



ScoutTM 28

Battery Sweeper

Model No.:
608730

Operator and Parts Manual



NOBLES
12875 RANSOM STREET
HOLLAND MI 49424 U.S.A.

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608794
Rev. 01 (06-00)

OPERATION

GENERAL INFORMATION

The purpose of this manual is to inform the operator of the basic rules, safety rules and criteria which must be observed when using, adjusting and maintaining the machine. The machine has been developed and manufactured to ensure an excellent performance and the utmost comfort and ease of operation in a variety of working conditions. Before delivery, the machine has been checked at the factory and by the dealer to make sure it is handed over to you in perfect working order: To maintain the machine in this condition and ensure problem free operation, it is essential to follow the routine maintenance instructions given in this manual.

When ordering replacement parts use the Parts Lists in this manual. Before ordering parts or supplies, be sure to have your machine model number and serial number handy. Parts and supplies may be ordered by phone or mail from any of the manufactures service centers or distributorsany of the manufacturers service centers or distributors.

This machine will provide excellent service. However, the best results will be obtained at minimum costs if:

- The machine is operated with reasonable care.
- The machine is maintained regularly - per the machine maintenance instructions provided.
- The machine is maintained with manufacturer supplied or equivalent parts.

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MACHINE DATA

Please fill out at time of installation for future reference.

Model No.- _____

Install. Date - _____

Serial No.- _____

Printed in U.S.A.


Nobles is a registered United States trademark of Tennant Company.

Scout is a United States trademark of Tennant Company.

SAFETY PRECAUTIONS

The machine, composed of a brush and a suction system, is to be used EXCLUSIVELY to clean dry surfaces. Any other use could cause damage to people or things and is therefore PROHIBITED.

The following safety alert symbols are used throughout this manual as indicated in their description.

 **WARNING: To warn of hazards or unsafe practices which could result in severe personal injury or death.**


FOR SAFETY: To identify actions which must be followed for safe operation of equipment.

The following information signals potentially dangerous conditions to the operator or equipment:

FOR SAFETY:

1. **Do not operate machine:**
 - Unless trained and authorized.
 - Unless operation manual is read and understood.
 - In flammable or explosive areas unless designed for use in those areas.
 - Without bag and/or filters in place.
2. **Before starting machine:**
 - Make sure all safety devices are in place and operate properly.
3. **When using machine:**
 - Do not pick up burning or smoking debris, such as cigarettes, matches or hot ashes.
 - Go slow on inclines and slippery surfaces.
 - Use care when reversing machine.
 - Always follow safety and traffic rules.
 - Report machine damage or faulty operation immediately.
 - Do not soak up liquids.
 - Do not leave machine unattended.
4. **Before leaving or servicing machine:**
 - Stop on level surface.
 - Turn off machine.
 - Remove key.

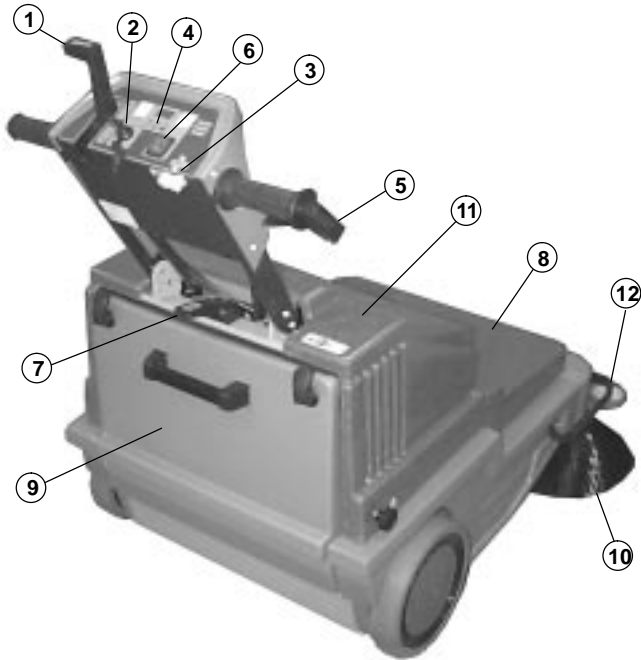
5. **When servicing machine:**
 - Avoid moving parts. Do not wear loose jackets, shirts, or sleeves.
 - Block machine tires before jacking machine up.
 - Use hoist or jack of adequate capacity to lift machine.
 - Disconnect battery connections before working on machine.
 - Wear protective gloves when handling batteries or battery cables.
 - Avoid contact with battery acid.
 - Use manufacturer supplied or approved replacement parts.

 **WARNING: Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep battery compartment open when charging.**

 **WARNING: Flammable materials or reactive metals can cause explosion or fire. Do not pick up.**

OPERATION

MACHINE CONTROLS & COMPONENTS



- 1. Side brush control lever:** switch the lever ON and the side brush will move to position and start spinning. To stop the brush, switch the lever to OFF.
- 2. Key switch:** this switch starts and stops all the machine's functions.
- 3. Battery charger socket:** by plugging a 12V battery charger in this socket you will recharge the battery (see the section on battery recharging).
- 4. Charge indicator light:** this light indicates the state of the battery during operation.
- 5. Traction lever:** by squeezing this lever, the machine will start moving forward.
- 6. Vacuum switch:** Starts and stops vacuum suction.
- 7. Filter shaker lever:** this lever operates the filter shaker to clean the filter (see the section filter maintenance).
- 8. Front waste bin:** collects debris.
- 9. Rear waste bin:** collects dust.
- 10. Side brush:** this brush enables machine to clean close to walls.
- 11. Upper Cover:** Covers internal components.
- 12. Wall Bumpers:** Protects wall from damage.

UNCRATING MACHINE

Unpack the machine with the utmost care; avoid carrying out any operation that could damage it. Once it has been unpacked, check whether it is damaged. If you notice that it is not in correct working order, DO NOT use it and inform your dealer.

For packaging and transport purposes, some parts and accessories are supplied, disconnected from the machine. To assemble them, carefully follow the instructions given in the relevant sections.

Contents of the package:

- 1 – Machine
- 1 – Side brush
- 1 – Knob for opening the air suction valve
- 2 – Ignition keys

In the case in which one of the above mentioned parts is missing, please inform your dealer right away.

ATTENTION: Make sure to keep the packaging materials (bags, carton pallets, hooks, etc.) out of the reach of children.

ATTENTION: For security reason during the transport, the ignition keys have been fixed to the handle.

PREPARING MACHINE FOR OPERATION

1. Mounting the side brush (Figure 1).
 - a. Switch the brush lift lever to OFF.
 - b. Remove the screw from the side brush drive shaft.
 - c. Fit the brush on the shaft.
 - d. Screw on the screw and washer.

