



**BRUSH REPLACEMENTS
FOR
ROTATING MACHINES**

1. GENERAL

1.001 This addendum supplements Section 171-110-802, Issue 13. The attached pages must be inserted in the section in accordance with the filing instructions above.

1.002 This addendum is reissued to add ordering information on brush replacement for the new design Holtzer-Cabot KS-5546 ringing machine.

4. BRUSHES AND ASSOCIATED MACHINES

The following change applies to Part 4 of the section:

Table A—revised

Attached:

**Page 9 dated January 1972, revised
Page 10 dated January 1972, reissued
Page 19 dated January 1972, reissued
Page 20 dated January 1972, revised
Page 20.1 dated January 1972, added
Page 23 dated August 1972, reissued
Page 24 dated August 1972, revised
Page 31 dated January 1972, revised
Page 32 dated January 1972, revised**

TABLE A (Cont)

	MACHINE			NO. PER MACH	LATEST		SHAPE	BRUSH
	KS AND DESCRIPTION				KS-5555, LIST NO.	GRADE		SIZE IN INCHES
5123	28, 33, 53, AND 65V							
5123-01	COMMERCIAL							
5123-02	GENERATORS							
	FRAME	V	A					
	CD-123	53	500	20	105	EG12	C	2-1/2 x 1-1/4 x 7/8
	CD-125	53	800	28	59	529	C	2-1/2 x 1-1/4 x 1-1/8
	CD-73	65	100	8	119	R310	C	1-7/8 x 1-1/4 x 3/8
	CD-85	65	200	12	120	R310	C	1-7/8 x 1 x 1/2
	CD-95	65	300	16	121	R310	C	2 x 1 x 3/4
	CD-103	65	400	16	105	‡EG12	C	2-1/2 x 1-1/4 x 7/8
	CD-113	65	500	20	106	‡EG12	C	2-1/2 x 1-1/4 x 1
	CD-115	65	750	28	177	581	N	2-1/2 x 1-1/4 x 1-1/8
	CD-133	65	1200	32	177	581	N	2-1/2 x 1-1/4 x 1-1/8
	CD-55	33	75	8	4	*CM5	C	1-7/8 x 3/4 x 7/16
	CD-55	33	75	8	42	*CM6	C	1-7/8 x 3/4 x 7/16
	B-254	33	75	4	104	CM5	C	1-1/4 x 1-1/4 x 1/2
	B-284	33	100	8	44	CM5	C	1-1/4 x 1 x 1/2
	CD-65	33	100	8	45	*CM5	C	1-7/8 x 1 x 1/2
	CD-65	33	100	8	46	*CM6	C	1-7/8 x 1 x 1/2
	CD-73	33	200	8	48	*CM5	C	1-7/8 x 1-1/4 x 5/8
	CD-73	33	200	8	49	*CM6	C	1-7/8 x 1-1/4 x 5/8
	CD-85	33	400	20	51	*CM5	C	1-7/8 x 1 x 5/8
	CD-85	33	400	20	52	*CM6	C	1-7/8 x 1 x 5/8
	CD-103	33	600	20	182	581	P	2-1/2 x 1-1/4 x 1
	CD-105	33	800	24	174	581	P	2-1/2 x 1-1/4 x 7/8
	CD-113	33	1000	28	182	581	P	2-1/2 x 1-1/4 x 1
	CD-123	28	1000	28	174	581	P	2-1/2 x 1-1/4 x 7/8
	**CD-115	28	1500	48	131	†X3	N	2-1/2 x 1-1/4 x 1
5123-03 — GENERATORS								
	FRAME	V	A					
	B-284	33	100	8	44	CM5	C	1-1/4 x 1 x 1/2
	CD-73	33	200	8	48	*CM5	C	1-7/8 x 1-1/4 x 5/8
	CD-73	33	200	8	49	*CM6	C	1-7/8 x 1-1/4 x 5/8
	CD-85	33	400	20	128	CM5	C	1-7/8 x 1 x 3/4
	CD-103	33	600	20	182	581	P	2-1/2 x 1-1/4 x 1
	CD-105	33	800	24	183	581	N	2-1/2 x 1-1/4 x 7/8
	CD-73	65	100	8	129	R310	C	2 x 1-1/4 x 1/2
	CD-85	65	200	12	121	R310	C	2 x 1 x 3/4
	CD-85	65	200	12	120	R310	C	1-7/8 x 1 x 1/2
	CD-103	65	400	16	105	‡EG12	C	2-1/2 x 1-1/4 x 7/8
	CD-113	65	500	20	106	‡EG12	C	2-1/2 x 1-1/4 x 1
	CD-115	65	750	28	177	581	N	2-1/2 x 1-1/4 x 1-1/8

*Grades CM5 and CM6 are not interchangeable. The grade now being used on a particular machine should be used for replacements. CG3 and CM6 are not interchangeable. The CM6 should be ordered in a complete set to replace either the CG3 or the KK3.

