

KENT

OWNER'S MANUAL

OPERATION • CARE • SERVICE

BATTERY SWEEPER

KS-35BR

24 VOLT

Part S/N 924900001

7 5
S/N 924900064

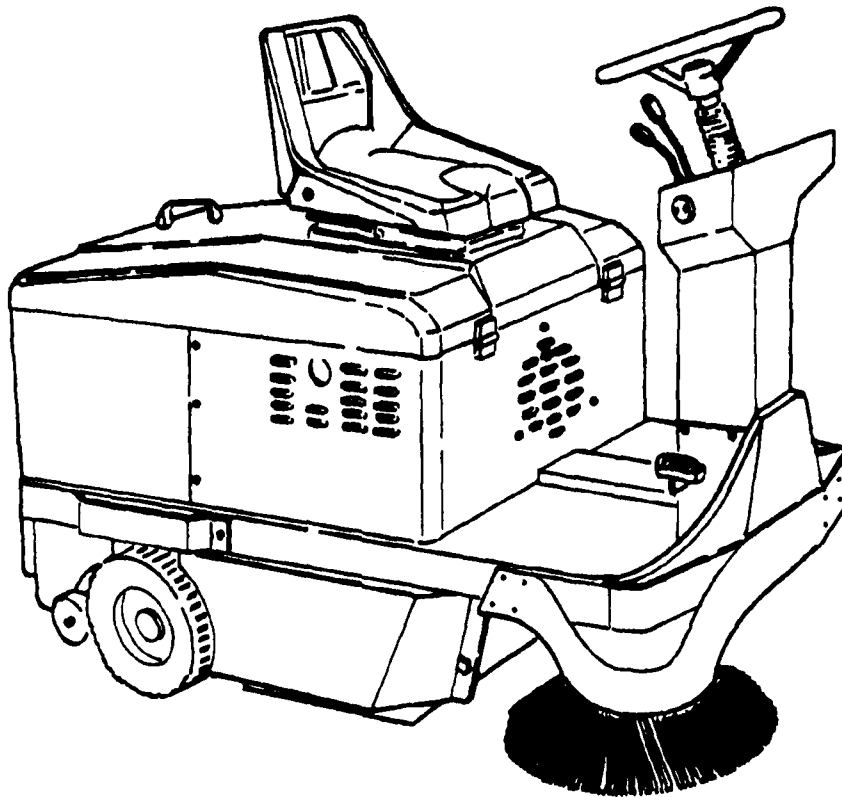


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MACHINE SPECIFICATIONS

Model No.....	KS-35BR
Type Of Sweeper.....	Rider
Battery System Voltage.....	24 volt
Batteries.....	Four 6 volt, 200 ah. p/n: 026408
Cleaning Width.....	With Side brush: 35.5 in. (90 cm) Main Brush only: 26 in. (66 cm)
Side Brush Diameter.....	17 in. (43 cm)
Main Brush Diameter.....	11 in. (28 cm)
Main Brush Length.....	26 in. (66 cm)
Main Brush Material.....	Nylon (standard)
Brush Bristle Diameter.....	0.03 in. (0.8 mm)
Coverage Per Hour.....	With side brush: 62,000 ft. ² (5,760 m ²) With main brush only: 45,000 ft. ² (4,180 m ²)
Brush And Vacuum Motor.....	0.87 hp
Drive Motor.....	0.54 hp
Filter.....	One panel, 6 micron, 4,500 in. ² (2.90 m ²) filter area.
Filter Shaker.....	Electric
Dirt Box Capacity.....	2.18 ft. ³ (0.062 m ³)
Wheels.....	Front: (one) steerable, 10 in. x 3 in. (25.4 cm x 7.5 cm) Rear: (two) fixed, 10 in. x 3 in. (25.4 cm x 7.5 cm)
Self Propelled Directions.....	Forward and reverse
Drive Train.....	Differential
Reverse Warning Indicator.....	Beeper
Speed Control.....	Electronic
Features.....	Parking brake Hour meter Remote side brush operation Remote front flap door Battery condition meter Vacuum cut-off
Battery Charger.....	24/115/60, p/n: 031355
Machine Dimensions With Side Brush.....	Length: 53 in. (135 cm) Width: 35.5 in. (90 cm) Height: 45.5 in. (116 cm)
Machine Weight.....	Without batteries: 460 lbs. (209 kg) With batteries: 700 lbs. (317 kg)

OPTIONAL ACCESSORIES

Natural Fiber Main Brush (carpet)..... PB00.04700

SERVICE INFORMATION

To obtain consistent performance over the life of your Kent equipment, read through these instructions and save them for future reference. If you require service, contact the dealer from which the machine was purchased or an authorized service station. Always refer to your limited warranty for complete service information.

THE KENT CO.		
ELKHART, INDIANA USA		
SERIAL NO.		MODEL
VOLTS	PHASE	Hz
MOTOR 1	AMP	Hz
MOTOR 2	AMP	Hz

The model, type, and serial number are indicated on the data plate located on the front surface of the control panel. For prompt and complete service, refer to these numbers when inquiring about service.

Write the model and serial number of your unit in the space provided. Refer to the rating plate on unit.

MODEL # SERIAL #
Retain this owner's manual for future reference.

IMPORTANT SAFETY INSTRUCTIONS

This manual is a guide for use of the machine and information concerning the functioning, regulation, and ordinary maintenance of your new sweeper. Your machine has been designed and constructed to ensure maximum performance in a large variety of conditions.

Before delivery, the machine was checked in our factory to ensure that it will be delivered to you in perfect condition. To maintain the machine in these conditions and guarantee functioning without problems, it is very important that routine maintenance, specified in the Maintenance section of this manual, be properly performed. Before using the machine, carefully read this manual and keep it within easy reach for further reference. Indications of "left" and "right" are referred to in the direction of movement of the sweeper. If you should need any further information concerning the sweeper, contact the dealer from which the machine was pur-

chased or an authorized service station.

This machine must not be used without its protective equipment. For your own safety, make sure that all protective devices are closed or correctly in place before each use of the machine. No safety program is effective without the total collaboration of the people directly responsible for the functioning of the machine. The majority of accidents which occur are a direct result of the failure to follow the most elementary safety rules. An alert and cautious operator is the best guarantee against accidents and is worth more than any prevention program.

SAVE THESE INSTRUCTIONS

READ THIS MANUAL BEFORE ATTEMPTING TO ASSEMBLE OR USE THIS MACHINE!

SAFETY PRECAUTIONS

FOR THE SAFE OPERATION OF THIS MACHINE, READ AND UNDERSTAND ALL WARNINGS.

- Improper use can cause personal injury.
- Operate only when lids, doors, and access panels are securely closed.
- Use care when reversing machine in confined areas.
- When servicing the machine, remove the key first to prevent possible injury.
- When working with the machine on its side, remove batteries, clear area of people and obstructions, and use additional people and proper procedures when lifting the machine.
- You must have training in the operation of this machine before using it. READ ALL OF THIS MANUAL.
- Do not operate this machine unless it is completely assembled. Do not use this machine as a step or furniture.
- Be careful when operating the machine on a ramp or incline. Always move slowly on a ramp. Do not turn this machine on a ramp. Do not stop and leave this machine on a ramp.
- To prevent injury, and damages to the machine, do not lift the machine or move it to an edge of a stair or loading dock.
- Machines can cause an explosion when operated near flammable materials and vapors. Do not use this machine with or near fuels, grain dust, solvents, thinners, or other flammable materials.
- Lead acid batteries generate gases that can

cause an explosion. Keep sparks and flames away from batteries. **NO SMOKING !** Charge batteries only in areas with good ventilation.

- Always wear eye protection and protective clothing when working near batteries. Remove all jewelry. Do not put tools or other metal objects across the battery terminals or on the top surface of a battery.
- Maintenance and repairs must be done by authorized personnel only. Tighten all fasteners. Keep adjustments according to the specifications given in this manual for the machine. Keep the electrical parts of the machine dry. For storage, keep the machine in a building.
- Make sure that all labels, decals, warnings, cautions, and instructions are fastened to the machine.
- Do not turn the steering wheel sharply when the machine is in motion. The machine is very responsive to movement of the steering wheel. Do not make sudden turns.
- Sweep in straight paths. Do not bump posts. Do not scrape the sides of the machine.
- When the machine is in motion, do not reverse the directional control switch. Switching direction while in motion puts a very heavy strain on the motor and drive system.
- Always park on a level surface, turn key off, and engage parking brake before working on the machine to keep it from creeping or rolling.
- To prevent damage to the machine and discharges across the tops of the batteries, do not fill the batteries above the bottom of the tube in each cell. Wipe any acid from the machine or the tops of the batteries. Do not add acid to a battery after installation.
- Batteries are heavy. Get help to lift the batteries.
- To prevent an explosion, disconnect the AC plug from the receptacle before connecting or disconnecting the DC plug on the charger.

BATTERY INSTALLATION

The machine has been shipped fully assembled and needs only to have the batteries installed before operation can begin.

Remove the plastic battery box from the crated batteries and install in machine. Place each of the four batteries into the plastic battery box in an upright fashion. This box will prevent any damage to the machine should the battery's case ever leak. Install each of the batteries into the machine as illustrated in Figure 1.

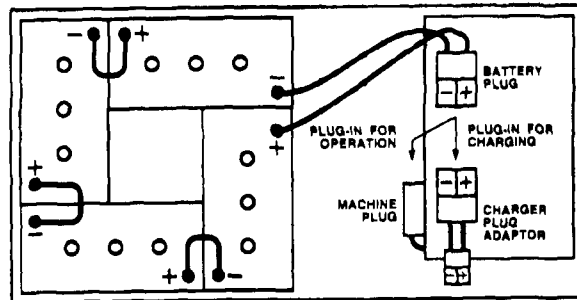


Figure 1

Connect the batteries as shown; a 9/16 wrench or socket will be needed. All necessary cable and hardware have been provided. It is important that all connections made to the battery are secure.

Periodically check the level of the electrolyte fluid in each cell and top off when necessary. Add water to 1/4" above the plates. Avoid over filling the cells.

WARNING

When the lowest green LED lights up on the battery charge level indicator, the batteries must be recharged immediately. If this is done, the long life of the batteries will be ensured. Never use the machine when only the first green LED is on.

BATTERY CHARGING INSTRUCTIONS

Follow these instructions for charging the batteries:

1. Disconnect plug connecting battery unit to panel.
2. Maintain electrolyte fluid level in batteries. Check fluid before charging. If needed, fill to 1/4 inch above the plates, preferably with distilled water.
3. Insert charging plug into battery receptacle. We recommend using a battery charger (rectifier) of the automatic charging control type. To make this connection possible with any type of battery charger, each machine is equipped with an additional connector.
4. Plug power cord into proper AC source.
5. Keep battery cover open while charging.
6. Follow the directions on the charger.

WARNING

Hydrogen gas is formed during the charging operation and is explosive! Only charge batteries in a well ventilated area with the lid open. Avoid any open flame or electrical sparks. Pulling out the charger plug with the charger on will cause an arc and must be avoided.

OPERATION

When the machine is not in use, make sure that the brushes, main and side, are in the raised position, the parking brake is engaged, and the key is in the OFF position.

BASIC OPERATION

1. Turn the power key switch to ON.
2. Check voltage level (battery charge). It must indicate maximum voltage (100%).
3. Use the selector switch (on dashboard) to choose either FORWARD or REVERSE, as indicated by the arrows.
4. Depress the speed control foot pedal to move machine. Vary the speed by exerting more or less pressure on the pedal.
5. Lower both the side brush, using the side brush control lever, and the main brush, using the main brush control lever. Lowering the main brush control lever will also switch the vacuum motor on.

BRUSHES

Lower main brush by releasing the main brush / vacuum lever shown in Figure 3. Lower side brush by releasing the side brush lever shown in Figure 3.

LOCATING ELECTRONIC CONTROLS

Listed below are the controls illustrated in Figure 2.

1. Light indicating forward direction (green).
2. Light indicating reverse direction (green).
3. Switch selector for forward or reverse.
4. Horn button (red).
5. Shaker motor button (green).
6. Battery power indicator (green).
7. Hour meter.
8. Power key switch.
9. Light indicating power ON (red).
10. Light indicating side brush operating (green).