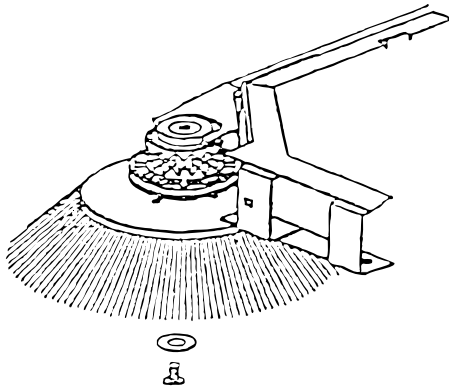


FIG. 1.

2. Mounting the handlebar (Figure 2).
 - a. Loosen the handlebar fixing screws.
 - b. Position the handlebar in work position.
 - c. Tighten the handlebar fixing screws.

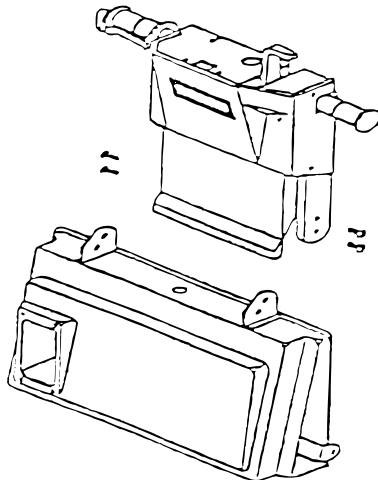


FIG. 2.

3. Mount bumper.
 - a. Remove buttonhead screws from the front right corner of the cowling.
 - b. Put bumper in place, around the corner with the wheel down.
 - c. Return the buttonhead screws to their original position.
 - d. Tighten with the 5mm Hex Driver (wrench).
4. Preparing the battery.

ATTENTION: The battery must be prepared before it is mounted on the machine. This simple precaution will prevent the machine from being damaged by the electrolytic liquid of the battery.

⚠ WARNING: Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep battery compartment open when charging.

5. Mounting the upper cover.

NOTE: Prepare the battery before proceeding the assembling of the cover. Once you have done this:

- a. Remove the upper cover attachment knobs.
- b. Position the upper cover on the machine.
- c. Tighten the upper cover attachment knobs.
- d. Fit the knob regulating the air inlet.

MACHINE OPERATION

FOR SAFETY: Do not operate machine unless trained and authorized.

FOR SAFETY: When using machine, do not soak up liquids.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine and remove key.

To start the machine carry out the following operations:

1. Make sure the side brush is OFF.
2. Turn the key switch ON. Wait 10 seconds and check the charge indicator light, to assess whether the battery is fully charged. If it is not, proceed to recharge it.
3. Pull the traction lever, to start cleaning.
4. If necessary, turn ON side brush by pushing and moving side brush control lever backwards. At the end of your work remember to turn it OFF. Switch off the machine and remove the key from the control panel.

NOTE: An automatic shut-off device will prevent you from using the machine beyond a certain battery charge limit. When this limit is reached, the machine will stop and the battery must be recharged.

5. After you have become conversant with the operations required to operate the machine, you can actually start using the sweeper to obtain the best results, it is always wise to take a few precautions while operating. These will help you to get the best results from your machine and reduce the chance of possible machine damage.

OPERATION

In particular:

⚠ WARNING: Flammable materials or reactive metals can cause explosion or fire. Do not pick up.

- Do not use the machine to clean up wires, ropes or straps or soak up water and other liquids.
- When using the machine on light but bulky material (sheets of paper, leaves, etc.), raise the front part of the machine by pressing down the handlebar so that the machine can tackle the rubbish.
- Operate the filter shaker at the end of your work (see the “Panel Filter section”).
- Make sure the center brush is correctly regulated (see the section on adjusting the center brush).

CLEANING THE WASTE BINS

FOR SAFETY: Before leaving or servicing machine, stop on level surface and turn off machine.

ATTENTION. Waste must be disposed of strictly in accordance to the law.

1. Cleaning the front waste bin.
 - a. Lift and turn the two bin locks.
 - b. Grasp the handle/s and remove the bin by pulling it upwards.
 - c. Empty the bin.
 - d. Put the bin back in the machine from the top.
 - e. Turn and lower the two locks.
2. Cleaning the rear waste bin.
 - a. Lift and turn the two bin locks.
 - b. Grasp the handle and pull the bin out of the machine.
 - c. Empty the bin.
 - d. Fit the bin back into the machine.
 - e. Turn and lower the two locks.

RECHARGING BATTERY

⚠ WARNING: Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep battery compartment open when charging.

ATTENTION: Remember that the area where these operations are done should be well ventilated.

With machine turned OFF, perform the following steps:

1. Take off the battery cell covers and add distilled water if needed. Water level should be 1/4" above lead plates.

FOR SAFETY: When servicing machine, wear protective gloves when handling batteries or battery cables. Avoid contact with battery acid.

2. Connect the 12V battery charger to the charging plug.

The length of battery charge will depend on the periodic maintenance and the level discharged reached. Don't discharge the battery more than the limit signaled on indicator light. If the maximum discharge limit is reached, the machine will stop and should be recharged in order to continue cleaning.

Battery Charge Indicator:

Green Light – Battery completely charged.

Yellow Light – Battery near discharged, recharge battery as soon as possible.

Red Light – Battery discharged, don't run machine.

The battery should provide approximately 2.5 hours of run time on a full charge. If the run time is less than this, check the following:

- Brushes are running freely.
- Battery is completely charged before starting.

MACHINE MAINTENANCE

All service performed should be completed by persons who understand the machine or an Authorized Service Center. It is recommended that only authorized repair parts be used for service.

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine and remove key.

MAINTENANCE CHECKS

1. Check battery level at delivery and every 10 hours of operation.
2. Check that all is operating well at delivery and every 100 hours of operation.
3. Check periodically that waste bins have been emptied.
4. Check brush condition every 50 hours of operation. Adjust or replace if necessary.
5. Check belt tension every 50 hours of operation. Adjust or replace if necessary.
6. Check screws and bolts for tightness every 100 hours of operation.
7. Check condition of motor carbon brushes every 200 hours of operation. Replace if worn.

BATTERY MAINTENANCE

1. The battery should always be kept clean and dry.
2. Check that the battery and posts are constantly clean of corrosion.
3. Every 10 hours of operation take off battery cell covers and check electrolyte level, refilling them distilled water if necessary. Fill level should be no more than 1/4" above lead plates.

