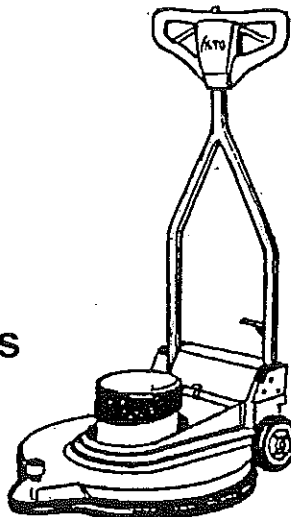




**Operator's Manual  
Manuel d'utilisation  
Libro de Instrucciones**



**Ultra Speed<sup>®</sup>  
Burnisher  
120V & 230V  
with NEMA Plug**

### **READ THIS BOOK**

This book has important information for the use and safe operation of this machine. Failure to read this book prior to operating or attempting any service or maintenance procedure to your ALTO machine could result in injury to you or to other personnel; damage to the machine or to other property could occur as well. You must have training in the operation of this machine before using it. If your operator(s) cannot read this manual, have it explained fully before attempting to operate this machine.

All directions given in this book are as seen from the operator's position at the rear of the machine.

For new books write to: ALTO U.S. INC., 2100 Highway 265, Springdale, Arkansas 72764.

## Table of Contents

Operator Safety Information .....	5
Features and Specifications .....	9
Pad Selection Chart .....	9
120 Volt Instructions for Electrical Connection .....	12
230 Volt Instructions for Electrical Connection .....	14
How to Prepare Machine for Operation .....	16
How to Operate the Machine .....	18
How to Correct Problems in the Machine .....	22

## Section II - Parts and Service Manual

Maintenance .....	26
Assembly Drawing .....	30
Assembly Parts List .....	31
Electrical Schematic .....	32
Motor Drawing and Parts List .....	33

2. Saque la tapa.
3. Quite los dos tornillos de sujeción del fiador circular de las escobillas.
4. Libere los resortes y saque las escobillas de sus soportes. No desconecte las escobillas.
5. Gire el portadisco y inspeccione la parte del colector en contacto con las escobillas.
6. Entregue la máquina a un centro técnico autorizado Clarke Technology si nota una de las siguientes situaciones:
  - 1.) Se nota pequeños agujeros en la superficie del colector. Véase figura 8 A.
  - 2.) Coloración desigual : el color del contorno del colector debe ser uniformemente pardo oscuro. Si nota zonas limpias y zonas muy oscuras, hay un problema. Véase figura 8 B.
  - 3.) Demasiado mica : el aislante en mica debe ser menos alto que las hojas del colector. Véase figura 8 C.
7. Cambie las cuatro escobillas de carbón si una de las escobillas es más corta que 1 cm. Para cambiar las escobillas de carbón, siga este procedimiento:
  - 1.) Quite los tornillos. Cambie las escobillas. Coloque de nuevo los tornillos.
  - 2.) Mediante un gancho, mantenga el resorte apartado. Instale la escobilla en la ranura. Deje el resorte ponerse de nuevo en su sitio al extremo de la escobilla. El hilo no puede estorbar el movimiento de la escobilla en su soporte.
  - 3.) Coloque de nuevo la tapa del motor.

