

Renewal Parts

Low-Voltage Power Circuit Breakers

Type LK and LKE 800 thru 4200 Amperes
Type LKD 800 and 1600 Amperes
600 Volts

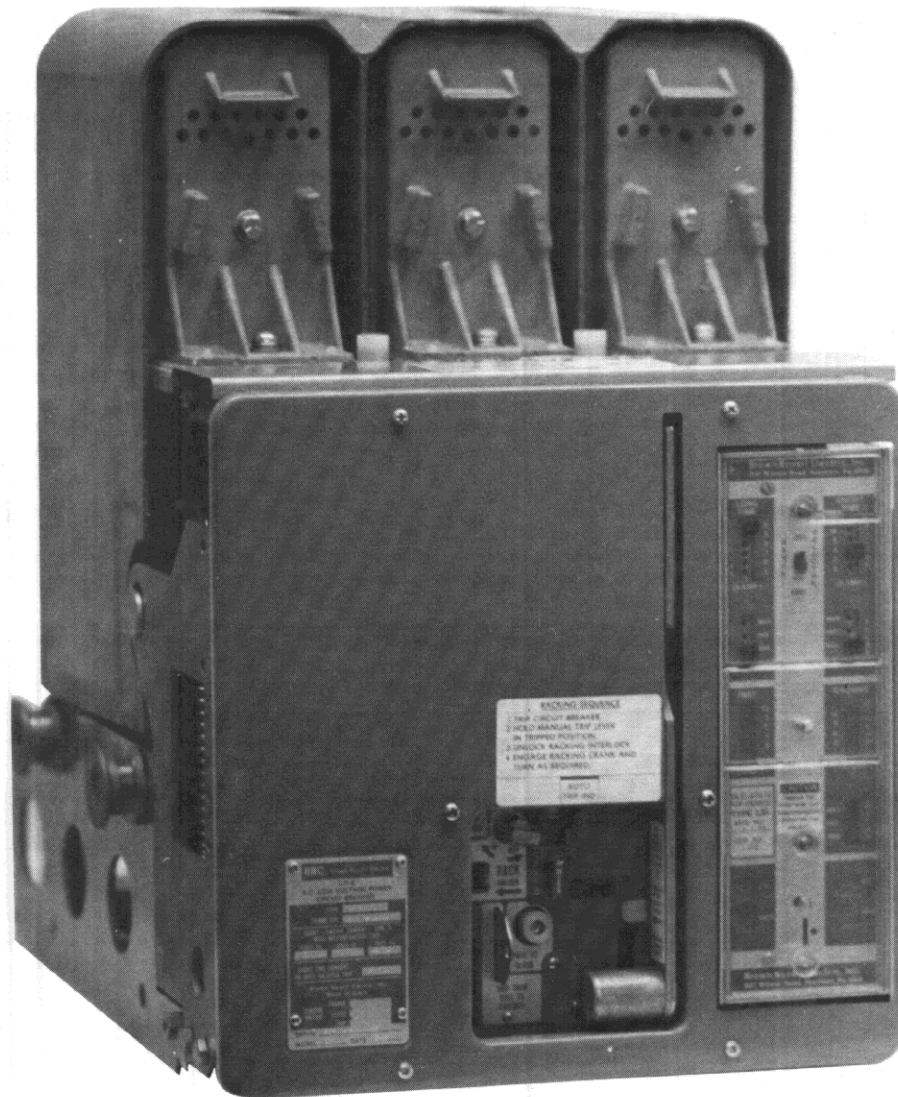




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The photographs reproduced in this bulletin are furnished only to serve as a guide in the identification of assemblies and parts, and do not purport to cover all details or variations in equipment.

INTRODUCTION

These renewal parts apply to types LK and LKE Circuit Breakers with AC continuous ratings of 800, 1600, 2500, 3200, and 4200 amperes and type LKD with AC continuous ratings of 800, and 1600 amperes.

A supply of renewal parts is recommended to insure proper and timely maintenance for normal operation of the circuit breakers. The minimum quantity of assemblies and items recommended in this bulletin is predicated on infrequent replacement of parts based on accumulated tests and operating experience. Total assemblies are recommended for fast replacement, to return the breaker to service as quickly as possible. For assistance, contact the nearest District Office.

RECOMMENDED QUANTITIES

1. Minimum Recommended Quantities are based on the following categories of service:

Domestic - One (1) complete set for each ten (10) circuit breakers or fraction thereof installed for each type and rating.

Foreign - One (1) complete set for each five (5) circuit breakers or fraction thereof installed for each type and rating.

Note: Renewal Parts Listing cover all types and ratings of circuit breakers. Use caution in selecting parts to assure they are applicable to the circuit breaker(s) on hand.

2. The parts listed cover an indefinite period of time. With normal duty and maintenance, replacement will be infrequent.
3. Where continuity of service is mandatory, a spare circuit breaker of each type and rating is recommended.

ORDERING INSTRUCTIONS

When ordering, always specify circuit breaker type(s) and serial number(s) from the nameplate(s), in addition to the quantity, description, and ordering number of each assembly or part, as applicable.