ATTENTION: Remember that the area where these operations are done should be well ventilated.

⚠ WARNING: Batteries emit hydrogen gas. Explosion or fire can result. Keep sparks and open flame away. Keep battery compartment open when charging.

NOTE: In the event the battery must be scrapped, please remember that batteries are not common waste materials. They must be disposed of in accordance with the relevant laws.

FILTER MAINTENANCE

FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine and remove key.

The filter is one of the machines main components. It is essential for the best results from your machine. If you notice that dust forms when the machine is at work, check the filter by performing the following steps:

1. Press and release the filter shaker lever. The lever operates a rod that will unclog the filter. Repeat this operation 5 or 6 times (Figure 3).
2. Apart from the filter shaker, it is advisable every now and again to remove the machine's filter and clean it out with a blast of air or a vacuum cleaner. For this purpose, the filter is removed as follows:
 - a. Unlatch and turn rear bin latches inward.
 - b. Remove the rear bin.

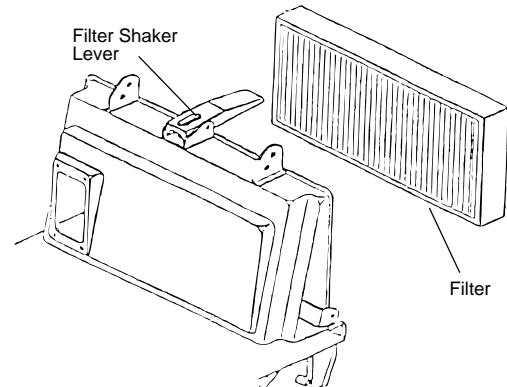


FIG. 3.

- c. Unlatch filter lock latches, turn half moon retainers away from filter.
- d. Remove the filter while pressing the filter shaker lever (Figure 3).
- e. To remount the filter, carry out the operation in reverse order.

NOTE: The filter features an arrow that shows you the direction in which it should be fitted.

DUSTY ENVIRONMENTS: If you are using the machine in a particularly dusty environment (cement factories, sawmills, marble processing factories), it is wise to use the filter shaker more frequently.

3. Every 200 hours of work, the filter must be replaced. Follow the operations listed in step 2. After the filter has been remounted, make sure the gasket and filter are dust tight.

ATTENTION: Waste must be disposed of strictly in accordance to the law.

OPERATION

REPLACING AND ADJUSTING THE SIDE BRUSH

FOR SAFETY: When servicing machine, disconnect battery connections before working on machine.

To Replace Side Brush:

1. Lift the front part of the machine.
2. Slacken the brush fixing screw and remove the brush.
3. Replace the brush and secure the new one in place with the screw and its washer.

To Adjust Side Brush:

1. The side brush is adjusted by loosening two screws (Figure 4).
2. Position the brush using screw slots to adjust required height. Once you have positioned it, tighten the two screws.

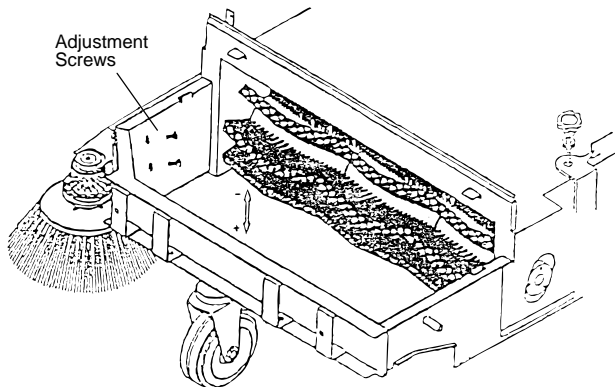


FIG. 4.

REPLACING AND ADJUSTING THE MAIN BRUSH

FOR SAFETY: When servicing machine, disconnect battery connections before working on machine.

To Replace Main Brush:

1. Remove the front waste bin and slacken the four fixing screws to remove the brush.
2. When mounting a new brush, pay attention to the direction in which the brush will spin; it must direct dirt toward the center of the machine.

To Adjust Main Brush Height:

1. Remove the upper cover.
2. Loosen the knurled lock nut below the adjustment handle and turn handle in the direction desired (counterclockwise to increase pressure). (Figure 5)
3. If brush is properly adjusted, bristles should bend slightly against the cleaning surface (1/4" penetration). Retighten knurled lock nut after achieving proper adjustment.



FIG. 5.

REPLACING AND ADJUSTING THE BELTS

FOR SAFETY: When servicing machine, disconnect battery connections before working on machine.

To prepare the machine for belt replacement:

1. Remove the upper cover and the front waste bin.
2. To replace or adjust drive belt: Remove the left wheel, bumper, side guard and belt pulley cover. To replace side brush belt: Remove the right wheel, bumper and side guard.
3. With the machine dismantled in such a manner, proceed to the following replacement instructions.

To Replace the main drive belt:

1. Remove belt from the pulleys.
2. Replace the belt. Position belt to the right side of the belt tightener roller (Figure 6).

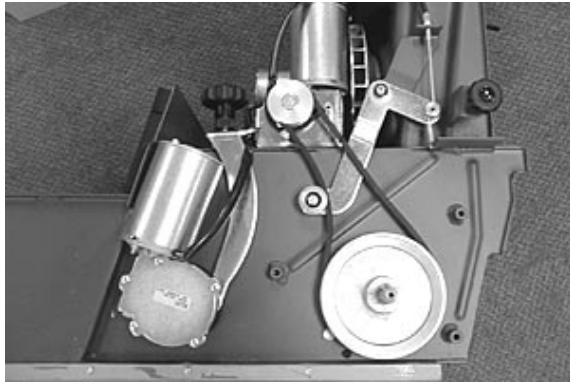


FIG. 6.

To Replace the side brush belt:

1. Remove belt from main pulley. Remove fixing pin and let the hooks of side arm come out of the idle toothed ring (Figure 7).
2. Remove belt from machine.
3. Replace the belt. Hook side arm to the idle toothed ring. Tighten fixing pin.
4. Place belt on main pulley.

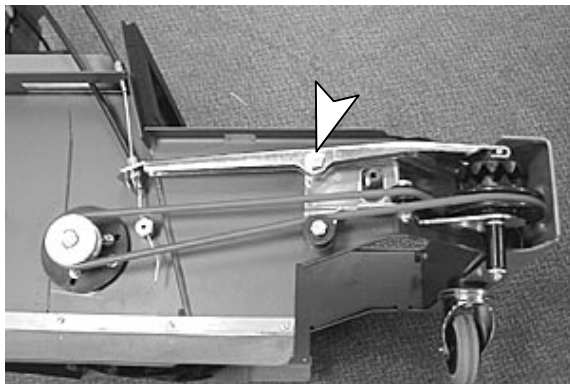


FIG. 7.

