# E4A KEY

# REQUIREMENTS AND ADJUSTING PROCEDURES

## 1. GENERAL

1.01 This section covers the E4A key.

1.02 Reference shall be made to Section 020-010-711 covering general requirements and definitions for additional information necessary for the proper application of the requirements listed herein.

1.03 Part 1 "General" and Part 2 "Requirements" form a part of the Western Electric Co. Inc. Installation Department handbook.

1.04 Requirements are marked with an asterisk (*) when to check for them would necessitate the dismantling or dismounting of apparatus, or would affect the adjustment involved or other adjustments. No check need be made for these requirements unless the performance indicates that such a check is advisable.

1.05 Since the insulation resistance requirements of this apparatus are severe, it is absolutely necessary that every precaution be exercised to prevent the hard rubber insulating material coming in contact with hands, oil, grease, dust, metallic particles or other foreign material or being unduly exposed to heat or light. For this reason, when handling the key, place a fresh piece of KS-2423 cloth between the hand and the key.

1.06 If any adjustments are required other than covered herein or if tests show failure of any of the hard rubber insulators indicating that they require cleaning or replacement, the key should be returned to the manufacturer.

1.07 The normal (unoperated) position of the lever is that position in which the lever is perpendicular to the key top and all contacts are open.

1.08 The operated position of the lever is that position in which the lever is operated either to the extreme front or rear and the contact blades engage with the rear or front contact clips respectively.

## 2. REQUIREMENTS

2.01 Cleaning The contact metal portion of the clips and blades shall be cleaned when required.

2.02 Lever Movement

*(a) The cams, blades and rocker members shall operate freely on their bearings.

(b) The lever handle shall hold securely in the operated position and its normal position shall be definitely perceptible to feel.

*2.03 Contact Clips

(a) With the key lever in the operated position the associated clips shall lie approximately flat against the contacting surface of the blades. Gauge by eye.

(b) There shall be a perceptible spreading of the clips when the blades enter the clips. Gauge by eye.

## 3. ADJUSTING PROCEDURES

3.001 List of Tools and Materials

| Code No. | Description |
|---|---|
| **Tools** | |
| 179 | Spring Adjuster |
| - | 3-1/2" cabinet Screw-driver |
| KS-6854 | 3-1/2" Screw-driver |
| **Materials** | |
| KS-2425 | Cloth |

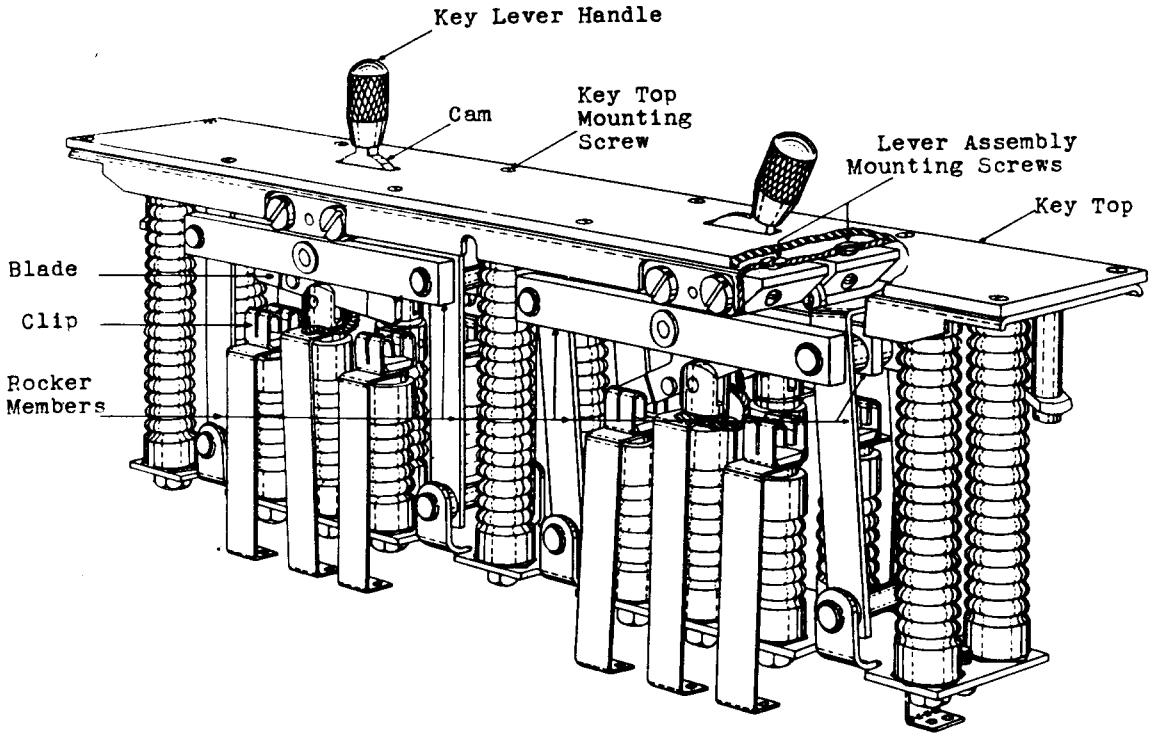
3.002 General

(1) Since the insulation resistance requirements of this apparatus are severe, it is absolutely necessary that every precaution be exercised to prevent the hard rubber insulating material coming in contact with hands, oil, grease, dust, metallic particles or other foreign material or being unduly exposed to heat or light.

(2) Before making the adjustments described in procedures 3.02 (4) and 3.03, remove all bus bar wiring from the key terminals, loosen the key mounting screws with the 3-1/2" cabinet screwdriver, and remove the key from the keyshelf.

3.01 Cleaning (Rq.2.01)

(1) The contact surfaces of the blades and clips shall be cleaned by operating the key lever several times. If that does not clean them satisfactorily, check the adjustment of the clips in accordance with procedure 3.03.




E4A KEY
FIG. 1

3.02 Lever Movement (Rq.2.02)

(1) If the key lever binds or does not meet its requirements see whether the key top is cracked, warped or broken as this may cause the lever to bind and prevent the operation of the lever. In this case remove the key top as follows:

(2) Remove the lever handles, then remove the key top screws with the KS-6854 screw-driver and remove the key top.

(3) Loose or missing screws in the hard rubber key top may cause it to move and bind the lever. Replace missing screws and tighten all screws with the KS-6854 screw-driver.

(4) Examine the contact clips and note whether the contact blade tends to stick on the top edge of the contact metal face of the clip. Correct by adjusting the contact clips as outlined in procedure 3.03.

3.03 Contact Clip Adjustment

(1) To adjust the contact clips use the small end of a No.179 spring adjuster and adjust the clips so that their contacts lie flat against the contacts on the contact blade and so that when the contact blade enters the clips, both clip contacts will be moved perceptibly.