Example: To order Lower Terminal and moving Contact assemblies for a type LK 8 Drawout Circuit Breaker, specify the following:

For a type LK 8 Drawout Circuit Breaker Serial No. 54000A — 212-01211

Quantity 3 Number 713907-T7 Lower Terminal and Moving Contact Assembly.

Only those parts that normally require replacement have been shown and listed. If the part(s) required are not listed, completely describe the part(s), using reference in the instruction sections, actual photographs or a sample.

ADDITIONAL INFORMATION

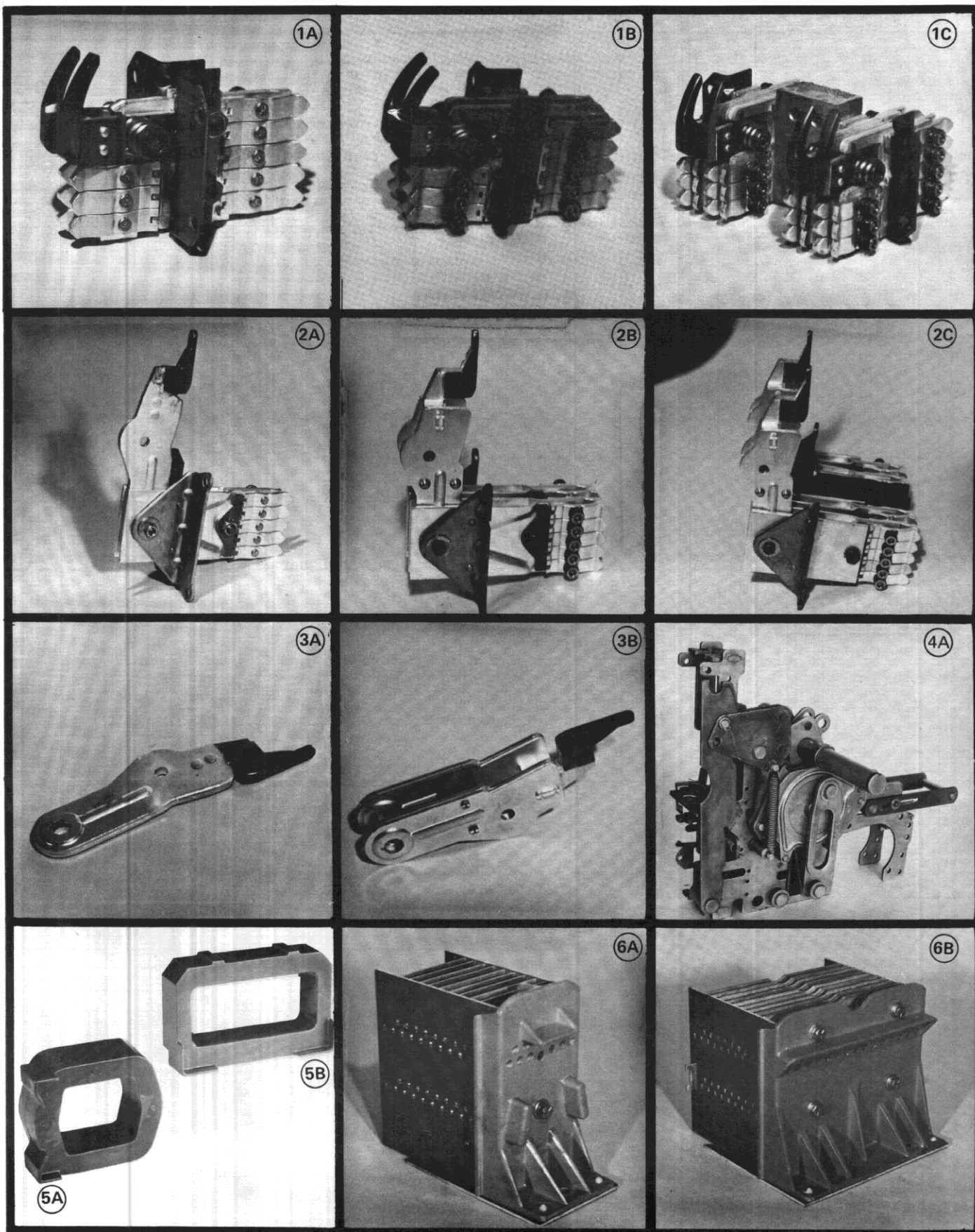
For Installation/Maintenance Instructions for I-T-E Low-Voltage Power Circuit Breakers see IB 6.1.1.7-1.

For Installation/Maintenance Instructions for I-T-E Low-Voltage AC Metal Enclosed Power Switchgear see IB 3.1.1.7-1.

FOR PRICES AND TECHNICAL INFORMATION,
CONTACT OUR NEAREST DISTRICT OFFICE.

