



Typhoon™ 16B

Wet/Dry Battery Vacuum

Model No.:
608817
608818 - PAC

Operator and Parts Manual



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

CUSTOMER SERVICE: 1-800-365-6625
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608819
Rev. 00 (09-99)

OPERATION

This manual is furnished with each new machine. It provides necessary operation and maintenance instructions and an illustrated parts list.

Read this manual completely and understand the machine before operating or servicing it.

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 Authorized Service Center or Distributor.

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 maintenance instructions provided.
- The machine is maintained with manufacturer's supplied or equivalent parts.

MACHINE DATA

Please fill out at time of installation for future reference.

Model No.- _____

Install. Date - _____

Serial No.- _____

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Typhoon is a United States trademark of Tennant Company.

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SAFETY PRECAUTIONS

This machine is intended for commercial use. It is suited to pick up water or dry debris in an indoor environment and is not constructed for any other use.

All operators must read, understand and practice the following safety precautions:

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 operator manual is read and understood.
 - In flammable or explosive areas unless designed for use in those areas.
 - If not in proper operating condition.
 - Without bag and/or filters in place.
2. **Before operating 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.
 - Report machine damage or faulty operation immediately.
4. **Before leaving or servicing machine:**
 - Stop on level surface.
 - Turn off machine.

5. When servicing machine:

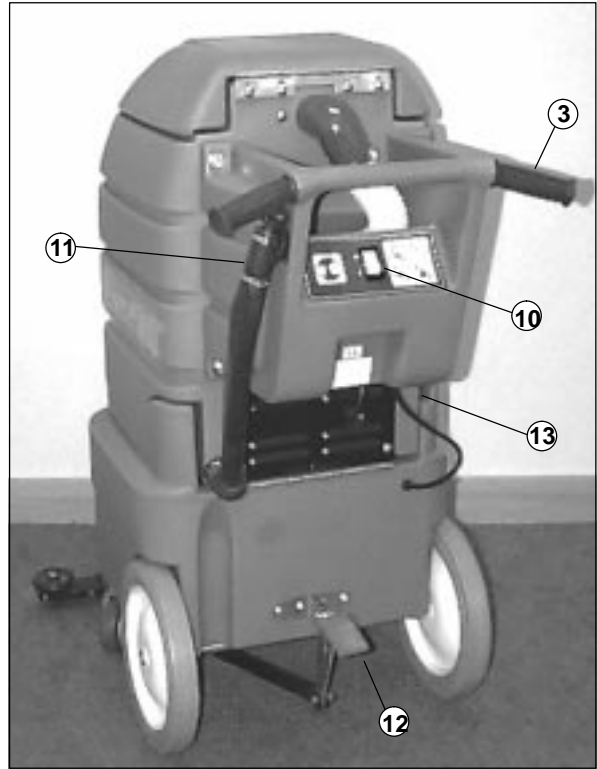
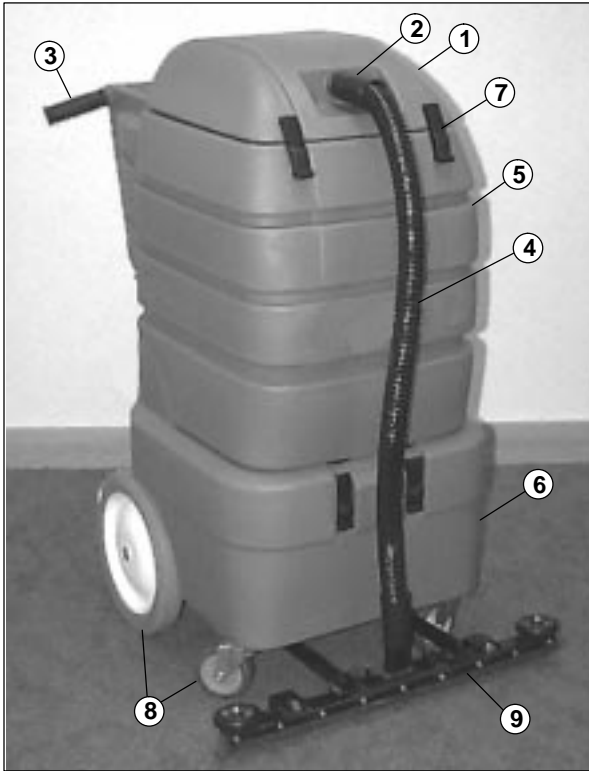
- Disconnect battery connections before working on machine.
- Wear protective gloves when handling batteries or battery cables.
- Avoid contact with battery acid.
- Use manufacturer supplied or approved replacement parts.

