MAINTENANCE MANUAL 5- 4395B

Supersedes:
GEH-1798A
GEH-1799
GEH-1823A
GEI-50210A
GEI-50211
GEI-50212A
GEI-57077

LOW-VOLTAGE POWER CIRCUIT BREAKERS

TYPES

AK-50, AK-75, AK-100, AKF-1C, AKF-1D, AKF-2D

LOW VOLTAGE SWITCHGEAR DEPARTMENT

GENERAL ELECTRIC

PHILADELPHIA, PA.

CONTENTS

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

Fig. No.	Ref. No.	Number Required per Pole †																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	195A8807G1	Base for pole unit (includes Ref. 2)
1	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	256C751P1	Base for pole unit
‡	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	372A440P1	Spacer for base
1	3	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6414521G1	Upper stud, horizontal (stationary, AC)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	276B174G1	Upper stud, horizontal (stationary, DC)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6414521G2	Upper stud, vertical (stationary, AC)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	276B174G2	Upper stud, vertical (stationary, DC)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6414522G1	Upper stud (drawout, AC)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6414543G1	Upper stud (drawout, DC)
		1	1	1	1	-	1	1	1	1	-	-	-	-	1	1	-	-	293B207G1	Upper stud (stationary, AC and DC)
		1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	291B967G1	Upper stud (drawout, AC and DC)
1	4	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	293B225G1	Upper stud head (AC)
		1	1	1	1	-	1	1	1	1	1	1	1	1	-	-	-	-	291B969G1	Upper stud head (DC)
1	5	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	293B223P3	Spacer
1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	452A542P1	Block, AC
		1	1	1	1	-	1	1	1	1	-	-	-	-	-	-	-	-	449A996P3	Block, DC
		-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	449A996P2	Block, DC
1	7	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	449A994P3	Stop, AC
		1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	293B223P1	Stop, DC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	412A444P1	Stop, AC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	412A444P3	Stop, DC
1	*8	-	3	3	3	-	-	3	3	3	3	3	3	3	3	3	3	3	295B408G3	Stationary arcing contact, AC
		5	5	5	5	-	5	5	5	5	5	5	5	5	-	-	-	-	295B408G3	Stationary arcing contact, DC
		-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	6203966G1	Stationary arcing contact, AC
		-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6203966G1	Stationary arcing contact, DC
		3	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	295B408G1	Stationary arcing contact, AC or DC
1	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6404793P2	Pivot pin for stationary arcing contact, AC
		1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	6404793P1	Pivot pin for stationary arcing contact, DC
1	10	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6447046P1	Spring guide for stationary arcing contact springs, AC
		5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	-	6447046P1	Spring guide for stationary arcing contact springs, DC
1	*11	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6509858P1	Spring for stationary arcing contacts (outer) AC
		5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	-	6509858P1	Spring for stationary arcing contacts (outer) DC
1	*12	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	6509859P1	Spring for stationary arcing contacts (inner) AC
		5	5	5	5	5	5	5	5	5	5	5	5	5	-	-	-	-	6509859P1	Spring for stationary arcing contacts (inner) DC
1	13	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	433A319P1	Leaf spring for stationary arcing contacts, AC

† To determine quantity required per breaker, multiply by number of poles (2 or 3).
Δ Original breaker had no suffix letter or numeral
‡ Not shown.
* Recommended for stock for normal maintenance.

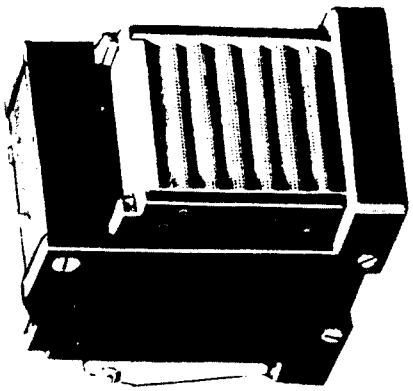

Fig. 3. Arc quencher.

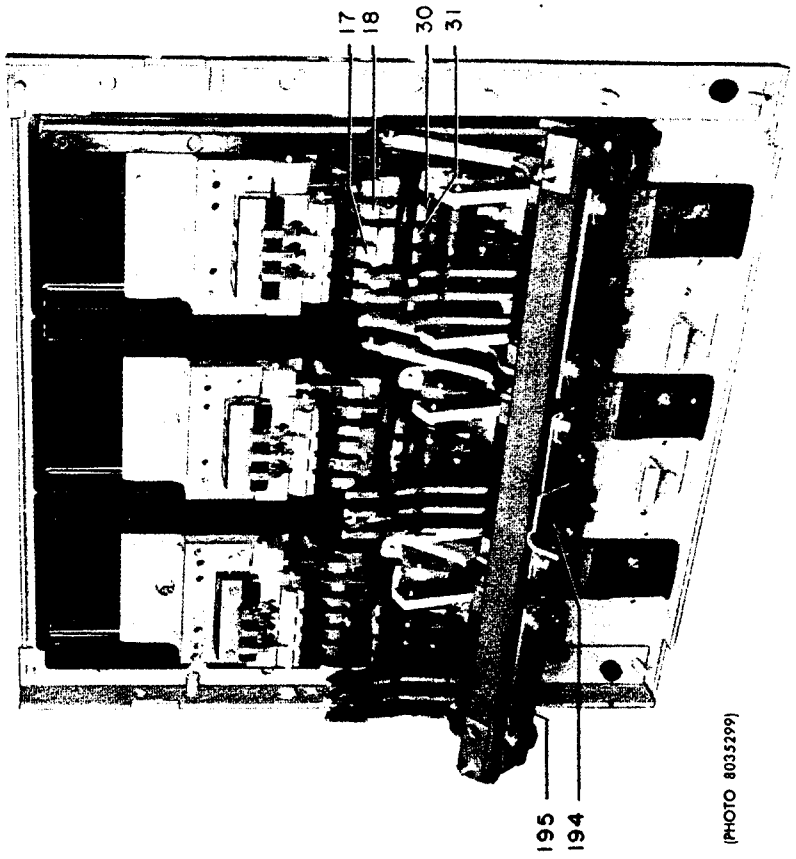

Fig. 2. Back frame assembly for Type AK-2-75 breaker, front view.

Fig. No.	Ref. No.	Number Required per Pole †																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
		1	1	1	1	-	1	1	1	1	1	1	1	1	-	-	-	-	433A319P2	Leaf spring for stationary arcing contacts, DC
1	14	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	459A373P1	Insulation for stationary arcing contacts, AC
		1	1	1	1	-	1	1	1	1	1	1	1	1	-	-	-	-	459A373P2	Insulation for stationary arcing contacts, DC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6555406P2	Insulation for stationary arcing contacts, AC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6555406P1	Insulation for stationary arcing contacts, DC
1	15	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6203981P8	Pivot pin for stationary main contacts
1	16	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	433A320P1	Leaf spring for stationary main contacts
1,2	*17	5	5	5	5	-	5	5	5	5	5	5	5	5	5	5	5	5	293B221G1	Stationary main contact
		-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6203979G1	Stationary main contact
1,2	*18	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	459A385G1	Stationary intermediate contact (includes barrier)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6203979G2	Stationary intermediate contact
1	20	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	459A375G1	Clip
		-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	6447449P1	Clip
1	*21	6	6	6	6	-	6	6	6	6	6	6	6	6	6	6	6	6	412A0288P1	Spring for stationary main contact
		-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6509811P1	Spring for stationary main contact
1	*22	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	9921572G2	Movable arcing contact
		2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	-	-	6404753P1	Movable arcing contact (DC only)
1	23	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	6447153P1	Pin for movable arcing contact link, AC
		1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	6447153P2	Pin for movable arcing contact link, DC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6447153P4	Pin for movable arcing contact link, AC
1	24	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	9921652P1	Washer
1	25	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	394A133P9	Retainer for 3/8 in. pin
1	26	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	275B975P1	Link for movable arcing contact
		1	1	1	1	-	1	1	1	1	1	1	1	1	-	-	-	-	127A6457P1	Link for movable arcing contact, DC
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	383A681P1	Link for movable arcing contact
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	383A681P2	Link for movable arcing contact
1	27	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447741P2	Insulating tube
1	28	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6555600P1	Pin for side link
1	29	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	394A133P10	Retainer for 1/2 in. pins
1,2	*30	5	5	5	5	-	5	5	5	5	5	5	5	5	5	5	5	5	293B220G1	Main movable contacts
		-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	6203978G1	Main movable contacts
2	*31	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	293B220G2	Intermediate movable contact
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6203978G2	Intermediate movable contact
1	32	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447192P1	Pivot pin for main movable contacts
1	33	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	6404784P4	Link assembly for main movable contact
		-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	6404784P3	Link assembly for main movable contact
1	34	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	457A624G1	Side link, right
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	175L304G37	Side link, right
‡	35	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	457A624G2	Side link, left
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	175L304G38	Side link, left
1	36	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6555628P1	Block
1	38	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6555423P2	Side link shield pin
1	39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6203981P10	Center main arcing contact pin

† To determine quantity required per breaker, multiply by number of poles (2 or 3).
Δ Original breaker had no suffix letter or numeral.
‡ Not shown.
* Recommended for stock for normal maintenance.