#### Rectificador

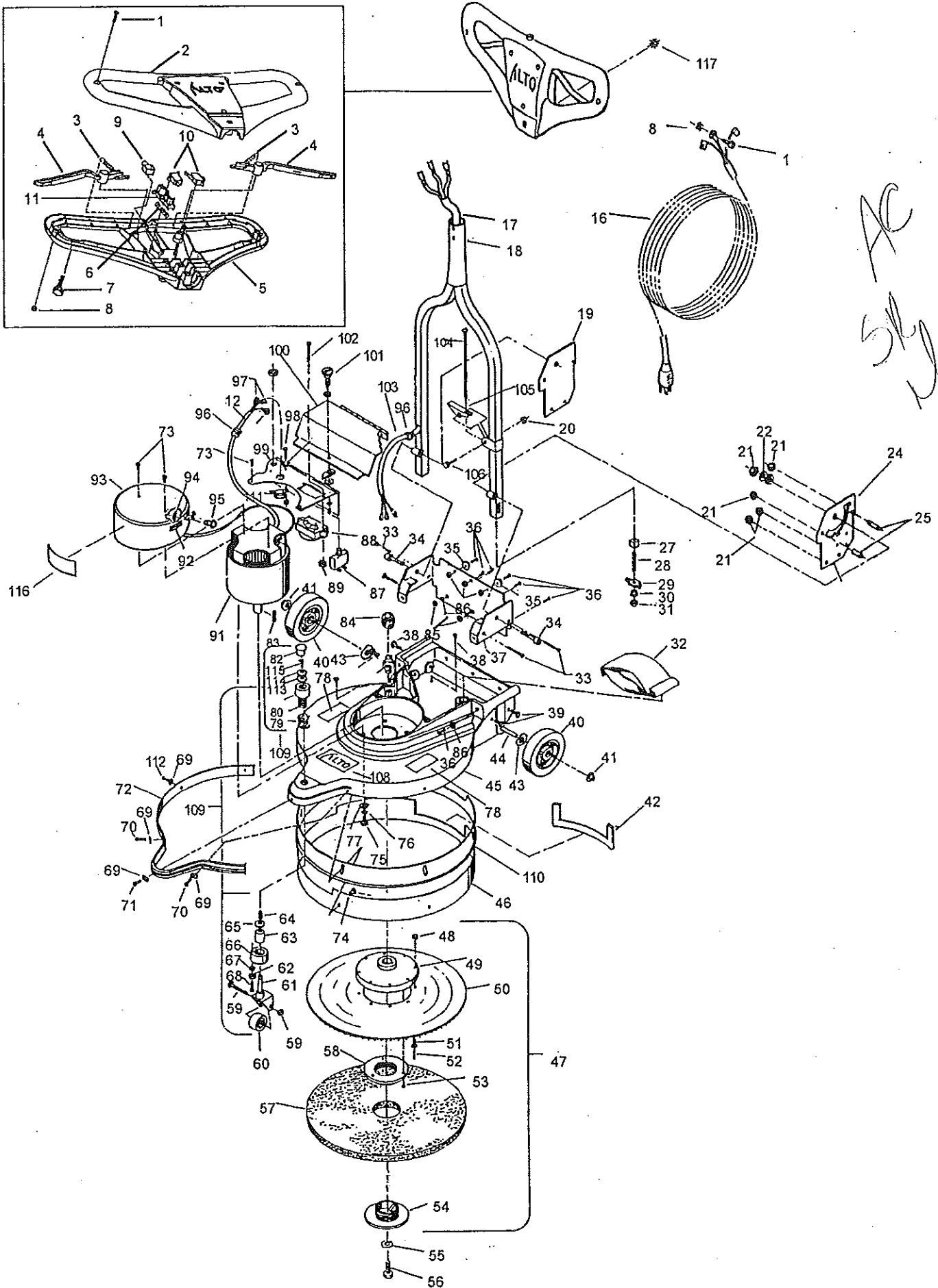
Cuando ha ajustado correctamente la presión del disco, si el térmico sigue accionándose y si el motor no funciona a su velocidad normal, se puede que el rectificador esté dañado. En tal caso, entregue la máquina a un centro técnico autorizado Clarke Technology para cambiar el rectificador.

2. Déposer le couvercle.
3. Enlever les deux vis de fixation du garant circulaire des balais.
4. Relâcher les ressorts et sortir les balais de leur support. Ne pas déconnecter les balais.
5. Tourner le porte-disque et inspecter la partie du collecteur qui est en contact avec les balais.
6. Confier la machine à un centre technique agréé Clarke Technology si une des conditions suivantes se présente:
  - 1.) Présence de petits trous à la surface du collecteur. Voir figure 9 A.
  - 2.) Coloration inégale : il faut que la couleur du pourtour du collecteur soit uniformément brun foncé. Des zones propres et des zones très foncées indiquent qu'il y a un problème. Voir figure 9 B.
  - 3.) Trop de mica : la hauteur de l'isolant en mica doit être inférieure à celle des lames du collecteur. Voir figure 9 C.
7. Remplacer les quatre balais de carbone si la longueur d'un des balais est inférieure à 1 cm. Pour remplacer les balais de carbone, procéder comme suit:
  - 1.) Enlever les vis. Remplacer les balais. Replacer la vis.
  - 2.) A l'aide d'un crochet, maintenir le ressort écarté. Installer le balai dans l'encoche. Laisser le ressort revenir en place à l'extrémité du balai. Le fil ne doit pas entraver le mouvement du balai dans son support.
  - 3.) Replacer le couvercle du moteur.

