, pushing it by stop lever, until it bumps against ball plunger where the location of cable holder is regulated. (See Fig. 7.)

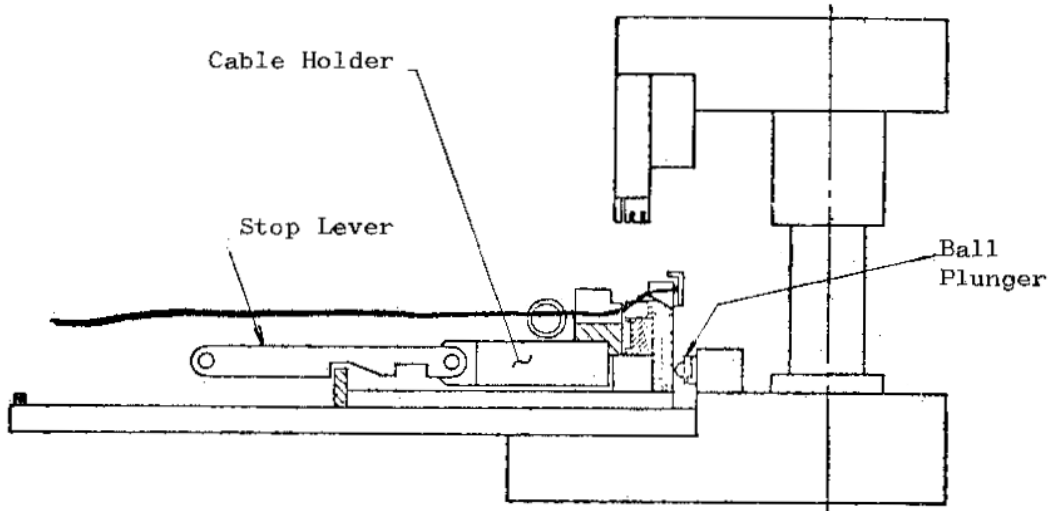


Fig. 7

- (6) Before lowering the upper tooling, make sure if any of the wires are not settled and moved out from the grooves of comb. With the inserted wires all settled, lower the upper tooling smoothly and not jerkingly, by pulling the handle lever toward yourself. The press ram will stop when it bottoms fully over the lower tooling. Then, return the handle upward to the position it started. This completes wire termination onto connector contacts.

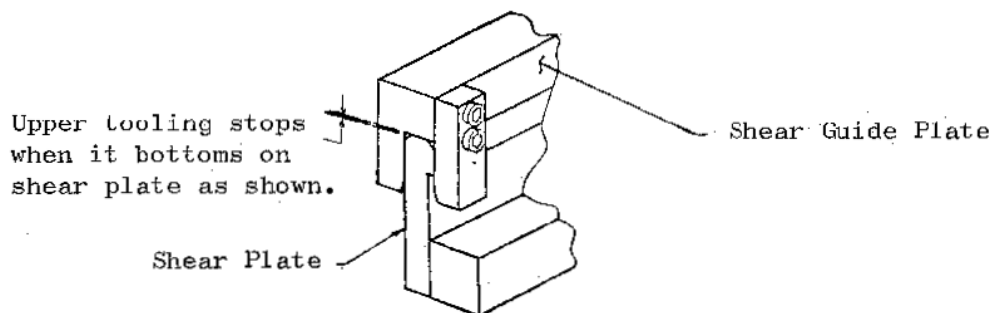


Fig. 8

- (7) Remove terminated connector after pulling back the cable holder and open the terminating area by retracting the stop lever as it was before starting.

### 3. SET-UP AND ADJUSTMENT:

#### 3.1 Obtaining Aligned Position of Wire Stuffer Assembly:

When replacement of wire stuffer is done, or securing screws are loosened by some reason, it will become necessary to obtain fine alignment positioning of wire stuffer assembly. Incorrect positioning of wire stuffer will directly result defective termination of connector which often accompanies damages of contacts and housing. Proceed as follows. (See Fig. 9.)

##### Procedure:

- (1) Remove front guide plates (right and left) by loosening the screws.
- (2) Remove stuffer front plate by loosening off the screw.
- (3) Loosen the screws that secure wire stuffer. Replace wire stuffer with new part when necessary, and turn the screws on by fingers but not tightly just to keep the part in place.
- (4) Lower press ram slowly to see that shear plate correctly engages with wire stuffer at the centered alignment as shown in the enlarged view of Fig. 9. With the parts correctly aligned, turn on the screws and secure tightly.
- (5) Replace the removed stuffer front plate with correct alignment of upper and side surfaces with the edges of wire stuffer, and secure it with screws.
- (6) Replace the front guide plates (right and left) and secure them with screws.

