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**3DS**

**Section II  
Parts and Service Manual**

(74845A)

## Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Action</b>
Motor will not start	No Power  Defective switch / bad connection	Check power supply and connections  Contact an authorized Alto dealer
Motor fails to start / runs sluggish	Low voltage from excessive length or undersized extension cord.  Defective start capacitor  Defective start switch  Defective start/run capacitor  Defective motor, low voltage	Use a 12 Ga. extension cord, not to exceed 40' in length.  Contact an authorized Alto dealer  Contact an authorized Alto dealer  Contact an authorized Alto dealer  Contact an authorized Alto dealer
Fuse / Circuit Breaker repeatedly trips.	Low voltage  Bad connection  Defective motor	Eliminate extension cord. Locate power source closer to work site. Have voltage checked by a qualified electrician.  Contact an authorized Alto dealer  Contact an authorized Alto dealer
Machine "hops" during operation	Head pressure adjustment not set to proper pressure.  Bad/worn sanding pad  Uneven pads.  Sandpaper / screen torn, worn or improperly installed.	Adjust the Head pressure bolt to suite.  Replace faulty pad.  Replace uneven pads.  Replace faulty sandpaper/screen or install properly.
Machine pulls to the right during operation.	Head pressure adjustment set too tight.	Loosen the head pressure adjustment. See Figure 17, page 8
Machine fails to properly contain dust.	Paper bag is full or not properly seated on vacuum inlet horn.  Cloth filter is clogged	Replace paper bag in vacuum securing properly on vacuum horn.  Remove cloth filter and clean by blowing with high pressure air.
Machine pushes to rear when running.	Eccentric spacers on hand knobs improperly set.	Adjust eccentrics to match "tick" marks on frame with eccentric hole toward front of machine. <b>NOTE:</b> After adjustment both casters should turn with the same amount of pressure.

## Sanding Cuts and Sandpaper

### GENERAL CUTTING

As the machine is designed to have a random cutting pattern, any direction of travel is permitted, however it is recommended that the machine be continuously moved during operation. A path of forward and back then over half is also a general sanding pattern.

### INITIAL CUT

The purpose of the initial cut is to remove old finish, gross imperfections, and belt/drum sander marks on the floor surface. Use a course grain abrasive (40-60 grit). For extreme cases use 36 grit abrasive.

### FINAL CUTS

The purpose of a finishing cut is to remove the scratches from the initial cut and edger cuts. Use a fine grain abrasive (80-100 grit).

If the surface remains rough after a finishing cut, it may be necessary to use an even finer grain sandpaper abrasive or use a screen abrasive. The pad used with the screen can also be used with fine grit sandpaper to get the desired finish. Care should be taken in selecting the grit size of the abrasive. A very fine grain will close the pores on a wood floor making admission of a stain difficult.

If glazing or burning should occur the abrasive has dulled and must be replaced.

**NOTE:** This machine is used for fine finish sanding. However 36 and 40 grit sand paper can be used for special applications.

GRAIN	USE	PT/No.
36 grit	For removing gross imperfections and restoring evenness to the old flooring. To remove buildup of paints and varnishes and first sanding of new floor.	945630
40 grit	For first sanding of new flooring (oak and maple). For removing minor imperfections and finishes from old flooring.	945361
60 grit 60 grit mesh	For clean-up from initial cut 36 grit.	945633
80 grit 80 grit mesh	For final sanding of certain hardwoods. For clean-up of cuts (60 grit).	945634
100 grit 100 grit mesh	For final sanding of certain hardwoods and conifers where smooth surface is desired.	945635

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## ACCESSORIES

Part #	Description
674114	Hose, Vacuum 1½" X 10
682408	Vacuum Hose Adaptor 1½"
639804	Wand Assembly, Curved 1½"
638820	Tool, Felt, Shod 14"
638838	Tool, Bristle, shod 15"