REPLACING THE FLAPS

FOR SAFETY: When servicing machine, disconnect battery connections before working on machine.

To Replace Outer side flaps 1 (Figure 8):

1. Remove the rear wheels and the appropriate side guards.
2. Loosen the screws that secure the flaps to frame 2 and replace the old flaps with new ones.

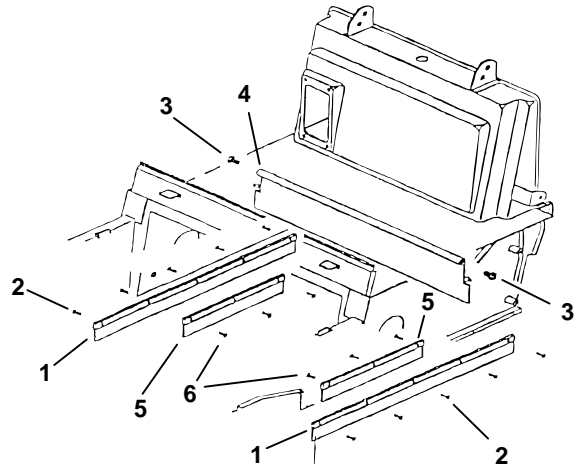


FIG. 8.

To Replace Inner side flaps 5 (Figure 8):

1. Lift the front part of the machine and loosen screws 6 that secure the flaps to the frame.
2. Replace the old flaps with new ones.

To Replace Center flaps (Figure 8):

1. Remove the rear wheels and the appropriate side guards.
2. Remove the rear door.
3. Loosen the two flap fixing pins 3, located on the sides of the frame.
4. Grasp flap 4 and pull it outwards.
5. Remount the flaps in the same direction in which they are removed.
6. Insert the two references in their holes.
7. Tighten the two fixing pins.

OPERATION

REPLACING THE TRACTION CABLE

FOR SAFETY: When servicing machine, disconnect battery connections before working on machine.

To remove the traction cable:

1. Remove the upper cover of the machine.
2. Loosen the security dowel located on the cable fixing pin.
3. Pull the cable out of the fixing pin and remove the adjusting screw mounted on the handle.
4. Press the handle and pull the cable out of its sheath.

To remount the traction cable:

1. Fit one end of the cable into the adjustment screw of the handle (i.e. the end without the blocking ball).
2. Insert the cable into its sheath.
3. Hook the blocking ball to the handle.
4. Slot the cable through the turned adjustment screw secured to the machine frame and then through the fixing pin.
5. Tighten the security dowel. The position of the cable is adjusted by acting on the two adjustment screws.

To Replace the side brush lifting cable:

1. Remove the upper cover and the front waste bin of the machine.
2. Remove the front bumper, the right wheel and the right hand side guard.
3. Loosen the cable clamp.
4. Loosen the security dowel on the fixing pin.
5. Remove the handle from the support and open it up.
6. Pull the cable out of the two sheaths.

To remount the side brush lifting cable:

1. Put the cable inside the handle.
2. Close up the handle and fix it to its support.
3. Insert the cables into their sheaths.
4. Secure one end of the cables in place with the clamp and the other end with the fixing pin. The position of the cable is adjusted by acting on the two adjustment screws.

REPLACING THE FAN MOTOR

To replace the fan motor:


1. Remove the upper cover.
2. Disconnect the battery cables and take the battery out of the machine.
3. Disconnect the power supply cords of the motor from the plug.
4. Remove the stop for the cable holder from the motor.
5. Loosen the four motor fixing screws. Replace the motor by carrying out the above operations in reverse order:

NOTE: Make sure the motor is mounted level with the fan.

ATTENTION: When connecting the motor respect the polarity.

RECOMMENDED STOCK ITEMS

Refer to the Parts List section for recommended stock items. Stock Items are clearly identified with a bullet preceding the parts description. See example below:



Ref.	Part No.	Description	Qty.
1	201183	ASM_STANDPIPE	1
2	166513	•FLCAF, SHUROFF	1
3	258187	•NPPLE	1
4	101714	•GASSET	1
5	218248	NUT, FLANGED	1

TROUBLE SHOOTING GUIDE

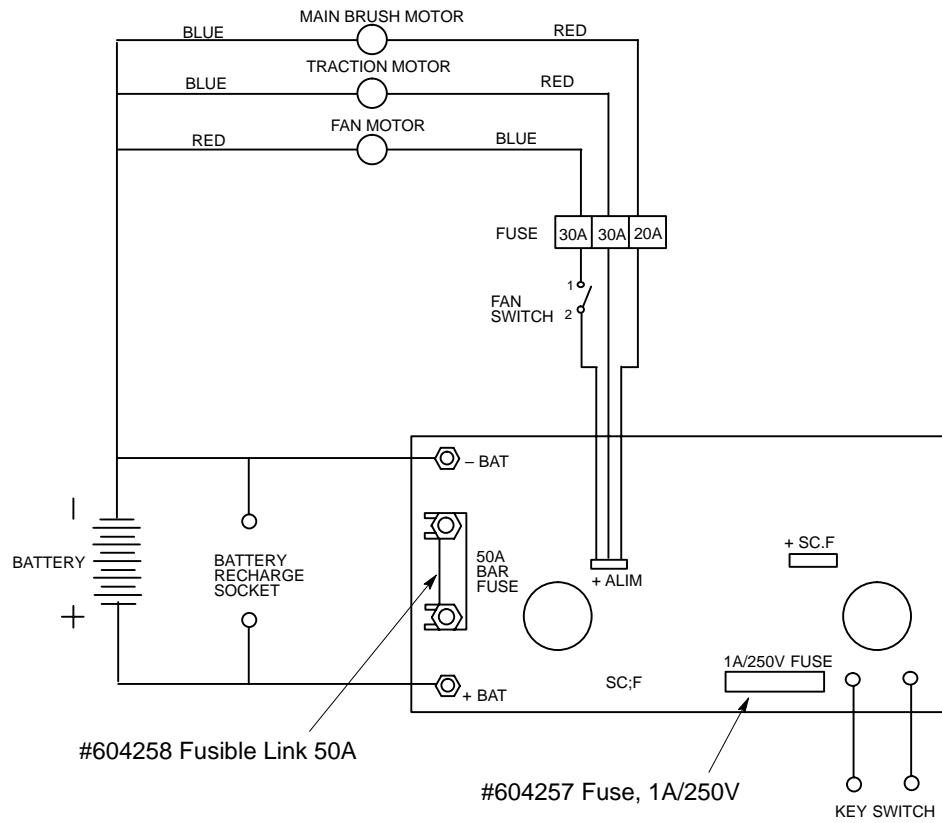
PROBLEM	CAUSE	SOLUTION
The machine does not move forward.	Drive belt is broken.	Replace belt.
The main brush is not spinning.	The motor has burnt out.	Replace motor.
	A wire is detached.	Repair connection.
The side brush is not spinning.	The belt is broken.	Replace belt.
The battery does not stay charged.	The liquid is insufficient.	Add liquid.
	The terminal is loose.	Tighten terminal.
Dust comes out of the fan.	The filter is broken.	Replace filter.
	The filter is in the wrong position.	Position correctly.
	The gaskets are worn.	Replace gasket.
The brushes wear out too quickly.	The brushes are too low.	Adjust brush height.
Dust forms during operation.	The flaps are worn.	Replace flaps.
	Clogged filter.	Cleaning required.
The suction motor does not work.	The motor has burnt out.	Replace motor.
	The wire is disconnected.	Repair connection.
The machine does not turn on.	The battery terminals are disconnected.	Reconnect terminals.
	The battery is discharged.	Recharge battery.

