RELAYS
E, EA, F, H, R AND T TYPES
REQUIREMENTS
(CONDENSED SECTION FOR 040-510-701)

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

1.01 ***Armature and Spring Stud Clearance:*** Fig. 101(A) — Studs clear springs through which they pass.

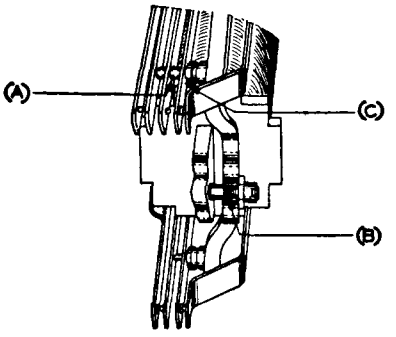


Fig. 101 – E-type Relay

1.02 ***Spring Tang Position:*** Overlaps spoolhead 1/32 inch but does not rub on spoolhead when spring is moved.

1.03 ***Adjusting Stud Clearance:*** Fig. 101(B) — Armature clears stud.

1.04 ***Armature Travel:*** Meet requirements in circuit requirement table. Tolerance +0.005 inch, −0.0025 inch (readjust +0.0025 inch, −0.0025 inch). No. 66D gauge.

1.05 ***Contact Pressure***

(a) As indicated in Cont. Press. and Fig. No. columns in circuit requirement table. For figures covered by Fig. No. see pages 1 to 3. No. 70D and 70J gauges.

(b) A in figures, pages 1 to 3, means no definite tension but armature must rest on adjusting nut or spoolhead where adjusting nut is not provided. ←

(c) If circuit requirement table or figures on pages 1 to 3 specify tension for a spring resting against an armature stud, check as spring leaves stud with armature held manually against adjusting nut or spoolhead where adjusting nut is not provided. ←

1.06 ***Stud Gap:*** Fig. 101(C) — Clearance at points designated S in figures on pages 1 to 3.

Exception: Springs with 25 grams pressure or more regardless of minimum tension specified, contacts do not break with 0.003-inch (readjust 0.005 inch) gauge between adjusting nut and armature or between spoolhead and armature where adjusting nut is not provided. No. 66D gauge. ←

1.07 ***Contact Separation:*** 0.005 inch No. 74D gauge.

1.08 ***Contact Follow:*** 0.004 inch for normally open contacts. Check with relay energized against following gauges between armature and core. No. 66D gauge.

	E, EA, F, H, AND R TYPES	T TYPE
Test	0.003 inch	0.004 inch
Readjust	0.004 inch	0.005 inch

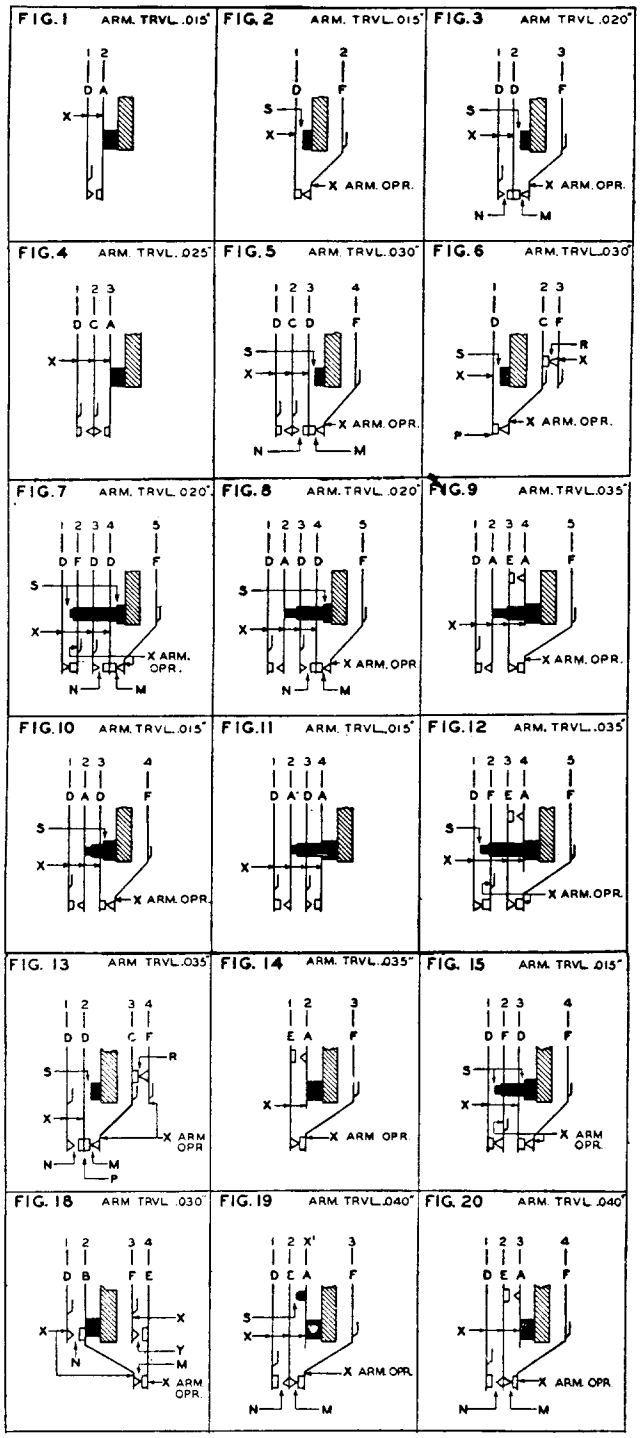
(a) ***If circuit requirement table specifies armature need not touch core on operate current,*** follow is satisfactory if following tests are met with relay electrically energized.