#### Redresseur

Après réglage correct de la pression du disque, si le thermique continue à déclencher et que le moteur ne tourne pas à sa vitesse normale, il se peut que le redresseur soit endommagé. Dans ce cas, confier la machine à un centre technique agréé Clarke Technology, où le redresseur sera remplacé.

CLARKE TECHNOLOGY Ultra Speed Burnisher  
 Assembly Parts List 5/02◆



**CLARKE TECHNOLOGY Ultra Speed Burnisher**  
**Assembly Parts List 5/02◆**

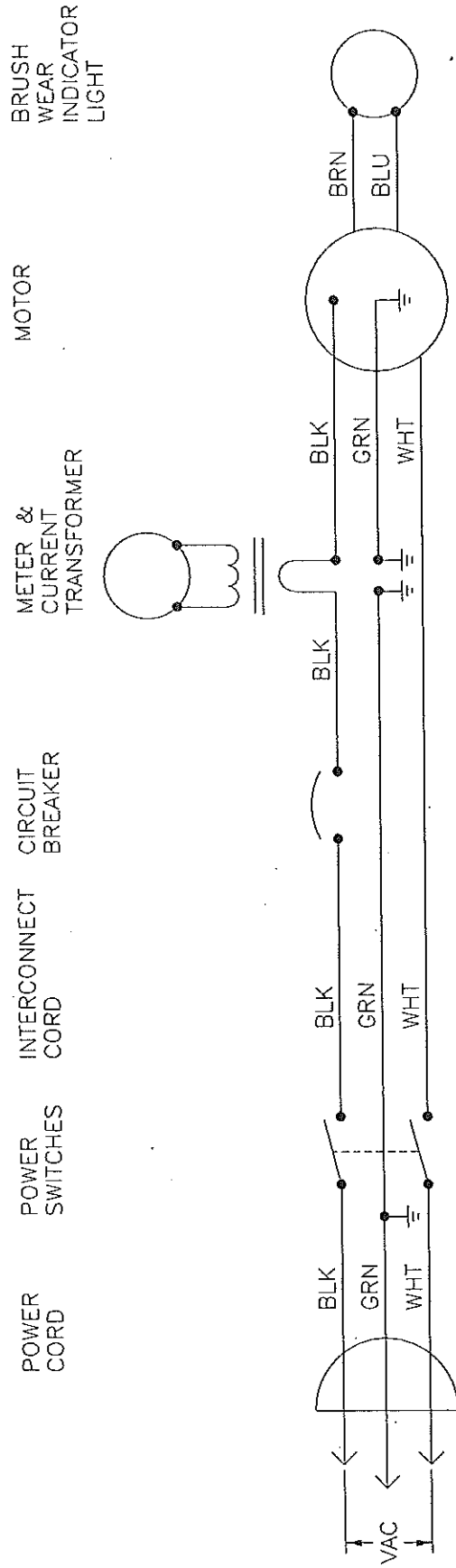
Ref	Part No.	Description	Qty
1	85383A	Screw, 10-32 x 3/4	7
2	50779A	Handle, Front	1
3	50820A	Spring, Extension	2
4	50798A	Lever, Switch	2
5	50780A	Handle, Rear	1
6	50821A	Spring, Compression	1
7	962957	Screw	2
8	920722	Nut, 10-32 ESNA	7
9	50806A	Button, Interlock	1
10	40109A	Switch	1
11	50799A	Interlock, Main	1
13	962065	Screw, 8-32 x 1/4 PH ST	2
14	980621	Washer, #8 Star	2
16	40180A	Cord, 14/3 STWA 75 ft.	1
17			
18	68771B	Handle	1
19	69088C	Support, Handle RS	1
20	920296	Nut, 10-24 Lock	1
21	920349	Nut, 1/4-20 Lock	10
22	980651	Washer, 5/16 Flat	4
24	60479A	Support, Handle Lock LS	1
25	67857A	Spacer	4
27	31405A	Cup, Spring	1
28	58685A	Spring, Handle Lock	1
29	66527A	Pin, Handle Lock	1
30	51525A	Bushing, Handle Spring	1
31	81217A	Nut, 1/4-20 x.218H	1
32	50716A	Bag, Dust	6
33	86109A	Screw, 1/4-20 x 1 1/4 SH	4
34	80012A	Bolt, Shoulder 5/16 x 1 1/2	2
35	51609A	Bumper, Rear	2
36	85383A	Screw, 10-32 x 3/4 PH	8
37	68770B	Frame, Handle/Dust Bag	1
38	85604A	Screw, 10-32 x 7/8 PN HD	1
39	962454	Screw, 1/4-20 x 1 SH	4
40	59931A	Wheel	2
41	920346	Nut, Push	2
42	54358A	Gasket	1
43	980681	Washer, Wave	2
44	60148A	Axle	1
45	25905B	Frame, Main	1
46	14702A	Guide, Asm. Skirt w/Rivnuts	1
47	56925A	Pad Driver (includes 48-54 & 58)	1
48	37402A	Plug (w/47)	(8)
49	37601A	Riser (Pad Driver) (w/47)	(1)
50	32510A	Facing (w/47)	(1)
51	35601A	Insert w/Screw (w/47)	(8)
52	32510A	Retainer, Facing (w/47)	(1)
53	962981	Screw, 10 x 5/8 PN*ST (w/47)	(8)
54	57369A	Base, Retainer (w/47)	(1)
55	50836A	Retainer	1
56	962714	Screw, 5/16 -18 x 3/4 HH	1
57	56934A	Pad, Aqua Buffer	1
58	57370A	Retainer, Pad (w/47)	(1)
59	50131A	Axle Kit	1
60	59932A	Caster	1
61◆	60273A	Yoke Asm.	1
62	920112	Nut, 6-32 (US 2000 only)	3
63	51515A	Bushing, Bottom	1
64	58684A	Spring	1
65	51169A	Bearing	1