**The 28 volts, 1500 amperes is also rated 33 volts, 1300 amperes.

†In case of trouble with the X3 grade, the 549 grade is suggested and may be ordered from General Electric Company by Catalog No. 5026944, Grade 549.

‡For bronze brush holders. When used in aluminum brush holders, they require additional sanding to change 25-degree face angle to 20 degrees.

TABLE A (Cont)

MACHINE KS AND DESCRIPTION			NO. PER MACH	LATEST KS-555, LIST NO.	GRADE	SHAPE	BRUSH SIZE IN INCHES
5123-04 — GENERATORS WITH V-TYPE BRUSH HOLDERS							
FRAME	V	A					
B-284	33	100	8	160	B253	C	1-1/4 x 1 x 1/2
CD-67	33	200	8	161	B253	C	2 x 1-1/4 x 5/8
CD-85	33	400	16	162	B253	C	2 x 1 x 3/4
CD-1130Y	33	600	24	147	B253	C	2-1/4 x 1-1/2 x 3/8
CD-1133Y	33	800	32	147	B253	C	2-1/4 x 1-1/2 x 3/8
CD-1140Y	33	1000	40	147	B253	C	2-1/4 x 1-1/2 x 3/8
CD-1345Y	33	1500	48	148	B253	C	2-1/4 x 1-1/2 x 1/2
CD-67	65	100	8	163	B253	C	2 x 1-1/4 x 1/2
CD-85	65	200	12	162	B253	C	2 x 1 x 3/4
CD-1126Y	65	400	16	148	B253	C	2-1/4 x 1-1/2 x 1/2
CD-1133Y	65	500	24	148	B253	C	2-1/4 x 1-1/2 x 1/2
CD-1143Y	65	750	32	148	B253	C	2-1/4 x 1-1/2 x 1/2
CD-1345Y	65	1200	40	148	B253	C	2-1/4 x 1-1/2 x 1/2

WITH CONSTANT
PRESSURE BRUSH
HOLDERS

FRAME	V	A					
CD-1130Y	33	600	12	188	L352	C	2-7/8 x 1-1/2 x 3/4
CD-1133Y	33	800	16	188	L352	C	2-7/8 x 1-1/2 x 3/4
CD-1140Y	33	1000	20	188	L352	C	2-7/8 x 1-1/2 x 3/4
CD-1345Y	33	1500	24	189	L352	C	2-7/8 x 1-1/2 x 1
CD-1126Y	65	400	8	189	L352	C	2-7/8 x 1-1/2 x 1
CD-1133Y	65	500	12	189	L352	C	2-7/8 x 1-1/2 x 1
CD-1143Y	65	750	16	189	L352	C	2-7/8 x 1-1/2 x 1
CD-1345Y	65	1200	20	189	L352	C	2-7/8 x 1-1/2 x 1

TABLE A (Cont)