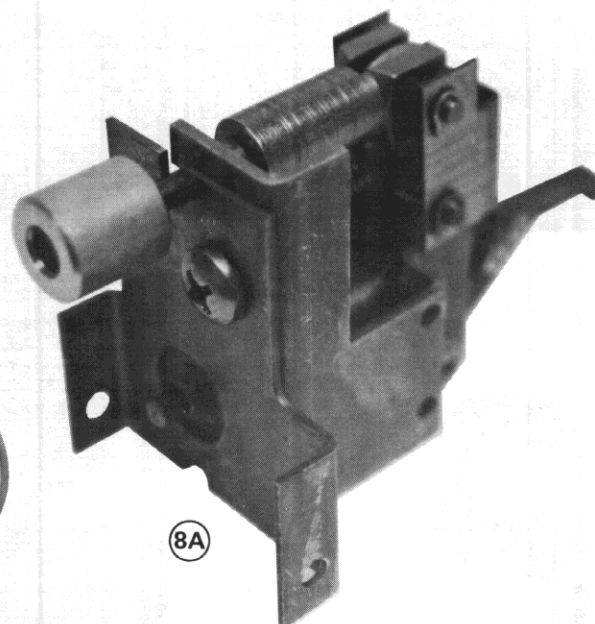
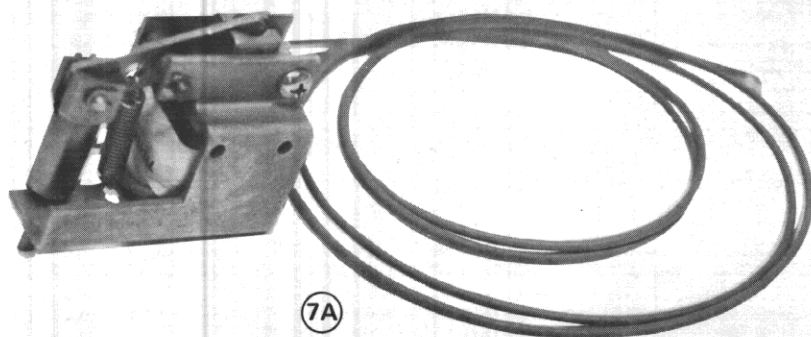
CIRCUIT BREAKER COMPONENTS