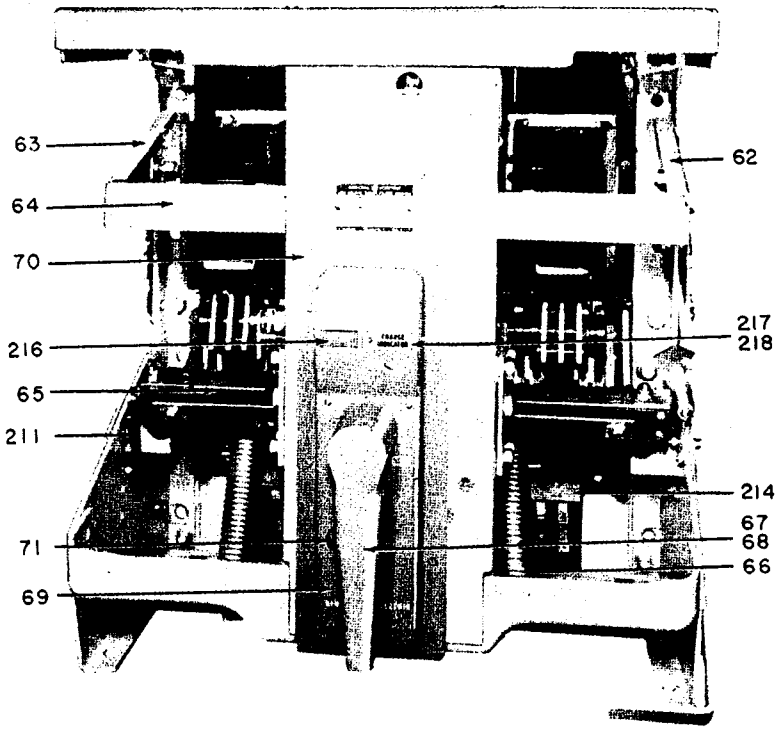

Fig. 4. Type AK-2-75 power circuit breaker.

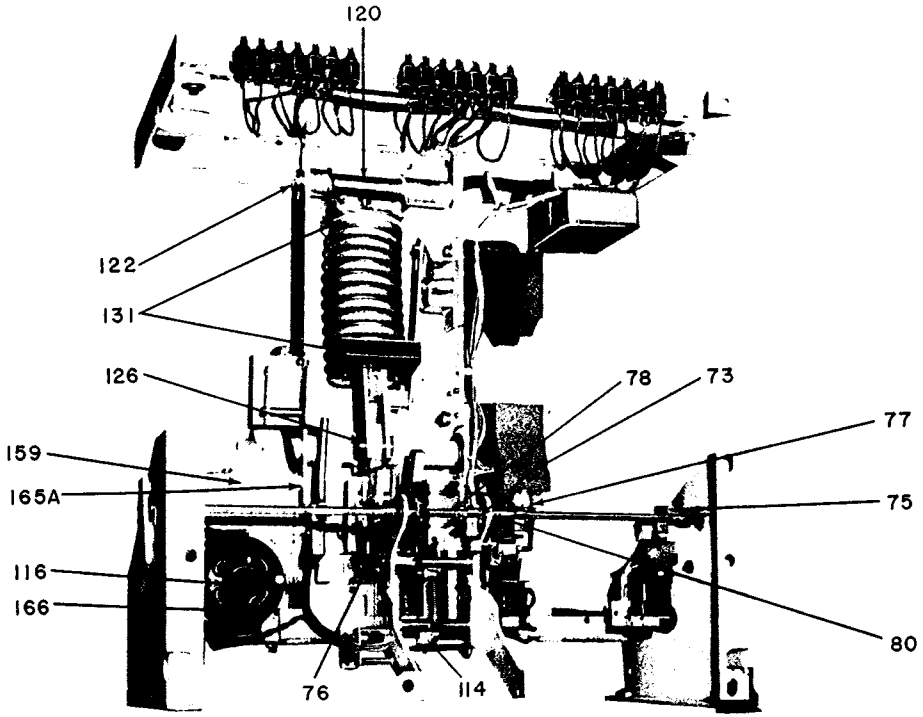

Fig. 5. Front frame assembly for Type AK-3-75 breaker, rear view.

Fig. No.	Ref. No.	Number Required per Pole †																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
1	40	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6447773P1	Washer, AC breaker
		12	12	12	12	12	12	12	12	12	12	12	12	12	-	-	-	-	6447773P1	Washer, DC breaker
		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	6447773P2	Washer, AC breaker
		8	8	8	8	8	8	8	8	8	8	8	8	8	-	-	-	-	6447773P2	Washer, DC breaker
1	41	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6203981P12	Main contact pivot pin
1	*42	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	433A318P1	Leaf spring for movable main contact
		-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	6555117P1	Leaf spring for movable main contact
1	43	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	449A993P1	Stop for stationary main contacts
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6414518P2	Stop for stationary main contacts
1	44	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	453A116P3	Spacer for stationary main contact stop
1	45	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	256C724G1	Horizontal stationary stud
		1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	256C724G2	Vertical stationary stud
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	248C754P1	Stud, drawout
1	46	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	256C850P1	Lower stud head
3	47	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	238D674G2	Arc quencher, AC
		1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	238D674G4	Arc quencher, DC

† To determine quantity required per breaker, multiply by number of poles (2 or 3).

* Recommended for stock for normal maintenance.

Fig. No.	Ref. No.	Number Required per Breaker													AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75		Catalog Number	Description
		AK-2-75									AK-2A-75									
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
14	61	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	267B129P1	Phase barrier
4	62	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	372A275G1	Lifting bracket, right (pearl gray)
		-	-	1	1	-	-	-	1	1	-	-	-	-	1	1	-	-	372A275G3	Lifting bracket, right (sand gray)
4	63	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	372A275G2	Lifting bracket, left (pearl gray)
		-	-	1	1	-	-	-	1	1	-	-	-	-	1	1	-	-	372A275G4	Lifting bracket, left (sand gray)
4	64	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	372A305P1	Arc quencher tie bar (pearl gray)
		-	-	1	1	-	-	-	1	1	-	-	-	-	1	1	-	-	372A305P7	Arc quencher tie bar (sand gray)
		-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	372A305P5	Arc quencher tie bar
4	65	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	267B125P1	Cross bar
4	66	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	6509813P1	Opening spring
4	67	1	1	1	1	-	-	-	-	-	-	-	-	-	1	-	-	-	6548046P3	Handle (black)
		-	-	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	669D807P2	Handle (gray)
4	68	-	-	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	116B7107G1	Handle and buffer assembly
4	69	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	275B997P1	Front escutcheon (with closing switch, black)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	275B997P2	Front escutcheon (w/o closing switch, black)
4	70	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	698C997P1	Front escutcheon (black)
		-	-	1	-	-	-	-	-	-	1	-	-	-	1	-	1	-	698C997P5	Front escutcheon (blue)
		-	-	-	-	-	-	-	1	1	-	-	1	1	-	1	-	1	805B975P2	Front escutcheon (blue)
4	71	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	411A904G5	Trip button and rod assembly
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	411A904G2	Trip button and rod assembly
‡	72	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	412A139P1	Trip button spring
5	73	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	6203939P1	Hand trip paddle
		-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	6203939P5	Hand trip paddle
‡	74	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6444141P1	Clamp for hand trip paddle
5	75	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	276B250P3	Trip shaft (outside)
5	76	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	174V536P1	Coupling
5	77	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	127A6493P2	Dowel pin
5	78	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	276B250P2	Trip shaft (center)
‡	79	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	394A133P1	Retainer for trip shaft
5	80	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	377A871P5	Trip shaft bearing (side sheets and mechanism frame)
‡	81	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	394A133P16	Retainer for trip shaft bearing
6	82	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	174V531P1	Pin
5	83	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	457A681P3	Spacer
‡	84	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	457A681P1	Spacer
6	85	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	394A133P10	Retainer
6	86	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	412A140P1	Spring
6	87	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	419A366P1	Prop
6	88	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6414743P1	Cam
6	89	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	457A622G1	Link assembly
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	175L315G40	Link assembly
6	90	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447099P1	Pin
6	91	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	394A133P11	Retainer