MACHINE KS AND DESCRIPTION	NO. PER MACH	LATEST KS-5555, LIST NO.	GRADE	SHAPE	BRUSH		
					SIZE IN INCHES		
5396 } 5397 } COMMERCIAL-TYPE RINGING AND COIN CONTROL MG							
Generators							
Frame BD-216							
Collector Ring (20 cycles)	2	80	EG3	C	1-1/4 x 1/2 x 3/8		
Commutator	2	81	EG3	C	1-1/8 x 3/4 x 3/8		
Frame BD-226							
Collector Ring (20 cycles)	2	82	EG3	C	1-1/8 x 1/2 x 3/8		
Commutator	2	83	EG3	C	1-1/8 x 1 x 3/8		
Frame BD-234							
Collector Ring (20 cycles)	2	82	EG3	C	1-1/8 x 1/2 x 3/8		
Commutator	2	81	EG3	C	1-1/8 x 3/4 x 3/8		
Frame BY-107, BY-108, BY-109, and BY-144							
Collector Ring (20 cycles)	2	99	EG3	C	1-1/4 x 1/2 x 3/8		
Commutator	2	117	R310	C	1-1/4 x 3/4 x 3/8		
DC MOTORS (FOR FRAME BD GEN)							
FRAME	HP	VOLTS					
CD-65	0.75	18-28	4	4	CM5	C	1-7/8 x 3/4 x 7/16
CD-65	1.2	18-28	4	4	CM5	C	1-7/8 x 3/4 x 7/16
CD-65	1.8	36-55	4	5	CM9	C	1-7/8 x 3/4 x 7/16
CD-65	0.75	36-55	4	6	CM9	C	1-7/8 x 3/4 x 3/8
CD-55	1.2	36-55	4	6	CM9	C	1-7/8 x 3/4 x 3/8
DC MOTORS (FOR FRAME BY GEN)							
FRAME	HP	VOLTS					
B-254	0.75	40-50	4	100	CM9	C	1-1/4 x 1-1/4 x 3/8
B-254	1.2	40-50	4	100	CM9	C	1-1/4 x 1-1/4 x 3/8
B-284	1.8	40-50	4	100	CM9	C	1-1/4 x 1-1/4 x 3/8
B-284	0.75	18-28	4	109	CM5	C	1-1/4 x 1-1/4 x 3/8
Type TD-W Speed Reg	2	7	CM5	U	3/4 lg x 3/8 dia		
For mercury interrupters, see end of this list of machines.							
5402 — 1/8-HP MOTOR FOR DRIVING BURNISHING TOOLS							
DC Motor	2	176	AY	Q	0.69 x 1/4 x 1/4		
5404 — 4KW AUTOMATICALLY CONTROLLED GAS ENGINE-DRIVEN ALTERNATOR SET (STARTER AND ALTERNATOR)							
Give starter or alternator nameplate data, as required, and engine serial and KS numbers.							

TABLE A (Cont)

MACHINE KS AND DESCRIPTION	NO. PER MACH	LATEST		SHAPE	BRUSH SIZE IN INCHES	
		KS-5555, LIST NO.	GRADE			
5407 — 1/16-HP 60-CYCLE AC/DC DUPLEX MOTOR	2	16	401	L	17/32 x 7/16 x 1/4	
5419 — SMALL DC MOTOR- DRIVEN COMMERCIAL- TYPE CHARGING SETS	Give motor and generator nameplate data.					
5428 — MOTOR UNIT FOR COMMUTATOR RE- SURFACING DEVICE	Give motor nameplate data.					
*5430 — 1/2-AMP RINGING MACHINE FOR PANEL MOUNTING (see Note 1)						
DC Motor	2	113	G	Q	7/8 x 3/8 x 3/8	
Collector Ring (20 cycles)						
Without Pulsating (see Note 2)	2	88	258	Q	7/8 x 3/8 x 3/8	
With Pulsating	2	89	258	Q	7/8 x 3/8 x 3/8	
Pulsating	1	90	258	Q	3/4 x 3/8 x 3/8	
Speed Reg (center cont type)	1	3	255	Q	5/8 x 1/4 x 1/4	
5442 — COMMERCIAL-TYPE SETS FOR USE WITH CENTRIFUGAL VOLT- AGE REGULATOR						
GENERATOR (140 VOLTS)						
FRAME		AMPS				
BC-66	2	1.5	86	AY	Q	7/8 x 3/8 x 3/8
BC-76	2	3	91	AY	Q	7/8 x 1/2 x 1/2
BD-33	2	5	175	D2	C	1-1/8 x 1 x 3/8
BD-43	2	10	64	D	C	1-1/4 x 1-1/4 x 3/8
AC MOTOR ONE-PHASE 110V OR 220V						
FRAME		HP				
RSA-65	4	0.5	185	BP-20	Q	0.82 x 3/8 x 1/4
RSA-75	4	1	93	EG3	Q	7/8 x 1/2 x 1/4
				or		
				SA35		
GENERATOR (44-54V)						
FRAME		AMPS				
B-224	2	18.5	20	HRG	C	1-1/4 x 1 x 1/2
CD-75	12	200	41	CM6	Y	1-7/8 x 3/4 x 5/8
5445 — MOTOR-DRIVEN 15- INCH PLATE DIS- CHARGE LEAD RHEOSTAT (MOTOR)	Give motor nameplate data, rheostat serial, and KS numbers.					

Note 1: The KS-5430 L1 to L4 ringing machines and all KS-5430-01 ringing machines do not have pulsating equipment. All ac sets and the KS-5430-01 L14 and L15 ringing machines have no speed regulators.