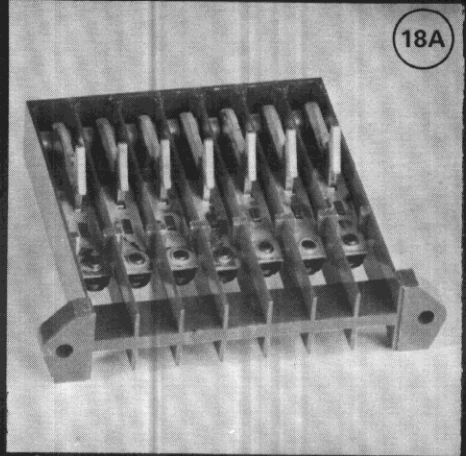
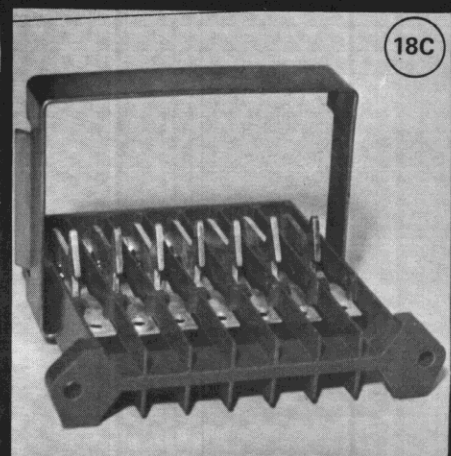
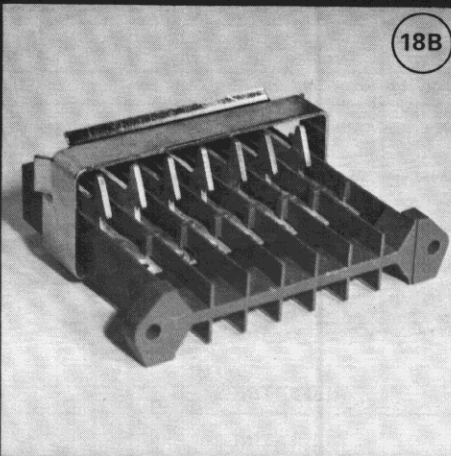
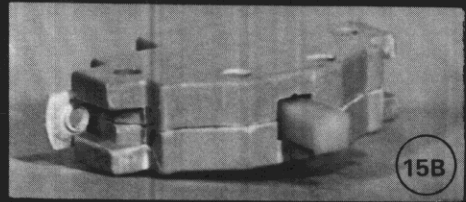
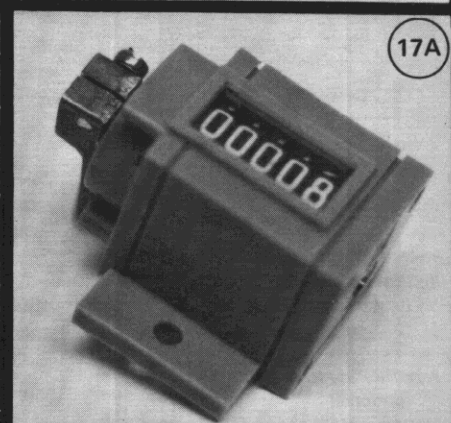
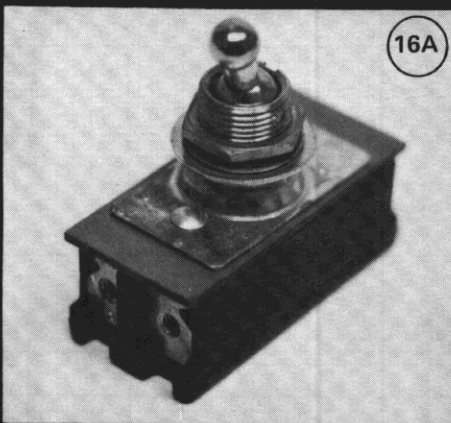
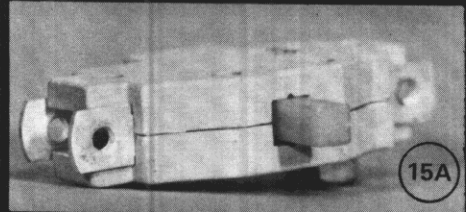
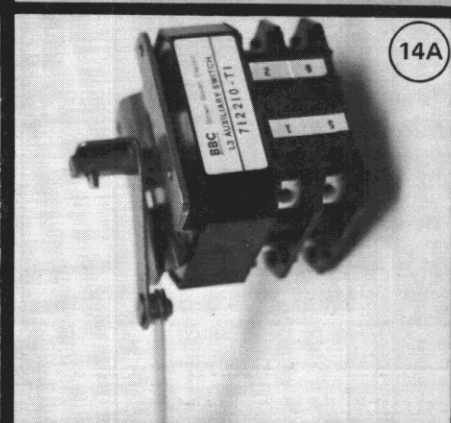
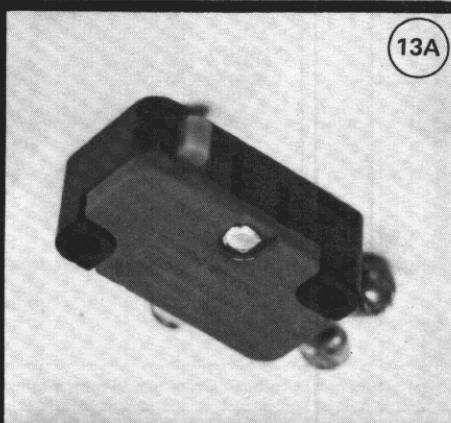
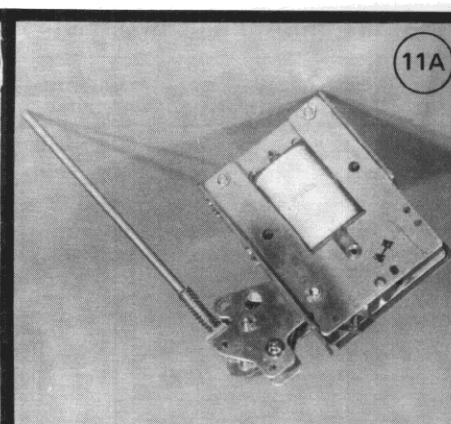
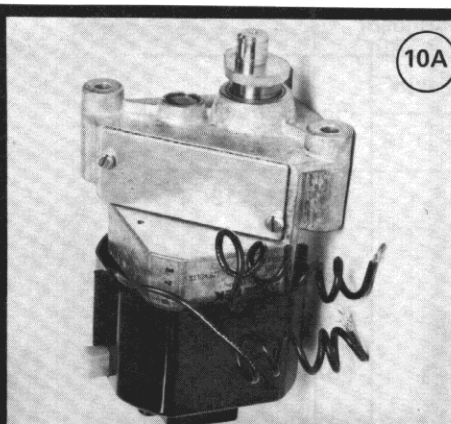
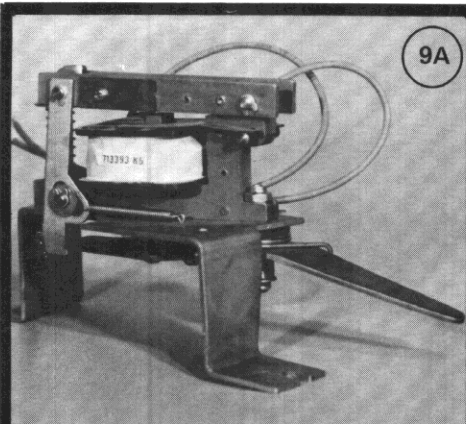
Description of Assembly or Part	Fig. Ref.	Quantities Per Type						Ordering Number
		LK 8, LKE 8	LK 16, LKE 16	LK 25, LKE 25	LK 32, LKE 32	LK 42, LKE 42	Fused LKD 8 LKD 16	
Upper Terminal Assem. (includes stationary main & arc contact)	1A	3	-	-	-	-	-	713908-T7
	1B	-	3	-	-	-	-	T8
	1B	-	-	6	-	-	-	T3
	1C	-	-	-	3	3	-	T4
	Not Illustrated	-	-	-	-	-	3	T10
		-	-	-	-	-	-	T11
Lower Terminal & Moving Cont. Assem (includes moving main & arc contacts)	2A	3	-	-	-	-	-	713907-T7
	2B	-	3	-	-	-	-	T8
	2B	-	-	3	-	-	-	T3
	2B	-	-	3	-	-	-	T4
	2C	-	-	-	3	-	-	T5
	2C	-	-	-	-	3	-	T6
Moving Contact Assem. (Bridge Blade, includes main & arc contacts)	3A	3	-	-	-	-	3	714382-K2
	3B	-	3	6	6	6	-	714370-K2
Operating Mechanism Small Man. Oper Elec. Oper Large Man. Oper Elec. Oper	4A	1	1	-	-	-	1	713911-T3
		1	1	-	-	-	1	T4
	4A	-	-	1	1	1	-	T5
		-	-	1	1	1	-	T6
Phase Sensor 200A 800A 1600A 2500A 3000A 3200A 4000A 4200A	5A	3	3	-	-	-	3	401740-K4
		3	3	-	-	-	3	K5
		-	3	-	-	-	-	K6
	5B	-	-	3	-	-	-	401717-K6
		-	-	-	3	-	-	K7
		-	-	-	3	-	-	K8
		-	-	-	-	3	-	K9
		-	-	-	-	3	-	K10
Arc Chute	6A	3	3	-	-	-	3	712207-T2
	6B	-	-	3	3	3	-	T3



