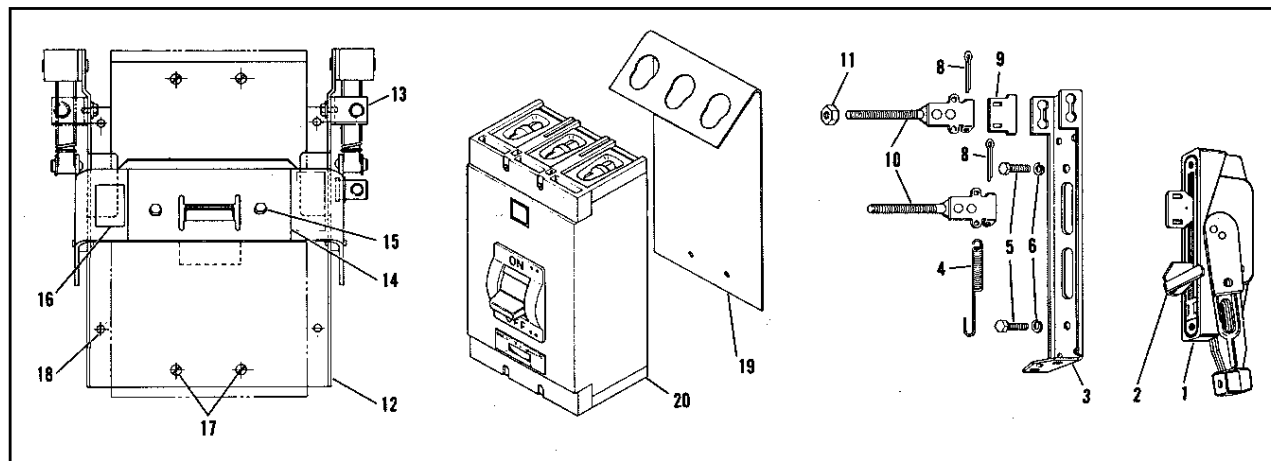




**Type KA and LA Circuit Breakers — 225 and 400 Ampere Frame with Flange Mounted Operating Mechanisms — Used in Classes 8539 and 8739**  
**Type SG — Size 5 — 3 Pole AC Combination Starters**

**WARNING:** Hazard of electrical shock or burn. Be sure to turn off power supplying this equipment before working on it.



**TABLE 1 — PARTS LIST FOR KA AND LA BREAKER OPERATING MECHANISMS**

Item No.	Description	Part Number	Quantity Required	
			KA*	LA
1	Operating handle mechanism: For NEMA 1 and 12.....	31055-176-51	1	1
	For NEMA 4.....	31055-176-52	1	1
● 2	Locking lever.....	31008-467-01	1	1
● 3	Stiffener Bracket.....	31008-470-01	1	1
4	Handle return spring.....	30017-143-01	1	1
5	Hex head cap screw, 1/4-20 x 5/8".....	21401-20200	2	2
6	Lock washer, 1/4".....	23701-00200	2	2
7	Operating mechanism complete (Includes Items 10-19): For KA circuit breaker ▲.....	9422 RP 1	1	—
	For LA circuit breaker.....	9422 RR 1	—	1
8	Cotter pin 1/8" x 1 1/4".....	24201-08400	1	2
9	Stiffener coupling.....	31055-168-01	—	1
10	Rod assembly.....	31055-162-50	1	2
11	Nut 3/8-16.....	23002-00240	—	1
12	Operating mechanism sub assembly: For KA circuit breaker.....	31004-260-50	1	—
	For LA circuit breaker.....	31004-290-50	—	1
13	Stiffener bracket.....	31004-298-01	—	1
14	Hex head cap screws 1/4-20 x 3/8".....	21926-20120	—	3
15	Bail arm attachment.....	31004-297-01	—	1
16	Caution tag.....	30072-305-30	1	1
17	Mounting screws (breaker): For KA circuit breaker, 10-24 x 3 7/8".....	21590-16792	4	—
	For LA circuit breaker, 12-24 x 3 1/4".....	21922-18741	—	4
18	Mounting screws (mechanism).....	21916-20160	—	4
19	Line terminal cover: For KA circuit breaker.....	30002-032-02	1	—
	For LA circuit breaker.....	30002-032-03	—	1
20	Circuit breaker.....	See Tables 2 and 3		

▲ When converting from LA to KA operating mechanism the following are required:  
 1 — Mounting plate #30478-022-01  
 4 — Mounting screws 1/4-20 x 3/8" #21911-20120

\* Not Shown

**ORDERING INSTRUCTIONS — See Page 2**

**Note:** This bulletin applies to circuit breakers and operating mechanisms furnished in combination starters and in certain other equipment. It does not apply to Class 9420 kits.



