AK- TYPE RELAYS
(WIRE-SPRING TYPE)
REQUIREMENTS
(CONDENSED SECTION FOR 040-504-701)

1. REQUIREMENTS (ALSO SEE SECTION 020-012-711)

1.01 **Balancing Spring Tension:** Fig. 1(A)—Card bears against associated surfaces on armature and armature bears against backstop—relay unoperated.
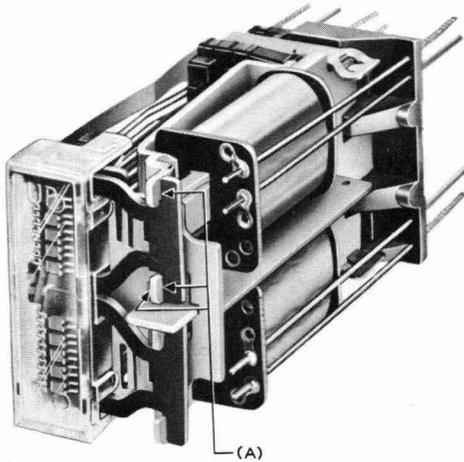

Fig. 1—AK-type Relay

1.02 **Armature Back Tension:** 25 grams (readjust 30 grams). No. 70D gauge.

1.03 **Contact Make and Break**

(a) Both contacts of movable twin springs make in operated position for make contacts and in unoperated position for break contacts.

(b) With relay energized against 183-type gauge in armature gap except where noted, make and break contacts meet conditions covered below.

Test

(1) **Before Turnover:** (Refer to 040-504-701 for requirements.)

(2) **After Turnover**

Make Contacts	Neither Pair of Contacts Make	At Least One Pair of Contacts Make
	(Inch)	(Inch)
Spg Comb. No. 1 to 199	#0.0045	0.0015
Spg Comb. No. 200 to 399	#0.007	0.0015

Break Contacts	At Least One Pair of Contacts Do Not Break	Both Pairs of Contacts Break
	(Inch)	(Inch)
Spg Comb. No. 1 to 199	#0.0045	0.0015
Spg Comb. No. 200 to 399	#0.007	0.0015

#182-type gauge inserted between armature and backstop.

Readjust

Make Contacts	Neither Pair of Contacts Make	At Least One Pair of Contacts Make
	(Inch)	(Inch)
M(Make)	0.015	0.005
EM(Early Make)	0.0265	0.0165

Break Contacts	At Least One Pair of Contacts Do Not Break	Both Pairs of Contacts Break
	(Inch)	(Inch)
B(Break)	0.015	0.005
EB(Early Break)	0.0265	0.0165

1.04 **Contact Sequence**

Test

(a) EMB Position—EM contacts make before B contacts break.

(b) EBM Position—EB contacts break before M contacts make.

(c) EM and EB Positions—check sequence if note on circuit requirement table so specifies.

(d) BM Position—no requirement.

Readjust: Covered by readjust requirement 1.03.

Table A—Spring Combinations and Contact Positions

Contact Positions

Spring Comb. No.	(Lower Half of Relay)					(Upper Half of Relay)				
	1	2	3	4	5	8	9	10	11	12
1	M	M	M	M	M	M	M	M	M	M
2	BM	BM	BM	BM	BM	BM	BM	BM	BM	BM
3	BM	BM	—	—	—	—	—	—	BM	BM
4	M	B	B	B	—	—	B	B	B	M
5	—	M	—	B	—	BM	—	B	—	M
201	M	EBM	—	B	B	EMB	B	M	EMB	EBM
202	M	EBM	EBM	EMB	EMB	EMB	EMB	EMB	EMB	M
203	EBM	EBM	EBM	EM	EM	EM	EM	EBM	EBM	EBM
204	M	EBM	EBM	B	EM	EM	EMB	EBM	M	M

M—Make
B—Break
BM—Break Make

EM—Early Make
EMB—Early Make Break } See Rq 1.03
EBM—Early Break Make } and 1.04