Δ Original breaker had no suffix letter or numeral.
‡ Not shown.

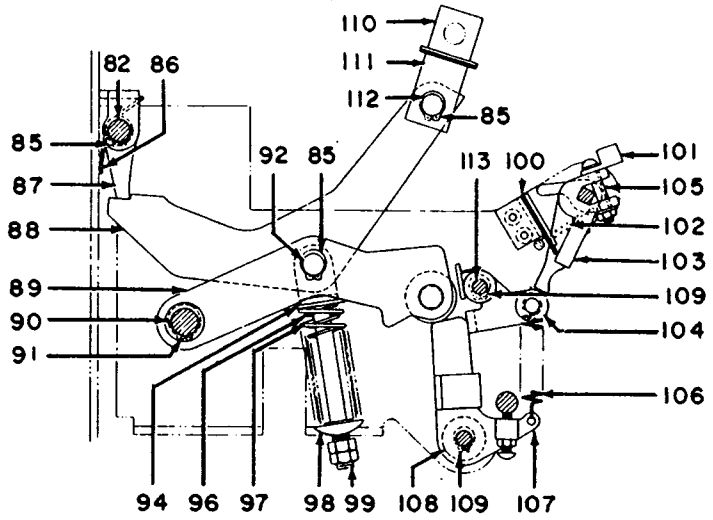

Fig. 6. Manual mechanism assembly.

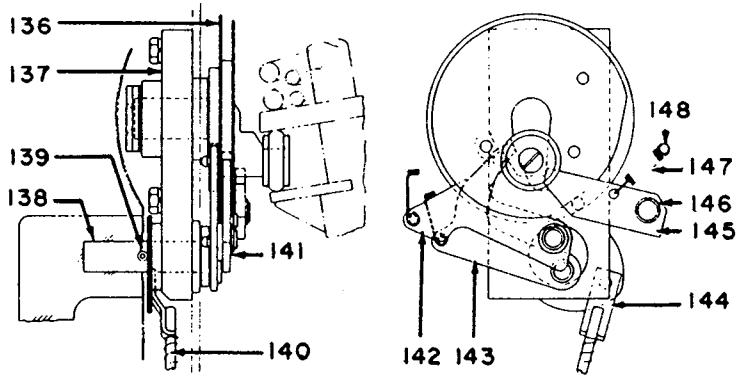

Fig. 7. Manual closing mechanism.

Fig. No.	Ref. No.	Number Required per Breaker																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
6	92	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447091P1	Pin
‡	93	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	148A1932P5	Spacer for pin Ref. No. 92
6	94	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447331P1	Spring guide (upper)
6	96	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	148A2214P1	Spring reset (inner)
‡	95	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6403393P1	Spring reset
6	97	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	148A2213P1	Spring reset (outer)
6	98	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447353P1	Spring guide (lower)
6	99	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6203914G1	Spring support assembly
6	100	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	457A627G1	Buffer assembly
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	433A216G1	Buffer assembly
6	101	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	383A671G2	Counterweight
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	394A140P1	Counterweight
6	102	1	1	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	412A269P1	Trip shaft return spring
		-	-	1	1	-	-	-	1	1	1	1	1	1	1	1	1	1	412A234P1	Trip shaft return spring
6	103	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	848C0487P2	Latch
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	433A214G1	Latch
6	104	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	889B0410G1	Reset latch

Δ Original breaker had no suffix letter or numeral.
‡ Not shown.

Fig. No.	Ref. No.	Number Required per Breaker																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	9921607G3	Reset latch
6	105	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6444916P1	Latch bolt
6	106	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6403348P1	Spring
6	107	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C993G1	Prop
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	9921596G1	Prop
6	108	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	377A871P2	Prop sh. bearing
6	109	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	394A133P9	Retainer
6	110	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6555414P1	Coupling
6	111	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	412A413P3	Clevis
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	412A413P1	Clevis
6	112	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	412A405P414	Pin
6	113	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447744P1	Pin
5	114	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	412A412P2	Prop stop
‡	115	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	411A984P1	Screw for prop stop
5	116	#	#	1	1	#	#	#	1	1	1	1	1	1	1	1	1	1	889B0424P10	Overcurrent device trip paddle
‡	117	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6447767P1	Trip shaft stop
‡	118	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	148A1946P10	Spacer for upper spring guide assembly pin (right side)
‡	119	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	148A1946P3	Spacer for upper spring guide assembly pin (middle)
5	120	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	6447010P1	Upper spring guide assembly pin
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6447010P2	Upper spring guide assembly pin
‡	121	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	148A1946P1	Spacer for upper spring guide assembly pin (left side)
5	122	4	4	4	4	6	4	4	4	4	4	4	4	4	4	4	4	4	394A133P4	Retaining ring
‡	123	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C996G5	Pawl spring support (upper)
‡	124	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C996G4	Pawl spring support (lower)
‡	125	2	2	2	2	-	-	-	-	-	2	2	-	-	2	-	2	-	698C996P13	Pawl spring rollers
5	126	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	6447032P2	Lower spring guide assembly pin
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6447032P1	Lower spring guide assembly pin
‡	127	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C993P4	Buffer pin
‡	128	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C993P3	Buffer support
‡	129	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C993P5	Buffer washer
‡	130	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	393A993P24	Buffer stop nut
5	131	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	889B0408G2	Closing spring assembly
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	273B569G9	Closing spring assembly
‡	132	2	2	2	2	-	-	-	-	-	2	2	-	-	2	-	2	-	698C992G5	Support for crank
14	133	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	393A554P1	Support for crank
14	134	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	698C992G4	Crank (pearl gray)
		-	-	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C992G10	Crank (sand gray)
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	259C615G1	Crank (pearl gray)
		-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	801B154G2	Crank (pearl gray)
		-	-	-	-	-	-	-	1	1	-	-	1	1	-	1	-	1	801B154G4	Crank (sand gray)

Δ Original breaker had no suffix letter or numeral
‡ Not shown.
# Give breaker Serial No. when ordering.