**OPERATING MECHANISMS**

The flange mounted operating mechanism used in Size 5, Class 8539 and 8739 Type S combination starters consists basically of the operating handle assembly which mounts to the outside of the enclosure flange; and the circuit breaker operating mechanism assembly for mounting and operating the circuit breaker. All parts of the complete operating mechanism are the same when used on NEMA 1, 4, and 12 enclosures with the following exception: the NEMA 4 enclosure uses a chrome plated handle assembly, Item 1.

**ADJUSTMENT PROCEDURES**

If the circuit breaker, Item 20; or the circuit breaker operating mechanism, Item 7 or 12; is replaced, it may be necessary to readjust the operating mechanism to insure proper operation of the "ON", "OFF", and "RESET" functions. The complete adjustment procedure is outlined in Instruction Sheet 30072-303-03 for the KA circuit breaker or 30072-303-04 for the LA circuit breaker, copies of which can be obtained thru any Square D Field Office.

**CIRCUIT BREAKERS**

Square D Type KA and LA circuit breakers are supplied on Class 8539 and 8739 Type S combination starters, Size 5. All standard Size 5 combination starters are supplied with a 600 VAC MAG-GARD® motor circuit protector. Type S combination starters can accept thermal magnetic permanent trip circuit breakers, also. It is possible to substitute one circuit breaker for another within the same frame size. When ordering a replacement circuit breaker, include all the identifying information found on the breaker nameplate. **Replacement circuit breaker should be ordered from the Square D Distribution Equipment Division.** A listing of circuit breaker type numbers is provided in Tables 2 and 3.

**ELECTRICAL INTERLOCK**

A one or two pole electrical interlock mechanism may be added or replaced on these circuit breaker operating mechanisms. The snap switch only may also be replaced on existing interlock installations. Catalog numbers are shown in Table 4.

**●TABLE 2 —  
MAG-GARD — MOTOR CIRCUIT PROTECTORS  
ADJUSTABLE TRIP**

Breaker Type	Ampere Rating	Trip Range Amperes	600 VAC Max. 3 Pole Breaker Cat. No.
KA	225	625-1250	KAL-250-25M
		750-1500	KAL-250-26M
		875-1750	KAL-250-29M
		1000-2000	KAL-250-30M
		1125-2250	KAL-250-31M
LA	400	1250-2500	LAL-36400-32M
		1500-3000	LAL-36400-33M
		1750-3500	LAL-36400-35M
		2000-4000	LAL-36400-36M

**TABLE 3 —  
THERMAL — MAGNETIC TRIP CIRCUIT BREAKERS  
FIXED TRIP**

Breaker Type	Continuous Amperes	600 VAC 3 Pole Breaker Cat. No.
KA	110	KAL-36110
	125	KAL-36125
	150	KAL-36150
	175	KAL-36175
	200	KAL-36200
	225	KAL-36225
LA	250	LAL-36250
	300	LAL-36300
	350	LAL-36350
	400	LAL-36400

**TABLE 4**

Electrical Interlock Type	Electrical Interlock Mechanism Complete		Replacement Snap Switch Only	
	Class	Type	Class	Type
Single Pole	9999	R-26	9007	A0-2
Double Pole	9999	R-27	9007	C0-3

**ORDERING INFORMATION REQUIRED**

1. Specify quantity, part number, and description of part.
2. Order circuit breaker, Item 20, from Distribution Equipment Division.
3. If adjustment of the mechanism is required, request a copy of Instruction Sheet 30072-303-03 for the KA circuit breaker or 30072-303-04 for the LA circuit breaker.

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