Ref	Part No.	Description	Qty
66	52043A	Cap, Screw	1
67	87201A	Washer, #6 Int. Star	2
68	962738	Screw, 6-32 x 5/8 (US 1500)	1
	85413A	Screw, 6-32 x 3/4 (US 2000, 2500)	1
69	677211	Retainer, Bumper	7
70	962974	Screw, 10-24 x 1 PH	2
71	962109	Screw, 10-24 x 5/8	1
72	31231B	Bumper	1
73	962968	Screw, 10-24 x 1/2 PH	4
74	54723A	Rivnut	6
75	962244	Screw 3/8 -16 x 3/4 HH	4
76	170883	Washer, 3/8 Lock	4
77◆	170860	Washer, 3/8 Flat	4
78	77378A	Label, Clarke Technology	2
79	58688A	Spring	1
80	58033A	Screw, Adjustment	1
81			
82	57110A	Cap, Plug	1
83	915044	Key, Motor Shaft (w/91)	1
84	56459A	Strain Relief, 1/2 NPT	1
85	920722	NUT, 10-32 Lock	
86	980982	Washer, #10 Flat	3
87	41410A	Circuit Breaker, 20A (120V)	1
	41409A	Circuit Breaker, 10A (230V)	1
88	40214A	Meter, (120V)	1
	40245A	Meter, (230V)	1
89	920056	Nut, 6-32 Lock	4
91	45026A	Motor, 1500 120V	1
	44712A	Motor, 2000 120V	1
	45025A	Motor, 2500 120V	1
	45028A	Motor, 1500 230V	1
	45029A	Motor, 2000 230V	1
	45030A	Motor, 2500 230V	1
		Includes 83	
92	77206A	Label, Brush Light	1
93	32351A	Cover, Motor	1
94	80201A	Clip, Brush Light	1
95	34259A	Light, Brush Wear (120V)	1
	34261A	Light, Brush Wear (230V)	1
96	627561	Strain Relief	2
97	47701A	Terminal, 14 GA FIFQD	2
98	85313C	Screw, 6-32 x 1"	2
99	62649B	Cover, Electrical	1
100	62648B	Cover, Filter	1
101	55708A	Latch Cover	1
102	962212	Screw	2
103	10084A	Cord, Asm., Interconnect	1
104	80033A	Bolt, Carriage 1/4-20 x 8	1
105	65620A	Lever, Handle Release	1
106	80034A	Bolt, Shoulder 1/4 x 1 1/4	1
108	77371A	Label, ALTO	1
109	12206A	Caster Asm.	1
110	38237A	Skirt	1
111	58977A	Transformer, Meter	1
112	85381A	Screw	4
113	87619A	Washer, Nylon	1
114	980982	Washer, #10 Plated	1
115	962798	Screw, #10-24 x 1/2	1
116	70035A	Label US1500	1
	70036A	Label US 2000	1
	70037A	Label US 2500	1
117	170686	Locknut	1