Fig. No.	Ref. No.	Number Required per Breaker																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
14	135	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	393A796P3	Bearing
7	136	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C987G1	Ratchet assembly
7	137	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C988G1	Support assembly
7	138	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C990G1	Shaft assembly
7	139	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	394A137P12	Roll pin
7	140	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	127A8306P1	Spring
7	141	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	394A133P28	Retainer
7	142	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C985G1	Pawl with spring (rear)
7	143	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C985G2	Pawl with spring (front)
7	144	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	846C817G1	Spring arm
7	145	-	-	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C991G4	Prop
		1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	698C991G3	Prop
7	146	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	394A933P3	Retainer
7	147	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	412A280P1	Prop spring
7	148	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C991P10	Pin
8	149	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C996G1	Indicator (when ordering indicator include label Ref. No. 158)
8	150	2	2	2	2	-	-	-	-	-	1	1	-	-	2	-	2	-	394A137P11	Roll pin
8	151	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C995P2	Bearing
8	152	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	127A6493P3	Rod
8	153	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C995P14	Tube
8	154	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	412A267P1	Spring
8	155	1	1	1	1	-	-	-	-	-	1	1	-	-	-	-	-	-	698C995G1	Indicator lever assembly
8	155	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	698C995G3	Indicator lever assembly
8	156	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	412A0292P1	Spring
8	157	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C995G2	Indicator crank assembly
8	158	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	259C608P3	Open-close label
5, 14, 15	159	-	-	-	-	**	1	1	1	1	-	-	1	1	-	1	-	1	177L362G2	Reduction gear unit assembly (standard)
		-	-	-	-	-	1	1	1	1	-	-	1	1	-	1	-	1	177L362G3	Reduction gear unit assembly (quick close)
9	160	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6447398P1	Plug
9	161	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	393A992P1	"O" ring for plug
9	162	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6509871P1	Spring for ratchet pin
9	163	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	372A283P1	Ratchet pin
‡	164	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	393A991P1	Lubricant for gear box (4 oz.)
‡	165	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6447101P1	Gasket between gear housing and motor
5	165A	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6447102P1	Gasket between gear housing and end plate
5	166	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	5P66MA6	Motor, 115 volts, 25, 50, 60 cycles and 125 volt DC
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	5P66MA7	Motor, 208-230 volts, 25, 50, 60 cycles and 250 volt DC
10	167	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	192A7153P8	Cut-off switch (G)
10	168	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	174V521P1	Cut-off switch insulation
10	169	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	192A7153P7	Cut-off switch (F)
10	170	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	371A235P1	Cut-off switch cover

Δ Original breaker had no suffix letter or numeral.
‡ Not shown.
** For AK-2-75 order one each Cat. No. 177L362G2 reduction gear unit assembly, 452A561P1 and 452A561P2 spacers.

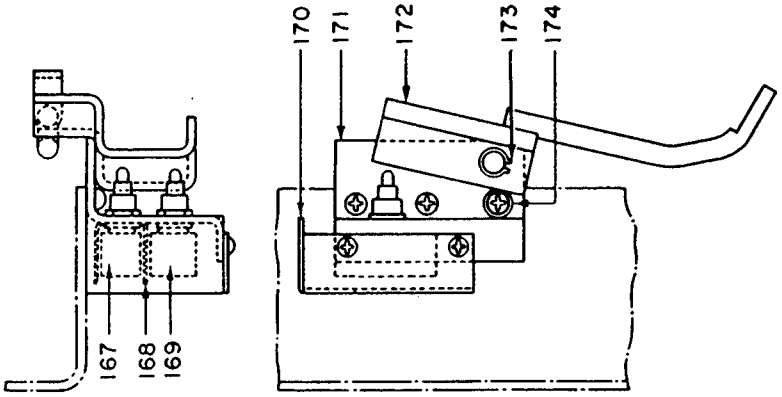

Fig. 10. Motor cut-off switch.

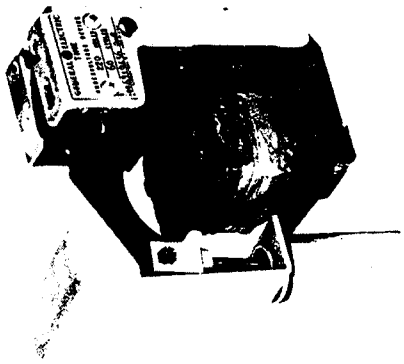

Fig. 12A. Oil-displacement type time-delay undervoltage tripping device.

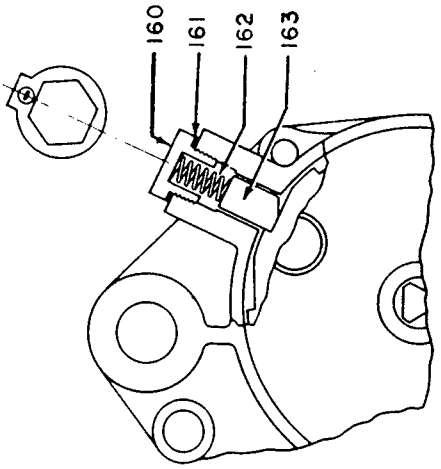

Fig. 9. Section of gear box.

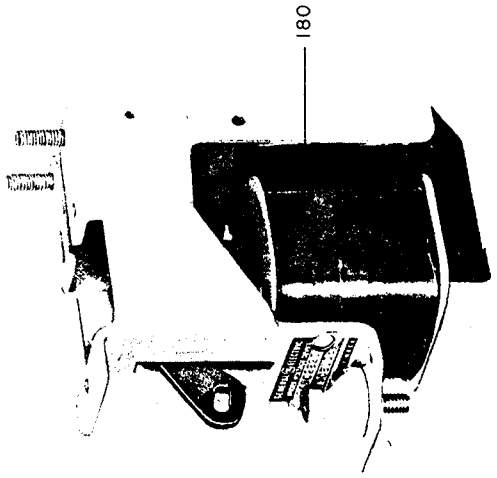

Fig. 12. Static time delay undervoltage device, Ref. No. 181

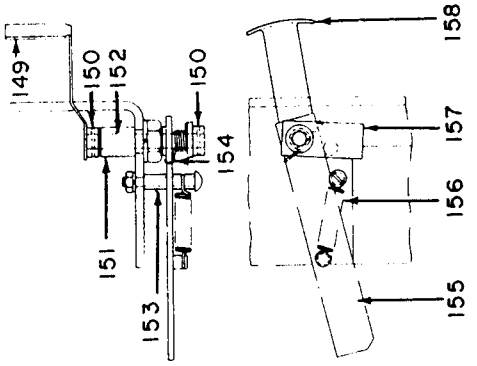

Fig. 8. Manual indicator assembly.

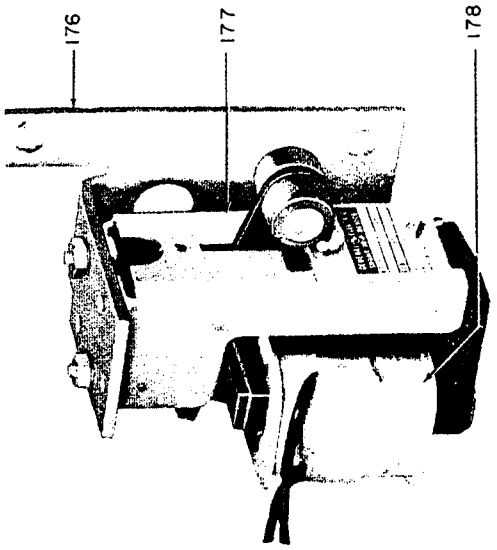

Fig. 11. Shunt trip, Ref. No. 177.

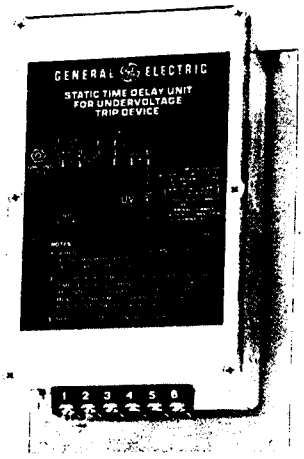

Fig. 13. Static timing device, Ref. No. 182.