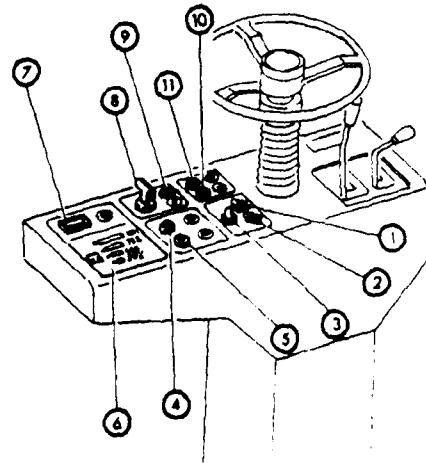


Figure 2

LOCATING LEVER AND PEDAL CONTROLS

Listed below are the controls illustrated in Figure 3.

1. Main brush/vacuum fan control lever.
2. Side brush control lever.
3. Speed control foot pedal.
4. Vacuum opening shut-off knob.
5. Service and parking brake pedal.
6. Brake release pedal.
7. Front flap control pedal.

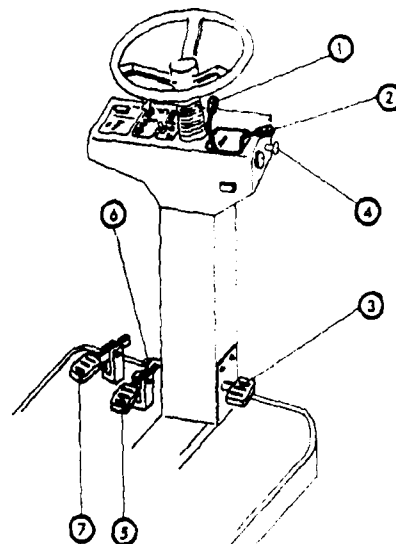


Figure 3

DRIVE DIRECTION AND SPEED

Choose drive direction by using the selector switch, detail 3 in Figure 2. Adjust the drive speed according to the type and amount of dirt to be collected by the speed control foot pedal shown in Figure 3, detail 3.

FRONT FLAP CONTROL

To collect bulky debris, raise the front flap by depressing the front flap control pedal shown in Figure 3, detail 7. Only depress the pedal long enough to collect the debris. Keeping the flap open will result in a loss of vacuum.

ELECTRONIC SHAKER AND FILTER

The performance of the sweeper greatly depends on the condition of the filter which must be kept clean. Before emptying the dirt container, the filter must be cleaned by pushing the shaker motor button, shown in Figure 2, 3 to 4 times with either the vacuum motor off or the vacuum opening closed. To control the vacuum opening, pull out the Vacuum Opening Shut-Off knob, detail 4 in Figure 3, to close and push back in again to open.

To maintain the performance of the sweeper while in use, the filter needs to be shaken clean about every 15 minutes. Again, before using the electronic shaker, either the vacuum motor needs to be off or the vacuum opening needs to be closed.

ADJUSTMENTS

HOW TO CHECK IF BRUSH ADJUSTMENT IS NEEDED.

With the machine stationary and the brush turning on the floor, the sweeper should leave a clean path of about 1.57 in. (40mm), as indicated in Figure 5.

MAIN BRUSH HIGHT ADJUSTMENT FOR NEW BRUSH

NOTE: This operation should be done with the machine off and on a flat floor, whenever cleaning efficiency decreases. For this operation, refer to Figure 5.

1. Release register 1 by turning it at least 3 times.
2. Release the main brush control lever (4) so that the main brush rests on the floor with the pressure given by spring X (shown in Figure 5).
3. Move register 1 into contact with lever 5. The brush is now adjusted.
4. Move register 2 so that the main brush comes into position D, with respect to the floor. The brush is now adjusted.

SIDE BRUSH ADJUSTMENT

1. Lower the side brush by using the side brush

control lever. The brush should be rotating at this time.

2. Check the angle of the brush that is in contact with the floor. The brush should cover an area between 11 and 4 o'clock (12 o'clock hypothetically represents the direction of the machine).
3. To adjust the angle of contact, move register 2.

NOTE: The function of the side brush is to bring dirt towards the main brush and remove dirt along walls, in corridors, and in corners.

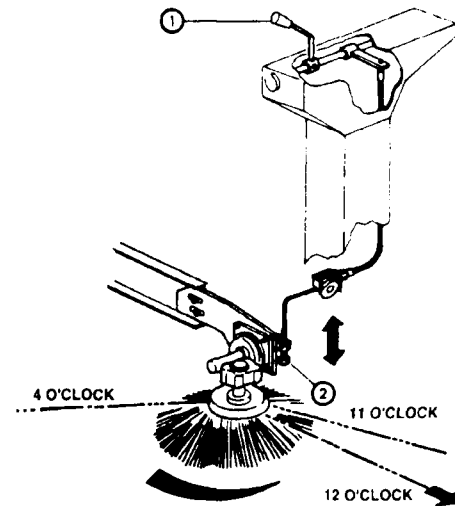


Figure 4

MAIN BRUSH HIGHT ADJUSTMENT DUE TO BRUSH WEAR

For this operation, refer to Figure 5. When the brush is considerably worn, the main brush control lever (4) is probably in maximum position thus canceling the action of register 1. A new adjustment must be made to recover the wear of the brush as much as possible. After returning the main brush control lever (4) into rest position B (brush engaged), the following steps must be carried out.

1. Loosen register 1.
2. Move register 2 until the brush is in position C with respect to the floor.
3. Move register 1 to a distance of 0.59 in. (15mm) from contact with lever 5. Move the main brush control lever (4) into position A so that lever 5 comes into contact with register 1.

LOCATING MACHINE INFORMATION

For the items below, refer to Figure 6.

1. Data plate with serial number.
2. Model designation labels.
3. Lid/cover support rod.
4. Battery installation instructions.

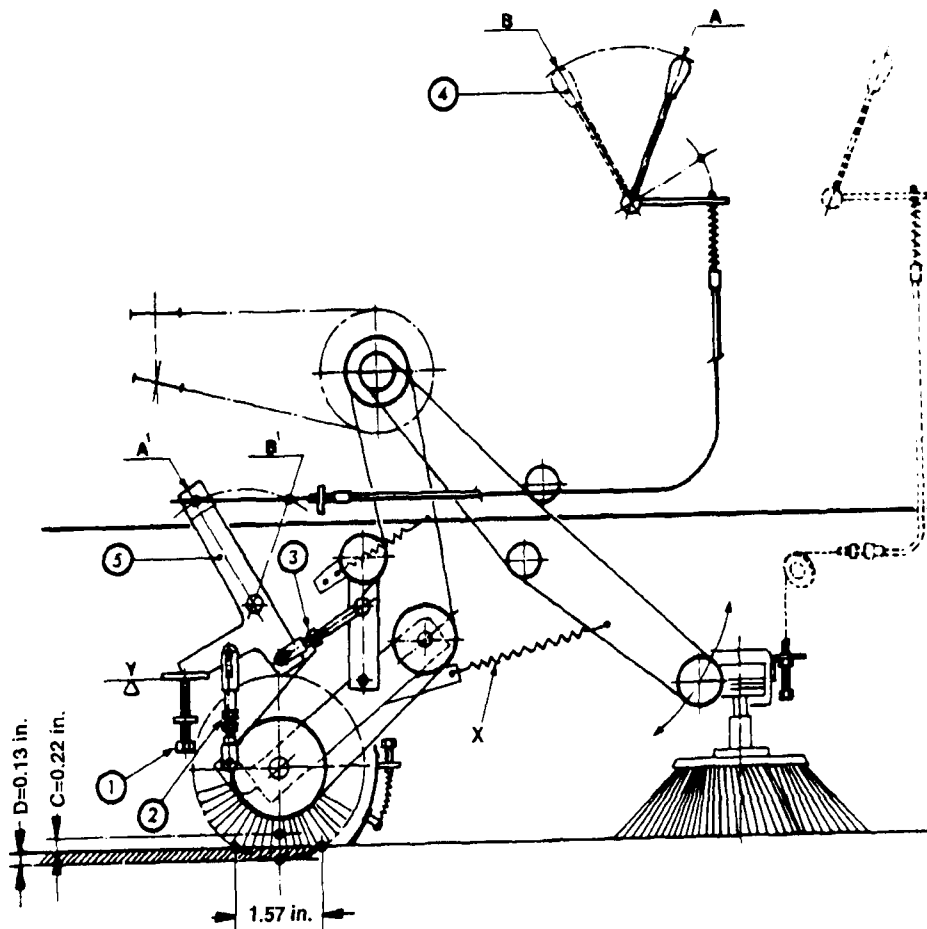


Figure 5

Item 3, battery installation instructions, can be found under the battery cover. When opening the cover, be sure to use the support rod (3) to hold the cover open.

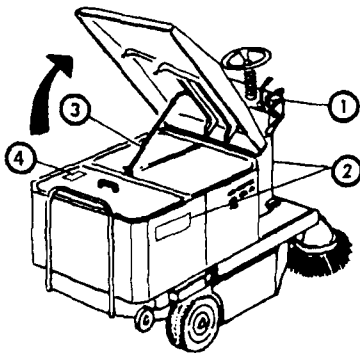


Figure 6

MAINTENANCE

PERIODIC MAINTENANCE

WARNING: All periodic and extraordinary maintenance must be carried out by competent personnel or by an Authorized Service Center.

ITEMS TO CHECK UPON DELIVERY:

1. Battery liquid level.
2. Battery voltage level.
3. Belt tension.
4. Brake adjustment.
5. Electric system.
6. Screw fixing.
7. Brush condition.
8. Condition of seals on filter box and flaps.
9. Test run to check all functions.

ITEMS TO CHECK EVERY 10 HOURS:

1. Battery liquid level.
2. Battery voltage level.
3. Brush condition.
4. Condition of seals on filter box and flaps.

ITEMS TO CHECK EVERY 50 HOURS:

1. Screw fixing.

ITEMS TO CHECK EVERY 100 HOURS:

1. Belt tension.
2. Brake adjustment.
3. Electric system.
4. Grease steering chain.

IMPORTANT: The life of the batteries depends on their maintenance (check of electrolyte's level and density) and how much the batteries are run down during work.

Therefore, never go below the minimum level of the battery power indicator.

WARNING: Every 200 hours, check the condition of the carbon brushes in the electric motors and replace if necessary.

DUST FILTER MAINTENANCE

For this operation, refer to Figure 7. In addition to the normal use of the shaker, for a more thorough cleaning action, we recommend removing the filter as follows:

1. Disconnect the electric wires of shaker motor.
2. Remove screw, detail 3, and their supports, detail 2.
3. Remove the filter support frame.
4. Remove the panel filter.

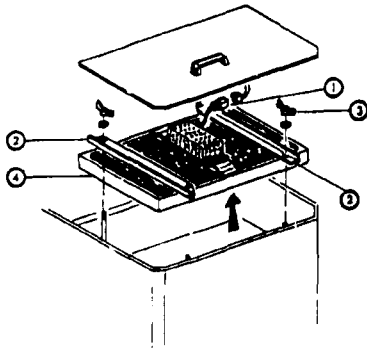


Figure 7

Shake filter on flat surface. Blow with compressed air (max 90 psi), directing the air towards the paper, from the metal side, and at a distance of about eight inches.

Note: Before reassembly, make sure the filter panel has not been damaged or torn and the filter seal is positioned correctly.

REPLACING THE MAIN BRUSH

For this operation, refer to Figure 8.

1. Using the main brush control lever, lower the brush to the floor.
2. Remove the black knob (detail 1) and pin (detail 5). Move lever (detail 4).
3. Remove black knobs (detail 2) and lower cover (detail 3).
4. Pull the bushing (detail 7) out from the shaft and then the cup washer. The brush can now be removed.
5. When replacing a worn brush with a new brush, adjust registers (1) and (2) back to their original position.

WARNING: Before inserting a new brush, check that the direction of the bristle rows permit dirt to move towards the center of the brush. Also, make sure that the drive dents fit into the appropriate notches on the brush core.

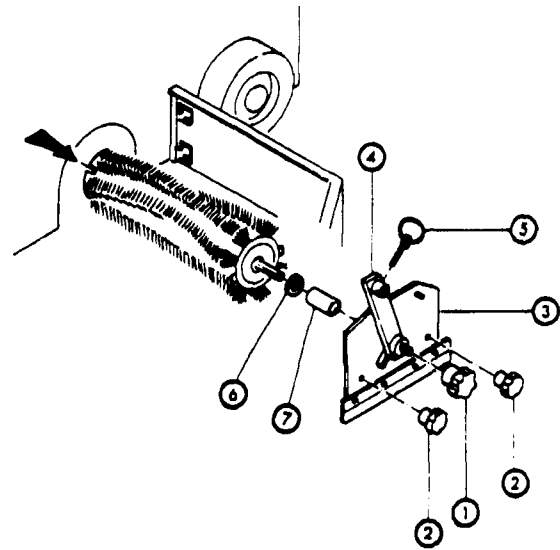


Figure 8

REPLACING CARBON BRUSHES ON ELECTRIC MOTORS

For this operation, refer to Figure 9.