 **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 COMPONENTS

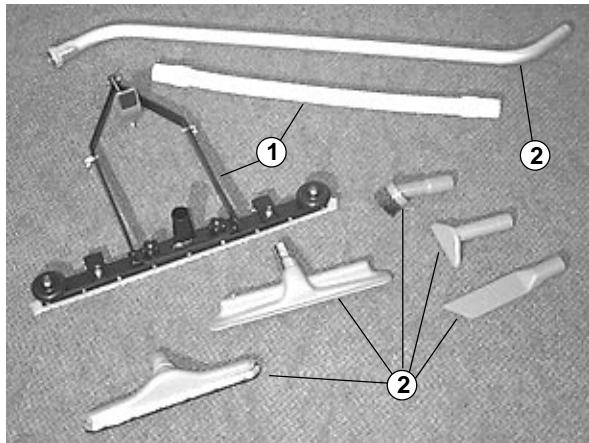


1. Bag Compartment Cover
2. Vacuum Hose Snout
3. Control Grips
4. Squeegee Kit Vacuum Hose (optional)
5. Vacuum Bag Compartment/
Recovery Tank
6. Battery Compartment

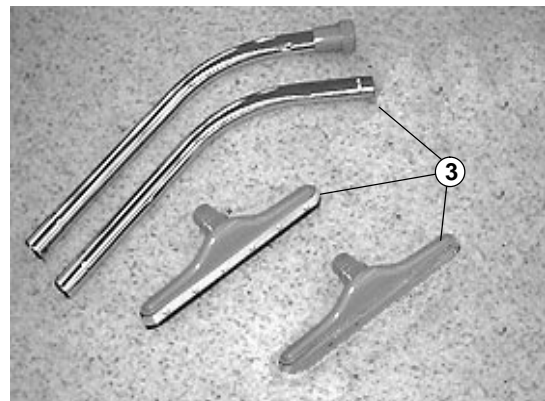
7. Compartment Latches
8. Swivel Casters/300 mm (12 in) Rear Wheels
9. Squeegee Kit (optional)
10. Machine ON/OFF Switch
11. Drain Hose
12. Squeegee Kit Lift Pedal (optional)
13. Charger Plug

OPTIONAL ACCESSORY KITS

To order kit, contact your local distributor and specify part number:



1. Squeegee Kits – 660 mm (26 in) #190108,
840 mm (33 in) #190972, 990 mm (39 in) #190958
2. 6-Piece Accessory Tool Kit #16593
3. 3-Piece Accessory Tool Kit #190142



MACHINE INSTALLATION

MACHINE UNCRATING

Carefully check carton for signs of damage. Report damage at once to carrier. Check contents list below to ensure all standard accessories are included.

Carton Contents:

- 1 – Battery Hardware Package
- 1 – 3m (10 ft) Vacuum Hose
- 1 – Package of Paper Bags
- 1 – Cloth Bag

Accessory Tools and Squeegee Kits are optional, they must be ordered separately. To order kits see page 4.

BATTERY INSTALLATION

NOTE: Attach Squeegee Assembly kit prior to installing batteries. See Squeegee Kit Installation.

Recommended Battery Specifications:

Two 12 volt 105/130 amp hour deep cycle batteries.
Maximum battery dimensions are
180mm (7in)W x 340mm (13.5in) L x 250mm (10in) H.

BATTERY COMPARTMENT SIZE:

340mm(13.5in) L x 360mm(14in) W x 250mm(10in) D

Recommended Battery Charger:

120/230V–15 amp fully automatic battery charger.

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

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

1. Turn ON/OFF switch to off.

ATTENTION: Make sure tanks are empty before opening.

