

SWITCHES

300, 301, 302 & 303 TYPES

1. GENERAL

- 1.01 This addendum supplements Section A438.675, Issue 2-D.
- 1.02 This addendum is reissued to substitute KS-7860 petroleum spirits for KS-6815 C.P. carbon tetrachloride.

2. REQUIREMENTS

The following changes in requirements shall apply.

- Fig. B replaces Fig. B of the section.
2.29 replaces 2.29 of section.
2.41 added under "Requirements for Vertical Unit Exclusive of Holding Off-Normal Contact Springs".

2.29 Freedom of Movement of Holding Armature: The holding armature shall not bind. This requirement is met if the two following conditions exist with the armature in the normal position.

- (a) Play in the up and down direction. Gauge by eye and by feel.
- (b) Play not to exceed .010" in the left and right and in and out directions at the upper and lower ends of the holding armature. On vertical units having armature retaining lug and armature positioning spring, the play is between the armature and the retaining lug. Gauge by eye and feel.

In doubtful cases the minimum limit of (b) is met if the armature drops freely by its own weight after being raised manually. On vertical units with armature positioning

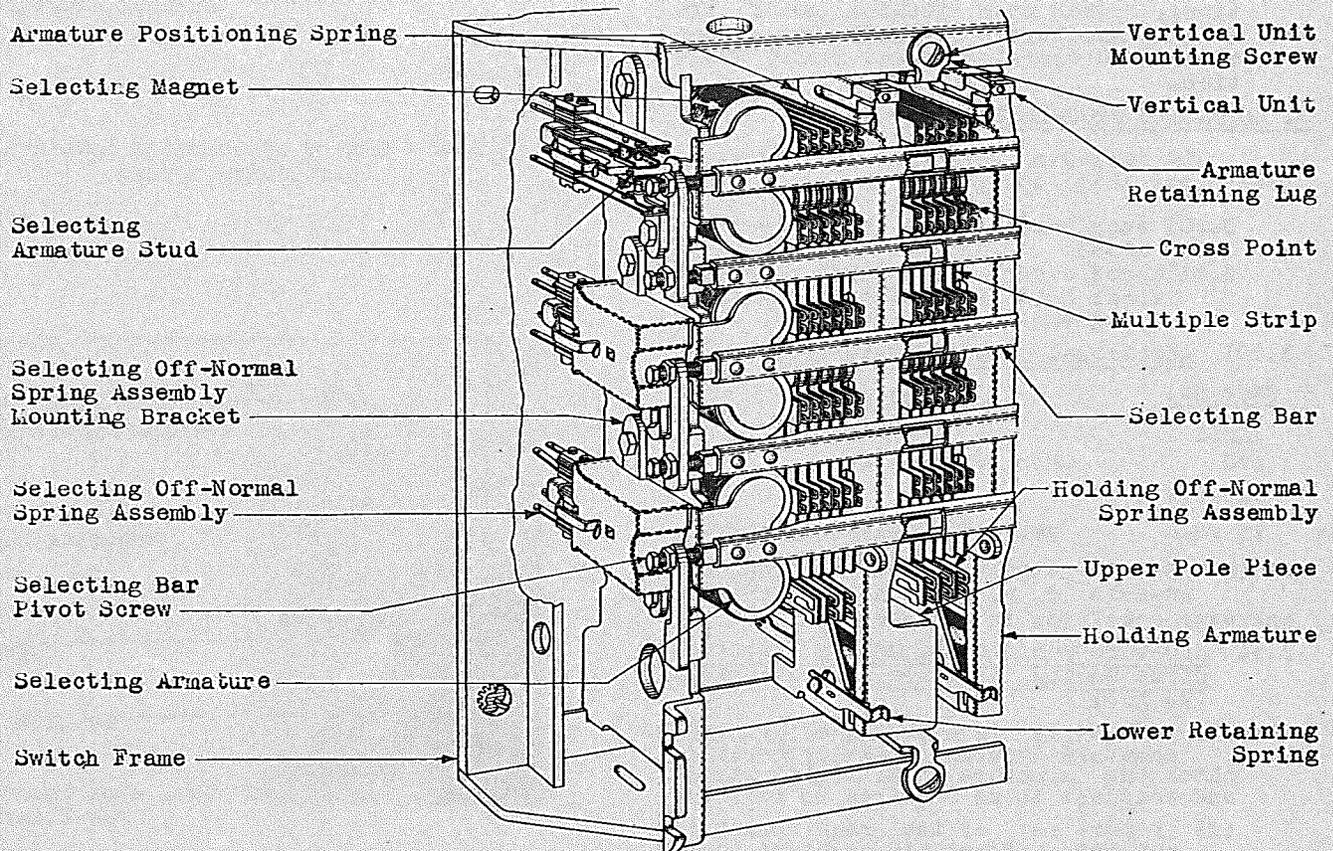


Fig. B - General View of Switch Equipped with Vertical Units Having Armature Retaining Lug

2.29 (Continued)

spring the pressure of the spring against the armature shall be removed while making this check.

