

## M-TYPE RELAYS REQUIREMENTS (CONDENSED SECTION FOR 040-516-701)

### 1. REQUIREMENTS (Also See Section 020-012-711)

**1.01 Spring Tang Position:** Overlap spoolhead 1/32 inch but do not rub on spoolhead when spring is moved.

**1.02 Adjusting Stud Clearance:** Fig. 101(A)—Armature shall clear stud.

**1.03 Armature Stud Clearance:** Stud shall clear springs through which it passes.

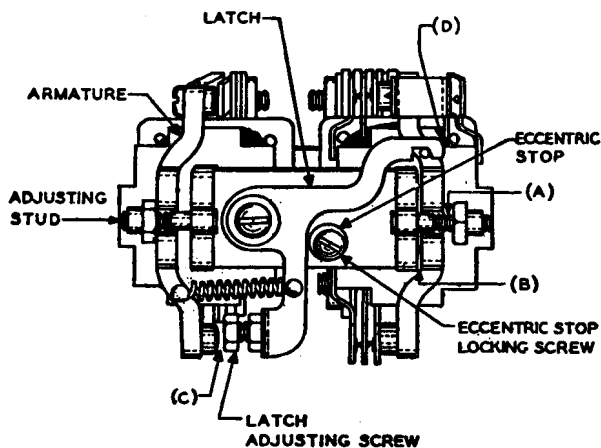


Fig. 101 — M-type Relay

**1.04 Armature Travel:** Meet requirements on circuit requirements table. Tolerance shall be

*Test* — +0.005 inch, —0.0025 inch  
*Readjust* — +0.0025 inch, —0.0025 inch

Use the No. 66D gauge.

**1.05 Operated Armature Airgap:** Fig. 101(B)—Max 0.005 inch with armature locked operated.

Use the No. 66D gauge.

**1.06 Latch and Armature Stud Gap:** Fig. 101C — Max 0.010 inch between latch adjusting screw and armature stud with restoring unit unoperated and operating unit locked operated.

Use the No. 66D gauge.

**1.07 Latch and Contact Spring Clearance:** Fig. 101(D) — 0.005 inch between top of latch and nearest contact spring with latch pressing against eccentric stop.

**1.08 Contact Pressure:** As indicated in Cont. Press. and Fig. No. columns of circuit requirements table. For figures covered by Fig. No. column, see Figs. 4, 36, and 44.

Use the No. 70D gauge.

**1.09 Stud Gap:** Slight clearance at point designated S in Fig. 44.

*Exception:* Requirement is met for springs with 25 grams pressure or more (to meet nonoperate requirement) regardless of minimum tension specified if contacts do not break with 0.003-inch gauge (Readjust—0.005 inch) between adjusting nut and armature.

Use the No. 66D gauge.

**1.10 Contact Separation:** 0.005 inch.

Use the No. 74D gauge.

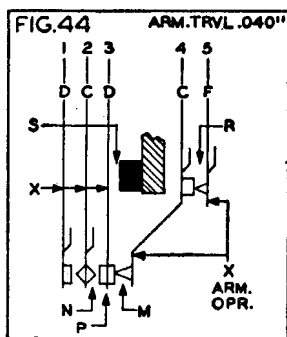
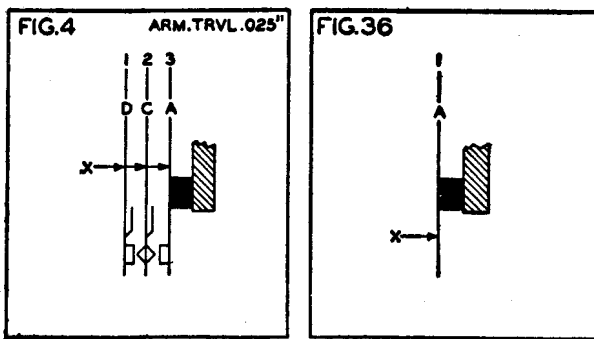
**1.11 Contact Follow:** 0.010 inch (Readjust—0.012 inch) for make contacts. Requirement is met if contacts make with 0.008-inch gauge (Readjust—0.010 inch) inserted between stop pins and core.

Use the No. 66D gauge.

**1.12 Spring Sequence:** Meet sequence requirement covered by Fig. 44 or on circuit requirements table.

1.13 **Latch Spring Tension:** 10 grams at head ←  
of latch adjusting screw with armature  
of operating unit held against core.

Use the No. 70F gauge.



CONT. PRESS.		SPRING DESIGNATIONS		
		C	D	F
L OR IO	T	5	8	25
	R	6	9	27
H OR 20	T	5	15	25
	R	6	17	27

Explanation of Designations Used in Figs. 4, 36,  
and 44.

- A = Hold armature against adj nut.
- M and N = M shall break before N makes.
- S = Slight clearance (1.09).
- X = Arrows indicate direction of Tension.
- ∩ = Spoolhead springs.