Note 2: ¶When the motor brushes in the KS-5430-01 L14 ringing machine must be replaced, the replacement brushes should be ordered from General Electric Company catalog No. 625A619ACG2. The General Electric catalog should be ordered from the Western Electric Company. Before installing the motor brushes in the KS-5430-01 L14 ringing machine, contact Purchased Products Engineering, Western Electric Company, for the special procedures required to install the motor brushes.¶

TABLE A (Cont)

MACHINE KS AND DESCRIPTION	NO. PER MACH	LATEST KS-5555, LIST NO.		GRADE	SHAPE	BRUSH
						SIZE IN INCHES
5501 — MOTOR-DRIVEN RHEOSTAT (WARD- LEONARD)	Give nameplate data.					
5502 — KNIFE-BLADE-TYPE MOTOR-DRIVEN EMERGENCY CELL SWITCHES (ANDER- SON) (MOTOR)	Give nameplate data.					
5504 — 15-WATT RINGING MACHINE (PIONEER GENERATOR)	Give nameplate data.					
5506 — 52-VOLT 0.8-AMPERE MOTOR-GENERATOR	2	179		G	Q	0.82 x 3/8 x 3/8
5508 — (SEE 5467) BUFFALO ENGINES (STARTERS)	Give starter nameplate data, engine serial, and KS number.					
5510 — 25-WATT QD RINGING MACHINE						
DC Motor Commutator	2	316	SA2522		V	1 x 3/8 x 3/8
Collector Ring (20 cycles)	2	332	SA2522		S	27/32 x 19/64 dia x 1/4 flat
High Tone	2	338	SA2522		Q	13/16 x 5/16 x 5/32
Low Tone	2	339	SA2522		Q	13/16 x 5/16 x 5/16
Tone Slip Ring	1	341	SA2522		Q	13/16 x 5/16 x 1/4
Regulator	1	341	SA2522		Q	13/16 x 5/16 x 1/4
5513 — RECEIVER MOTOR	Give nameplate data.					
5514 — TRANSMITTER MOTOR	Give nameplate data.					
5518 — PORTABLE ENGINE ALTERNATOR SETS						
GECo						
Alternators 75KW	4	108		D	N	1-3/8 x 3/4 x 1/2
Exciters EF3	4	122		B18	N	1-3/8 x 3/4 x 7/16
Starter (for Buffalo engine)	Give starter nameplate data, serial, KS, and list number of engine.					
Star Electric Alternator and Exciter	Give alternator or exciter nameplate data and KS number.					
Starter (for Buda engine)	Give starter nameplate data.					
5525 } ENGINE-GENERATORS 5525-01 } AND ALTERNATOR SETS	(See 5539, 5549, 5550, and 5575)					
5530 — 1.5KW ENGINE- GENERATOR SET	Give nameplate data.					

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TABLE A (Cont)

MACHINE KS AND DESCRIPTION	NO. PER MACH	LATEST		SHAPE	BRUSH SIZE IN INCHES		
		KS-5555, LIST NO.	GRADE				
5532 — REPAIRED CENTRIFUGAL-TYPE VOLTAGE REGULATORS							
DC Motor	2	110	255	Q	5/8 x 1/4 x 1/4		
Regulator	2	110	255	Q	5/8 x 1/4 x 1/4		
5539 — ENG-DRIVEN GEN	Give nameplate data.						
5540 — FLOAT MOTOR	2	110	255	Q	5/8 x 1/4 x 1/4		
5541 — BOOTH FANS	Give nameplate data.						
5542 — 6KW ENG-GEN SET	Give nameplate data.						
5546 — CODE RING MACH							
TYPE CWD or CBD (Old Design)							
Motor Commutator	2	316	SA2522	V	1 x 3/8 x 3/8		
Collector Ring (20 cycles)	2	332	SA2522	S	27/32 x 19/64 dia x 1/4 flat		
High Tone	1	340	SA2522	SS	3/4 x 3/16 dia x 1/8 flat		
Low Tone	2	340	SA2522	SS	3/4 x 3/16 dia x 1/8 flat		
Tone Slip Ring	1	340	SA2522	SS	3/4 x 3/16 dia x 1/8 flat		
TYPE MG (New Holtzer-Cabot Design)							
Give complete nameplate data and specify "TYPE" designation. Order from: Holtzer-Cabot Corp. or Commercial Electric Products Corp.							
5547 — DIVERTER POLE MG SETS							
GENERATOR							
FRAME	V	A					
31-D	55	30	4	385	EP-108	W	1-3/8 x 1 x 3/8
35-D	55	60	8	385	EP-108	W	1-3/8 x 1 x 3/8
45-D	55	120	8	386	EP-108	W	1-3/8 x 1-1/2 x 1/2
5549 — ENGINE (STARTER)	Give starter and engine nameplate data.						
5550 } GEN, ALT, AND							
5550-01 } EXCITERS							
GEC _o GENERATORS							
FRAME	V	A					
CD-85	22-53	200	12	121	R310	C	2 x 1 x 3/4
GEC _o							
Alternators	4	181		D	E		1-3/8 x 3/4 x 1/2
Exciters	4	122		B18	N		1-3/8 x 3/4 x 7/16
Generators and Exciters of Other Than GE Manufacture	Give the associated nameplate data and also the serial and KS and list numbers of engine.						
5565 — ENGINE-DRIVEN, 10KW ALTERNATOR, EXCITER, & STARTER.	Give nameplate data and state whether brushes are for alternator, exciter, or starter.						