## ABRASIVE DISCS FOR 3 DISC SANDER

Part #	Description
945630	BX (25) 3M 8" Hookit Disc #36
945631	BX (25) 3M 8" Hookit Disc #40
945633	BX (25) 3M 8" Hookit Disc #60
945634	BX (25) 3M 8" Hookit Disc #80
945635	BX (25) 3M 8" Hookit Disc #100

## MESH DISCS FOR 3 DISC SANDER

Part #	Description
945624	CS(40)7 7/8"x3/16" Mesh Disc #60
945625	CS(40)7 7/8"x3/16" Mesh Disc #80
945626	CS(40)7 7/8"x3/16" Mesh Disc #100

## DISC PADS FOR 3 DISC SANDER

Part #	Description
945610	Bx(40)8"x2 ¾" Edger Disc Pad

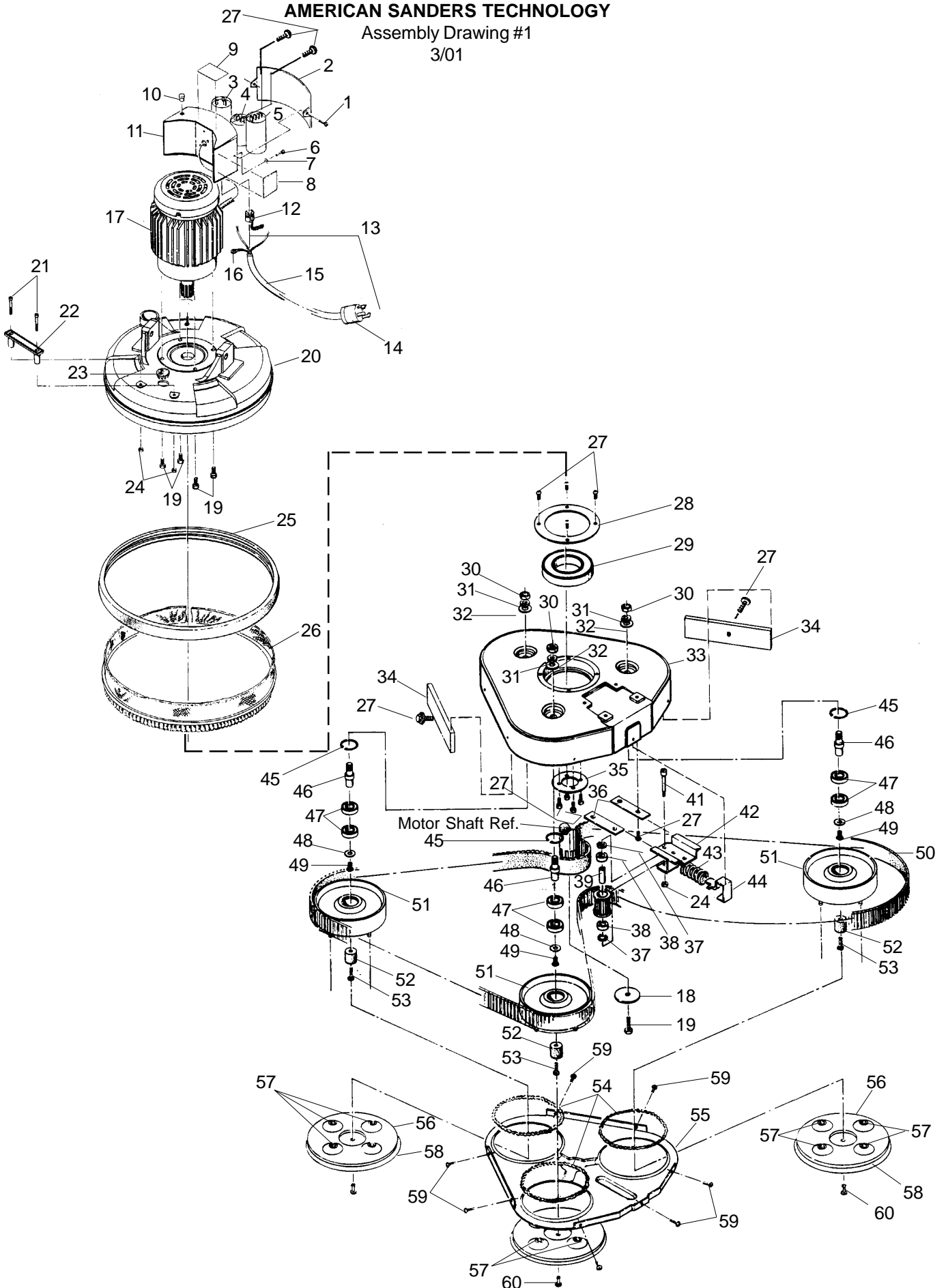
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AMERICAN SANDERS TECHNOLOGY