CIRCUIT BREAKER COMPONENTS (Continued)

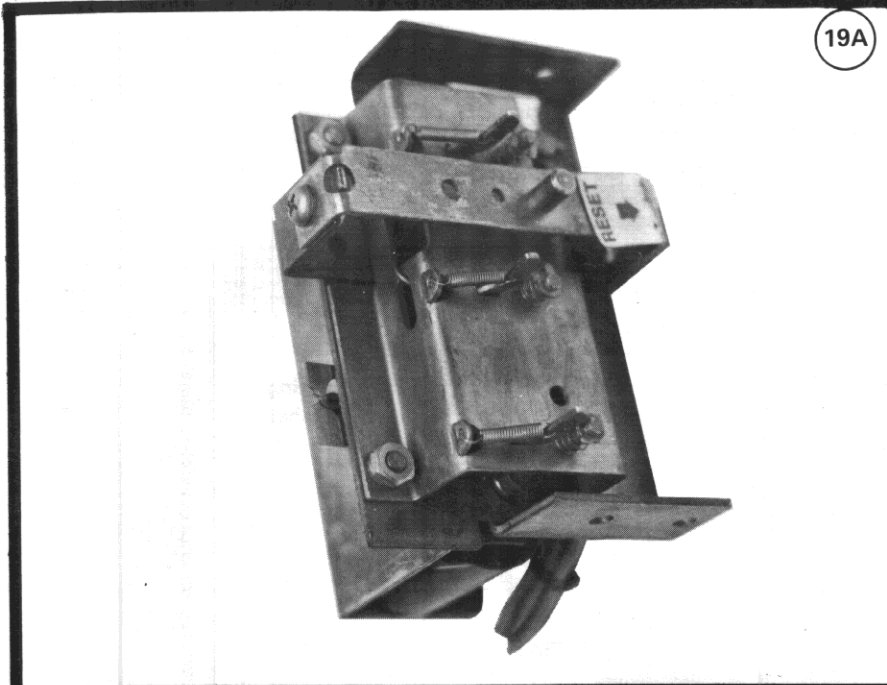
Description for Types LK, LKE and LKD	Fig. Ref.	Add Suffix to Oreding Number										Quant. Per Circuit Breaker (Options)
		Ordering Number	DC				50/60 Hz					
			24V	48V	125V	250V	120V	208V	220/240V	440/480V	550/600V	
Shunt Trip Assem (Elec. Oper. & Option on Man. Oper.)	7A	712214-	T9	T6	T7	T8	T1	T3	T3	-	-	1
Close Coil Assem (Elec. Oper. Only)	8A	712217	-	T6	T7	T8	T1	T3	T3	-	-	1
“Y” Relay Assem (Elec. Oper. Only)	9A	712218-	-	T6	T7	T8	T1	T3	T3	-	-	1
Motor Assem. (Elec. Oper. Only)	10A	709799-	-	T8	T6	T7	T6	T7	T7	-	-	1
Undervoltage Trip Device (Option)	11A	712215-	T9	T6	T7	T8	T1	T2	T3	T4	T5	(1)
U.V. Lockopen		712216-T9	(Option for U.V. Device)									(1)
U.v. Trip defeator		712216-T7	(Option for U.V. Device)									(1)
Close & Trip Switch	12A	712780-A	(Option for Elec. Oper.)									(1)
Alarm Switch (Auto Trip)	13A	713008-A	(Option)									(1 or 2)
Auxiliary Switch (L3)	14A	712210-T1	Elec., or Man. Oper. with Shunt Trip									1
Limit Switch (LS1 &3)	15A	713916-T2	Electrical Operation Only									1
Limit Switch (LS-2)	15B	713916-T1	Electrical Operation Only									1
Motor Disconnect Switch	16A	703270-A	Electrical Operation Only									1
Operation Counter	17A	180522-A	(Option)									(1)
Secondary Disconnect	18A	712208-T1	No Guide									As Req'd
Moving (7Contact)	18B	712208-T3	Single Guide									As Req'd
	18C	712208-T4	Double Guide									As Req'd