OPERATION

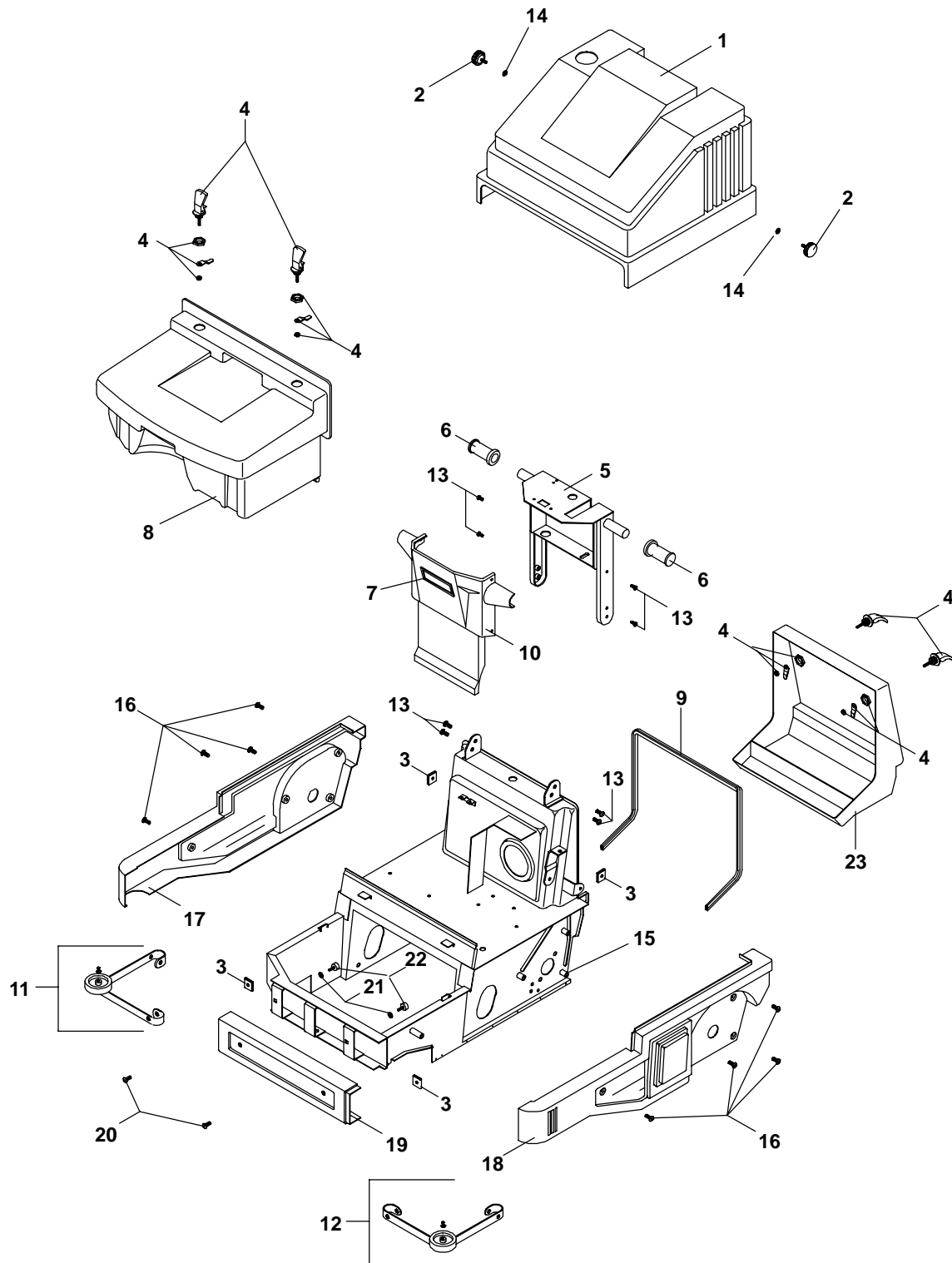
SPECIFICATIONS

Model:	SCOUT™ 28
MAXIMUM WIDTH WITH SIDE BRUSH	810 mm (32 in)
MAXIMUM LENGTH WITH SIDE BRUSH	1160 mm (45.6 in)
MAXIMUM HEIGHT WITH SIDE BRUSH	1000 mm (39.3 in)
ACTUAL CLEANING WIDTH (MAIN BRUSH)	520 mm (20.5 in)
WEIGHT	88Kg (194 lbs)
WEIGHT OF BATTERY	24.9 Kg (55 lbs)
CAPACITY OF FRONT WASTE BIN	32L (1.1 cu.ft)
BATTERY RUN TIME	2.5 h
FILTERING SURFACE	690 mm (27 in)
PRODUCTIVITY	26,900 sq. ft./2500m ² per hour
INSTALLED POWER	360W/28A
BATTERY TYPE	12V, 105A
NOISE LEVEL AT OPERATOR'S EAR	77.2 dB(A)
VIBRATIONS	2,5 m/Sec ²

12V ELECTRICAL DIAGRAM



CHASSIS GROUP



CHASSIS GROUP

Ref.	Part No.	Description	Qty.
1	603346	Cover, Upper Blue	1
2	603348	●Screw, Thumb	2
3	604214	Nut M 8	4
4	604215	Locking	4
5	604216	Handgrip painted	1
6	604217	●Rubber handle cover Ø 24/24	2
7	608186	Decal, Nobles Logo	1
8	603347	Hopper, Blue	1
9	604221	●Reinforced gasket	1.5 Mt
10	604218	Grey cable casing for the handle	1
11	604627	Wallbumper, right complete	1
12	610752	Wallbumper, left complete	1