2.41 Armature Positioning Spring (Vertical Units Having Armature Retaining Lug)

Test - No requirement

Readjust:

(a) When the upper end of the holding armature is pulled forward and released, the armature positioning spring shall cause the armature to return against the upper knife edge. The 534 type adjuster may be used as a hook and gauge by eye and feel.

(b) The armature positioning spring shall not cause the holding armature to assume either the operated or the normal position when checked as follows:

Lift the balancing spring from the holding armature stud with the KS-6320 orange stick and manually place the holding armature approximately midway between the operated and the normal positions. Then upon letting go of the holding armature, it shall not assume either the operated or the normal position.

3. ADJUSTING PROCEDURES

The following changes in adjusting procedures shall apply.

3.001 supplements 3.001 of the section.
3.008 added

3.41 added under "Procedures for Vertical Unit Exclusive of Holding Off-Normal Contact Springs".

3.001 Additional Tool and Materials

<u>Code No.</u>	<u>Description</u>
<u>Tools</u>	
270	Spring Adjuster
<u>Materials</u>	
KS-7860	Petroleum Spirits (See 3.008)

3.008 KS-7860 petroleum spirits replaces KS-6815 C. P. carbon tetrachloride wherever specified in the section.

3.41 Armature Positioning Spring (Vertical Units Having Armature Retaining Lug)
(Rq.2.41)

(1) If trouble is experienced with the armature locking partially operated, check the armature positioning spring and readjust it as required, as follows:

(2) If part (a) of the requirement is not met, adjust the armature positioning spring with the No. 270 tool so that the point of contact between the spring and the holding armature is brought forward consistent with meeting part (b) of the requirement.

(3) If part (a) of the requirement is still not met, remove the armature positioning spring as covered in (4) and adjust the offset using the smooth jaw pliers to increase the spring tension.

(4) To remove the armature positioning spring, grasp the tab which is to the right of the vertical unit mounting lug with the smooth jaw pliers as shown in Fig. AC. Then twist the tab slightly

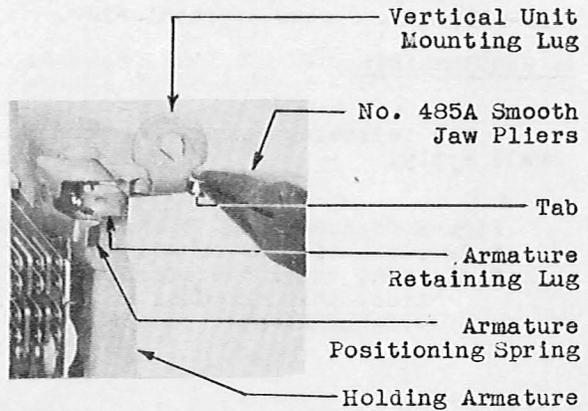


Fig. AC - Method of Removing Armature Positioning Spring

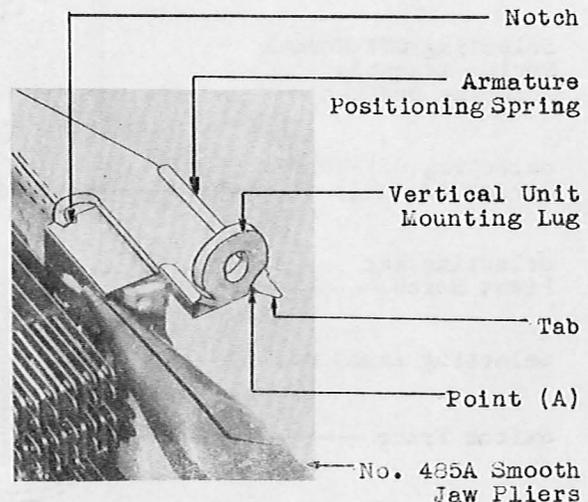


Fig. AD - Method of Mounting Armature Positioning Spring

3.41 (Continued)

to the right to clear the vertical unit mounting lug and at the same time pull the spring forward until clear of the vertical unit. When removing the armature positioning spring from the vertical unit mounted behind the selecting bar guard, exercise care not to damage the spring by snagging it on the guard.

(5) To mount the armature positioning spring grasp it with the smooth jaw pliers as shown in Fig. AD and push it straight onto the vertical unit until the notched portion of the spring engages the frame of the vertical unit and the tab locks behind the vertical unit mounting lug. Then while still grasping the spring with the pliers check whether it is locked on the vertical unit by attempting to pull the spring forward. If properly locked the spring will stay on the vertical unit.

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In some cases the spring may bind against the vertical unit mounting lug at the point (A), Fig. AD. When this occurs do not attempt to force the spring into place but shift the pliers to the tab as shown in Fig. AC and press the tab inward and twist it slightly to the left. Then check as above to determine whether the spring is properly locked on the vertical unit.

(6) Recheck part (a) of the requirement and if it is met check part (b) of the requirement.

(7) If part (a) of the requirement is met and part (b) is not met adjust the armature positioning spring with the No. 270 tool so that the point of contact between the spring and the holding armature is moved back just enough to meet part (b) of the requirement.

(8) Recheck part (a) of the requirement.