TABLE A

Volts	Hertz	*Closing Relay Not used on quick close breakers	Shunt Trip Device		Instantaneous Undervoltage Device		Time Delay Undervoltage Device	
			Complete with Coil (less mounting) Reference 177, Fig. 11	*Coil Only Reference 178	Complete with Coil (less mounting)	*Coil Only Reference 180	Complete with Coil (less mounting) Reference 181	Coil Only Reference 180
24	DC	------	139C4378G1	6275081G55	568B309G1	6275081G15	------	-----
48	DC	------	139C4378G3	6275081G28	568B309G2	6275081G9	------	-----
125	DC	12HGA11H52	139C4378G4	6275081G29	568B309G3	6275081G18	568B309G5	6275081G61
250	DC	12HGA11H51	139C4378G5	6275081G30	568B309G4	6275081G19	568B309G6	6275081G59
70	60	------	139C4378G6	6275081G62	-----	-----	------	-----
120	60	12HGA11H70	139C4378G7	6275081G25	568B309G7	6275081G26	------	-----
120	50	12HGA11H74	139C4378G8	6275081G56	568B309G8	6275081G4	------	-----
208	60	12HGA11H71	139C4378G10	6275081G26	568B309G10	6275081G27	568B309G24	6275081G59
208	50	12HGA11H75	139C4378G11	6275081G26	568B309G11	6275081G12	568B309G24	6275081G59
240	60	12HGA11H71	139C4378G13	6275081G26	568B309G13	6275081G7	568B309G24	6275081G59
240	50	12HGA11H75	139C4378G14	6275081G26	568B309G14	6275081G12	568B309G24	6275081G59
380	50	------	139C4378G17	6275081G27	568B309G17	6275081G31	------	-----
480	60	------	139C4378G18	6275081G27	568B309G18	6275081G31	------	-----
480	50	------	139C4378G19	6275081G4	568B309G19	6275081G3	------	-----
575	60	------	139C4378G21	6275081G7	568B309G21	6275081G20	------	-----
575	50	------	139C4378G22	6275081G29	568B309G22	6275081G8	------	-----

NOTE: The static time undervoltage device (Fig. 12, Ref. 181) when used in combination with the static timing device (Fig. 13, Ref. 182) and a slight modification of breaker wiring will replace the older design oil-displacement type time delay undervoltage device shown in Fig. 12A.

TABLE B

CLOSING RELAYS AND COILS FOR QUICK CLOSE BREAKERS

Quick close breakers are identified by the letter "S" following the breaker type (i.e., AK-2A-100S-1)

Rating		Catalog Number			
		"X" Relay		*"W" Relay, Complete δ	*Closing Solenoid, Complete δ
Volts	Hertz	Relay, Complete	*Coil, Only		
125	D-C	192A9770P2	116B7197P203	192A9771P2	CR9500B202H3A
250		192A9770P3	116B7197P204	192A9771P3	CR9500B202H4A
115	50	192A9770P5	116B7197P206	192A9771P4	CR9500B102A6A
208		192A9770P7	116B7197P209	192A9771P5	CR9500B102A7A
230		192A9770P9	116B7197P212	192A9771P6	CR9500B102A7A
115	60	192A9770P4	116B7197P205	192A9771P4	CR9500B102A2A
208		192A9770P6	116B7197P208	192A9771P5	CR9500B102A3A
230		192A9770P8	116B7197P211	192A9771P6	CR9500B102A3A

* Recommended for stock for normal maintenance.
δ Only complete relay furnished.

Fig. No.	Ref. No.	Number Required per Breaker																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
10	171	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	371A233G1	Cut-off switch mounting bracket
10	172	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	371A234G1	Cut-off switch lever bracket
10	173	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	394A133P9	Cut-off switch retainer
10	174	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6176109P17	Cut-off switch spacer
14	175	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	---------	Closing relay (see table A, page 12)
11	176	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	449A537P1	Shunt trip device support
11	177	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	----------	Shunt trip device (see Table A, page 12)
11	178	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	---------	Shunt trip coil (see table A, page 12)
‡	179	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	423A380P1	Undervoltage device support
12	180	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	---------	Undervoltage device coil (see table A, page 12)
12	181	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	----------	Time delay undervoltage device (see Table A, page 12)
13	182	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TAKYUVT-3	Static timing device, 230 V 60 Hz
13	182	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TAKYUVT-1	Static timing device, 125 V DC
13	182	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	TAKYUVT-2	Static timing device, 250 V DC
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	----------	Instantaneous undervoltage device AC (see Table A, page 12)
14	183	1	1	1	1	1	1	1	-	-	1	1	-	-	1	-	1	-	192A9791P2	Auxiliary switch, 2 stage
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	192A9791P3	Auxiliary switch, 3 stage
		1	1	1	1	1	1	1	-	-	1	1	-	-	1	-	1	-	192A9791P5	Auxiliary switch, 5 stage
		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	192A9791P6	Auxiliary switch, 6 stage
‡	187	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	411A952G1	Auxiliary switch crank bracket
‡	188	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	6555155P1	Auxiliary switch bracket
‡	189	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	273B595G1	Bracket for breaker without auxiliary switch
‡	190	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	848C411G1	Auxiliary switch link assembly (complete assembly must be used)
		1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	887B386G1	Auxiliary switch link assembly
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	887B386G2	Auxiliary switch link assembly
‡	195	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	127A6463G2	Auxiliary switch operating rod
‡	192	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1	1	127A7439P1	Auxiliary switch coupling
‡	193	2	2	2	2	-	2	2	2	2	2	2	2	2	2	2	2	2	6076402P203	Pin for auxiliary switch linkage
2	194	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C996G3	Adjusting plate
		-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	887B387G3	Adjusting plate
2	195	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	372A320P1	Adjusting plate
‡	196	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	6555156G1	Open and close indicator link
		-	-	-	-	-	1	1	1	1	-	-	1	1	-	1	-	1	6203934P1	Open and close indicator link
14	197	-	-	-	-	-	1	1	1	1	-	-	1	1	-	1	-	1	265B268G1	Open and close indicator

Δ Original breaker had no suffix letter or numeral.
‡ Not shown.

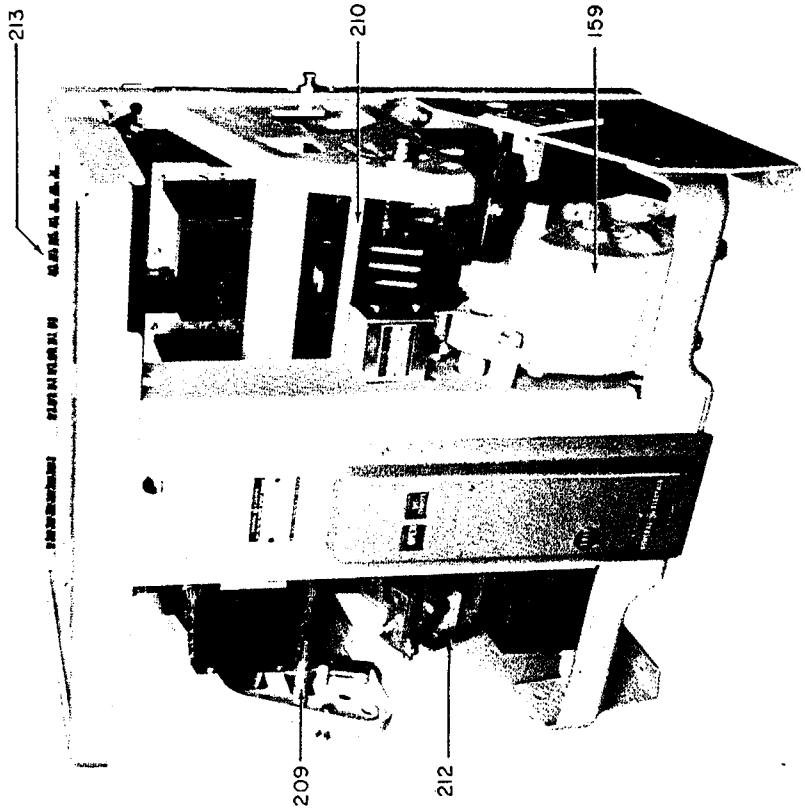

Fig. 15. Type AK-2A-75 power circuit breaker.