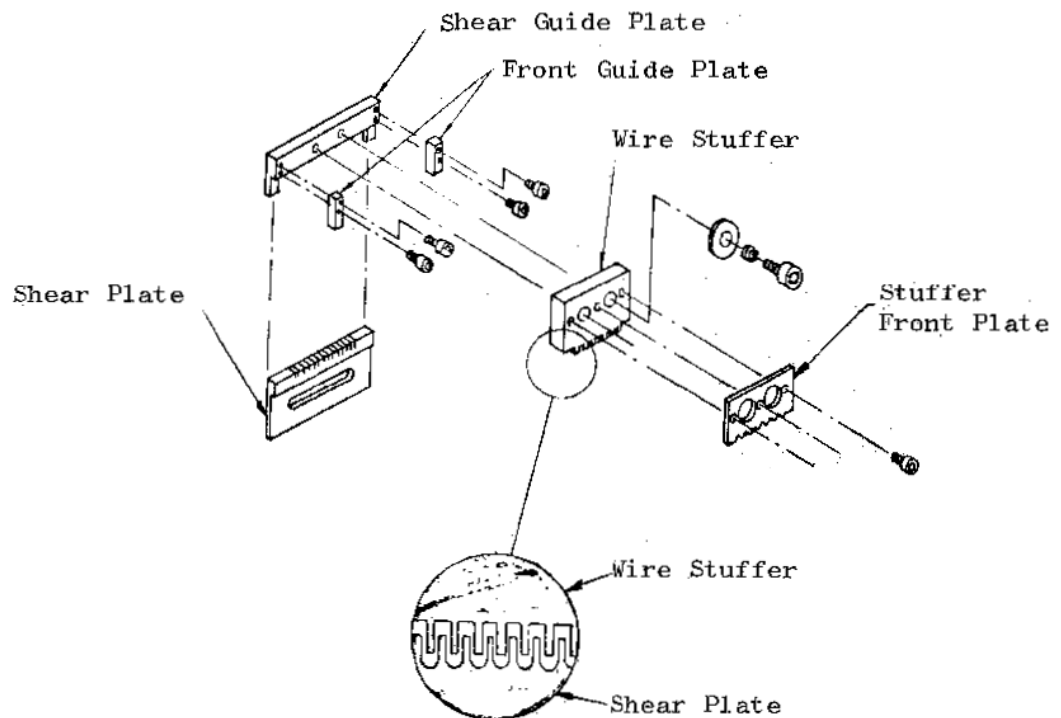


Fig. 9

3.2 Obtaining Correct Position of Connector Locator:

When correct position of wire stuffer is obtained, connector locator must be readjusted for its correct position setting inter-relatively with wire stuffer. This adjustment is also necessary when connector having different number of contact positions are to be used, or when connector locator setting loosened by some reason.

Ofcourse, it is immediately necessary to readjust the position, when incorrect setting of connector is found during operation with respect to wire stuffer, and that defective termination is resulted.

Proceed as follows:

- (1) Loosen the screws that secure connector locators (right and left), and place the connector you are to terminate with its center line aligned with that of wire stuffer. (See Fig. 10.) For this adjustment, wire combe must be removed before setting.

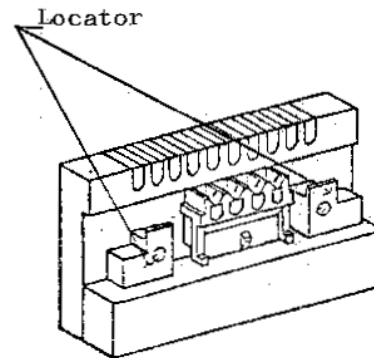


Fig. 10

- (2) Slowly lower the press ram, seeing that wire stuffer is just fitting to contact positions of connector without signs of conflict. With the connector positioned at this setting, fit and screw on the connector locators tentatively but not securely. (See Fig. 11.)