1. Electric motor differential
2. Cooling fan protection
3. Protection fixing screws
4. Protection fixing screws
5. Carbon brush protection ring
6. Carbon brushes
7. Vacuum fan/main brush motor
8. Vacuum fan
9. Filter shaker motor
10. Side brush motor
11. Protective caps for carbon brushes

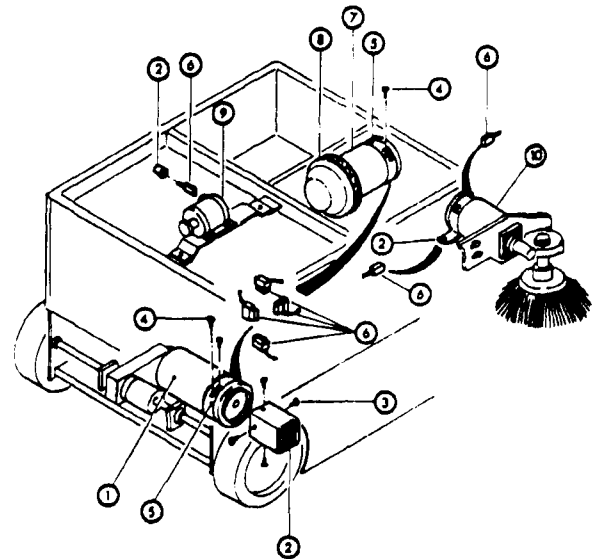


Figure 9

SEQUENCE OF OPERATIONS:

1. Remove cooling fan protection if fitted on electric motor.
2. Remove protection ring, after loosening fixing screws.
3. Remove carbon brushes and, if worn, replace. If replacing, be sure to use the same type of brush.
4. Reassemble.

IMPORTANT:

The condition of the carbon brushes on the electric motors should be periodically checked (every 200 hours). They should be replaced immediately if worn out. The efficiency and the life of electric motors are strictly connected to the efficiency of these carbon brushes.

MOTOR DIFFERENTIAL MAINTENANCE

For the items listed below, refer to Figure 10.

IDENTIFICATION

1. Power cable.
2. Rear wheels.
3. Ball bearing with locking ring on drive shaft.
4. Ball bearing support fixing screws inside the machine frame.
5. Special tool for positioning motor differential.
6. Screws for fixing ball bearing to their supports.
7. Ball bearing support fixing screws outside the machine frame.
8. Dowel (screw) for locking ball bearing to drive shaft.
9. Drive shaft.

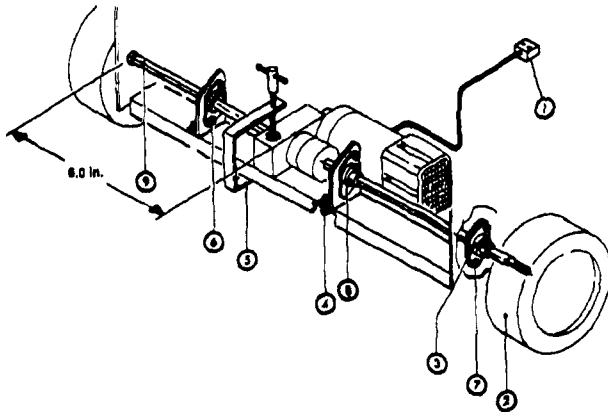


Figure 10

DISASSEMBLY

1. Disconnect power cable (1).
2. Remove wheels (2).
3. Loosen the ball bearing locking ring on drive shaft and then remove ball bearings (3).
4. Remove fixing screws (4) and then remove the motor differential unit.

REASSEMBLY

1. Assemble the motor differential unit, matching first the internal ball bearings. Leave screws (4) and dowels (8) loose.
2. Tighten screw (4), fixing the ball bearing to support inside the frame.
3. Position the motor differential unit at the indicated height 9.29 in. (236mm) with respect to the inner side of the frame.
4. Lock the motor differential unit to the frame crosspiece by means of the appropriate tool.
5. Lock the internal ball bearings, after they have been centered, to the relative supports by means of fixing screws (6).
6. Line up the drive shafts with the crosspiece and the holes on the sides of the frame, by means of ball bearings (3), and then tighten up:
 - * Screws (7) (making sure that drive shafts are correctly assembled).
 - * Ball bearing locking rings (fold the anti-rotation tab backwards).
7. Tighten dowels (8) fixing ball bearings to drive shafts and then reassemble wheels (2).

ELECTRICAL SYSTEM IDENTIFICATION

- | | | |
|---|------------|--|
| 1. Electronic Regulator | | |
| 2. Modulator Card | PG02.09100 | |
| 3. Negative Conductor | | |
| 4. Fan Motor Solenoid..... | PG02.09000 | |
| 5. Braking Solenoid..... | PG02.002 | |
| 6. Main Line Fuse (80A)..... | PG11.04500 | |
| 7. Electronic Regulator
Power Fuse (6.3A
Rapid Type)..... | PG11.06200 | |
| 8. Motor Differential Fuse
(50A) | PG11.05600 | |
| 9. Vacuum Fan/Main Brush
Motor Fuse (50A)..... | PG11.05600 | |
| 10. Filter Shaker Motor Fuse
(5A) | PG11.05900 | |
| 11. Side Broom Motor Fuse
(7.5A) | PG11.05800 | |
| | | |
| | | 12. Fuse For Panel Functions
(15A) |
| | | PG11 05700 |
| | | 13. Braking Resistance |
| | | PG02.06300 |
| | | 14. Connector..... |
| | | PG03 01200 |
| | | 15. Battery Charger 115/60-24 |
| | | 031355 |
| | | 16. Battery Package for 6 volt
200AH each |
| | | 034911 |
| | | 17. Battery Connector Wire
Assembly (3 Req'd) . |
| | | 025085 |

WARNING:

Plug 14 connects battery unit to the electric check panel.
Never let batteries run down below minimum level of charge indicated by the volt meter on dashboard.