2. Open battery compartment, unlatch lower latches and carefully tilt upper housing backwards to floor. Remove loose battery cables at bottom of compartment (*Figure 1.*)



FIG. 1.

3. Carefully install batteries into compartment and arrange battery posts and connect battery cables to batteries as shown. Red to positive (+) and black to negative (-) (*Figure 2.*).

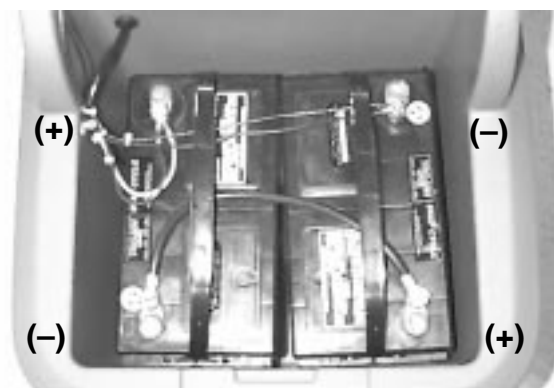


FIG. 2.

ATTENTION: Do not drop batteries into compartment! Battery and machine housing damage may result. This damage is not covered by warranty.

4. Double check all connections before closing battery compartment.
5. To ensure a full charge for first time use, batteries may need charging before operating. See BATTERY CHARGING on page 9.

SQUEEGEE KIT INSTALLATION

NOTE: Kit installation is made easy if batteries are not installed. However, kit can be installed with batteries in place.

1. Remove vacuum bags and/or empty recovery tank.
2. Tip machine on backside. **Only if batteries are removed from machine.**
3. Remove two unused squeegee mounting screws from bottom of machine.

OPERATION

4. Install squeegee mounting bracket as shown. Secure with screw and washers that you removed (*Figure 3.*)

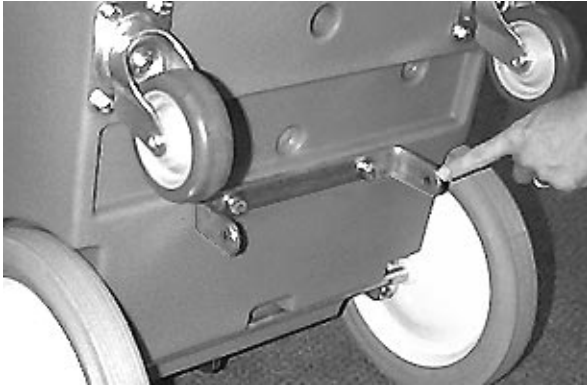


FIG. 3.

5. Fasten squeegee bracket to mounting bracket. Use two (2) clevis and cotter pins provided. Stand machine upright (*Figure 4.*)



FIG. 4.

6. Insert spacer through hole in pedal then position pedal between two holes in squeegee bracket. Secure with hardware provided (*Figure 5.*)

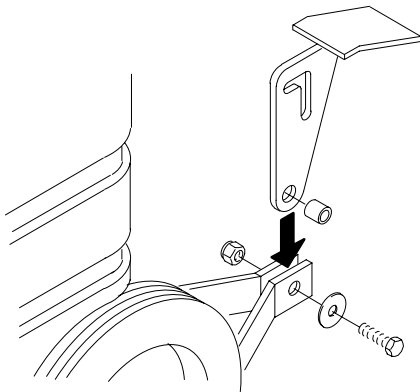


FIG. 5.

7. Position pedal between two L-brackets at rear of machine and secure with clevis and cotter pins (*Figure 6.*)



FIG. 6.

8. Attach squeegee assembly to bracket as shown and secure with two thumb screws (*Figure 7.*)

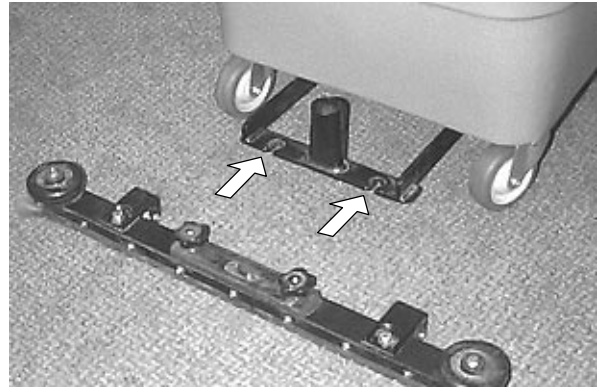


FIG. 7.