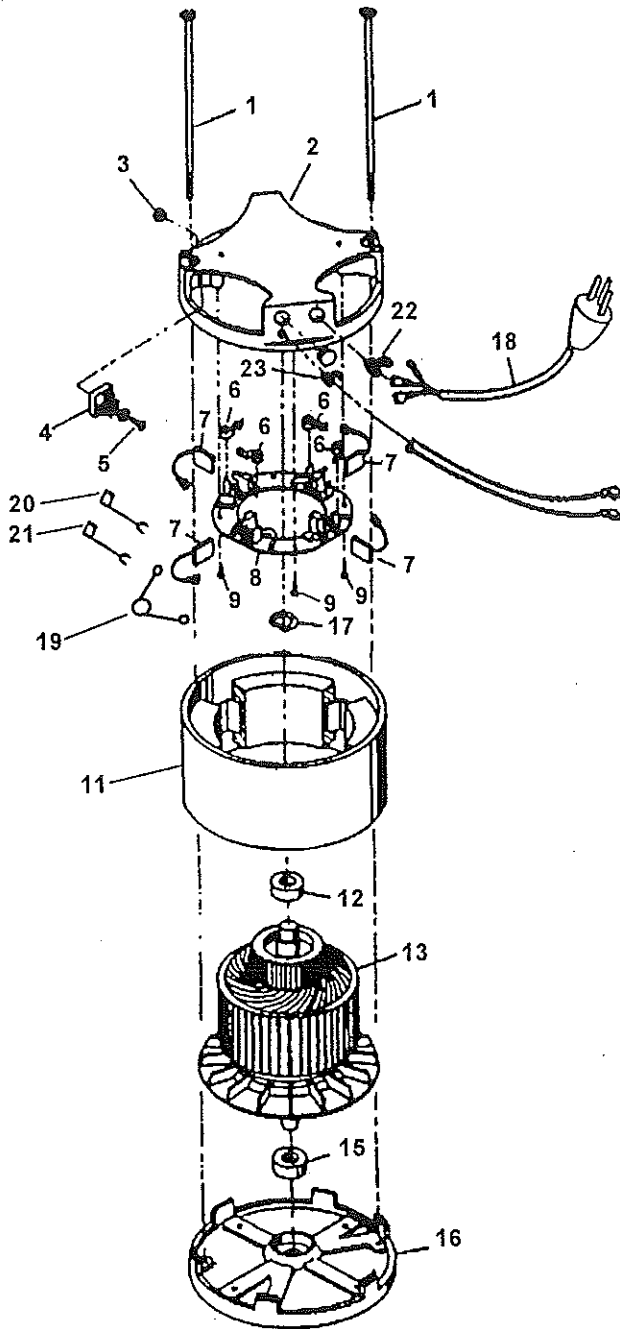
NOTE:◆ indicates a change has been made since the last publication of this manual.

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CLARKE TECHNOLOGY Ultra Speed Burnisher  
 Electrical Schematic 120 & 230 Volts 11/00



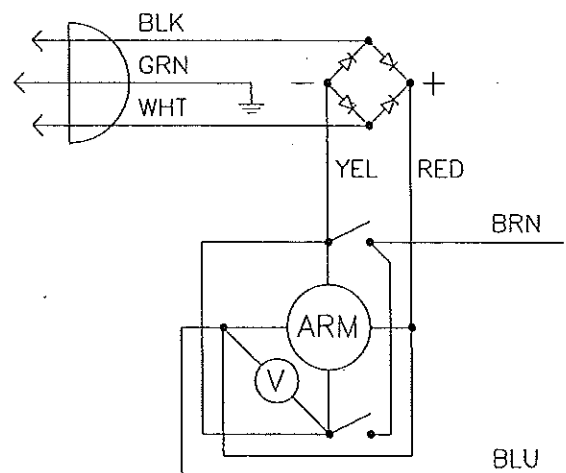
**CLARKE TECHNOLOGY Ultra Speed Burnisher**  
**Motor Drawing and Parts List 1/02**  
(Motor PN's 44712A, 45025A, 45026A, 45028A, 45029A and 45030A)