Assembly Drawing #1

3/01



**AMERICAN SANDERS TECHNOLOGY**

Assembly Parts List #1

3/01

Ref.	Part No.	Description	Qty	Ref.	Part No.	Description	Qty
1	962727	Screw, 8-32 x ½ Pan S.T.	2	30	920196	Nut, ½-13 Hex Jam	3
2	62667A	Cover, Enclosure	1	31	87101A	Washer, Lk ½ NOM	3
3	41314A	Capacitor, Start	1	32	980648	Washer, 17/32 ID x 1-1/16 OD	3
4	41313A	Capacitor, Run	1	33	24536A	Housing, Disc	1
5	47378A	Switch, Start	1	34	68793A	Weight, Disc Housing	2
6	85833A	Screw, Machine # 10-32 Type 23	1	35	66991A	Retainer, Inner Ring	1
7	980603	Washer, LK #10 EXT Tooth (Pltd)	1	36	66992A	Retainer, Belt Tensioner	2
8	77234A	Label, Warning, Heavy Object	1	37	67863A	Spacer, Relief Lever	2
9	77195A	Label, UL Fire & Sanding Warning	1	38	902648	BRG-Ball, Radial DBL Seal	2
10	57165A	Plug, Nylon Hole	1	39	58543A	Spacer, Sprocket	1
11	22906A	Enclosure, Motor Str. Pntd.	1	40	69658A	Pulley, Idler	1
12	51523A	Bushing, Strain Relief	1	41	80045A	Bolt, Shoulder 5/16 x 1¾	1
13	11676A	Cord Assembly 230V 60Hz (includes 14, 15, 16)	1	42	19022A	Tensioner, Wldmt Belt	1
	10029A	Cord Assembly 230V 50 Hz	1	43	53410A	Spring, Belt Tensioner	1
				44	69191A	Tensioner, Belt	1
14	45604A	Plug, Elect. NEMA 30A	1	45	167312	Ring, Retain #40137	3
15	42181A	Cord 230V 60Hz	1	46	67477A	Shaft	3
16	170593	Terminal, Ring #10 (12-10)	1	47	902567	Bearing, Ball Double	6
17	44672A	Motor, 3HP 230V/60Hz	1	48	170860	Washer, FLT 5/16 PLTD	3
	44311A	Motor, 2.2 KW 230V/50Hz	1	49	87701A	Screw, 5/16-18 x 5/8 Button Hd.	3
18	87038A	Washer, Flat 25/64" ID	1	50	50927A	Belt, Drive	1
19	962244	Screw, 3/8-16 x ¾ Hx Hd	5	51	66245A	Pulley	3
20	20027A◆	Mainframe	1	52	34403A	Gimbal, Rubber 1" Sander	3
21	85743A	Screw, ¼-20 x 2" Sc HD SZ	2	53	962350	Screw, 10-32 x ½ Pan Hd	3
22	54931A	Handle, 4¼ x 1¾	1	54	69662A	Seal, Pulley	3
23	57166A	Plug, 1¼" Finishing	1	55	32414A	Cover	1
24	81217A	Nut, ¼-20 x .218H Nylock	3	56	56942A	Pad (includes 57/58)	3
25	31225A	Bumper, 20" Frame	1	57	54608A	Grommets, Pad	12
26	18446A	Skirt, Asm.	1	58	37018A	Pad, Velcro & Neoprene	3
27	87700A	Screw, ¼-20 x ½ Button Head	16	59	86006A	Screw, #10-16 x .5 Hex TEK	6
28	66990A	Retainer, Outer Ring	1	60	83011A	Rivet, Removeable	3
29	50758A	Bearing, Ball	1				