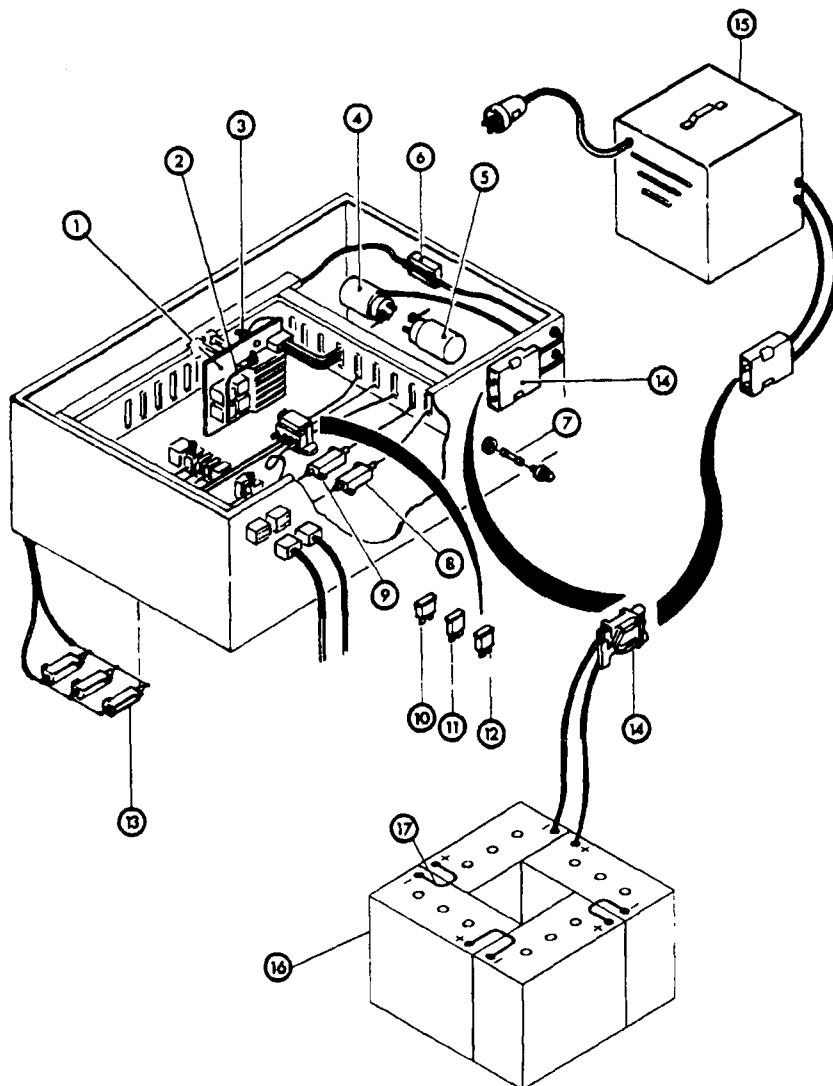


ILLUSTRATION "A" ASSEMBLY

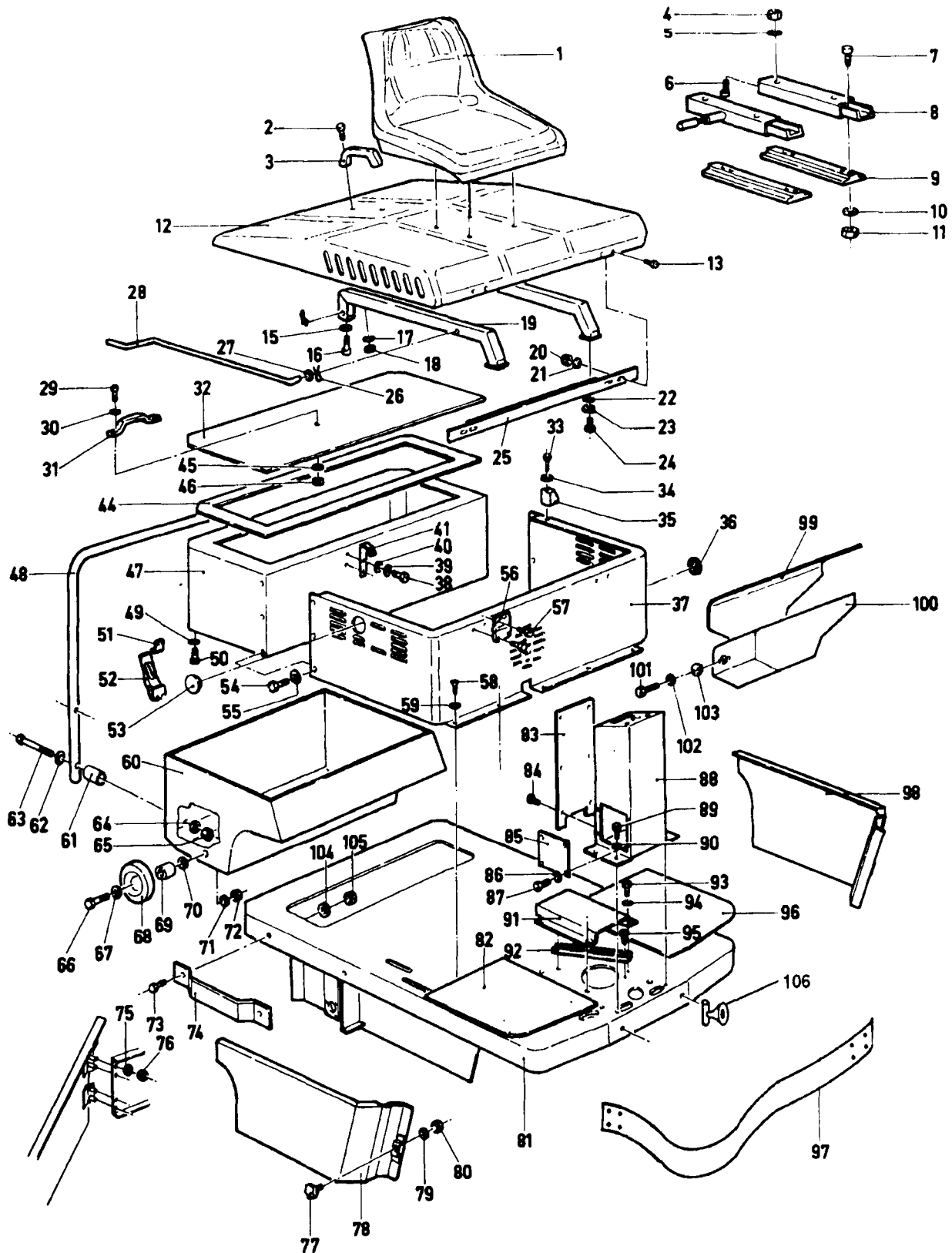


ILLUSTRATION "A" PARTS LIST

DET	PART NO.	DESCRIPTION	QUANT
1	PL03.001	SEAT--	1
2	PV04.01200	SCREW--M8X25,HH	2
3	PL02.08200	HANDLE--TOP COVER	1
4	PV13.005	NUT--M8,HEX,NYLOC	4
5	PV09.005	WSHR--M8	4
6	PV04.01200	SCREW--M8X25,HH	4
7	PV02.014	SCR--8X25,HH	4
8	PL03.009	SEAT,SLIDE-WAY--	1
9	PF03.07620	SUPPORT,SEAT--	2
10	PV09.005	WSHR--M8	4
11	PV13.005	NUT--M8,HEX,NYLOC	4
12	PH01.13600	COVER--BATTERY & FILTER	1
13	PV04.007	SCR--6X20,SOC HD	8
15	PV13.005	NUT--M8,HEX,NYLOC	2
16	PV02.029	SCREW,M8X45,HEX HD	2
17	PV19.005	WSHR,LK--#8	2
18	PV13.020	NUT--#8,NYLOC,HEX HD	2
20	PV13.004	NUT--#6,HEX	2
21	PV09.004	WSHR--#6	2
22	PV09.005	WSHR--M8	2
23	PV13.005	NUT--M8,HEX,NYLOC	2
24	PV02.015	SCR, 8x30	2
25	PF03.38900	REINFORCEMENT--	1
26	PV15.01903	SPLIT PIN--M3X25	1
27	PV09.020	WSHR, 8x24x2	1
28	PF03.31900	PUSHROD--	1
30	PV04.01200	SCREW--M8X25,HH	2
30	PV09.020	WSHR, 8x24x2	2
31	PL02.08200	HANDLE--TOP COVER	1
33	PV04.007	SCR--6X20,SOC HD	2
34	PV09.004	WSHR--#6	2
35	PE02.46301	BLOCK--	2
36	PL02.05500	CAP--	1
37	PF00.42001	FRAME,BATTERY ENCLOSURE,BLUE	1
38	PV02.004	SCR--6X20,HEX HED	2
39	PV09.004	WSHR--#6	2
40	PV13.019	NUT--#6,HEX,NYLOC	2
41	PF03.33300	BRACKET--	1
44	PH02.22800	GASKET--FILTER COVER	1
45	PV19.005	WSHR,LK--#8	2
46	PV13.005	NUT--M8,HEX,NYLOC	2
47	PF01.7801	CONTAINER--FILTER,ENCLOS,BLUE	1
48	PF00.37100	HANDLEBAR--	1
49	PV19.004	WSHR,LK--#6	8
50	PV02.003	SCR--6X16,HEX HD	8
51	PF02.69300	STRIKE	1
52	PL02.04600	LATCH	1
53	PL02.035	PLUG, HOLE	1
54	PV03.004	SCREW--M6X16,FL HD	11
55	PV11.02200	WSHR	11
56	PL02.07300	HINGE, HOOD	2

DET	PART NO.	DESCRIPTION	QUANT
57	PV04.007	SCR--6X20,SOC HD	2
58	PV03.004	SCREW--M6X16,FL HD	11
59	PV11.02200	WSHR	11
60	PF00.37000	CONTAINER--DIRT BOX	1
61	PE05.13600	SPACER--	2
62	PV09.004	WSHR--#6	4
63	PV04.02203	SCREW--M6X85,SOC HD	4
64	PV09.012	WSHR--6X24X2	4
65	PV13.019	NUT--#6,HEX,NYLOC	4
66	PV02.07600	SCREW--M6X65,HH	2
67	PV09.005	WSHR--M8	2
68	PD00.008	WHEEL, DIRT BIN	2
69	PE02.051	SPACER, WHEEL	2
70	PV09.025	WSHR, 8x32x2	4
71	PV09.025	WSHR, 8x32x2	2
72	PV13.020	NUT--#8,NYLOC,HEX HD	2
73	PV03.003	SCR,6X20,SOC HD	4
74	PF00.37300	BRACKET,MOUNTING--RUB RAIL	2
75	PV09.004	WSHR--#6	8
75	PF00.52100	Wood is made N.A.L	2
76	PV13.019	NUT--#6,HEX,NYLOC	8
77	PL02.010	KNOB--	2
78	PF00.36800	DOOR,INSPECTION--	1
79	PV09.012	WSHR--6X24X2	2
80	PV13.019	NUT--#6,HEX,NYLOC	2
81	PF01.16700	FRAME,RIDER--	1
82	PH02.23000	FLOOR MAT--	1
83	PF00.42200	LID/COVER--BLUE	1
84	PV03.004	SCREW--M6X16,FL HD	6
85	PF04.08700	PLATE--	1
86	PV11.02200	WSHR	10
87	PV03.004	SCREW--M6X16,FL HD	4
88	PF00.42100	PANEL,FRONT--BLUE	1
89	PV02.013	SCR--8X20,HEX HD	4
90	PV09.020	WSHR, 8x24x2	4
91	PF00.37400	BRACKET--	1
92	PF03.39500	GUARD,CORD--	1
93	PV03.003	SCR,6X20,SOC HD	4
94	PV11.02200	WSHR	4
95	PV03.003	SCR,6X20,SOC HD	2
96	PH02.22900	FLOORMAT--	1
97	PF01.50000	GUARD--FRONT BUMPER,STEEL	1
98	PF00.52100	DOOR,INSPECTION-- <i>PF00.36700</i>	1
99	PF00.42400	PANEL--	1
100	PF00.42300	INSTRUMENT BOX--	1
101	PV03.003	SCR,6X20,SOC HD	2
102	PV11.02200	WSHR	2
103	PE02.58100	PIN--	1
104	PV09.004	WSHR--#6	4
105	PV13.019	NUT--#6,HEX,NYLOC	4
106	PG09.002	HORN,24VDC--RIDER SWEEPER	1

ILLUSTRATION "B" ASSEMBLY

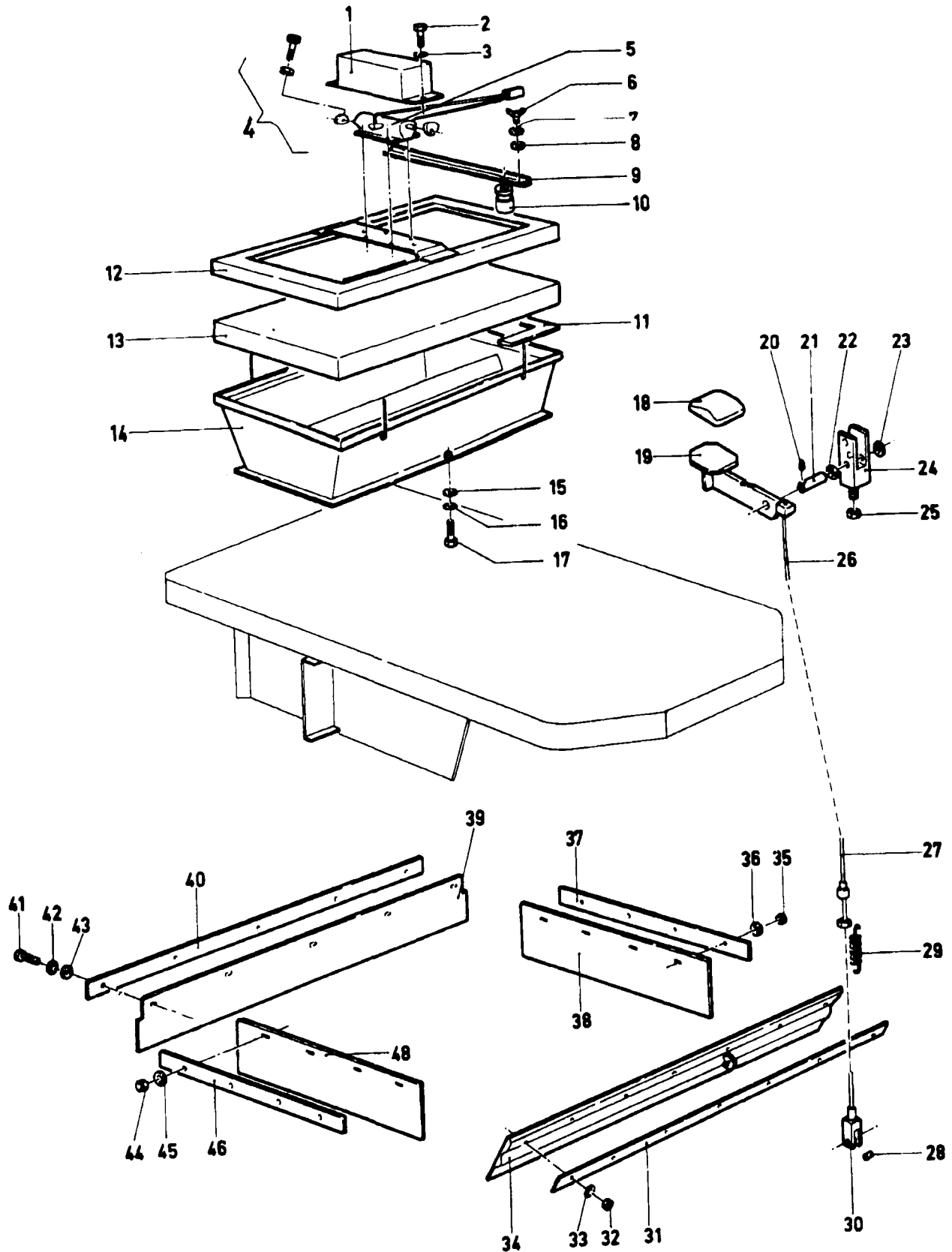


ILLUSTRATION "B" PARTS LIST

DET	PART NO.	DESCRIPTION	QUANT
1	PF03.34300	GUARD--SHAKER MOTOR	1
2	PV02.002	SCR,6X12,HEX HED	2
3	PV09.022	WSHR--6X18X2	2
3	PV19.004	WSHR,LK--#6	2
4	PA07.01600	GUARD--	2
5	PA00.00901	MOTOR,SHAKER--24V	1
5	PA04.04900	BRUSH,CARBON--SHAKER MOTOR	2
6	PV13.05700	NUT--M6	4
7	PV19.004	WSHR,LK--#6	4
8	PV09.022	WSHR--6X18X2	4
9	PF03.32100	CROSS PIECE--	2
10	PL02.013	MOUNT, RUBBER	4
11	PH02.015	GASKET--FILTER BOX,10X20	1
11	PH02.23100	GASKET--FILTER BOX	1
12	PF01.16900	FRAME--FILTER	1
13	PB02.04000	FILTER--	1
14	PF03.31000	SUPPORT--	1
15	PV09.022	WSHR--6X18X2	8
16	PV19.004	WSHR,LK--#6	8
17	PV02.003	SCR--6X16,HEX HD	8
18	PH02.063	COVER,PEDAL--	1
19	PF04.08600	PEDAL--FLAP CONTROL	1
20	PV15.001	PIN, HAIR SPRING	2
21	PE02.58500	PIN--	1
22	PV09.005	WSHR--M8	1
23	PV09.005	WSHR--M8	1