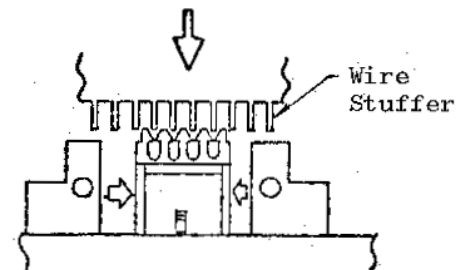


Fig. 11

- (3) Raise the press ram to the upper dead point, and again lower it slowly to insert wire stuffer into connector positions. At this stage, be alert to listen to any scratching noise produced by the wire stuffer scraping the contact surfaces, occurring in the terminating area. If such noise is heard, try to obtain fine adjustment once again.

Although such scraping noise is not heard, it is necessary to inspect terminated connector to see if any sign or evidence of abrasive damage is present.

Some examples of damaged contacts are shown in Fig. 12.



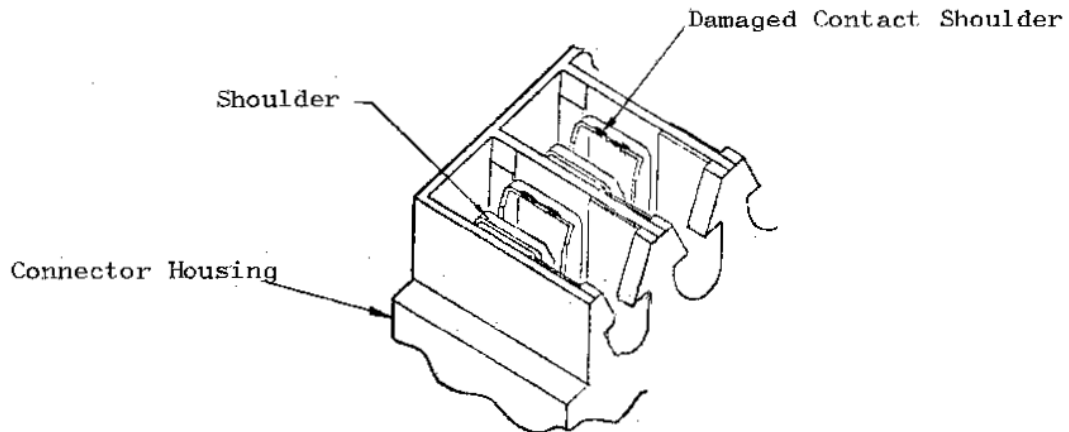


Fig. 12

- (4) When no abnormalities are found after inspection of terminated connector, without showing evidence of defective tool marks or abrasive scratches with or without making noise of conflict at termination, proceed to Para. (5) to continue further adjustment.

Although such trace is small and next to negligible, it is necessary to continue adjustment until you obtain optimum condition of tooling. Do not quit your approach to fine adjustment so long as abnormal signs of noise and tool mark are found.

Adjust as follows:

- (a) When damage or tool mark is found on the **right side** shoulder of contact, connector position should be moved 0.2mm rightwards. To do this, loosen screw that secures locator on the right side, and insert a 0.2 mm thick shim between the locator and connector. At this point, tighten screw to secure locator. Then, remove 0.2mm thick shim, and align connector with the right side locator. On the next, loosen screw that secure the left side locator, and align it with the connector and again tighten the screw to secure the left side locator. This completes fine adjustment of the connector position by means of locators. Return to Para. (3) to continue other adjustments.

Insert 0.2mm thick shim.

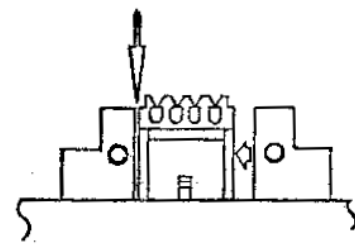
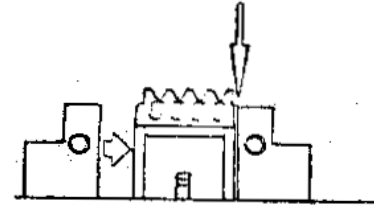


Fig. 13

- (b) When damage or tool mark is found on the left side shoulder of contact, connector position should be moved 0.2mm leftwards. To do this, loosen screw that secures locator on the left side, and insert a 0.2 mm thick shim between the locator and connector. At this point, tighten screw to secure the locator. Then, remove 0.2mm thick shim, align connector with the left side locator. On the next, loosen screw that secure the right side locator. and align it with the connector and again tighten the screw to secure the right side locator.



This completes fine adjustment of the connector position by means of locators.

Return to Para. (3) to continue other adjustments.