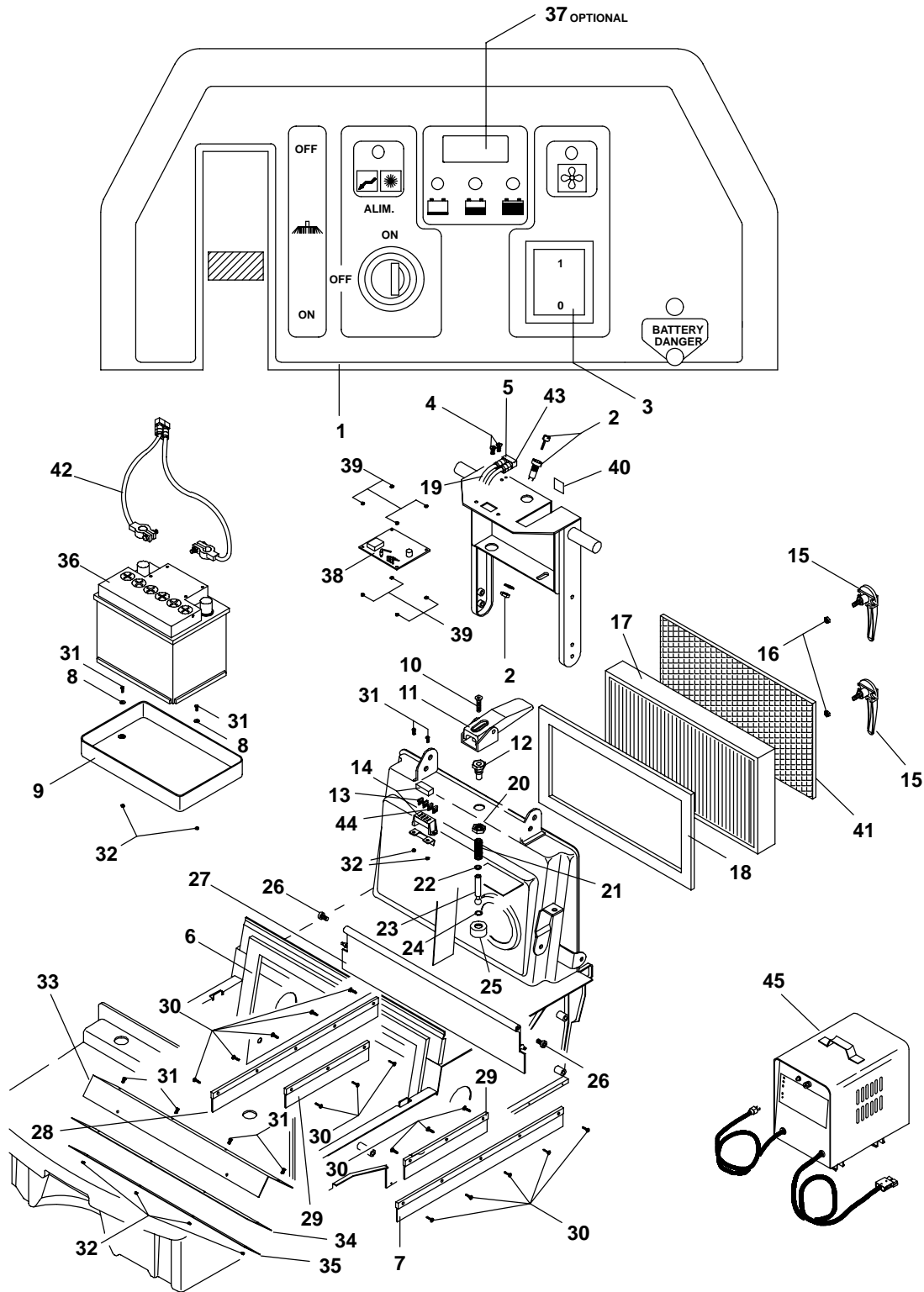
Ref.	Part No.	Description	Qty.
13	603349	Screw, handle bar	8
14	140028	Washer 8x17	2
15	604223	Frame	1
16	604224	Screw 8x10	8
17	603343	Cover, rightside	1
18	603344	Cover, leftside	1
19	603345	Cover, front	1
20	604225	Screw 8x16	2
21	604226	Nut M 6	2
22	604227	Foot 20X9 M6X18	2
23	604228	Gray back drawer	1