DET	PART NO.	DESCRIPTION	QUANT
24	PE02.58400	SUPPORT--FOOT PEDAL	1
25	PV13.021	NUT--M10,HEX,NYLOC	1
26	PE08.11400	CABLE--FLAP CONTROL <i>PE08.12800</i>	1
27	PE08.006	NUT, CABLE ADJUSTMENT	1
28	PE08.010	CLAMP, CABLE	1
29	PE04.07300	SPRING--	1
30	PV17.06700	CLEVIS--	1
30	PV17.06800	CLIP FOR CLEVIS PIN--	1
31	PF03.29700	PLATE--	1
32	PV13.019	NUT--#6,HEX,NYLOC	7
33	PV09.004	WSHR--#6	7
34	PH02.22400	FLAP--FRONT	1
35	PV13.019	NUT--#6,HEX,NYLOC	4
36	PV09.004	WSHR--#6	4
37	PF03.29600	PLATE--FLAP SUPPORT	1
38	PH02.22500	FLAP--LEFT <i>PH02.35700</i>	1
39	PH02.22600	FLAP--REAR	1
40	PF03.29500	PLATE--FLAP SUPPORT	1
41	PV02.003	SCR--6X16,HEX HD	5
42	PV19.004	WSHR,LK--#6	5
43	PV09.004	WSHR--#6	5
44	PV13.019	NUT--#6,HEX,NYLOC	4
45	PV09.004	WSHR--#6	4
46	PF03.29600	PLATE--FLAP SUPPORT	1
48	PH02.22500	FLAP--LEFT <i>PH02.35700</i>	1

ILLUSTRATION "C" ASSEMBLY

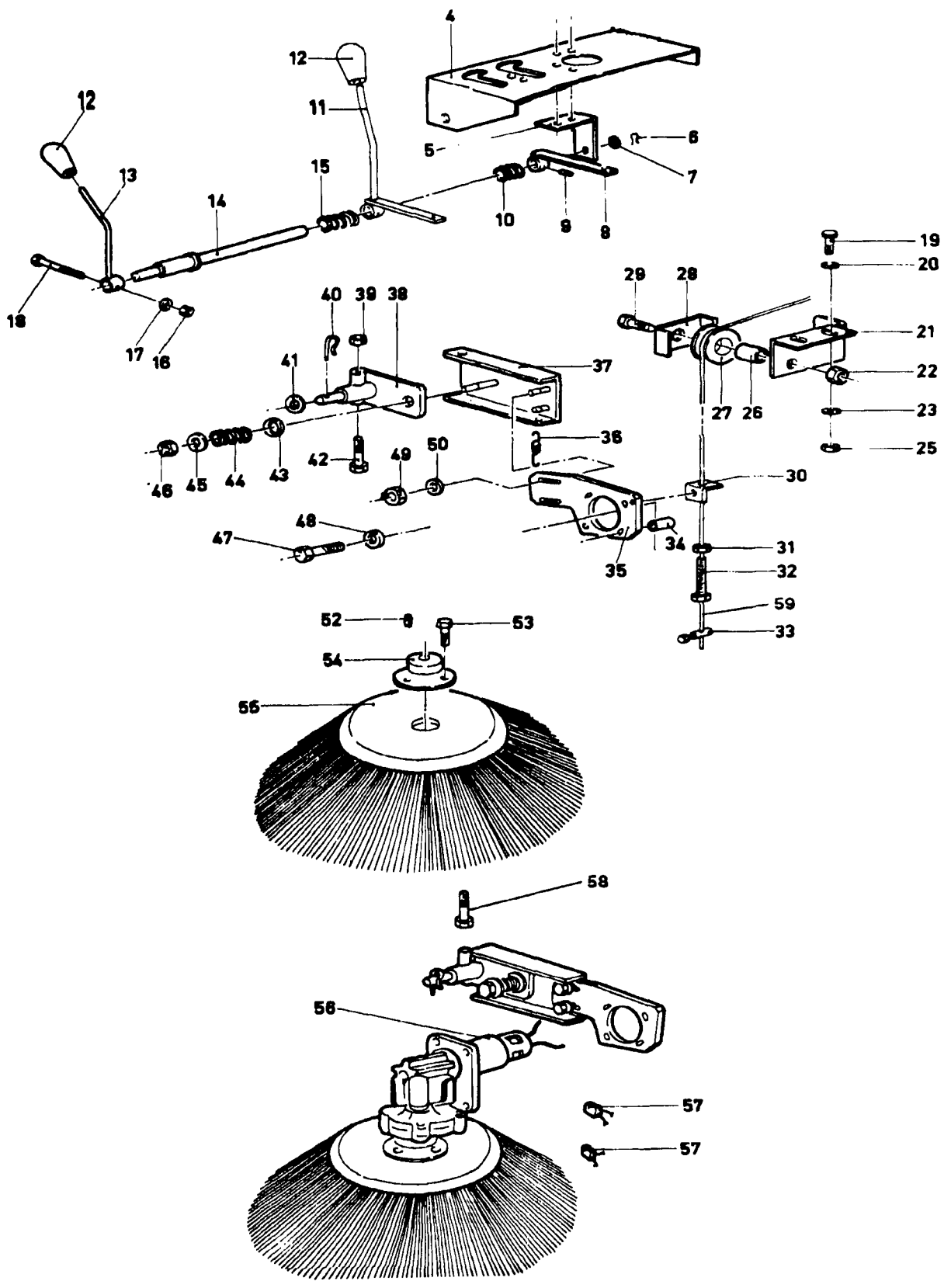


ILLUSTRATION "C" PARTS LIST

DET	PART NO.	DESCRIPTION	QUANT
4	PF03.30000	PLATE--	1
5	PF03.30300	BRACKET--	1
6	PV15.01303	SPLIT PIN--M2.5X25	1
7	PV09.006	WSHR, #10	1
8	PF04.08200	ARM--	1
9	PV17.09700	SPRING PIN--	1
10	PE04.05600	SPRING--	1
11	PF04.08300	LEVER--	1
12	PL03.02400	KNOB	2
13	PE02.57600	LEVER--	1
14	PE02.57100	SHAFT--LEVERS	1
15	PE04.05100	SPRING--	1
16	PV13.018	NUT--#5,HEX,NYLOC	1
17	PV09.003	WSHR--#5	1
18	PV04.01800	SCREW--M5X35,SOC HD	1
19	PV02.003	SCR--6X16,HEX HD	2
20	PV09.004	WSHR--#6	2
21	PF03.30100	BRACKET--	1
22	PV13.020	NUT--#8,NYLOC,HEX HD	1
23	PV09.022	WSHR--6X18X2	2
25	PV13.019	NUT--#6,HEX,NYLOC	2
26	PE05.17100	SPACER--	1
27	PE03.16500	PULLEY--	1
28	PF03.30200	BRACKET--	1
29	PV02.051	SCREW--M8X35,HEX HD	1
30	PF03.33600	BRACKET--	1
31	PV13.005	NUT--M8,HEX,NYLOC	1

DET	PART NO.	DESCRIPTION	QUANT
32	PE02.59200	REGULATOR--	1
33	PE08.018	CLAMP, CABLE	1
35	PF03.03200	BRACKET--	1
36	PE04.007	SPRING, EXTENSION--IDLER ARM	1
37	PF03.03120	ARM--SIDE BROOM	1
38	PF04.00920	SUPPORT--	1
39	PV13.020	NUT--#8,NYLOC,HEX HD	1
40	PV15.00700	SPLIT PIN--M3X30	1
41	PV09.009	WASHER--M16X30X3	1
42	PV02.045	SCREW--M8X80,HEX HD	1
43	PV09.020	WSHR, 8x24x2	1
44	PE04.05100	SPRING--	1
45	PV09.020	WSHR, 8x24x2	1
46	PV13.020	NUT--#8,NYLOC,HEX HD	1
47	PV04.007	SCR--6X20,SOC HD	4
48	PV09.004	WSHR--#6	4
49	PV13.020	NUT--#8,NYLOC,HEX HD	2
50	PV09.020	WSHR, 8x24x2	2
52	PV17.07000	KEY, SHAFT-- 5x5x25	1
53	PV02.004	SCR--6X20,HEX HD	3
54	PE02.42900	HUB, SIDE BROOM MOUNT	1
55	PB01.01800	SIDE BROOM--	1
56	PA05.01200	GEAR,REDUCTION--SIDE BROOM	1
56	PA11.00900	KIT,PLASTIC GEAR & SHAFT	1
57	PA11.00200	BRUSH MECHANISM--BRUSH MOTOR	2
58	PV02.09003	SCR--6X20,HEX HD <i>Left hand</i>	1
59	PE08.11200	CABLE--BROOM LIFT <i>EMB. 12700</i>	1

58 PV02.004 SCR--6X20 Right hand three

ILLUSTRATION "D" ASSEMBLY

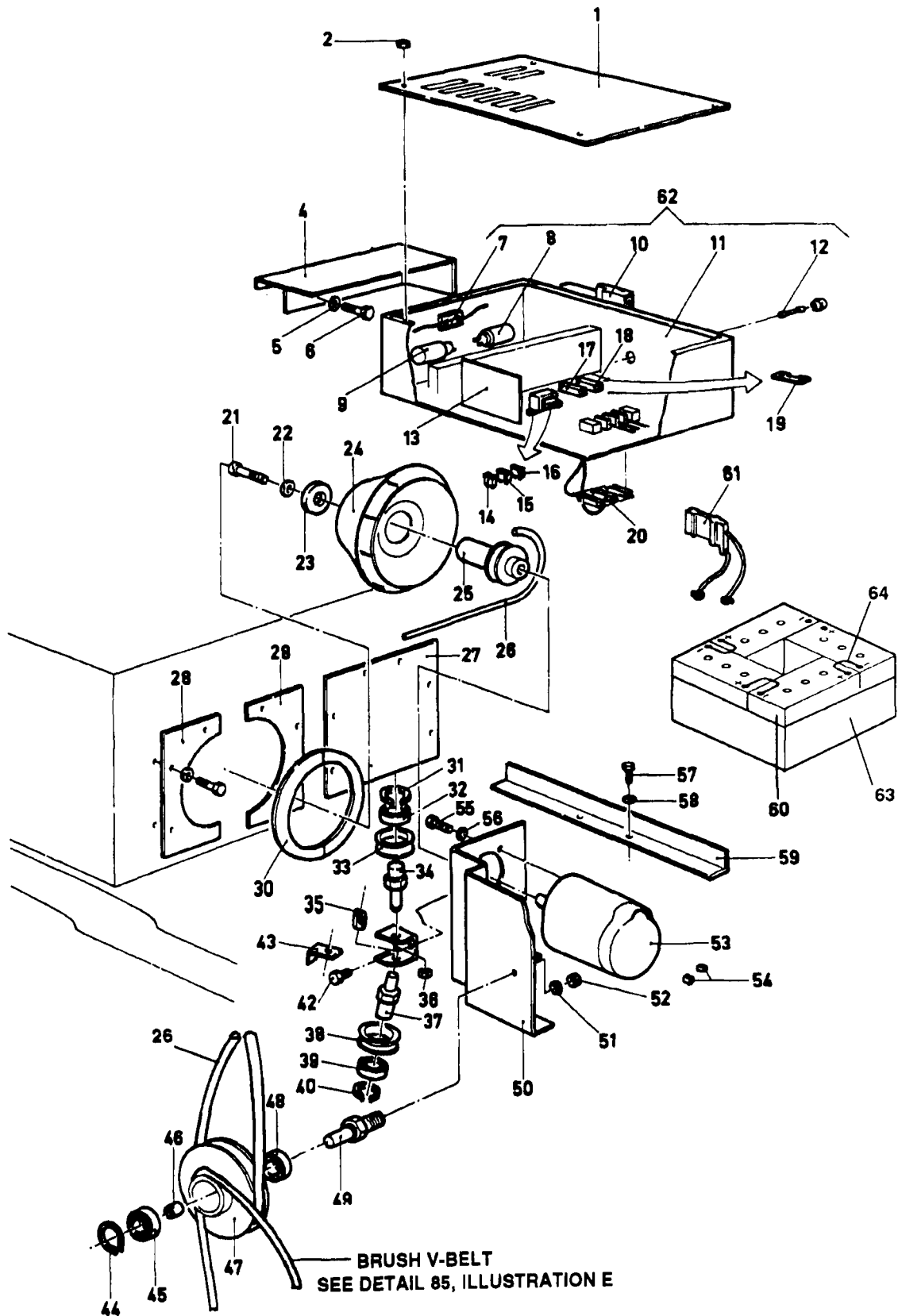


ILLUSTRATION "D" PARTS LIST

DET PART NO.	DESCRIPTION	QUANT
1	PF03.32800 LID--COVER	1
2	PV02.07300 SCR--4X12,HEX HD	4
4	PF03.33400 GUARD--	1
5	PV09.004 WSHR--#6	2
6	PV02.003 SCR--6X16,HEX HD	2
7	PG11.04500 FUSE--80 AMP	1
8	PG02.002 SOLENOID--BRAKE	1
9	PG02.09000 SOLENOID--FAN MOTOR	1
10	PG03.01200 CONTROLLER CONNECTOR--	1
11	PF03.31300 BOX,CONTROLLER--	1
12	PG11.06200 FUSE--6.3 AMP (RAPID)	1
13	PG02.09100 CARD,MODULATOR--	1
14	PG11.05900 FUSE--5.0 AMP (SHAKER MTR)	1
15	PG11.05800 FUSE--7.5 AMP (SIDE BROOM MTR)	1
16	PG11.05700 FUSE--15 AMP (PANEL)	1
17	PG11.05000 FUSE HOLDER--	1
18	PG11.05000 FUSE HOLDER--	1
19	PG11.05600 FUSE--50 AMP (MOTOR DIFF)	2
20	PG02.06300 RESISTOR,BRAKING--	3
21	PV02.004 SCR--6X20,HEX HED	1
22	PV09.012 WSHR--6X24X2	1
23	PE05.027 FLANGE--	1
24	PB03.001 FAN, VACUUM	1
25	PE03.16900 PULLEY--	1
26	PH00.12000 BELT,FAN-- <i>PH00.13900</i>	1
27	PF03.37900 FLANGE--	1
28	PF03.37400 FLANGE--	2
30	PH04.03700 RING,RETAINING--	1
31	PV14.003 RING, RETAINING I 32	1
32	PE00.001 BEARING, BALL-- SKF 6002-2RS	1
33	PE03.16600 PULLEY--	1