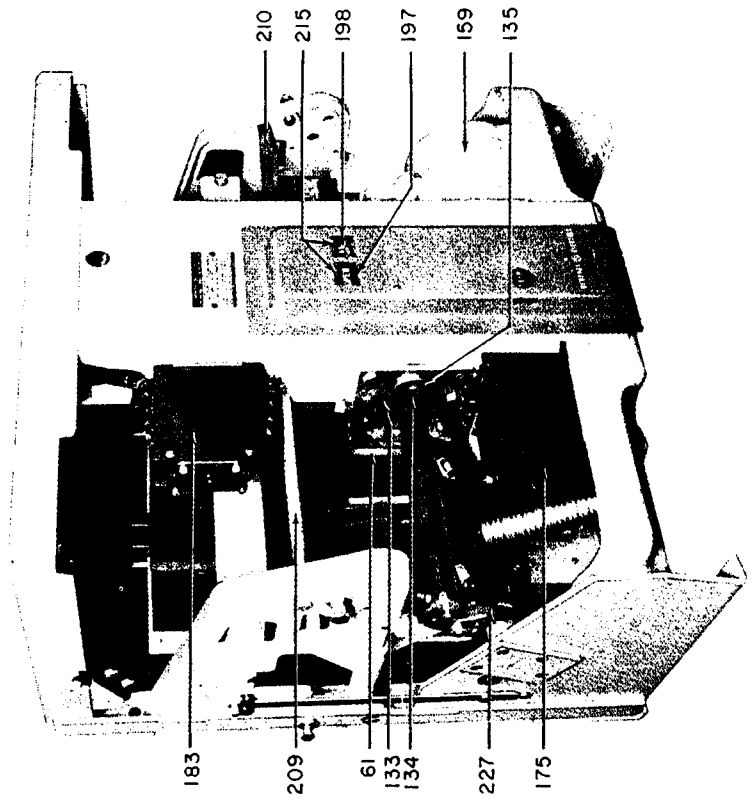

Fig. 14. Type AK-2A-75 power circuit breaker.

Fig. No.	Ref. No.	Number Required per Breaker																	Catalog Number	Description
		AK-2-75									AK-2A-75				AK-3-75 AK-4-75 AK-5-75		AK-3A-75 AK-4A-75 AK-5A-75			
		Manual				Electrical					Man.		Elec.		Man.	Elec.	Man.	Elec.		
		Δ	-2	-3	4	Δ	1	2	3	4	Δ	-1	Δ	-1	Δ	Δ	Δ	Δ		
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	265B268G3	Open and close indicator
14	198	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	265B268G2	Charged and discharged indicator
‡	199	-	-	-	-	-	1	1	1	1	-	-	1	1	-	1	-	1	174V532P1	Pin for indicator
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	174V561P1	Pin for indicator
‡	200	-	-	-	-	-	3	3	3	3	-	-	3	3	-	3	-	3	394A133P7	Retainer for indicator pin
‡	201	-	-	-	-	2	2	2	2	2	-	-	2	2	-	2	-	2	6176109P7	Spacer for indicator
‡	202	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	365A305P1	Spring for indicator
17	203	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	6293908G185	Terminal board (4 point)
17	204	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	6293908G168	Terminal board (6 point)
18	205	1	1	1	1	-	1	1	1	1	-	-	-	-	1	1	-	-	549D466P1	Drawout racking mechanism assembly
		-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	669D0817P1	Drawout racking mechanism assembly
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	175L317G4	Drawout racking mechanism assembly
18	206	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	365A313P1	Pawl spring
18	207	1	1	1	1	1	1	1	1	1	-	-	-	-	1	1	-	-	412A135P1	Link spring
‡	208	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	846C0839P10	Spring (for racking mechanism)
14,15	209	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	148A1946P7	Spacer (left)
14,15	210	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	148A1946P8	Spacer (right)
4	211	1	1	1	1	-	1	1	1	1	-	-	-	-	1	1	-	-	801B138G2	Anti rebound hook and slider
		-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	238C191P1	Anti rebound hook and slider
15	212	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	1	1	801B138G4	Anti rebound hook and slider
15	213	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	386A110G2	Secondary disconnect device (7 pt)
4	214	#	#	#	#	#	#	#	#	#	#	#	#	#	-	-	-	-	δ	Overcurrent trip device (AK-2 and AK-2A only)
14	215	-	-	-	-	2	2	2	2	2	-	-	2	2	-	2	-	2	174V535P1	Window
4	216	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	269C272P8	Window (open and close)
4	217	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C997P2	Window (charge and discharge) (when ordering window include label Ref. No. 218)
4	218	1	1	1	1	-	-	-	-	-	1	1	-	-	1	-	1	-	698C997P4	Label (charge indicator)
‡	316	-	-	-	-	1	1	1	1	1	-	-	1	1	-	1	-	1	568B386G1	Maintenance closing handle

Δ Original breaker had no suffix letter or numeral.
‡ Not shown.
# From 1 to 3 depending on accessories.
δ (1) No parts furnished for field installation on EC-1 trip devices.
(2) When replacement trip devices are ordered, it is imperative that order includes complete nameplate reading of the breaker or breakers involved and, if a contemplated ampere rating change is involved, the order should also include information as to ampere rating, time-current characteristic, and instantaneous trip setting desired. Also specify whether device is to be mounted on left, center or right pole of breaker.

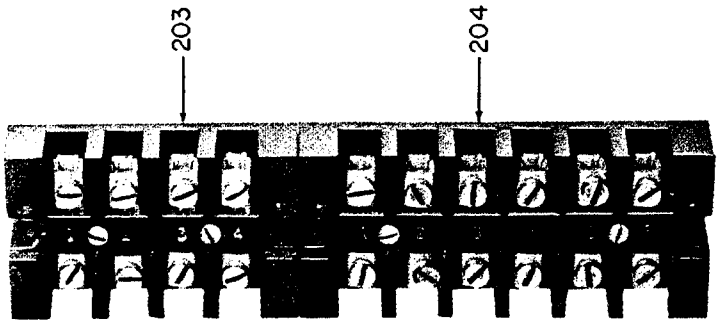

Fig. 17. Terminal boards, without cover.

Fig. 16. Type SB-12 auxiliary switch with back removed. Ref. No. 183

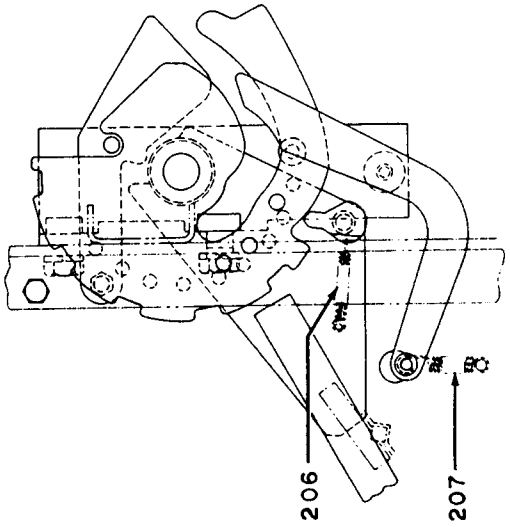

Fig. 18. Drawout racking mechanism, Ref. No. 205.

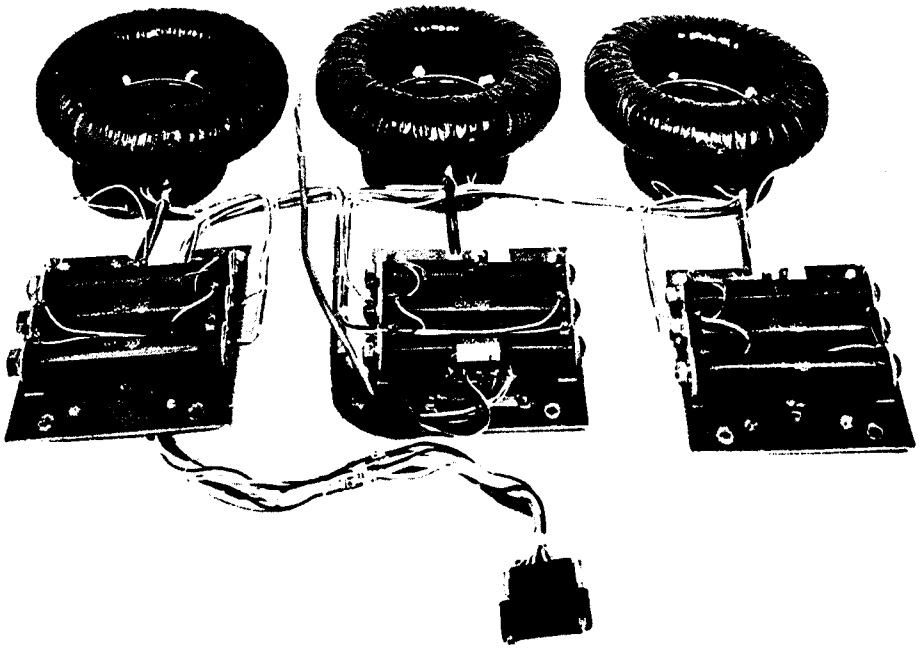

Fig. 19. Magnetic coil assembly for Power Sensor, Ref. No. 219.