DESCRIPTION	Quantity per type		Fig. Ref	Ordering Number
	LKD 8	LKD 16		
Open Fuse Trip Device	1	1	19A	712219—T1
Amp Trap Fuse* 300A	3	3	20A	710316—A1
400				A2
600				A3
800				A4
1000				A5
1200				A6
1600				A7
2000				A8
2500				712652—A
*Warning: Fuse is current limiting and must be coordinated with LSS Trip Device. (Listed is Type 55 AL, Style "Y" Form 480. AMP Trap)				

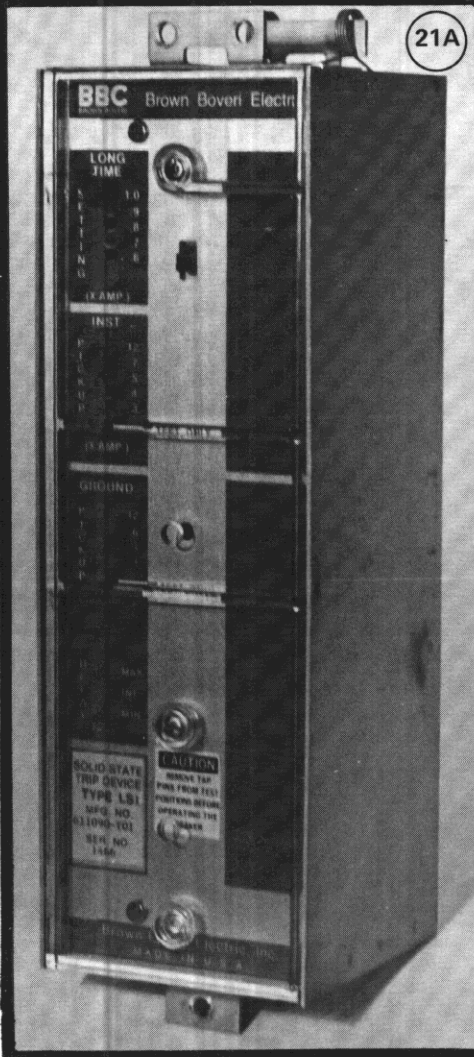
Description	Type	Fig. Ref.	Basic Order No.	Add Suffix to Basic Order No. (Sensor Ratings)							Quantity Per Circuit Breaker	With Ground Type		
				No Ground Trip			With Ground Trip							
				200A to 4200A	200A	800A	1600A	2500A	3000 3200A	4000 4200A				
Solid State Trip Unit (without targets)	LSS1	21A	611090—	T01	T11	T21	T31	T41	T51	T61	1	LSS-1G		
(without ground)	LSS2		611090—	T02	—	—	—	—	—	—		—	—	
	LSS4		611037—	T04	T11	T14	T21	T24	T31	T34			LSS-4G	
	LSS5		611037—	T05	T12	T15	T22	T25	T32	T35			LSS-3G	
	LSS6		611037—	T06	T13	T16	T23	T26	T33	T36			LSS-6G	
Solid State Trip Unit (with targets)	LSS4	—	611250—	T04	T11	T14	T21	T24	T31	T34	1	LSS-4G		
(without ground)	LSS5		611250—	T05	T12	T15	T22	T25	T32	T35			LSS-5G	
	LSS6		611250—	T06	T13	T16	T23	T26	T33	T36			LSS-6G	
Auxiliary Static Units (optional)		—		Control Power							1			
Not available for LSS1 & 2														
				240VAC	125VAC	120VAC	250VDC	48VDC						
Load Alarm		22A	611068—	T01	T01	T01	T01	T48					1	
Ground Trip Alarm		22A	611068—	T02	T02	T02	T02	T49						
Remote Neutral Sensor (4-wire ground)		—	401786	Circuit Breaker Sensor Rating (Amperes)						Mounting Bus Bars (max)	I.D. Window Width	(Remote) 1		
				200	800	1600	2500	3000	3200				4000	4200
				K1	K2	K3	K4	K5	K6	K7	K8		{1}½"x4"	4½"
			401781	—	—	—	K1	K2	K3	K4	K5	{3}¼"x6"	6½"	
Control Cable Assembly Standard (9 wire)		23A	611080—	T01	T03							1		
Special (for use with Load or G. Trip Alarm)			611080—	T02	T04									
Magnetic Latch		24A	712293—T15	ALL RATINGS							1			
Trip Unit Transparent Cover		—	611092—A	ALL RATINGS							1			