- (5) Using a new connector, check to see if the adjusted position is correct and termination is alright.
- (6) Install wire comb, and visually checking secure the wire comb at the position where the center line of wire comb aligns with that of wire support.

4. INSPECTION OF TERMINATED CONNECTOR:

Terminated connector must be inspected in accordance with 114-5046, TE Application Specification for Terminating Mass Termination "EI" Series Connector. This specification is supplied to the customer upon request.

5. LUBRICATION AND CLEANING:

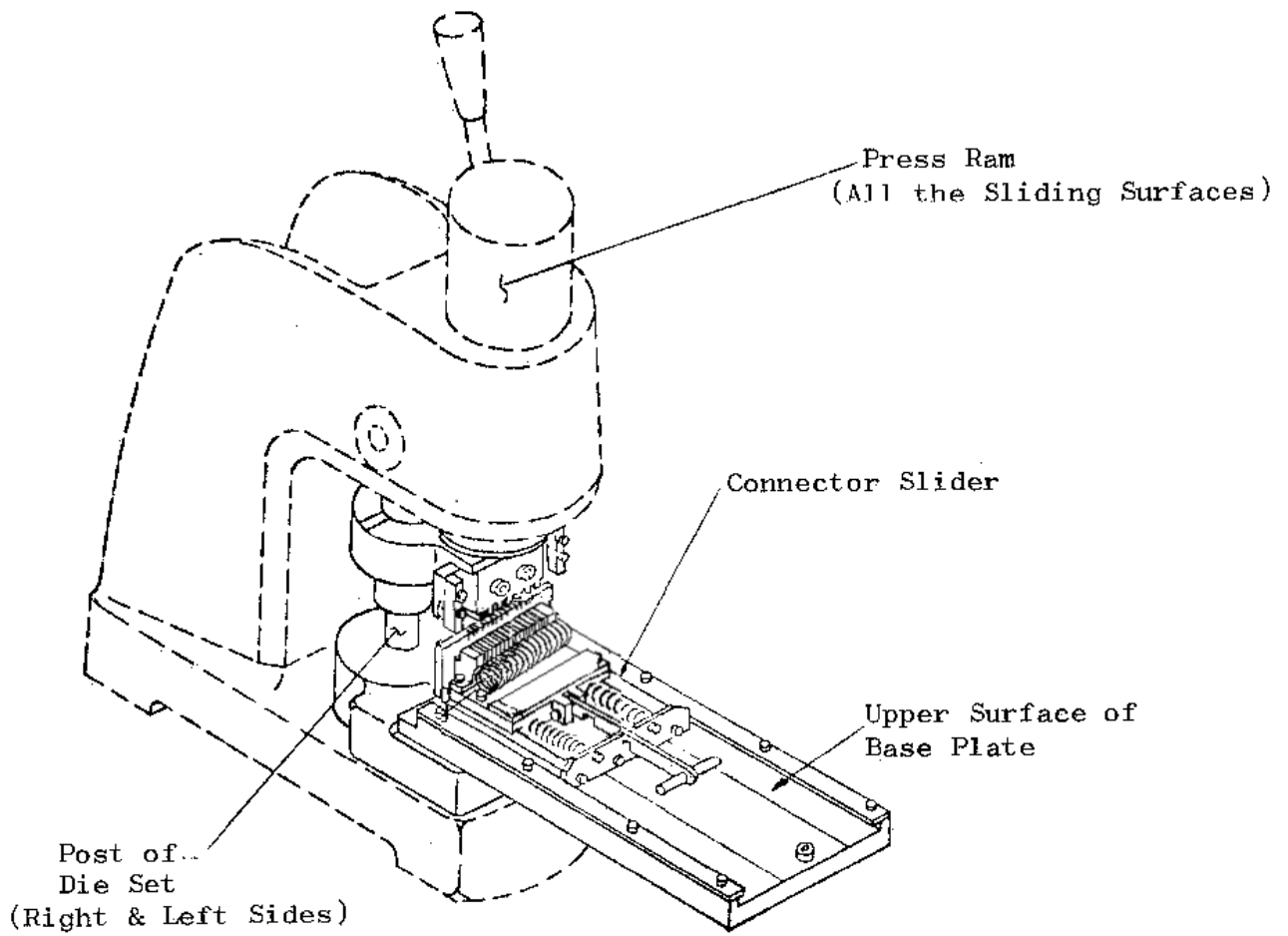
TE Mini-Press with Applicator Assembly must be handled moderately, and lubricated by applying 2 - 3 drops of machine oil of good quality once a week to the locations shown in Fig. 15, after removing dust and foreign matters with the use of clean, lint-free soft cloth. Wipe and clean to remove particles and tips of cut wire strands every day after the operation.