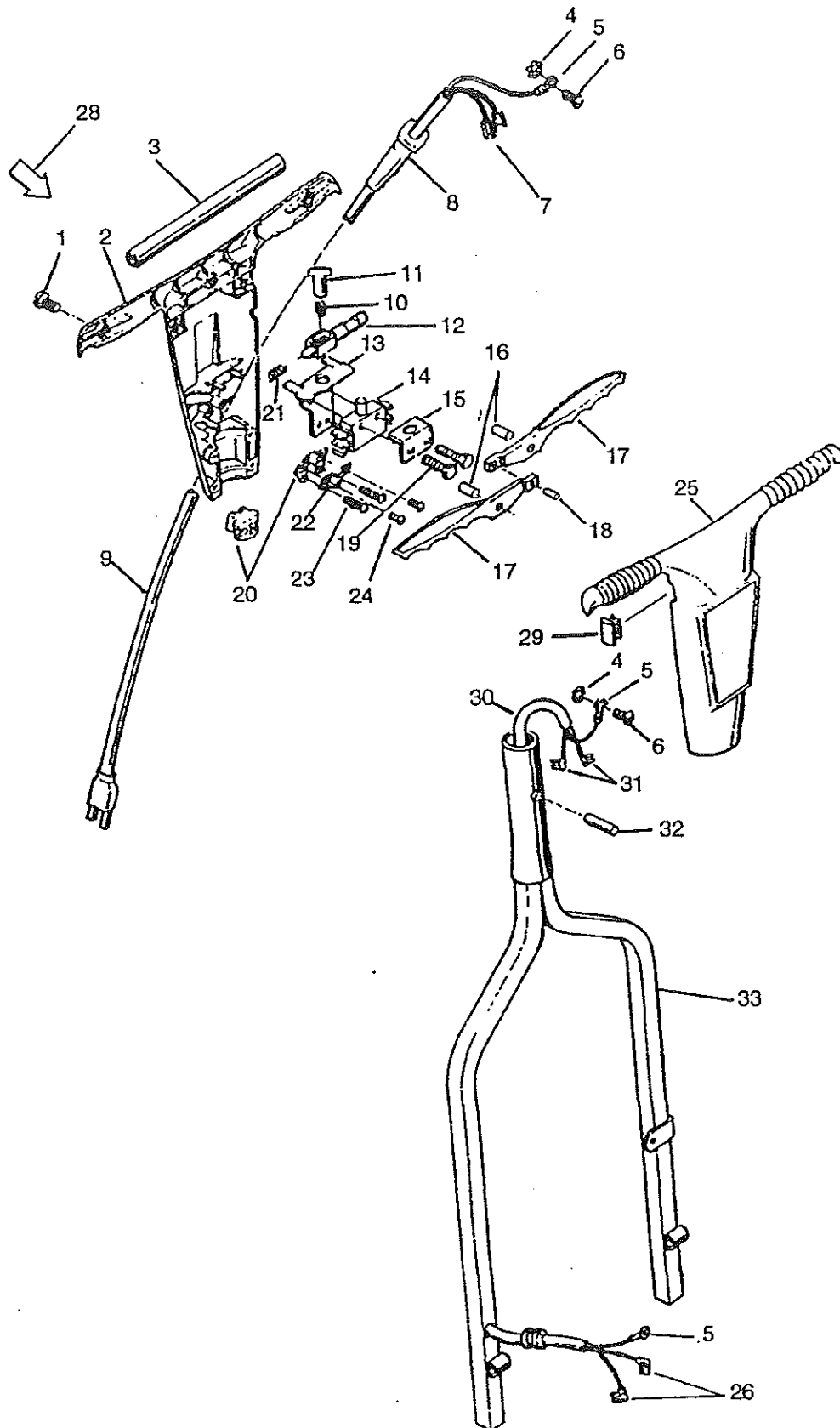
Ref	Part No.	Description	Qty
1	50717A	Thru-Bolt	2
2	52045A	Commutator Bracket	1
3	56282A	HexNut	1
4	912287	Rectifier (120V)	1
4	46105A	Rectifier (230V)	1
5	962054	Screw	1
6*	448396	Spring	4
7*	51405A	Brush Assembly (120V)	4
	40819A	Brush Assembly (230V)	4
8*	51435A	Brush Board Assembly (120V)	1
	40411A	Brush Board Assembly (230V)	1
9	962730	Screw - Brush Board	4
11	58057A	Stator Frame	1
12	902547	Bearing - Upper	1
13	50134A	Armature 120V - 1500 rpm	1
	50135A	Armature 120V - 2000 rpm	1
	50136A	Armature 120V - 2500 rpm	1
	50137A	Armature 230V - 1500 rpm	1
	50138A	Armature 230V - 2000 rpm	1
	50139A	Armature 230V - 2500 rpm	1
15	902550	Bearing - Lower	1
16	53528A	Bottom End Plate	1
17	980076	Wave Washer	1
18	55646A	Lead Assembly	1
19*	59606A	Varistor (120V)	1
	59607A	Varistor (230V)	1
20*	55647A	Yellow Lead	1
21*	55648A	Red Lead	1
22	831102	Strain Relief	1
23	58056A	Strain Relief	1
24	52046A	Commutator Bracket w/ Rectifier	1