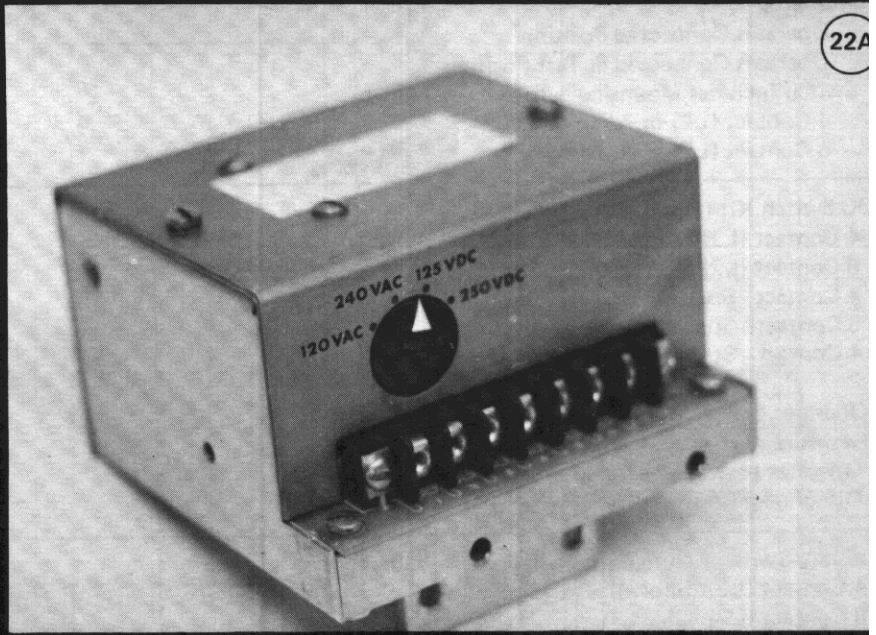
19A



20A



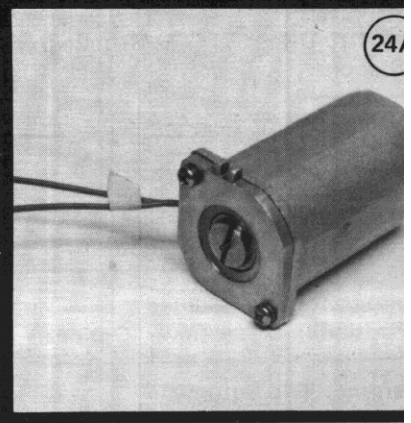
21A



22A



23A



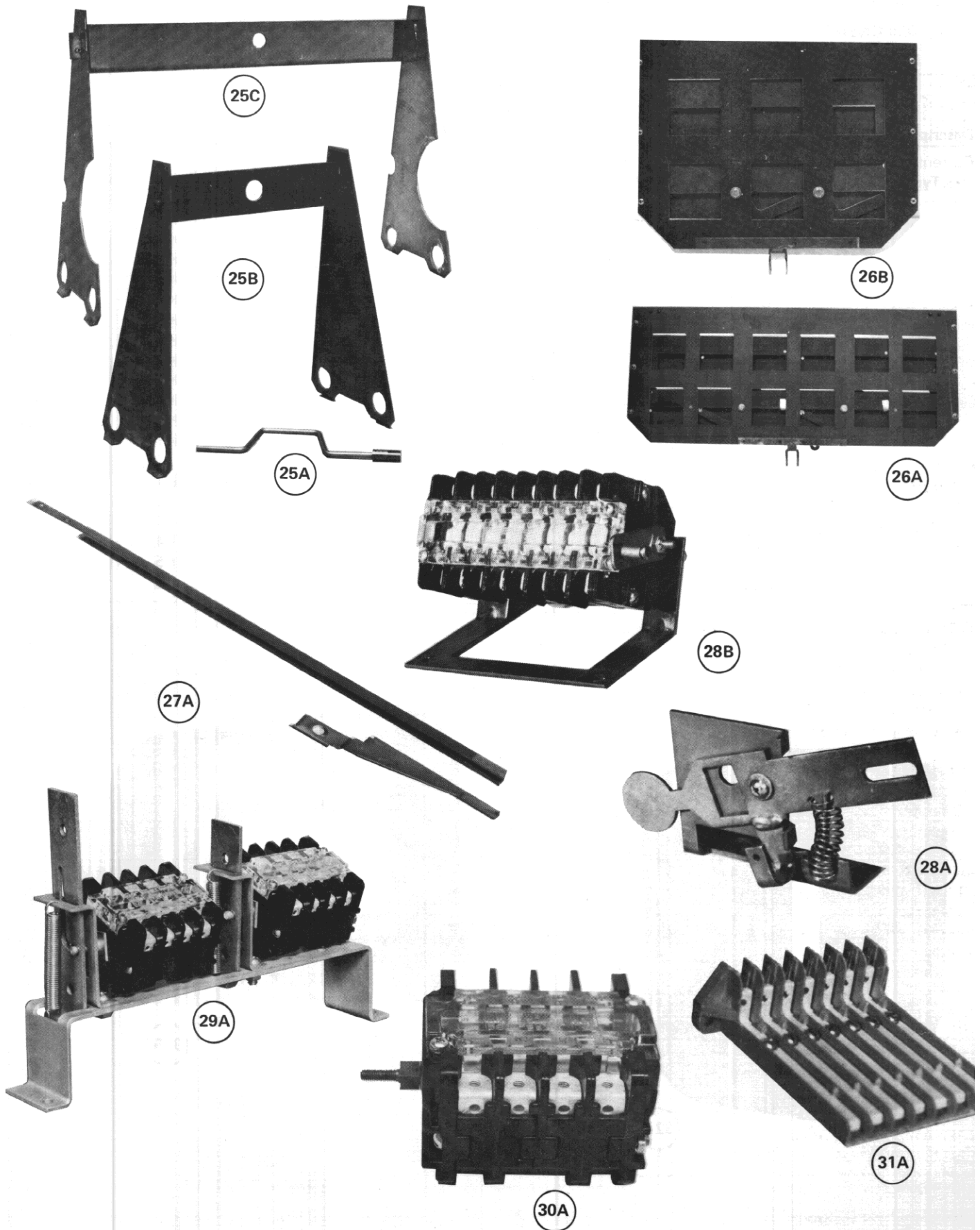
24A

ACCESSORIES:

Type	Description	Fig. Ref.	Ordering Number
LK, LKE, LKD, LK, LKE, LKD 8 & 16 LK, LKE 25 to 42	Racking Crank Lifting Yoke Lifting Yoke	25A 25B 25C	712229-T6 712229-T7 712229-T8

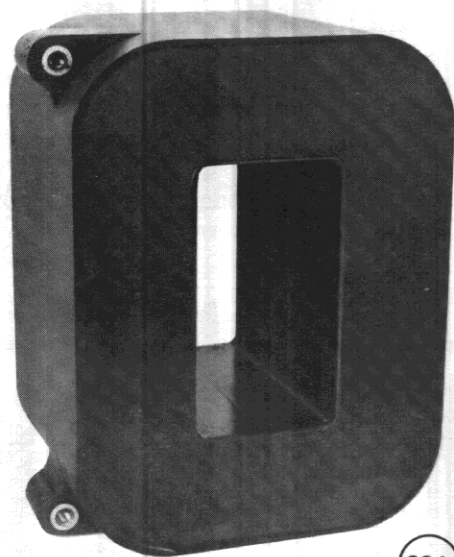
CRADLE COMPONENTS:

Description	Quantities Per Type:			Ordering Number
	Fig. Ref.	LK, LKE, LKD 8 or 16	LK, LKE 25 to 42	
Shutter Assem. Large Small	26A 26B	— 1	1 —	712250-T2 712250-T1
Position Indicator Kit (Optional)	27A	1	— —	712224-T13 712224-T14
MOC Switch Kit (Optional) Actuator Operates Connected Position Operates Connected & Test Position Switch Includes Mounting & Crank 4 Contact (L2) or 8 Contact (L2) Max. (shown)	28A 28B	 1 1 1 1	 1 1 1 1	 712224-T11 712224-T12 712224-T1 712224-T2
TOC Switch Kit (Optional) 4 Contact (L2) Standard* 8 Contact (L2) Standard* 4 Contact - Special** 8 Contact - Special** 4 Contact - Standard and 4 Contact - Special (Shown) * Operates between Test and Connected Positions ** Operates between Test and Disconnect Positions	29A	1 1 1 1 1	1 1 1 1 1	712225-T1 712225-T2 712225-T3 712225-T4 712225-T5
Auxiliary Switch Assem.(Optional) 4 Contact (L2) (Shown) 8 Contact (L2)	30A	1 1	1 1	700034-K1 700038-K1
Secondary Disconnect (As Required) Stationary (7 Contact)	31A	0 to 4	0 to 4	712209-T2
Insulation Strip-Secondary Disconnect "TP" Function	—	(As Required)	(As Required)	712692-A
Short Contact-Secondary Disconnect "OP" Function	—	(As Required)	(As Required)	712638-A
Transparent Door Mounted Position Indicator Cover (Optional)	—	1	1	883132-A
Emergency Trip Button- Door Mounted (Optional)	—	1	1	883213-T1

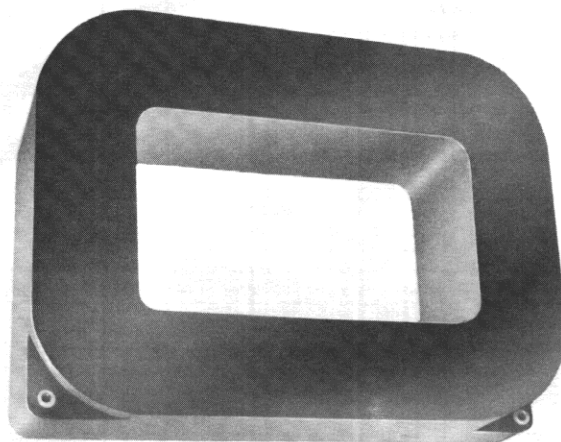


CRADLE COMPONENTS

Description		Quantities Per Type:		Ordering Number
		Fig Ref.	LK, LKE, LKD 8 or 16	
Current Transformer: Type LKM-1	100/5 A	32A	0 to 3	401775-K1
	150/5 A			K2
	200/5 A			K3
	300/5 A			K4
	400/5 A			K5
	500/5 A			K6
	600/5 A			K7
	800/5 A			K8
	1000/5 A			K9
	1200/5 A			K10
	1500/5 A			K11
	1600/5 A			K12
	2000/5 A			K13
	2500/5 A			K14
Type LKM-2	2000/5 A	32B	0 to 3	401739-K1
	2500/5 A			K2
	3000/5 A			K3
	4000/5 A			K4
	5000/5 A			K5
	6000/5 A			K6



32A



32B



BBC Brown Boveri, Inc.

Switchgear Products Division
W. Columbia, SC 29169

Supersedes IB 6.1.1.8A
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