6. REPAIR AND MAINTENANCE:

Replacement of the component parts can be done referring accordingly to Fig. 16 and Fig. 17. Order the part number and quantity of the part you need to replace. Those items whose part names and part numbers are not shown in Fig. 16 and Fig. 17, should be replaced at TE factory to assure reliable performance of the tooling.

Return to TE factory or sales representative of your area by the way of proper transit with the descriptions of failure and service to be rendered.





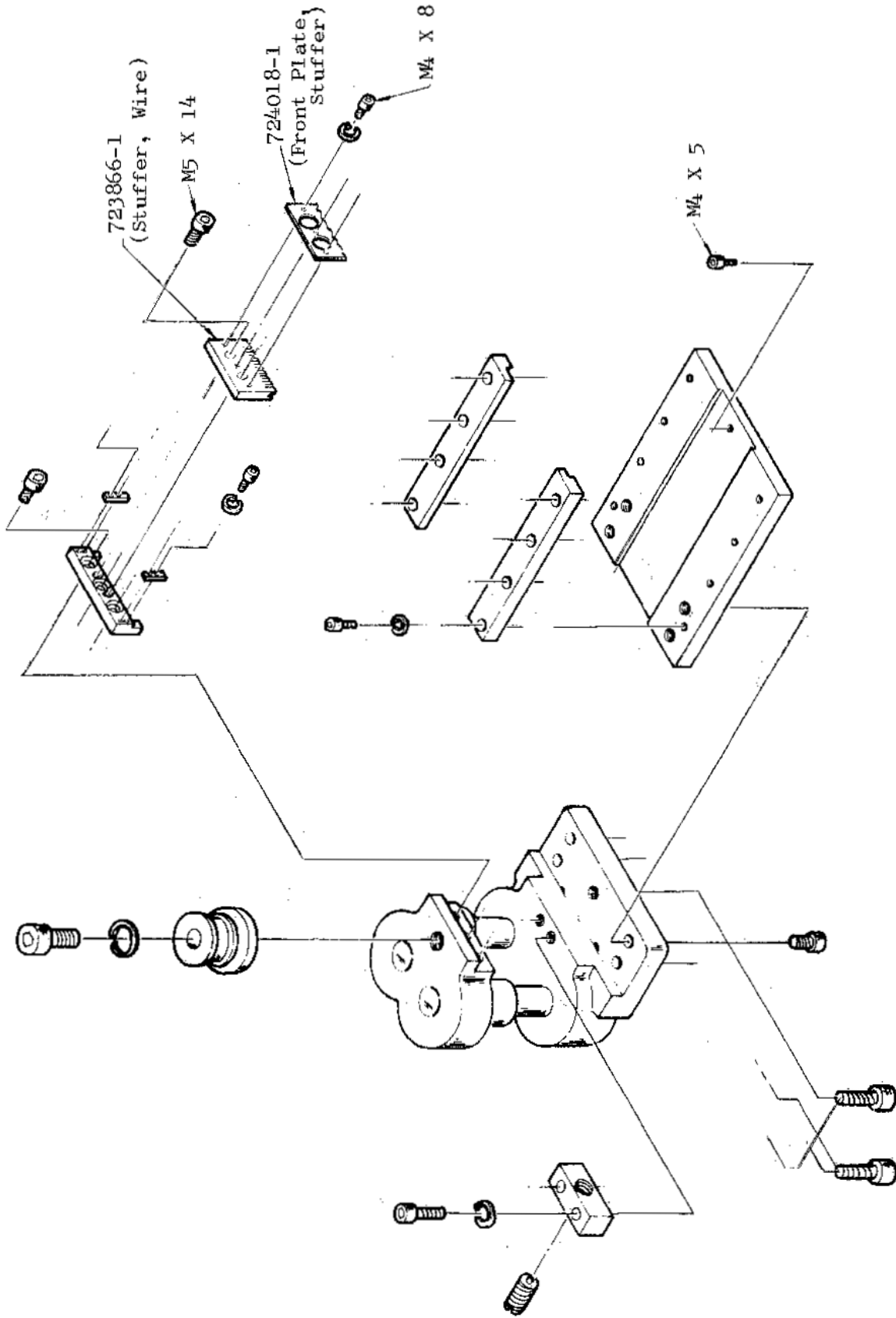


Fig. 16 Applicator for Standard Type (724019-1)