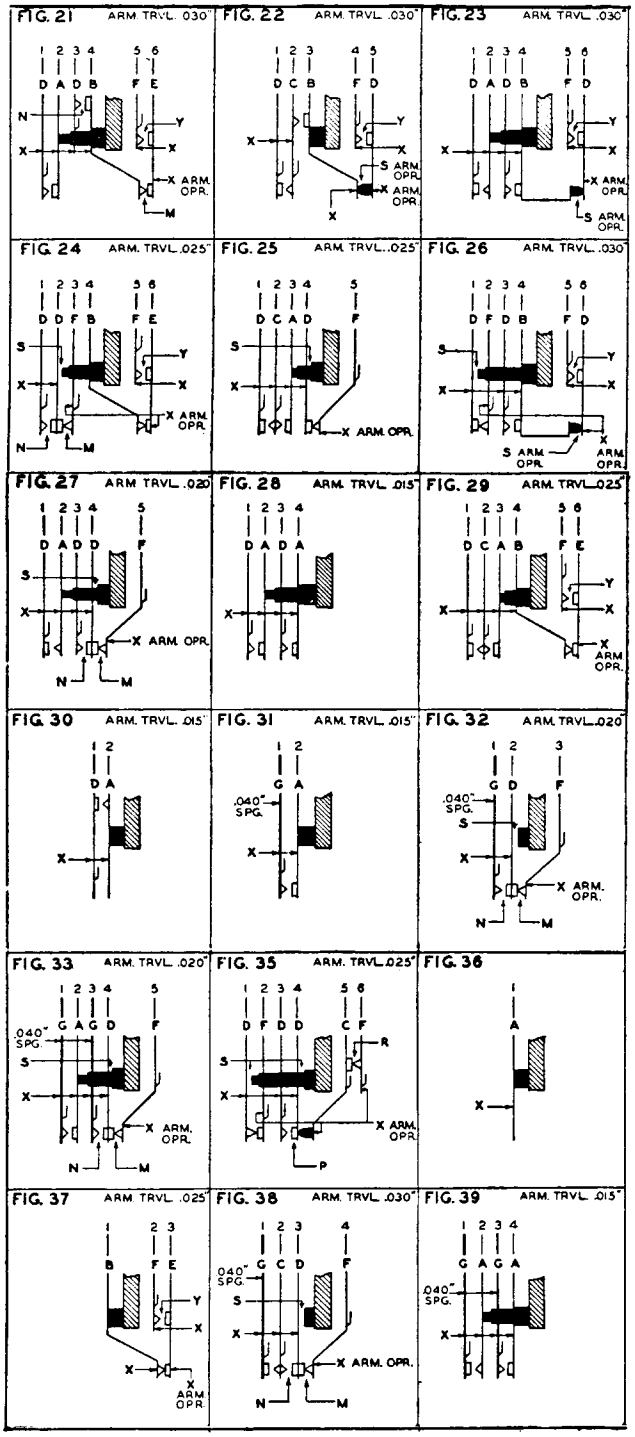
(1) ***Relays With Combination 31, 32, 33, 38, 39:*** Make contacts make with 0.004-inch gauge between stop pins and core. Make contacts not make with 0.006-inch gauge between stop pins and core for combination 31, 32, 33, 39 and contacts 1 and 2 of 38. No. 66D gauge.

(2) ***Relays Other Than in (1):*** Observable follow of spring as opposing spring is moved away.