\* (#8 includes #'s 6, 7, 19, 20 and 21)

**MOTOR SCHEMATIC**



CLARKE TECHNOLOGY Ultra Speed Burnisher  
European Handle Assembly Drawing 8/98





**CLARKE TECHNOLOGY Ultra Speed Burnisher  
Assembly Parts List 10/99**

Ref	Part No.	Description	Qty
1A	70035A	Label, Ultra Speed Burnisher, 1500	1
1B	70036A	Label, U.S. Burnisher 2000	1
1C	70037A	Label, U.S. Burnisher 2500	1
2	24529B	Housing, Front Switch	1
3	54501A	Grip, Black	2
4	962794	Screw, 10-24 x 1 PH	1
5	980982	Washer, #10 Flat	3
6	508204	Spacer	1
7	445174	Lever, Switch	2
8	925189	Pin 3/16 x 1	2
9	920296	Nut, 10-24 Lock	1
10	30117A	Adaptor, Switch	1
11	87023A	Washer, #4 Flat	3
12	58664A	Spring	1
13	51512A	Bushing, Nylon	1
14	24530B	Housing, Rear Switch	1
15	445178	Label, Interlock	1
16	962487	Screw, 7/8-20 x 1/2 Fil H St.	5
17	87303A	Washer, 1/2 CS Star	1
18	467504	Strain Relief	1
19	911690	Switch	1
20	58665A	Spring, Interlock	1
21	448573	Interlock	1
22	440873	Bracket, Switch	1
23	980607	Washer, #6 Star	2
24	962980	Screw, 6-32 x 1 PH ST	2
25	980621	Washer, #8 Star	2
26	911389	Terminal, 14 GA NI Flag	4
27	170687	Terminal, 14 GA #10 Ring	4
28	962065	Screw, 8-32 x 1/2 PH ST	2
29	41963A	Cord, Asm., Interconnect	1
30	68771A	Handle	1
31	42205B	Cord, 14/3 STWA 75"	1
32	80033A	Bolt, Carnage 1/2-20 x 8	1
33	69088B	Support, Handle RS	1
34	65620A	Lever, Handle Release	1
35	77371A	Label, ALTO (2.75)	1
36	80034A	Bolt, Shoulder 1/2 x 1 1/2	1
37	920349	Nut, 1/2-20 Lock	10
38	980651	Washer, 1/8 Flat	1
39	85313C	Screw, 6-32 x 1/2 RH ST	3
40	87201A	Washer, #6 Int. Star	2
41	68261B	Support, Handle Lock LS	1
42	67857A	Spacer	4
43	66686A	Plate, Wear	1
44	31405A	Cup, spring	1
45	58685A	Spring, Handle Lock	1
46	66527A	Pin, Handle Lock	1
47	51525A	Bushing, Handle Spring	1
48	85383A	Screw, 10-32 x 1/2 PH	8
49	51609A	Bumper, Rear	2
50	80012A	Bolt, Shoulder 3/16 x 1 1/2	2
51	68770B	Frame, Handle/Dust Bag	1
52	86109A	Screw, 1/2-20 x 1 1/2 SH	4
53	50716A	Bag, Dust	6
54	962454	Screw, 1/2-20 x 1 SH	4
55	59931A	Wheel	2
56	920346	Nut, Push	2
57	980681	Washer, Wave	2
58	60148A	Axle	1
59	25905B	Frame, Main	1
60	54358A	Gasket	1
61	38237A	Skirt	1
62	14702A	Guide, Asm. Skirt w/Rivnuts	1
63	56925A	Pad Driver	1
64	37402A	Plug	8
65	37601A	Riser (Pad Driver)	1
66	32510A	Facing	1
67	35601A	Insert w/Screw	8
68	32510A	Retainer, Facing	1