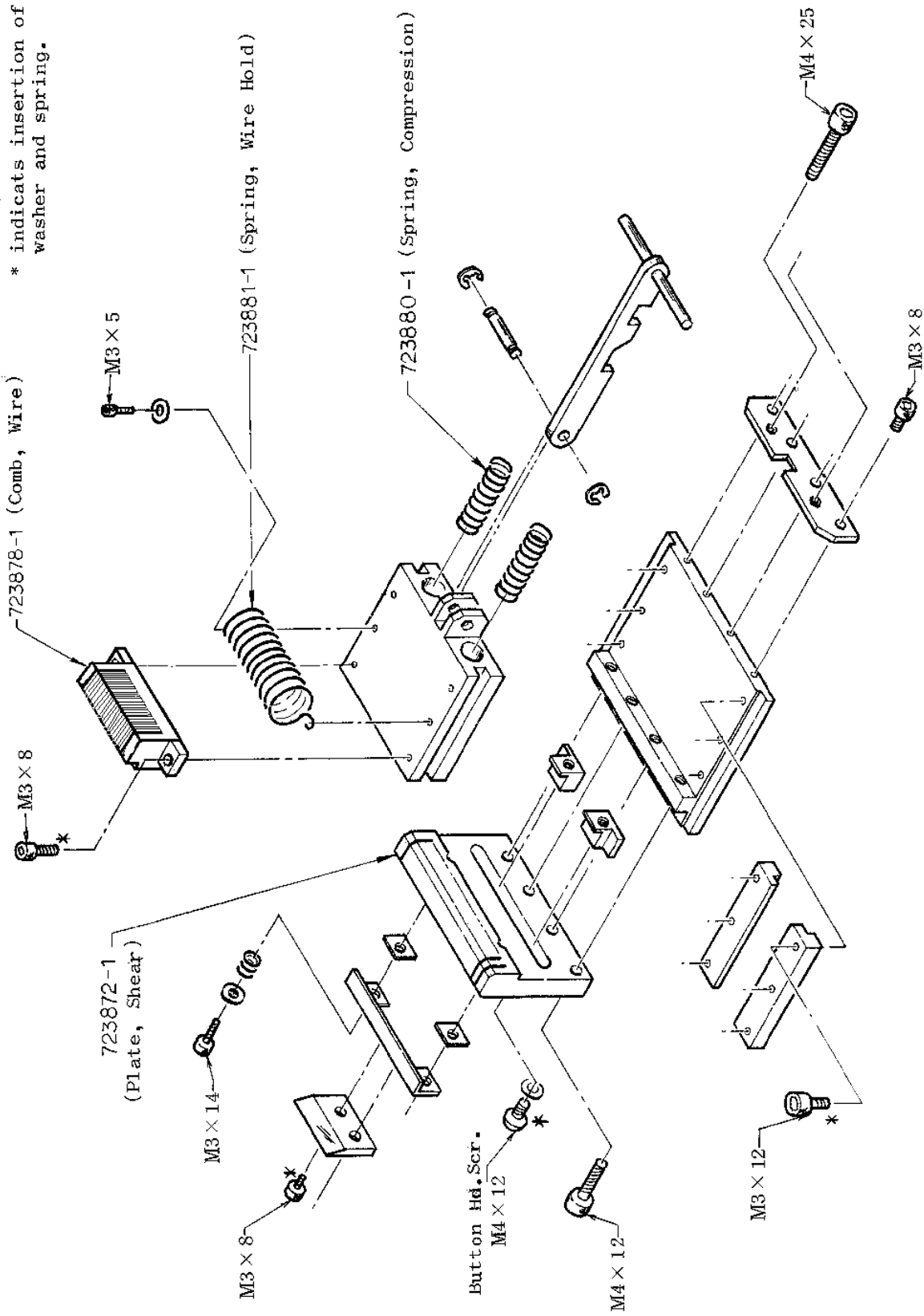


Fig. 17 Tool Assembly for Discrete Wire Application ( 723860-3 )

## 改定履歴

Amendment history

改定 Rev	年月日 DATE	The contents of amendment
O	11 NOV 79	RELEASED
A	06 MAR 14	Format change