▽ ASSEMBLY

▲ INCLUDED IN ASSEMBLY

● RECOMMENDED STOCK ITEMS

ELECTRICAL/FILTER GROUP



ELECTRICAL/FILTER GROUP

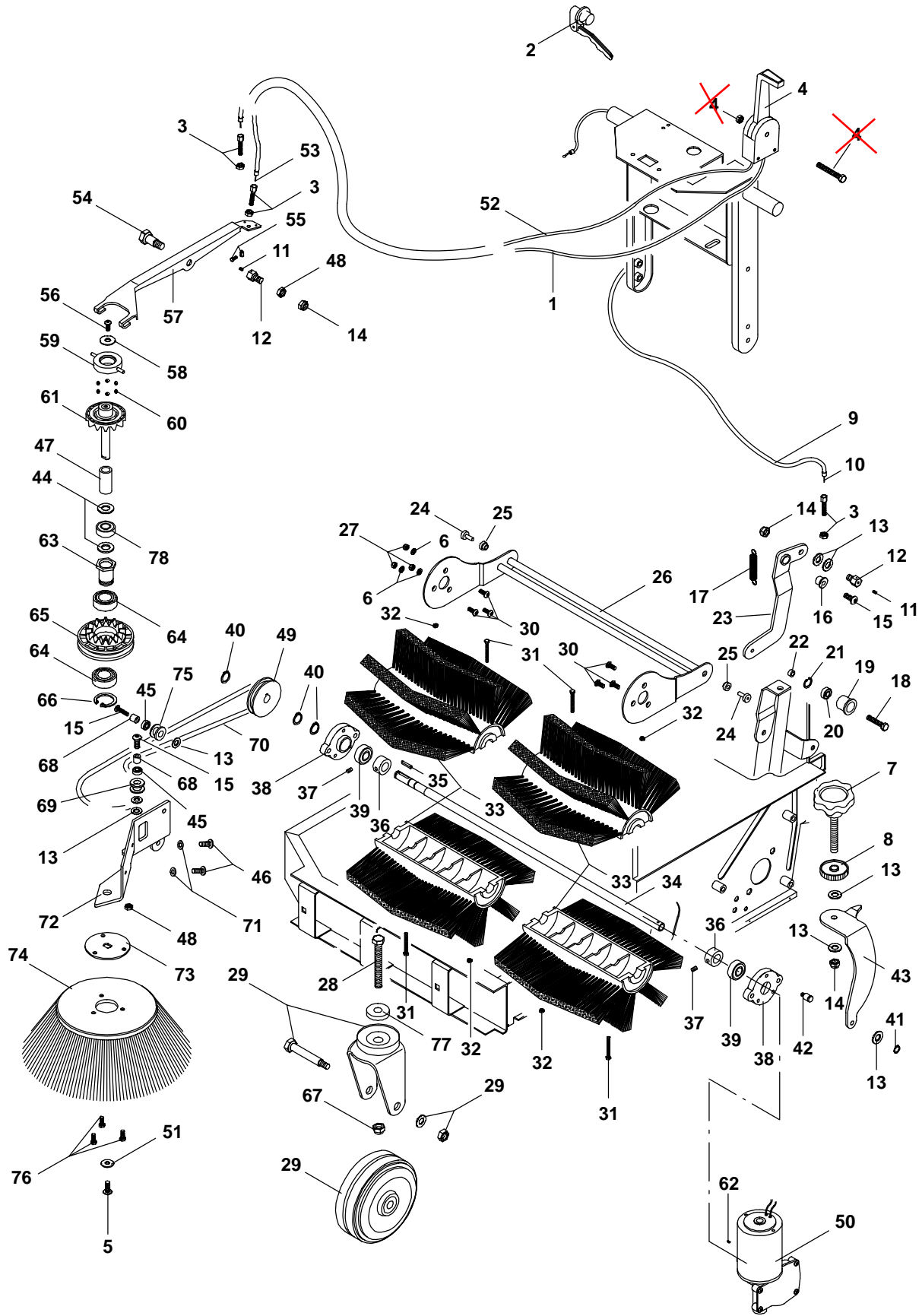
Ref.	Part No.	Description	Qty.
1	604183	Dashboard's plate	1
2	603360	Key switch	1
	606197	●Key, replacement	1
3	604184	Bipolar switch	1
4	604185	Screw 5x20	2
5	600012000	Red batt. charger connector	1
6	604187	●Adhesive kit for front drawer	1
7	604188	●Left side flap	1
8	604189	Washer 5x10	2
9	604190	Battery container	1
10	604191	Screw 6x25	1
11	604192	Complete filtershaker's lever	1
12	604193	Filtershaker's rail	1
13	603358	●Fuse 30A	3
14	604194	Fuse box + cover	1
15	610753	Unlocking filter handle	2
16	604214	Nut M8	2
17	607586	●Filter	1
18	603359	●Gasket, Filter	1
19	604197	Electrical installation	1
20	604198	Nut M18	1
21	604199	Filtershaker' spring	1
22	604200	OR 106 Gasket	1
23	604201	Pin	1

Ref.	Part No.	Description	Qty.
24	604202	Inner snap ring Ø 16	1
25	604203	Articulated bar	1
26	604204	Screw 10x16	2
27	604205	●Backside flap	1
28	604206	●Right side flap	1
29	604207	●Inner flap	2
30	604208	Screw 3.5x9.5	16
31	604209	Screw 4x16	8
32	604210	Nut M4	8
33	603361	Clamp, front guard	1
34	603362	●Guard, front rubber	1
35	603363	●Skirt, hopper	1
36	578426	12V 80 Ah Battery	1
37	604212	Hourmeter LCD	1
38	603342	Circuit board, main 12V Fuses, See Below	1
39	604213	Nut M 5	8
40	603386	Decal 12V	1
41	609971	●Pre-filter kit	1
42	610754	●Connecting battery cable	1
43	600013000	Black batt. charger connector	1
44	130059	Fuse 20A central brush	1
45	609960	Charger, 120V	1