DET PART NO.	DESCRIPTION	QUANT
34	PE02.58000 SHAFT--	1
35	PV13.021 NUT--M10,HEX,NYLOC	2
36	PV13.021 NUT--M10,HEX,NYLOC	2
37	PE02.58000 SHAFT--	1
38	PE03.16600 PULLEY--	1
39	PE00.001 BEARING, BALL-- SKF 6002-2RS	1
40	PV14.003 RING, RETAINING I 32	1
42	PV03.003 SCR,6X20,SOC HD	2
43	PF03.35500 PLATE--	1
44	PV14.003 RING, RETAINING I 32	1
45	PE00.001 BEARING, BALL-- SKF 6002-2RS	1
46	PE05.17200 SPACER--	1
47	PE03.17000 PULLEY--	1
48	PE00.001 BEARING, BALL-- SKF 6002-2RS	1
49	PE02.57900 SHAFT--	1
50	PF03.30400 BRACKET--	1
51	PV09.006 WSHR, #10	1
52	PV13.021 NUT--M10,HEX,NYLOC	1
53	PA00.05800 MOTOR,FAN--	1
54	<i>SY PA11.00800 Brush, Mec. n. set for 750W MTR</i> PA11.00100 BRUSH MECHANISM FOR PA00.05800	2
55	PV02.003 SCR--6X16,HEX HD	4
56	PV09.006 WSHR, #10	4
57	PV02.003 SCR--6X16,HEX HD	2
58	PV09.022 WSHR--6X18X2	2
59	PF03.34200 BRACKET,ANGLE--	1
60	026408 BATTERY-- 6V,200AH,WET	4
61	PG03.0200 CONTROLLER CONNECTOR--	1
62	PG13.10400 ASM,CONTROLLER BOX--COMPLETE	1
63	055896 BOX,BATT--KS-35BR,MACH'D	1
64	025944 ASM,WIRE--6GA,BLK,8.0L,RINGS	3

ILLUSTRATION "E" ASSEMBLY

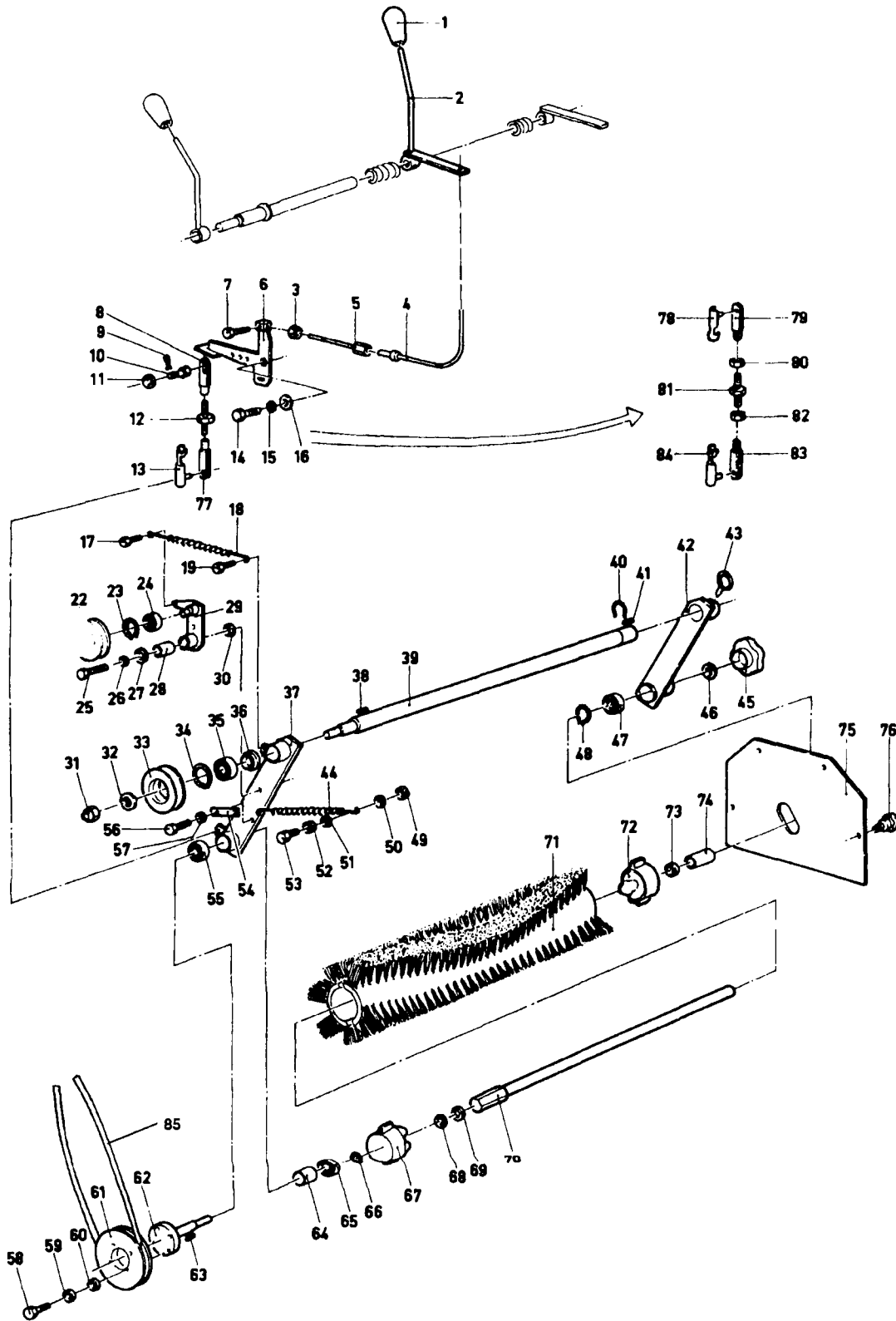


ILLUSTRATION "E" PARTS LIST

DET	PART NO.	DESCRIPTION	QUANT
1	PL03.02400	KNOB	1
2	PF04.08300	LEVER--	1
3	PV13.005	NUT--M8,HEX,NYLOC	1
4	PE00.11800	CABLE--MAIN BRUSH <i>PE08.12900</i>	1
5	PE08.006	NUT, CABLE ADJUSTMENT	1
6	PF00.30501	LEVER--	1
6	PF03.30500	LEVER--	1
7	PE08.018	CLAMP, CABLE	1
8	PV17.07500	FORK--	1
9	PV15.003	SPLIT PIN--M2X20	1
10	PV17.08200	PIN--	1
11	PV09.005	WSHR--M8	1
12	PE02.60200	TENSION ROD--	1
13	PV17.011	CIRCLIPS--M8	1
14	PV02.013	SCR--8X20,HEX HD	1
15	PV19.005	WSHR,LK--#8	1
16	PV09.005	WSHR--M8	1
17	PV01.008	SCREW--M6X35	1
18	PE04.007	SPRING, EXTENSION--IDLER ARM	1
19	PV02.003	SCR--6X16,HEX HD	1
22	PE02.59400	TENSIONER ROLLER--	1
23	PV14.003	RING, RETAINING I 32	1
24	PE00.001	BEARING, BALL-- SKF 6002-2RS	1
25	PV02.029	SCREW,M8X45,HEX HD	1
26	PV19.005	WSHR,LK--#8	1
27	PV09.020	WSHR, 8x24x2	1
28	PE05.17600	SPACER--	1
29	PF04.07900	TENSIONER--	1
30	PE01.02700	BUSHING--	1
31	PV13.021	NUT--M10,HEX,NYLOC	1
32	PV09.006	WSHR, #10	1
33	PE03.16700	PULLEY--	1
34	PV14.003	RING, RETAINING I 32	1
35	PE00.001	BEARING, BALL-- SKF 6002-2RS	1
36	PE05.17400	SPACER--	1
37	PF04.08400	LEVER--	1
37	PF04.08401	LEVER--	1
38	PV17.040	KEY--M6X6X20	1
39	PE02.58300	SHAFT--	1
40	PV14.009	RETAINING RING--E20	1
41	PV17.040	KEY--M6X6X20	1
42	PF04.08500	LEVER--	1
43	PV17.09300	PIN--	1

DET	PART NO.	DESCRIPTION	QUANT
44	PE04.03600	SPRING--	1
45	PL03.01600	KNOB--	1
46	PE04.05000	SPRING--	1
47	PE00.001	BEARING, BALL-- SKF 6002-2RS	1
48	PV14.003	RING, RETAINING I 32	1
49	PV13.019	NUT--#6,HEX,NYLOC	1
50	PV09.022	WSHR--6X18X2	1
51	PV09.022	WSHR--6X18X2	1
52	PV13.004	NUT--#6,HEX	1
53	PV02.08400	SCR--6X35,SOC HD	1
54	PF03.33200	PLATE--	1
55	PE00.001	BEARING, BALL-- SKF 6002-2RS	1
56	PV02.003	SCR--6X16,HEX HD	1
57	PV13.004	NUT--#6,HEX	1
58	PV02.004	SCR--6X20,HEX HED	4
59	PV19.004	WSHR,LK--#6	4
60	PV09.004	WSHR--#6	4
61	PE03.16800	PULLEY--	1
62	PE02.57800	FLANGE--	1
63	PV17.06200	KEY--M4X4X20	1
64	PE05.17300	SPACER--	1
65	PE00.001	BEARING, BALL-- SKF 6002-2RS	1
66	PV14.001	RETAINING RING--E15	1
67	PE02.44200	SUPPORT--	1
68	PV09.007	WSHR--#12	1
69	PV19.007	WASHER--M12	1
70	PE02.57700	SHAFT--	1
71	PB00.04300	MAIN BRUSH--STD	1
71	PB00.04700	MAIN BRUSH--NATURAL FIB(CARPET	1
72	PE02.44200	SUPPORT--	1
73	PE04.05000	SPRING--	1
74	PE05.17500	SPACER--	1
75	PF03.32000	BRUSH GUARD--	1
76	PL02.010	KNOB--	2
77	PV17.09600	FORK--	1
78	PV17.06800	CLIP,CLEVIS PIN--	1
79	PV17.06700	CLEVIS--	1
80	PV13.004	NUT--#6,HEX	1
81	PE02.59100	REGULATOR--	1
82	PV13.08703	NUT--M6X5	1
83	PV17.09400	FORK--	1
84	PV17.06800	CLIP,CLEVIS PIN--	1
85	PH00.12600	BELT,BRUSH--V-TYPE	1