9. Connect 1090 mm (43 in) vacuum hose to squeegee assembly and to cover snout (*Figure 8.*)



FIG. 8.

MACHINE SETUP

To ensure a full battery charge before operating, batteries may need charging (See BATTERY CHARGING).

WET VACUUMING

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

1. Open machine cover and remove vacuum bag from recovery tank (Figure 9).



FIG. 9.

2. Make sure automatic float shut-off screen is in place (Figure 10).



FIG. 10.

ATTENTION: To prevent vacuum motor damage, automatic float shut-off screen must be in place.

DRY VACUUMING

1. Open vacuum machine cover and install cloth filter bag, make sure that the bag edge is properly seated on compartment rim (Figure 11).

For easy debris disposal and to increase the life of cloth filter bag, use a paper vacuum bag with the cloth bag. Place the paper bag inside of cloth bag and tuck the top of paper bag around outside rim of cloth bag. Never use paper bag without cloth filter bag in place. Do not reuse paper bags – always dispose.

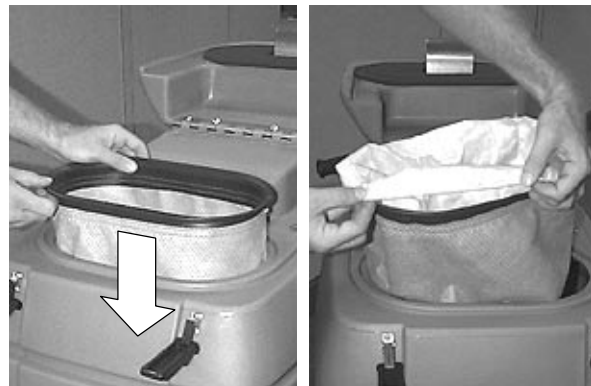


FIG. 11.

ATTENTION: Always make sure that a bag is in place before dry vacuuming. Operating machine without bag in place will damage vacuum motor. This damage is NOT covered by warranty.

2. Close cover and fasten latches.
3. Leave automatic float shut-off screen in place when dry vacuuming. It can provide limited vacuum motor protection for a faulty bag.

MACHINE OPERATION

FOR SAFETY: Do not operate machine unless operator manual is read and understood.

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

VACUUM MOTOR THERMAL PROTECTOR

Vacuum motor is thermally protected by a temperature sensor device. It will trip if motor has an overload. If motor should quit, wait 20 minutes for motor to cool and remove obstruction before continuing.

ACCESSORY TOOL OPERATION

1. Connect 3m (10 ft) vacuum hose to machine cover snout.

OPERATION

2. Select desired accessory tool and connect to vacuum hose (Figure 12.).

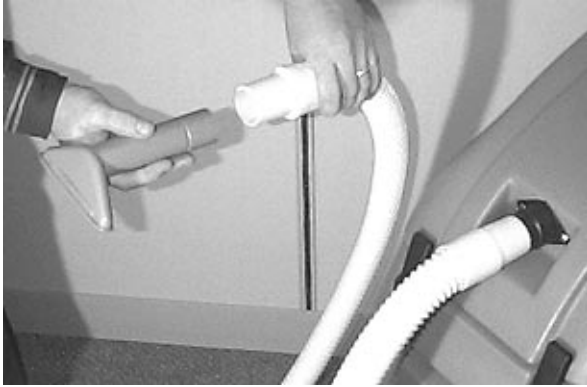


FIG. 12.

3. Activate ON/OFF switch and operate accessory tool as normal.
4. During DRY vacuuming, check bag periodically for fullness. For best suction performance, empty bag at 3/4 full.

During WET vacuuming, the float shut-off screen will automatically stop water intake when recovery tank becomes full (See DRAINING RECOVERY TANK).

ATTENTION: If foam develops in recovery tank during wet vacuuming, use a quality defoamer chemical to eliminate the foam. Foam buildup will NOT activate float, and will cause damage to the vacuum motor. Damage due to foam is NOT covered by warranty.