● RECOMMENDED STOCK ITEMS

Main Circuit Board Fuses:
#604258 Fusible Link 50A
#604257 Fuse, 1A/250V

BRUSH GROUP



BRUSH GROUP

612634
612635

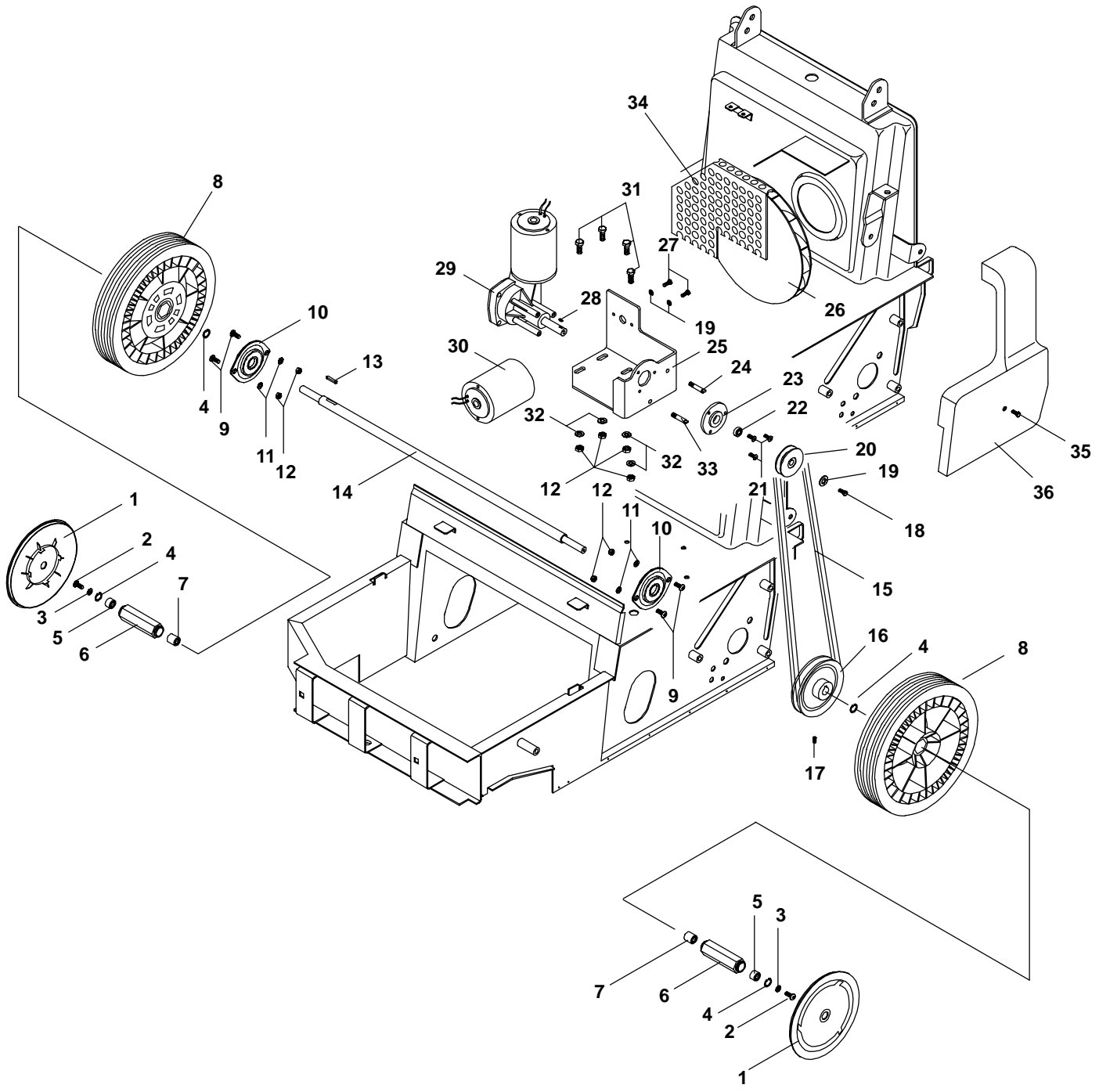
Ref.	Part No.	Description	Qty.
1	604104	Side brush sheathing	1
2	603351	Handle, Drive	1
3	604105	Turned adjuster Ø 7	3
4	603350	Lever, sidebrush drive	1
5	140272	Screw 6x16	1
6	604107	Washer 6x12	6
7	604108	Handwheel, Ø 60 12x67	1
8	604109	Knurled ring nut, Ø40 M12	1
9	604110	Drive cable sheath	1
10	604111	Drive cable	1
11	604112	Dowel 5x6	2
12	604113	Wire fixing screw	2
13	604114	Washer 8x17	7
14	604115	Block nut M 8	3
15	604116	Screw 8x25	3
16	604117	Belt tightener lever's b.	1
17	604118	Traction spring	1
18	604119	Fixing screw belt tightener roller	1
19	604120	Belt tightener roll h15	1
20	604121	Bearing 608 2RS	1
21	604122	Inner snap ring Ø 22	1
22	604123	Spacer	1
23	604124	Belt tightener bracket	1
24	604125	Pin for rocker	2
25	604126	Rocker bushing	2
26	604127	Rocker	1
27	604128	Block nut M 6	6
28	604129	Screw 12x40	1
29	604130	Rotary support wheel Ø100	1
30	604139	Screw 6x20	6
31	604140	Screw 5x70	4
32	604141	Nut M5	4
33	604302	●Brush, Main (std)	1
	604624	●Brush, Main, White Stiff (opt)	1
	604625	●Brush, Main, Brass Bristle (opt)	1
34	604142	Brush shaft	1
35	604143	Key 5X5X15	1
36	604144	Spacer brush shaft	2
37	604145	Dowel 6x5	2
38	604146	Ø80 Bearing support	2
39	604147	Bearing 6202 2RS	2

Ref.	Part No.	Description	Qty.
40	604148	Outer snap ring Ø 15	3
41	604149	Outer snap ring Ø 12	1
42	604150	Brush adjusting fixing pivot	1
43	604151	Main brush adjustment bracket	1
44	604152	Side arm's felt washer	2
45	604153	Bearing HK 1012	2
46	604154	Screw 8x10	2
47	604155	Side brush shaft spacer	1
48	604156	Nut M8 612620	2
49	604157	Pulley	1
50	604158	Gearmotor, Ø77	1
51	604159	Washer 6x24	1
52	603353	Casing, Side brush cable 9001113	1
53	603352	Cable, Lift side brush	1
54	604160	Pin 17x34	1
55	604161	Clamp Ø7	1
56	604162	Screw 8x22	1
57	604163	Side brush lifting lever	1
58	604164	Washer 8x32	1
59	604165	Ring for the side brush bearing	1
60	604166	Balls 11/32"	6
61	604167	Side brush mov. toothed ring	1
62	604168	Key 3X3,7 604103	1
63	604169	Bushing for bearings	1
64	604170	Bearing 6005 2RS	2
65	604171	Idle toothed ring	1
66	604172	Outer snap ring Ø 25	1
67	604173	Block nut M 12	1
68	604174	Spacer	2
69	604175	Pulley Ø 27X15	1
70	603336	●Belt, brush side	1
71	604176	Washer 8x24	2
72	604177	Side brush support	1
73	604178	Side brush dragging flange	1
74	603337	●Side brush (std)	1
	604626	●Side brush, Stiff (opt)	1
75	604179	Pulley Ø 30X1	1
76	604180	Screw 6x10	3
77	604181	Spacer	1
78	604082	Bearing HK 1412	1

● RECOMMENDED STOCK ITEMS

PARTS LIST

DRIVE GROUP



DRIVE GROUP

Ref.	Part No.	Description	Qty.
1	603356	Cover, Wheel	2
2	604077	Screw 6x10	2
3	604078	Washer 6x24	2
4	604079	Outer snap ring Ø 28	4
5	604080	Bearing HFL 1426	2
6	604081	Exagonal bushing	2
7	604082	Bearing HK 1412	2
8	604083	Wheel Ø 250x55	2
9	604084	Screw 6x16	4
10	604085	Support SBPFL 203	2
11	604086	Washer 6x12	4
12	604087	Block nut M 6	8
13	604088	Key 5x5x25	1
14	604089	Drive shaft	1
15	603357	●Belt, Drive	1
16	604090	Pulley Ø 140	1
17	604091	Dowel 6x10	1
18	604092	Screw 4x12	1

Ref.	Part No.	Description	Qty.
19	604093	Washer 5x20	3
20	604094	Pulley Ø 55	1
21	604095	Screw 6x20	3
22	604096	Bearing 6000 2RS	1
23	604097	Bearing support	1
24	604098	Belt support pin	1
25	604099	Motors support	1
26	603354	Fan	1
27	604100	Screw 5x16	2
28	604103	Key 3x3.7	1
29	603338	Motor, main brush	1
30	603340	Motor, Fan	1
31	604101	Screw 6x16	4
32	604102	Washer 6x18	4
33	606517	Pin, pulley guard	1
34	606427	Fan protection grid	1
35	200070436	Screw 6x10	1
36	606428	Air conveyor	1

● RECOMMENDED STOCK ITEMS