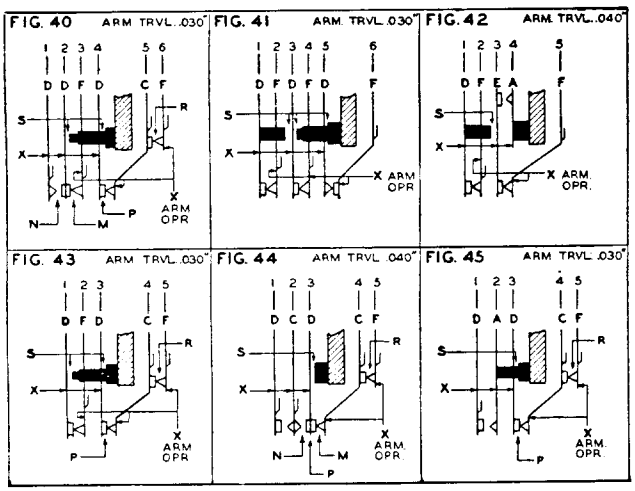
(b) If circuit requirement table specifies 0.008- or 0.010-inch follow, follow will be satisfactory if contacts make with relay electrically energized with 0.006-inch gauge for 0.008-inch follow, 0.008-inch gauge for 0.010-inch follow between stop pins and core. ← No. 66D gauge.

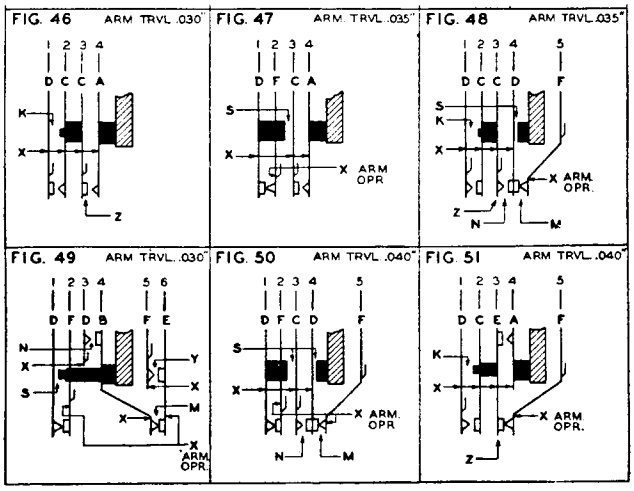
1.09 ***Spring Sequence:*** Meet sequence requirements on figures, pages 1 to 3, or in circuit requirement table.

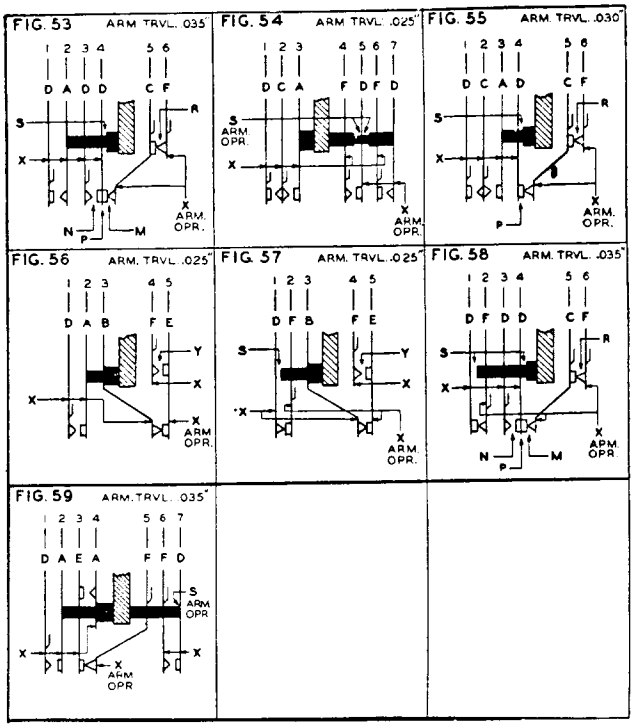




See Table page 3







Explanation of Designations Used in Figures, Pages 1 to 3

A = Hold armature against adjusting nut or spoolhead 1.05(b).

B and Y = Tension of B shall insure 0.005-inch separation at Y contacts.

CONT PRESS.		SPRING DESIGNATIONS					
		C	D	E	F	G	H
L or 10	T	5	8	20	25	95	15
	R	6	9	22	27	100	17
H or 20	T	5	15	20	25	95	15
	R	6	17	22	27	100	17

K = Clearance between stem of stud and spring 1 (Arm. Opr.) 0.010 inch

M and N = M shall break before N makes

P and R = Gauge tension of P as R breaks

S = Stud Gap (1.06)

X = Arrows indicate direction of tension

X′= Balancing Spring

Z = Gauge tension of spring with stud of spring 2 resting on it

μ =Spoolhead spring