ILLUSTRATION "F" ASSEMBLY

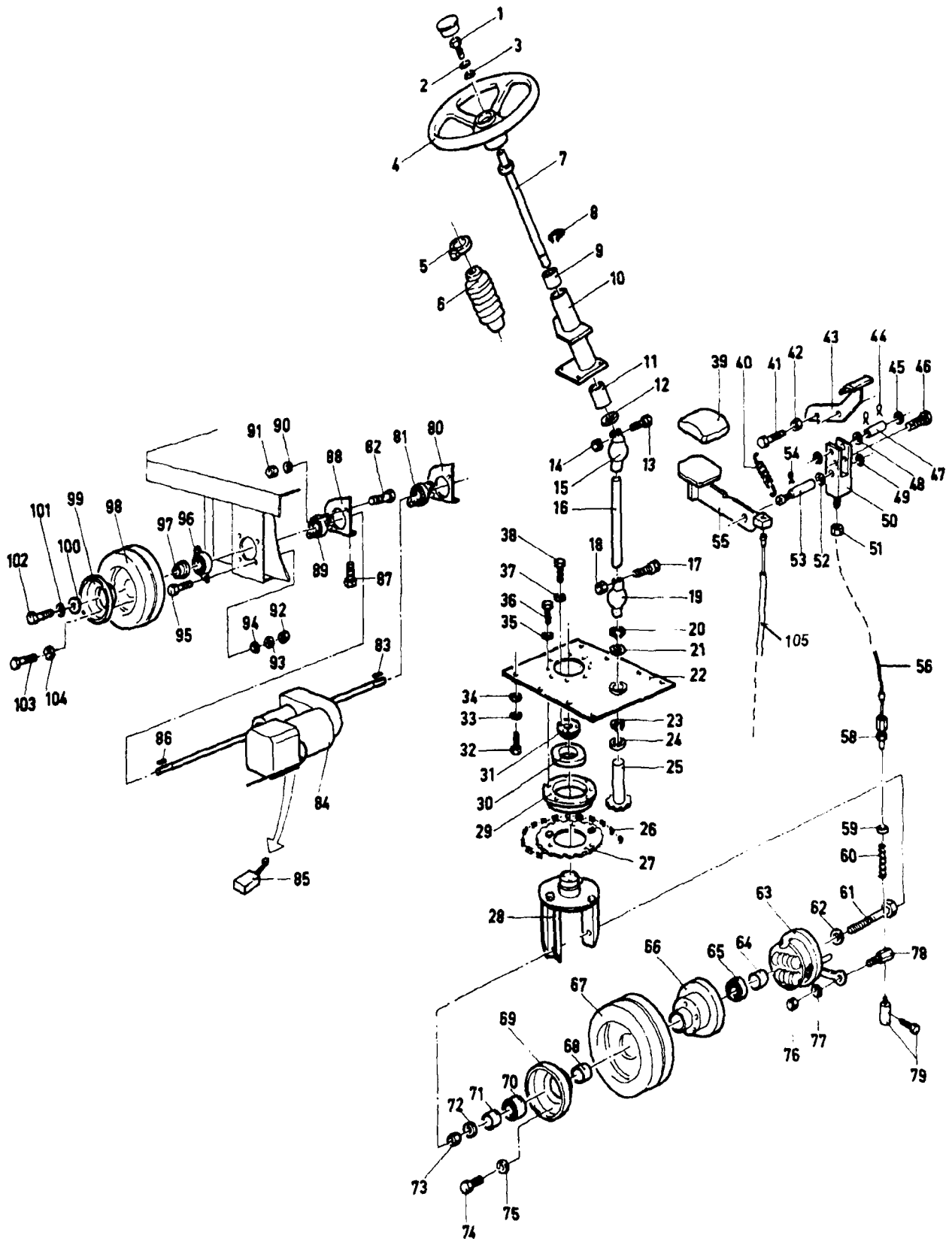


ILLUSTRATION "F" PARTS LIST

DET	PART NO.	DESCRIPTION	QUANT
1	PV02.013	SCR--8X20,HEX HD	1
2	PV19.005	WSHR,LK--#8	1
3	PV09.020	WSHR, 8x24x2	1
4	PL03.02900	STEERING WHEEL--	1
5	PV20.01200	CLAMP--	1
6	PH06.00800	STEERING COLUMN GUARD--	1
7	PE02.57500	SHAFT--	1
8	PV14.008	RING,RETAINING--E 17	1
9	PE01.004	BUSHING--	1
10	PE02.57400	PLATE--	1
11	PE01.004	BUSHING--	1
12	PV09.004	WSHR--#6	1
13	PV02.051	SCREW--M8X35,HEX HD	2
14	PV13.005	NUT--M8,HEX,NYLOC	2
15	PE09.001	JOINT--D.17	1
16	PE02.57300	SHAFT--	1
17	PV02.051	SCREW--M8X35,HEX HD	2
18	PV13.005	NUT--M8,HEX,NYLOC	2
19	PE09.001	JOINT--D.17	1
20	PV14.008	RING,RETAINING--E 17	1
21	PV09.009	WASHER--M16X30X3	1
22	PF04.08000	PLATE--	1
23	PE01.004	BUSHING--	1
24	PV09.009	WASHER--M16X30X3	1
25	PE02.57200	SHAFT W/PINION--	1
26	PE07.002	CHAIN--	1
27	PE06.04800	CROWN--SPROCKET	1
28	PF04.08100	PLATE--	1
29	PE05.008	FLANGE--	1
30	PE00.005	BALL BEARING--	1
31	PE05.007	FLANGE--	1
32	PV02.014	SCR--8X25,HH	8
33	PV19.005	WSHR,LK--#8	8
34	PV09.005	WSHR--M8	8
35	PV19.005	WSHR,LK--#8	8
36	PV02.013	SCR--8X20,HEX HD	8
37	PV19.005	WSHR,LK--#8	3
38	PV02.013	SCR--8X20,HEX HD	3
39	PH02.063	COVER,PEDAL--	1
40	PE04.07400	SPRING--	1
41	PV02.07400	SCR--5X20,HEX HD	1
42	PV13.003	NUT--#5,HEX	1
43	PF03.30600	BRAKE PEDAL BRACKET--	1
44	PV15.001	PIN, HAIR SPRING	2
45	PV09.004	WSHR--#6	1
46	PV02.06800	SCREW--M5X30	1
47	PE02.58600	PIN--	1
48	PV09.004	WSHR--#6	1
49	PV09.005	WSHR--M8	1
50	PE02.58400	SUPPORT--FOOT PEDAL	1
51	PV13.006	NUT--M8,HEX,NYLOC	1
52	PV09.006	WSHR, #10	1
53	PE02.58500	PIN--	1
54	PV15.001	PIN, HAIR SPRING	2

DET	PART NO.	DESCRIPTION	QUANT
55	PF04.08600	PEDAL--FLAP CONTROL	1
56	PE00.00700	CABLE--BRAKE <i>PE08.12600</i>	1
58	PE08.006	NUT, CABLE ADJUSTMENT	1
59	PV09.004	WSHR--#6	1
60	PE04.008	SPRING, COMPRESSION	1
61	PV02.08300	SCREW--M12X130	1
62	PV09.007	WSHR--#12	1
63	PL04.01200	BRAKE--	1
64	PE05.11900	SPACER--	1
65	PE00.04300	BALL BEARING--	1
66	PD01.01700	SEMICIRCLE W/BRAKE--	1
67	PD02.01200	WHEEL RING--	1
68	PE05.12000	SPACER--	1
69	PD01.01800	SEMICIRCLE--	1
70	PE00.04300	BALL BEARING--	1
71	PE05.12100	SPACER--	1
72	PV09.007	WSHR--#12	1
73	PV13.007	NUT--M12,HEX	1
74	PV01.015	SCREW--M6X16,SOC HD	1
75	PV19.005	WSHR,LK--#8	1
76	PV13.006	NUT--M8,HEX,NYLOC	1
77	PV19.006	WASHER--M10	1
78	PE02.36700	CLAMP--	1
79	PE08.07100	JAMMING BRAKE--	1
80	PF03.30700	SUPPORT--	1
81	PC04.01800	SUPPORT--	1
81	PE00.05000	BALL BEARING--SKF YAR204-2F	1
82	PV02.013	SCR--8X20,HEX HD	4
83	PV17.044	KEY--M6X6X35	1
84	PA00.05700	ASM,MOTOR/DIFFERENTIAL--	1
85	PA11.00100	BRUSH MECHANISM FOR PA00.05800	4
86	PA07.03100	<i>KEY--M6X6X35</i>	1
87	PV02.013	SCR--8X20,HEX HD	4
88	PF03.30700	SUPPORT--	1
89	PC04.01800	SUPPORT--	1
89	PE00.05000	BALL BEARING--SKF YAR204-2F	1
90	PV19.005	WSHR,LK--#8	4
91	PV13.005	NUT--M8,HEX,NYLOC	4
92	PV13.005	NUT--M8,HEX,NYLOC	4
93	PV19.005	WSHR,LK--#8	4
94	PV09.005	WSHR--M8	4
95	PV02.014	SCR--8X25,HH	4
96	PC04.01800	SUPPORT--	2
97	PE00.05100	BALL BEARING--SKF 3620004BTN	1
98	PD02.01200	WHEEL RING--	2
99	PD01.01800	SEMICIRCLE--	2
99	PD01.02100	SEMICIRCLE-- <i>KEYWAY</i>	2
100	PV09.009	WASHER--M16X30X3	1
101	PV19.005	WSHR,LK--#8	2
102	PV02.014	SCR--8X25,HH	2
103	PV01.015	SCREW--M6X16,SOC HD	16
104	PV19.005	WSHR,LK--#8	16
105	PE08.11400	CABLE--FLAP CONTROL	1