**NOTE:** ◆ indicates a change has taken place since last publication of this manual

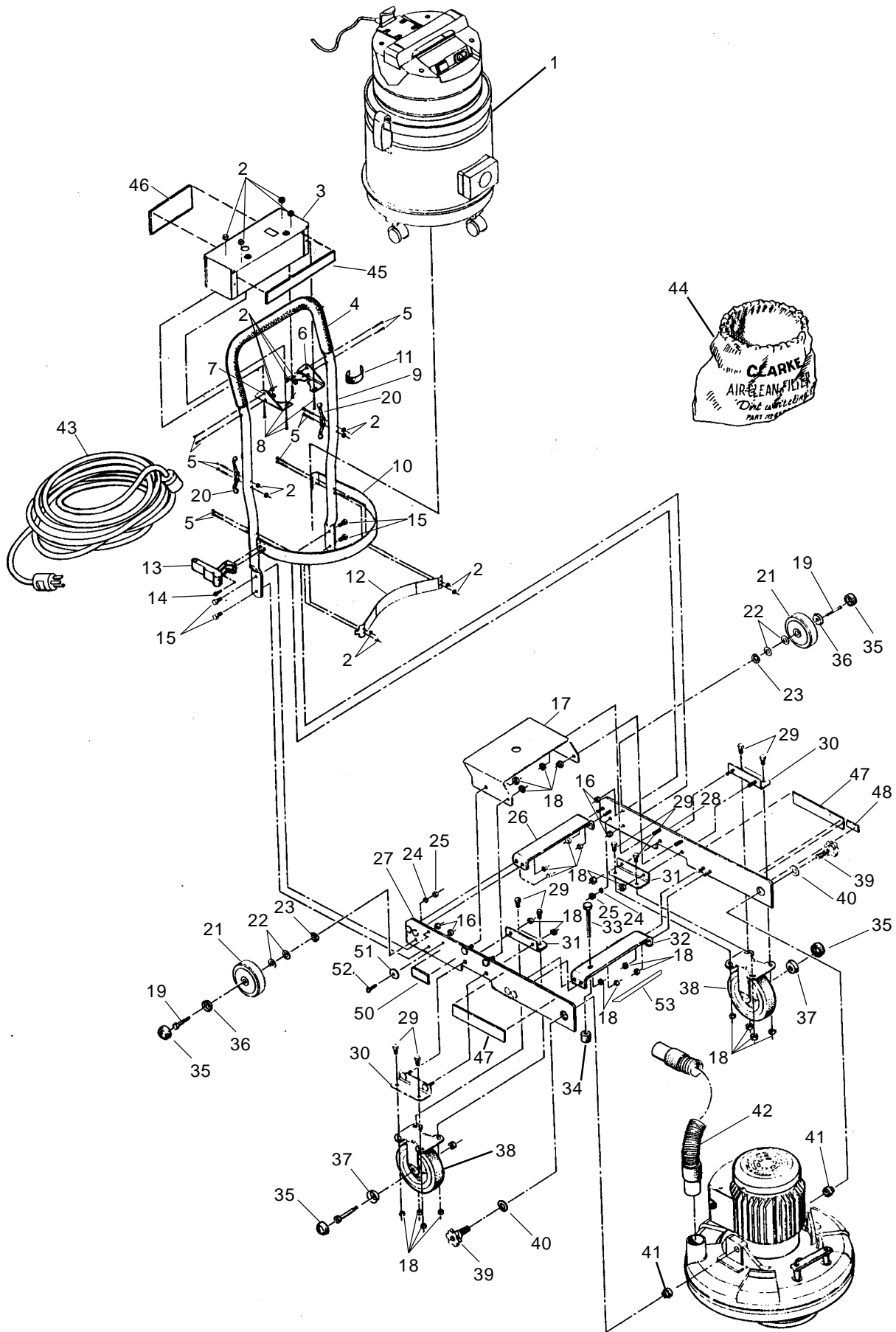
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Assembly Drawing #2