Ref	Part No.	Description	Qty
69	962981	Screw, 10 x 3/8 PN*ST	8
70	57369A	Lock, Pad (included w/#63)	1
71	50836A	Retainer	1
72			
73	962714	Screw, 3/16-18 x 1/2 HH	1
74	56934A	Pad, Aqua Buffer	1
75	59932A	Caster	1
76	50131A	Axle Kit	1
77	69405A	Yoke	1
78	52043A	Cap, Screw	1
79	51515A	Bushing, Bottom	1
80	51169A	Bearing	1
81	58684A	Spring	1
82	54723A	Rivnut	6
83	962244	Screw 1/8-16 x 1/2 HH	4
84	170883	Washer, 3/8 Lock	4
85	980629	Washer, 1/8 Flat	4
86	677211	Retainer, Bumper	7
87	962974	Screw, 10-24 x 1 PH	2
88	962987	Screw, 10-24 x 1/2	4
89	31231B	Bumper	1
90	962968	Screw, 10-24 x 1/2 PH	2
91	12206A	Caster Asm. (includes 92,93,94,95)	1
92	58688A	Spring	1
93	58033A	Screw, Adjustment	1
94	57711A	Ring, Snap	1
95	57110A	Cap, Plug	1
96	58459A	Strain Relief, 1/2 NPT	1
97	85604A	Screw, 10-32 x 1/2 PN HD	1
98	920722	Nut, 10-32 Lock	1
99	41410A	Circuit Breaker, 20A (120V)	1
	41409A	Circuit Breaker, 10A (230V)	1
100	40214A	Meter, (120V)	1
	40215A	Meter, (230V)	1
101	920056	Nut, 6-32 Lock	6
102	915044	Key, Motor Shaft (Included w/104)	1
103	77378A	Label, Clarke Technology (.65")	2
104	45026B	Motor, 1500 120V 50/60Hz	1
	44712B	Motor, 2000 120V 50/60Hz	1
	45025B	Motor, 2500 120V 50/60Hz	1
	45028B	Motor, 1500 230V 50/60Hz	102
	45029B	Motor, 2000 230V 50/60Hz	1
	45030B	Motor, 2500 230V 50/60Hz	1
105	77206A	Label, Brush Light	1
106			
107	32351A	Cover, Motor	1
108	80201A	Clip, Brush Light	1
109	34259A	Light, 120V Brush Wear	1
	34261A	Light, 230V Brush Wear	1
110	58977A	Transformer, Meter	1
111	62649B	Cover, Electrical	1
112	962980	Screw, 6-32 x 1"	6
113	627561	Strain Relief	2
114	47701A	Terminal, 14 GA FIFOD	2
115	62648B	Cover, Filter	1
116	55708A	Latch Cover	1
118	962738	Screw, 6-32 x 3/4 (US 1500)	1
	85413A	Screw, 6-32 x 3/4 (US 2000, 2500)	1
119	920112	Nut, 6-32 (US 2000 only)	3
120	57370A	Retainer, Pad (included w/63)	1
121	81217A	Nut, 1/2-20 x 218H	1
122	42705A	Filter (CE only)	1
123	61629A	Bracket (CE only)	1
124			
125	58547A	Spring, Adaptor Return	1
126	69914A	Bracket, Spring Support	1
127	77040B	Label, Motor Black	1

NOTE: ♦ indicates a change has been made since last publication of this manual.