ILLUSTRATION "G" ASSEMBLY

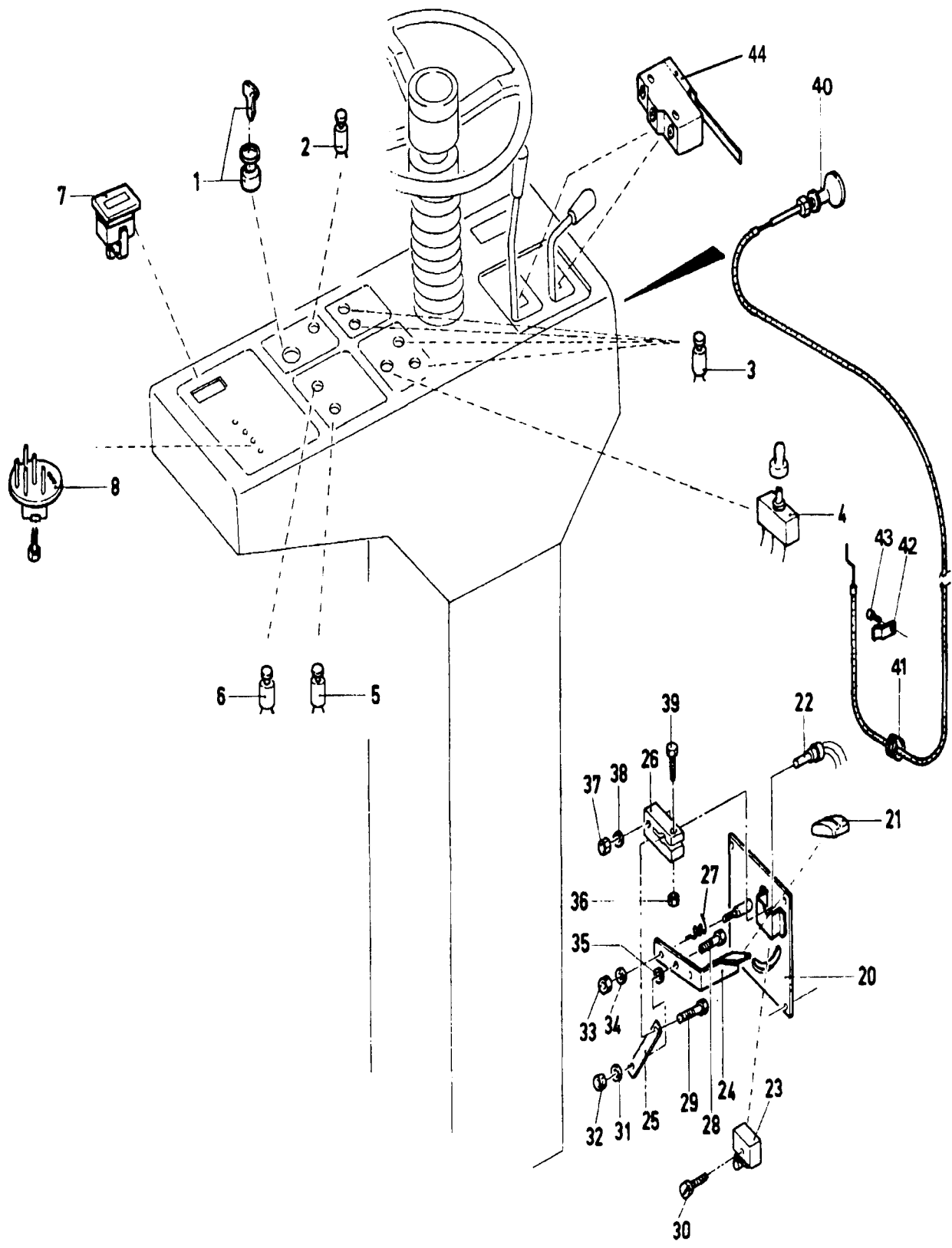
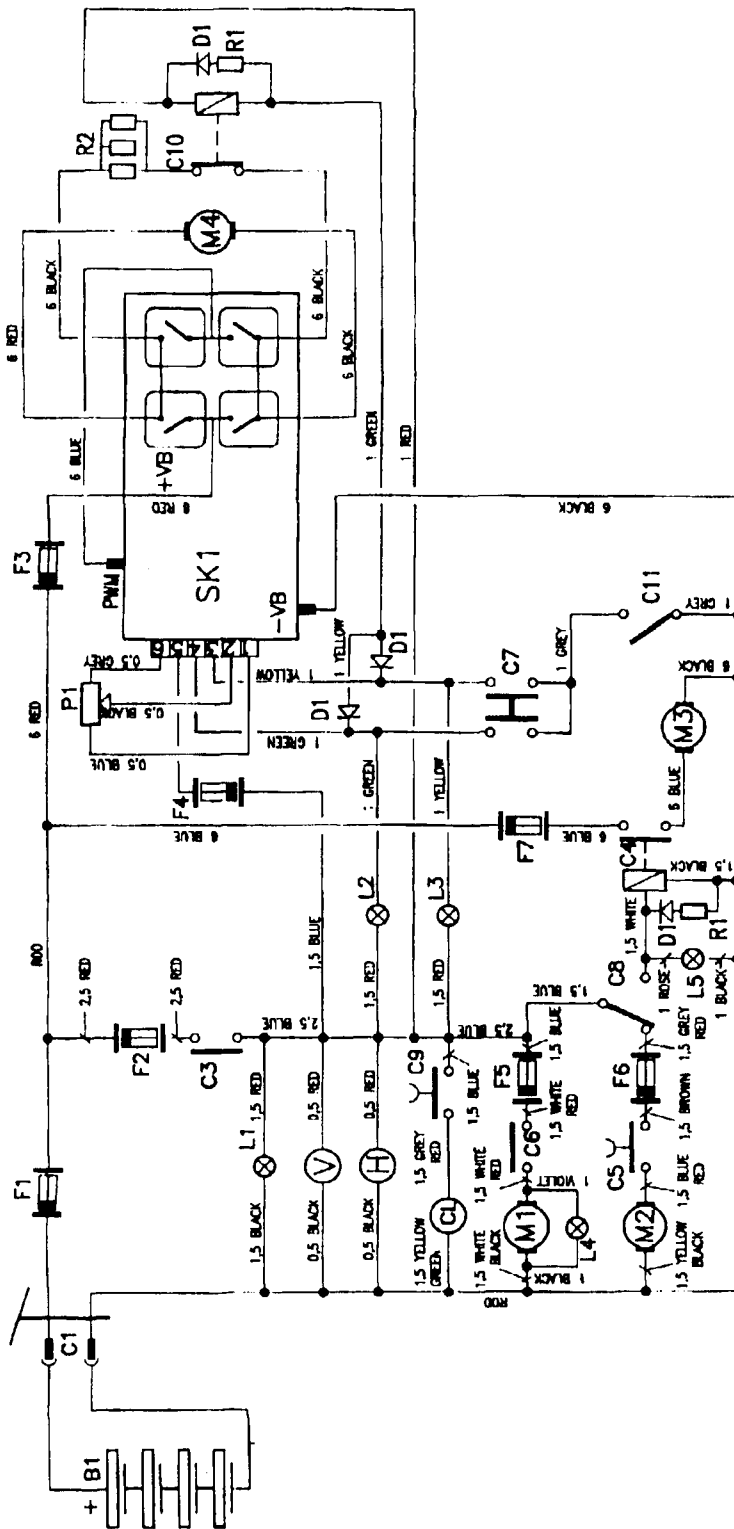


ILLUSTRATION "G" PARTS LIST

DET PART NO.	DESCRIPTION	QUANT
1	PG05.013 SWITCH, KEY OPERATION	1
2	PG06.03500 WARNING LIGHT--	1
3	PG06.03400 WARNING LIGHT--	4
4	PG02.09300 SWITCH--FWD/NEUT/REV CONTROL-	1
5	PG05.08300 PUSH BUTTON--	1
6	PG05.08200 PUSH BUTTON--	1
7	PG04.01700 HOUR METER--	1
8	PG04.01800 BATTERY POWER INDICATOR--	1
20	PF04.08700 PLATE--	1
21	PH02.063 COVER, PEDAL--	1
22	PG02.09200 POTENTIOMETER/SPEED CONTROL--	1
23	PG05.04900 MICROSWITCH, SPEED CONTROL--	1
24	PF03.31500 PEDAL/FOOT--	1
25	PF03.31400 LEVER--	1
26	PE08.09500 CLAMP--	1
27	PE04.07100 SPRING--	1
28	PV02.07400 SCR--5X20, HEX HD	1

DET PART NO.	DESCRIPTION	QUANT
29	PV02.10503 SCREW--M5X25	1
30	PV01.02703 SCR--3X25	1
31	PV09.003 WSHR--#5	1
32	PV13.018 NUT--#5, HEX, NYLOC	1
33	PV13.020 NUT--#8, NYLOC, HEX HD	1
34	PV09.005 WSHR--M8	1
35	PV09.003 WSHR--#5	1
36	PV13.018 NUT--#5, HEX, NYLOC	1
37	PV13.018 NUT--#5, HEX, NYLOC	1
38	PV09.003 WSHR--#5	1
39	PV02.07400 SCR--5X20, HEX HD	1
40	PE08.10500 CABLE--VAC SHUT-OFF	1
41	PG07.01400 CABLE GUIDE--	1
42	PF02.338 CLAMP, CABLE	1
43	PV02.003 SCR--6X16, HEX HD	1
44	PG05.03400 SWITCH, SPDT--BRUSH/BROOM	2

WIRING DIAGRAM



Wire Harness--P/N:PG13.08300

BACK-UP BEEPER KIT--
P/N:039537 ('93 MODELS
ONLY)

B1	24-vdc battery	D1	Diode 1M4007	L4	Side brush indicator
C1	Battery connector	F1	80 A fuse	L5	Main brush/vacuum indic.
C3	Key switch	F2	15 A fuse	M1	Side brush motor
C4	Relay M3	F3	50 A fuse	M2	Filter anahar motor
C5	Filter anahar button	F4	6.3 A rapid fuse	M3	Main brush/vacuum motor
C6	Side brush contact	F5	7.5 A fuse	M4	Drive motor
C7	Gear selector	F6	5 A fuse	P1	Drive potentiometer
C8	M1-M3 switching contact	F7	50 A fuse	R1	47 ohm resistance
C9	Hoover button	H	Hour meter	R2	2 ohm 50 W res.
C10	Break contact	L1	Live indicator	V	Voltmeter
C11	Peed micro	L2	Forward indicator		
D1	Hoover	L3	Reverse indicator		

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
Poor sweeping.	<ol style="list-style-type: none"> 1. Side brush may be jammed. 2. Hopper may be full. 3. Side brush doesn't turn. 4. Hopper may not be installed correctly. 5. Poor side brush pattern. 6. Flaps may be worn. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Empty. 3. Adjust or replace side brush belts. Reset circuit breakers. Adjust side brush micro switches. Repair loose wire connections. 4. Reinstall properly. 5. Adjust sweep pattern. 6. Repair or replace flaps.
Machine doesn't move.	<ol style="list-style-type: none"> 1. Circuit breaker may be tripped. 2. Battery unplugged. 	<ol style="list-style-type: none"> 1. Reset breaker in approximately one minute. 2. Plug in battery.
Machine moves slow or erratically.	<ol style="list-style-type: none"> 1. Battery charge may be low. 2. Brakes may be dragging. 3. Loose connection at foot pedal. 4. Overload of drive. 	<ol style="list-style-type: none"> 1. Charge batteries. 2. Adjust brakes. 3. Repair loose connection. 4. Place drive pedal in neutral and remove obstruction.

THE KENT LIMITED WARRANTY

Your Kent equipment which has been manufactured, tested and inspected in accordance with carefully specified engineering requirements, is warranted to be free from defects in material and workmanship. This warranty is, however, subject to the following qualifications, conditions, and limitations which are set forth to provide you and all users of the Kent equipment with information concerning the duration, extent, availability, and applicability of this Kent limited warranty, the procedure to be taken to obtain its performance, and other information concerning the Kent warranty policy.

The Kent Limited Warranty is extended to the original end user as follows:

Automatic scrubber vacs and battery operated burnishers 3 year parts replacement and 1 year service labor warranty (see instruction manual for battery guarantee). Battery chargers are guaranteed by charger manufacturer for a period of 1 year.

Replacement parts guaranteed for 90 days from date of installation against defects in material and workmanship.

The 10 year poly component replacement warranty with 1 year service labor extends for a period of ten (10) years from the date of the original purchase of the Kent equipment by the original purchaser. This warranty will not cover damage attributable to the following:

- (1) Improper, unreasonable or negligent use or abuse of the equipment.
- (2) Use of equipment with hot water or high temperature above 130 degrees Fahrenheit (54 degrees centigrade).
- (3) "Warping", "Creepage", or "Distortion" of part so long as the same does not interfere with normal operation.
- (4) Abrasions or punctures of the equipment.

The start date of the warranty coverage shall be the purchase date of the original end user or six months from the date the machine was shipped from the factory, whichever comes first.

PARTS OF KENT EQUIPMENT NOT COVERED BY WARRANTY

Certain parts of Kent equipment require replacement in the ordinary course of use due to normal wear by reason of their characteristics. These are normal wear items such as cords, gaskets, switches, bumpers, carbon brushes, handle grips, bags, hoses, bearings, etc.

EXCEPTIONS AND EXCLUSIONS FROM WARRANTY

This equipment is required to be used on electric current as indicated on the data plate. Otherwise damage, defects, malfunctions or other failures of the equipment arising from use on electric current not as indicated are excepted and excluded from this warranty. Defects, malfunctions, failure or damage of the equipment caused by improper, unreasonable or negligent use or abuse while in the possession of the purchaser are likewise excluded from this warranty. If repair is done on your equipment by anyone other than those designated as authorized to perform such work without first having obtained factory instructions, The Kent Company, at its sole option, may determine that this warranty will not apply and that reimbursement for such repair will not be made because of the failure to comply with such factory specified instructions.

PROCEDURE TO BE TAKEN TO OBTAIN PERFORMANCE OF WARRANTY REPAIR

To secure repair of the equipment or any warranted parts under this warranty, the following procedure should be taken. The inoperative equipment or warranted parts, together with satisfactory evidence of the purchase date, must be delivered, with shipping and delivery charges prepaid, to one of the following:

- (1) The dealer from whom purchased;
- (2) Any Kent distributor's service department in the United States;
- (3) Any Kent authorized service station in the United States.

If you are unable to locate any of the foregoing, you may write or otherwise communicate with The Kent Company for instructions before repair service is performed by anyone else. In such event, The Kent Company will provide either the location of a closely available Kent distributor service department or Kent authorized service station or other factory instructions. Upon compliance with the above procedure, all warranted defects will be repaired, at no additional charge or costs to the customer, and the repaired product returned to the customer, with all shipping and delivery charges prepaid. In following the procedures above set forth, PLEASE MAKE CERTAIN to state the Kent model, type and serial number as shown on the dataplate of the equipment.

REPLACEMENT

In the event of a defect, malfunction or failure of your Kent equipment or any warranted part to conform with this warranty, The Kent Company may, at its sole option and own expense, replace the equipment or any warranted part with another new identical or reasonably equivalent model or part in lieu of repairing the defect.

NO REFUND OF PURCHASE PRICE

The Kent Company will not, as a matter of its warranty policy, refund the customer's purchase price.

WARRANTY REGISTRATION CARD FOR YOUR KENT EQUIPMENT AND REQUEST FOR INFORMATION

Your Kent Company distributor from whom you purchased your equipment is responsible for the registration of your warranty with the factory. We ask that you cooperate with your distributor in supplying the necessary information on the warranty card so that we may better serve you. Any information or questions you may have concerning your Kent equipment or this warranty may likewise be secured from the factory. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

THE KENT COMPANY

P.O. BOX 1665 ELKHART, INDIANA 46515