TABLE A (Cont)

MACHINE KS AND DESCRIPTION	NO. PER MACH	LATEST		SHAPE	BRUSH
		KS-5555, LIST NO.	GRADE		SIZE IN INCHES
15547 — MOTOR-DRIVEN INTERRUPTER	4	340	SA2522	SS	3/4 x 3/16 dia x 1/8 flat
15571 — MOTOR-DRIVEN RHEOSTAT (WARD- LEONARD)					Give nameplate data.
15610 — SWITCH PANELS (ANDERSON) (MOTOR)					Give nameplate data.
15622 — ENGINE-ALTER- NATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15624 — SWITCH PANELS (ANDERSON) (MOTOR)					Give nameplate data.
15626 — MOTOR-DRIVEN ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator, exciter, or dc motor.
15632 — DYNAMOTOR					Give nameplate data and state whether brushes are for low- or high-voltage end.
15650 — PORTABLE ENGINE- ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15688 — PORTABLE ENGINE- ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15700 — ENGINE-ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15717 — ENGINE-ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15743 — MOTOR-DRIVEN RHEOSTAT (WARD- LEONARD)					Give nameplate data.
15777 — ENGINE-ALTERNATOR					Give nameplate data and state whether brushes are for alter- nator or exciter.
15804 — RINGING MACHINE (Holtzer-Cabot) DC Commutator	2	343	SA2522		7/8 x 5/16 x 1/4
(Electronic Specialty) (see Note) DC Commutator	2	507	EG11		11/16 x 1/4 x 1/4
(General Electric) DC Commutator	2	200	PH	QB	59/64 x 1/4 x 1/4
Note: The Electronic Specialty Company is now called the Radiation International Company.					

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TABLE A (Cont)

MACHINE KS AND DESCRIPTION		NO. PER MACH	LATEST KS-5555, LIST NO.	GRADE	SHAPE	BRUSH SIZE IN INCHES
15816 — RINGING MACHINE						
List 1						
Commutator		2	164	R420	C	1-1/4 x 3/4 x 3/8
Slip Ring		2	165	K-816	S	1-1/4 x 3/8 x 1/4
List 2						
Commutator		2	164	R420	C	1-1/4 x 3/4 x 3/8
Slip Ring		2	165	K-816	S	1-1/4 x 3/8 x 1/4
DC Motor		2	166	B253	C	1-1/4 x 1 x 3/8
15823 — MOTOR-DRIVEN ALTERNATOR						
DC MOTOR		4	*511	EG11		1-5/8 x 1-1/4 x 1/2
15834 — MOTOR-GENERATOR						
LIST						
3		4	417	400		2 x 1-1/2 x 3/8
4		4	418	400		2 x 1-1/2 x 1/2
5		8	419	400		2-1/4 x 1-1/2 x 1/2
6		4	417	400		2 x 1-1/2 x 3/8
7		4	418	400		2 x 1-1/2 x 1/2
8		8	419	400		2-1/4 x 1-1/2 x 1/2
15839 — MOTOR-GENERATOR						
LIST	V	A				
3	33	400	12	194	**L352	C 2 x 1-1/4 x 5/8
4	33	600	12	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
5	33	800	16	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
6	33	1000	20	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
9	63	200	8	193	**L352	C 2 x 1-1/4 x 1/2
10	63	400	12	199	**L352	C 2 x 1-1/4 x 5/8
11	63	500	12	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
12	63	750	16	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
14	33	400	12	194	**L352	C 2 x 1-1/4 x 5/8
15	33	600	12	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
16	33	800	16	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
17	33	1000	20	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
19	63	400	12	199	**L352	C 2 x 1-1/4 x 5/8
20	63	500	12	195A	**L352	C 2-1/4 x 1-1/2 x 3/4
21	63	750	16	195A	**L352	C 2-1/4 x 1-1/2 x 3/4

*List 511 is furnished with a metal clip containing an adjusting screw. The assembled brush, clip, and screw is designed to be used in a solenoid operated brush lifter.

**Where dusting of the brushes has been experienced, it is recommended that brush grade L356 be used.