SQUEEGEE OPERATION (OPTION)

1. Lower squeegee to floor, lightly kick the pedal forward to release from transport position (Figure 13.).



FIG. 13.

2. Activate the ON/OFF switch.
3. Begin operating by pushing and pulling machine in either direction.
4. During operation, the float shut-off screen will automatically stop water intake when recovery tank becomes full (See DRAINING RECOVERY TANK).

ATTENTION: If foam develops in recovery tank during wet vacuuming, use a quality defoamer chemical to eliminate the foam. Foam buildup will NOT activate float, and will cause damage to the vacuum motor. Damage due to foam is NOT covered by warranty.

5. To raise squeegee, step downward on pedal until pedal engages in the transport position (Figure 14.).



FIG. 14.

NOTE: Squeegee Kit can be used to pick up fine particles (dust, sand, sawdust, etc...). Squeegee not recommended for ordinary dry pick up.

DRAINING RECOVERY TANK

1. Push machine to nearest floor drain, if not available use a bucket to drain machine.
2. Remove drain hose from holder and twist off drain hose knob and drain. Raise hose to stop flow of water (Figure 15.).



FIG. 15.

3. After draining recovery tank, open cover and thoroughly rinse out tank with clean water.
4. Replace drain hose knob securely and return to holder.

NOTE: Be certain drain hose knob is secure to prevent suction loss.

BATTERY CHARGING

The following charging instructions are intended for manufacturer supplied 24V chargers. Use the following recommended charger specifications to prevent battery damage.

CHARGER SPECIFICATIONS:

- OUTPUT VOLTAGE - 24 VOLTS
- OUTPUT CURRENT - 15 AMPS
- AUTOMATIC SHUTOFF CIRCUIT
- FOR DEEP CYCLE BATTERY CHARGING

NOTE: For optimum machine operation, keep batteries charged at all times. Do not let batteries set in a discharge condition.

ATTENTION: Do not continue to run machine when pick-up performance begins to decrease, battery damage may result.

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

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

1. Turn On/Off switch to off.
2. Push machine to a well ventilated area for charging.

ATTENTION: Make sure tanks are empty before opening.

3. Open battery compartment, unlatch lower latches at front of machine and carefully tilt upper housing backwards to floor (Figure 16.).



FIG. 16.

4. Check electrolyte level "A" in each battery cell. Do not charge batteries unless level is slightly covering battery plates "B". If needed, add just enough distilled water to slightly cover plates. DO NOT overfill. Batteries can overflow during charging due to expansion. Replace cell caps before charging (Figure 17.).

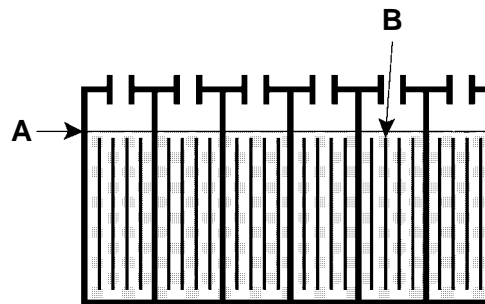


FIG. 17.

5. With the charger DC outlet plug disconnected from batteries, plug charger power supply cord into a grounded wall outlet (Figure 18.).

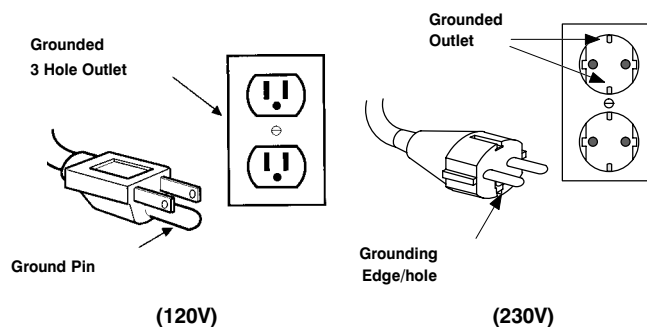


FIG. 18.

6. Connect charger to charger receptacle located at rear of machine. The charger automatically begins charging and will shut off at a full charge (Figure 19.).



FIG. 19.