Magnetic Sensor Coils – Assembly Ref. 219 (Fig.19)

Ref.		Without ground trip Poles	Cat. No.	Ref.		With ground trip Poles	Cat. No.
219	AK-3/3A-75	2	152C9217G2	219	AK-3/3A-75	3	152C9217G7
219	AK-3/3A-75	3	152C9217G3				

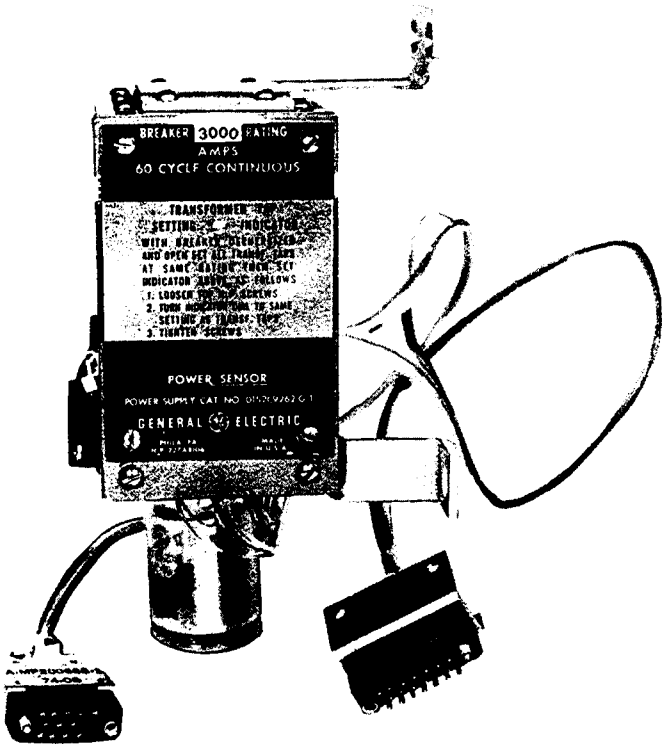

Fig. 20. Power supply unit for Power Sensor.
Power Supply Unit - Cat. No. 152C9262G10
for AK-3/3A-75

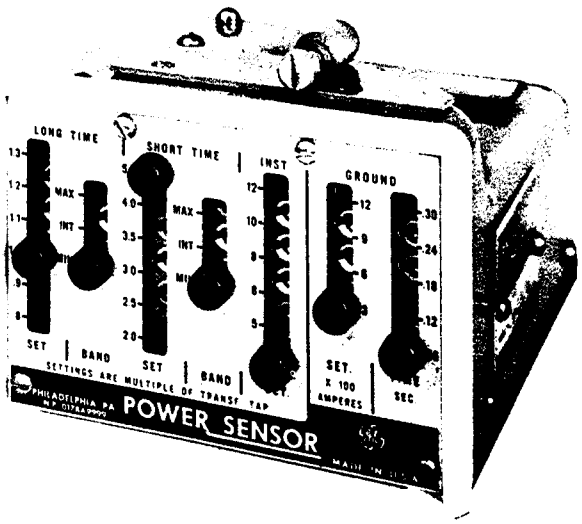

Fig. 21. Power Sensor logic unit, Ref. No. 220.
for AK-3/3A-75

Type PS-1 Power Sensor Logic Unit Figure 21

Figure	Reference	Quantity per Three Pole Breaker	Cat. No.	Description	Trip Characteristics
21	220	1	184L410G53	Type PS-1	L $S_{(LO)}$ I G
21	220	1	184L410G56	Type PS-1	L $S_{(HI)}$ I G
21	220	1	184L410G62	Type PS-1	L $S_{(LO)}$ G
21	220	1	184L410G65	Type PS-1	L $S_{(HI)}$ G
21	220	1	184L410G68	Type PS-1	$S_{(LO)}$ I G
21	220	1	184L410G71	Type PS-1	$S_{(HI)}$ I G
21	220	1	184L410G74	Type PS-1	$S_{(LO)}$ G
21	220	1	184L410G77	Type PS-1	$S_{(HI)}$ G
21	220	1	184L410G59	Type PS-1	L I G
21	220	1	184L410G80	Type PS-1	I G
21	220	1	184L410G41	Type PS-1	L $S_{(LO)}$ I
21	220	1	184L410G42	Type PS-1	L $S_{(HI)}$ I
21	220	1	184L410G44	Type PS-1	L $S_{(LO)}$
21	220	1	184L410G45	Type PS-1	L $S_{(HI)}$
21	220	1	184L410G46	Type PS-1	$S_{(LO)}$ I
21	220	1	184L410G47	Type PS-1	$S_{(HI)}$ I
21	220	1	184L410G48	Type PS-1	$S_{(LO)}$
21	220	1	184L410G49	Type PS-1	$S_{(HI)}$
21	220	1	184L410G43	Type PS-1	L I
21	220	1	184L410G50	Type PS-1	I

L = Long time-delay element
$S_{(LO)}$ = Short time-delay element (2 to 5X range)
$S_{(HI)}$ = Short time-delay element (4 to 10X range)
I = Instantaneous trip element
G = Ground fault protective element

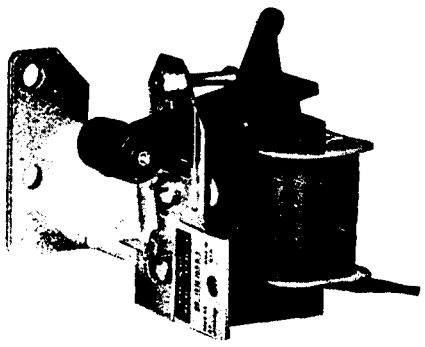

Fig. 22. Magnetic trip device with mounting bracket for Power Sensor.

Magnet Trip Device with Mounting Bracket – Cat. No. 184L369G1 for AK-3/3A-75

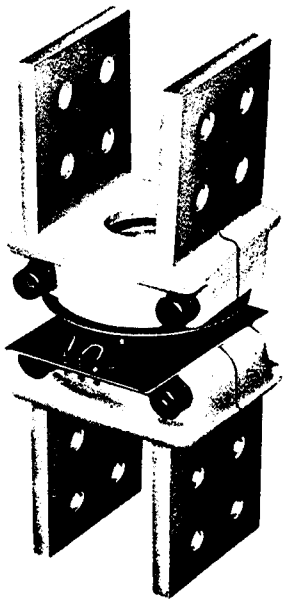

Fig. 23. Neutral ground sensing CT for Power Sensor.

Neutral Ground Sensing CT – Cat. No. 132C2607G1 for AK-3/3A-75

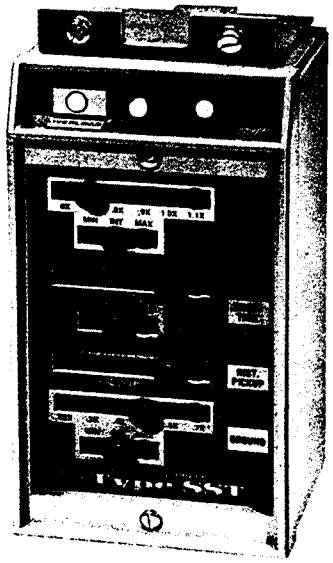

Fig. 24. Type SST solid state programmer, Ref. No. 300, for AK-5/5A-75.

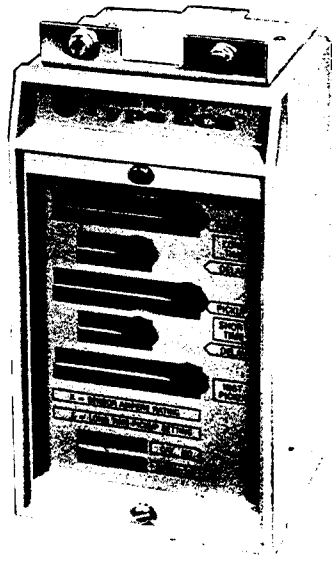

Fig. 25. Type ECS solid state programmer, Ref. No. 301, for AK-4/4A-75.