3/01



## AMERICAN SANDERS TECHNOLOGY

### Assembly Parts List #2

3/01

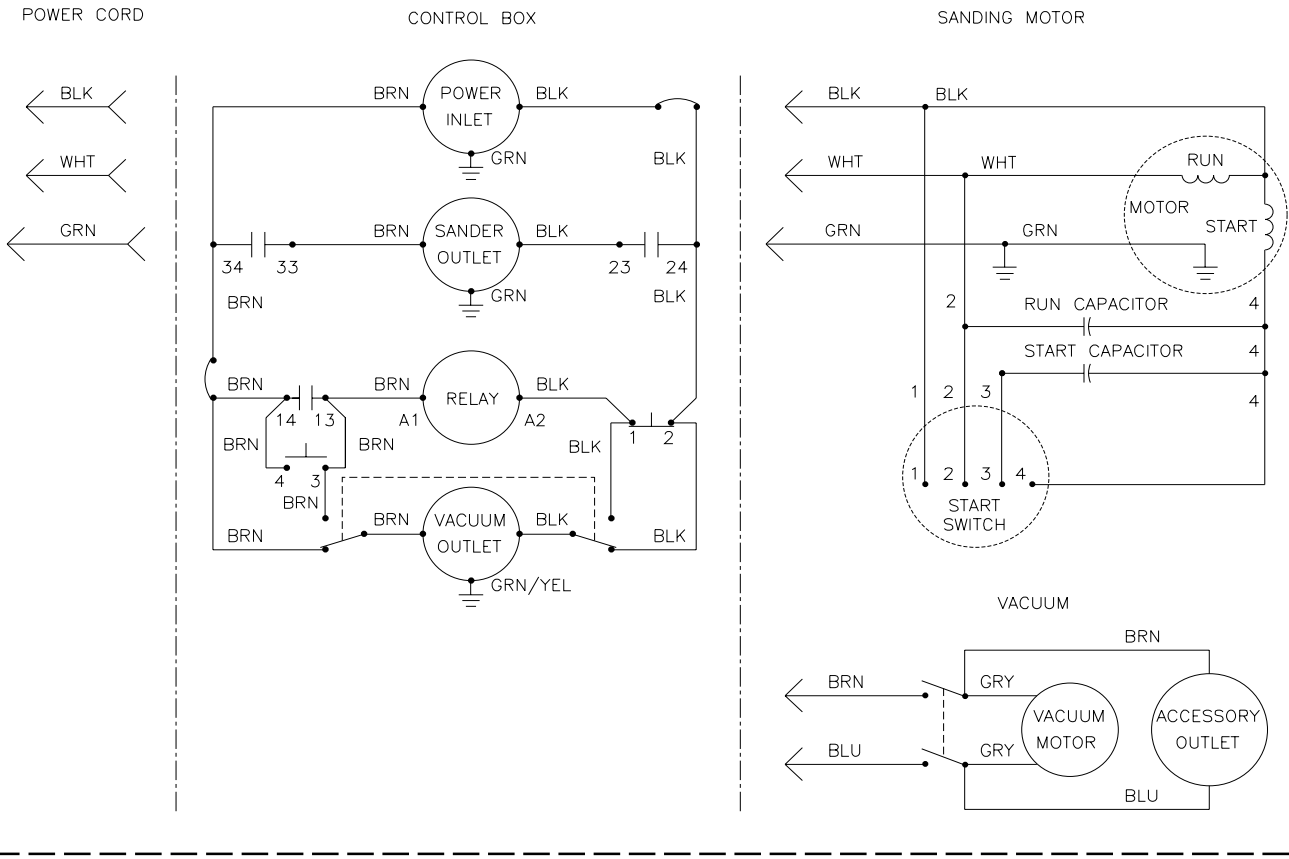
**NOTE:** ♦ indicates a change has taken place since last publication of this manual