TABLE D. SOLID STATE PROGRAMMERS

Trip Elements					Type SST Device Fig. 24, Ref. 300	Type ECS Device Fig. 25, Ref. 301
L	$S_{(LO)}$	I	G	3T	568B604G61	-----
L	$S_{(HI)}$	I	G	3T	568B604G33	-----
L	$S_{(LO)}$	-	G	3T	568B604G60	-----
L	$S_{(HI)}$	-	G	3T	568B604G31	-----
L	-	I	G	3T	568B604G32	-----
L	$S_{(LO)}$	I	G	T	568B604G59	-----
L	$S_{(HI)}$	I	G	T	568B604G30	-----
L	$S_{(LO)}$	-	G	T	568B604G58	-----
L	$S_{(HI)}$	-	G	T	568B604G28	-----
L	-	I	G	T	568B604G29	-----
L	$S_{(LO)}$	I	-	2T	568B604G45	568B604G98
L	$S_{(HI)}$	I	-	2T	568B604G9	568B604G93
L	$S_{(LO)}$	-	-	2T	568B604G44	568B604G97
L	$S_{(HI)}$	-	-	2T	568B604G7	568B604G91
L	-	I	-	2T	568B604G8	568B604G92
L	$S_{(LO)}$	I	-	-	568B604G43	568B604G41
L	$S_{(HI)}$	I	-	-	568B604G6	568B604G3
L	$S_{(LO)}$	-	-	-	568B604G42	568B604G40
L	$S_{(HI)}$	-	-	-	568B604G4	568B604G1
L	-	I	-	-	568B604G5	568B604G2

L = Long time-delay element
$S_{(LO)}$ = Short-time delay element (1.75 to 4L range)
$S_{(HI)}$ = Short-time delay element (3L to 10L range)
I = Instantaneous trip element
G = Ground fault protective element
T = Annunciator target (ground fault indication)
2T = Annunciator targets (overcurrent and short circuit indication)
3T = Annunciator targets (overcurrent, short circuit and ground fault indication)

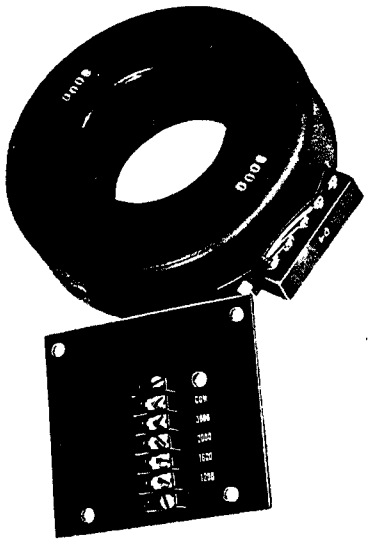

Fig. 26. Current sensor and tap changer for use with SST device, Ref. No. 302.

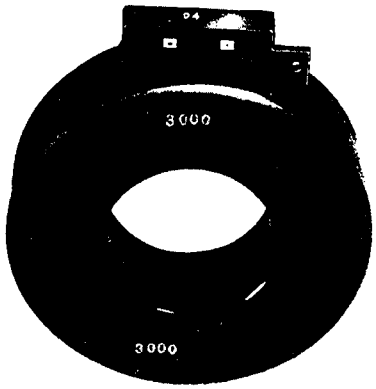

Fig. 27. Current sensor for use with ECS device, Ref. No. 303.

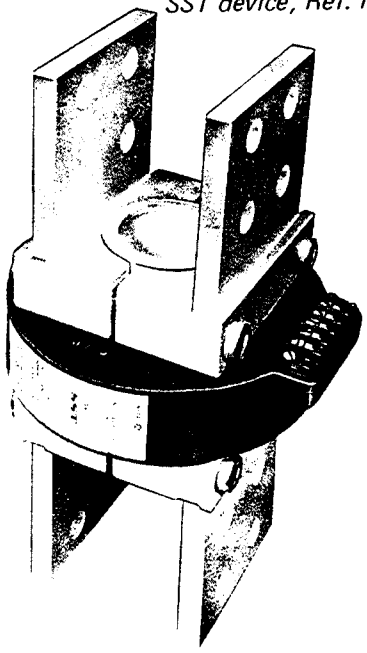

Fig. 28. Neutral ground sensing CT for SST, Ref. No. 304.

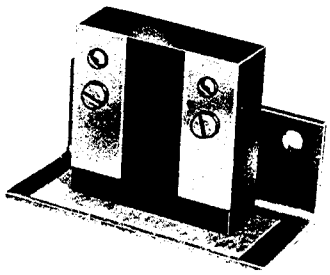

Fig. 29. Breaker mounted neutral disconnect assembly for SST, Ref. No. 305.

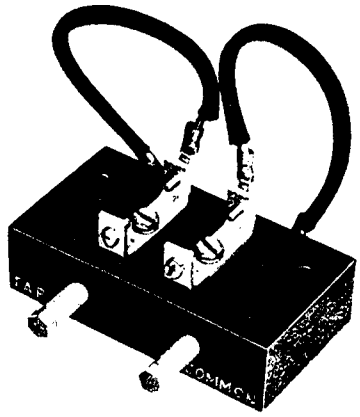

Fig. 30. Housing mounted neutral disconnect assembly for SST, Ref. No. 306.

Figure	Reference	Quantity per Three Pole Breaker	Cat. No.	Description
26	302	3	568B632G4	Current sensor and tap changer for use with SST programmer
27	303	3	568B605G25	Current sensor for use with ECS programmer 1200 amps
27	303	3	568B605G26	Current sensor for use with ECS programmer 1600 amps
27	303	3	568B605G27	Current sensor for use with ECS programmer 2000 amps
27	303	3	568B605G28	Current sensor for use with ECS programmer 3000 amps
28	304	1	343L671G61	Neutral ground sensing CT 1200 to 3000 amps
29	305	1	343L650G15	Neutral disconnect assembly on breaker
30	306	1	343L671G4	Neutral disconnect assembly on AKD-5 type housing
	307	1	343L671G5	Neutral disconnect assembly on AKD type housing

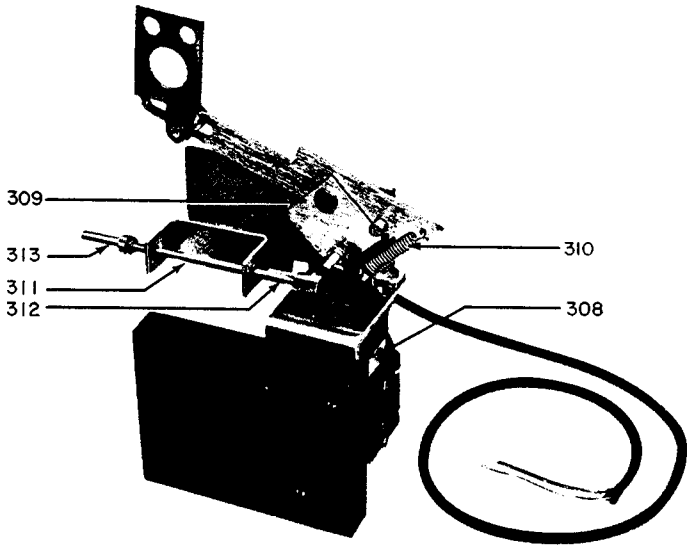

Fig. 31. Flux shift trip device for use with ECS or SST.

Figure	Reference	Quantity per Three Pole Breaker	Cat. No.	Description
31	308	1	568B598G1	Flux shift trip device
31	309	1	192A9933G1	Reset mechanism (includes reference 310)
31	310	1	192A6990P216	Spring
31	311	1	192A9821G2	Trip rod
31	312	1	192A6990P186	Spring
31	313	1	192A9823P1	Adjustor
‡	314	1	192A9930P1	Trip arm on trip shaft
‡	315	1	192A9567P1	Clamp (secures trip arm)

‡ Not shown.

For further information
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