Ref.	Part No.	Description	Qty
1	02082A	D.T.V. 7 50/60 Hz 230V 50/60 Hz	1
2	920296	Nut, 10-24 Elastic Stop	16
3	10774A♦	Box, Asm. Electrical 230V 60Hz (includes 4 of #2; 6, 7, & 8)	1
	10030A♦	Box, Asm. 230V 50Hz	1
4	98622A	(W431) Handle Grip Tube	1
5	962862	Screw, 10-24 x 1½ PN ST Mac	12
6	69917A	Bracket, Elec. Box Left	1
7	69918A	Bracket, Elec. Box Right	1
8	962666	Screw, 10-24 x ¾ Pan Head	4
9	54935A	Handle, Frame	1
10	69683A	Strap, Vacuum	1
11	57427A	Velcro, Tab	1
12	69668A	Strap, Back Vacuum	1
13	55725A	Latch, Draw	1
14	930117	Rivet, 3/16	2
15	85811A	Screw, 5/16-18 x ¾ Hx HD	4
16	920110	Nut, LK 5/16-18 REG (Pltd)	4
17	69667A	Strap, Vacuum Support	1
18	920342	Nut, Lk 3/8-16 REG	24
19	80047A	Bolt, ½ x 1¾" Shoulder	2
20	52959A	Cleat, Power Cord	2
21	59940A	Wheel, 4 x 1¼w / ½ x 1 3/8 Hub	2
22	980648	Washer 17/32 OD x 1-1/16 OD PLN	4
23	87627A	Washer, .875 O.D. Bowed	2
24	170883	Washer, Lk 3/8 REG (Pltd)	2
25	920260	Nut, Hex 3/8-16	2
26	69665A	Strap, Tilt Pntd.	1
27	63548A	Frame, Wldmt., Right Truck Pntd.	1
28	63547A	Frame, Wldmt, Left Truck Pntd.	1
29	962244	Screw, 3/8-16 x ¾ Hx Hd.	8
30	69915A	Bracket Wldmt., Pntd	2
31	69916A	Bracket, Inside Wheel Pntd	2
32	69666A	Strap, Head Adj. Pntd.	1
33	80046A	Bolt, 3/8-16 x 3" Hex Hd	1
34	31243A	Bumper, Head Pressure	1
35	52068A	Cap, Hub	4
36	59891A	Washer, ½ Hub Cap	2
37	59892A	Washer 3/8 Hub Cap	2
38	59973A	Wheel, Asm. Caster	2
39	25202A	Knob, Handle Adj.	2
40	87053A	Washer, Flat 5/8	2
41	58421A	Spacer, Eccentric Truck Frame	2
42	54891A	Hose, Sq. Fixed	1
43	11677A♦	Cord, Assembly Power 230V 60Hz	1
	40046A♦	Cord, Assembly, Power 230V 50Hz	1
44	650621	Bag, Filter Dacron	1
45	77370A	Label, 3DS	1
46	77371A	Label, Alto	1
47	77373A	Label, American Sanders Technology	1
48	77078A	Plate, Warning (Feet)	1
50	77220A	Label, Serial Weber	1
51	77221A	Tag, Serial Brass	1
52	930093	Rivet, Pop 1/8 x ¼ - 5/6	1
53	97100A	Trim, Vinyl Black	1

# AMERICAN SANDERS TECHNOLOGY

## Electrical Schematic 07082C

05/98



## Electrical Schematic 07085C