7. Charger will automatically begin charging batteries and shut off when fully charged.
8. After charger has turned off, disconnect charger from batteries before unplugging charger from wall outlet.
9. Recheck battery electrolyte level **after** charging. If needed, add distilled water to bring level to bottom of sight tubes. Be certain to replace cell caps securely and to wipe off the top of batteries with a clean cloth.

OPERATION

WHEN TO RECHARGE BATTERIES

To prolong the life of your batteries:

- Recharge batteries after every 4 hours of run time.
- Do not charge batteries after every short time use. Wait until a total of 4 hours of run time.
- Do not continue to run machine when pick-up performance begins to decrease.
- Check electrolyte level before charging.
- Never let batteries sit discharged for more than a few days.
- Always follow proper charging instructions.

MAINTENANCE

To keep machine in good working condition, simply follow machines daily, weekly and monthly maintenance procedures.

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

DAILY MAINTENANCE

1. Drain and rinse out recovery tank after wet vacuuming.
2. Clean squeegee blades with a cloth. Replace blades when they become worn.
3. Check bag for fullness, empty bag at 3/4 full.
4. Clean machine housing with a non-abrasive, non-solvent cleaner.
5. Recharge batteries if needed.

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

WEEKLY MAINTENANCE

1. Remove and clean the float shut-off screen from recovery tank (*Figure 20*).



FIG. 20.

ATTENTION: Always have float shut-off screen in place before operating. During wet operation, the float shut-off screen protects the vacuum motor from water. During dry vacuuming, the float shut-off screen can provide limited protection for a faulty filter bag.

2. Check electrolyte level in battery cells (See BATTERY MAINTENANCE).
3. Clean battery tops of corrosion.
4. Check for loose or corroded battery cables.

MONTHLY MAINTENANCE

1. To maintain maximum performance, wash cloth filter bag by hand with a mild detergent. Let bag dry thoroughly before replacing.
2. Lubricate axle grease fittings with a water resistant grease.
3. Lubricate front swivel casters with a silicone spray.
4. Check machine for loose nuts and bolts.

EVERY 250 HOURS OF OPERATION

Check motor for carbon brush wear, replace brushes if worn to 10 mm (0.38 in) or less.

BATTERY MAINTENANCE

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

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

1. Always follow proper charging instructions (See BATTERY CHARGING).
2. Each week AFTER charging, check electrolyte level in each battery cell of all batteries. Level (A) should reach bottom of sight tubes (B). If needed, add just enough distilled water to reach bottom of sight tubes. DO NOT overfill (Figure 21.).

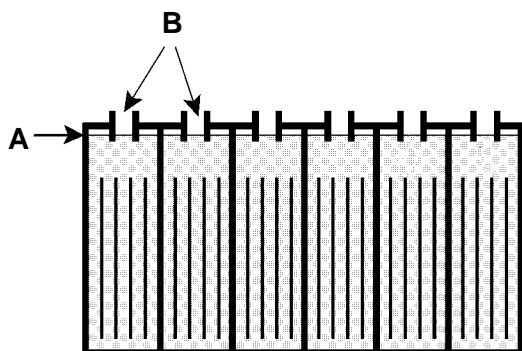


FIG. 21.

3. Keep battery tops and terminals clean and dry. Follow instructions below:
 - a. Mix a strong solution of baking soda and water.
 - b. Brush solution sparingly over battery tops, terminal and cable connectors.

NOTE: Do not allow baking soda solution to enter battery cells.

 - c. Use wire brush to clean terminal post and cable connections.
 - d. After cleaning, apply a coating of clear battery post protectant to terminals and cable connections.
4. Check for loose or worn battery cables. Replace if worn.
5. Replace batteries if any physical damage is noticed.

STORING MACHINE

Before storing the machine perform the following instructions below:

1. Empty and rinse out recovery tank and accessory tools.
2. Empty or replace vacuum bag.
3. Raise or remove squeegee assembly.
4. Store machine in a dry area in the upright position.
5. Disconnect battery cables if storing for a lengthy period.

ATTENTION: Do not store outdoors and avoid getting wet. Do not allow machine to freeze.

ATTENTION: If storing machine in freezing temperatures, be certain to drain machine of all water. Damage due to freezing is not covered by warranty.

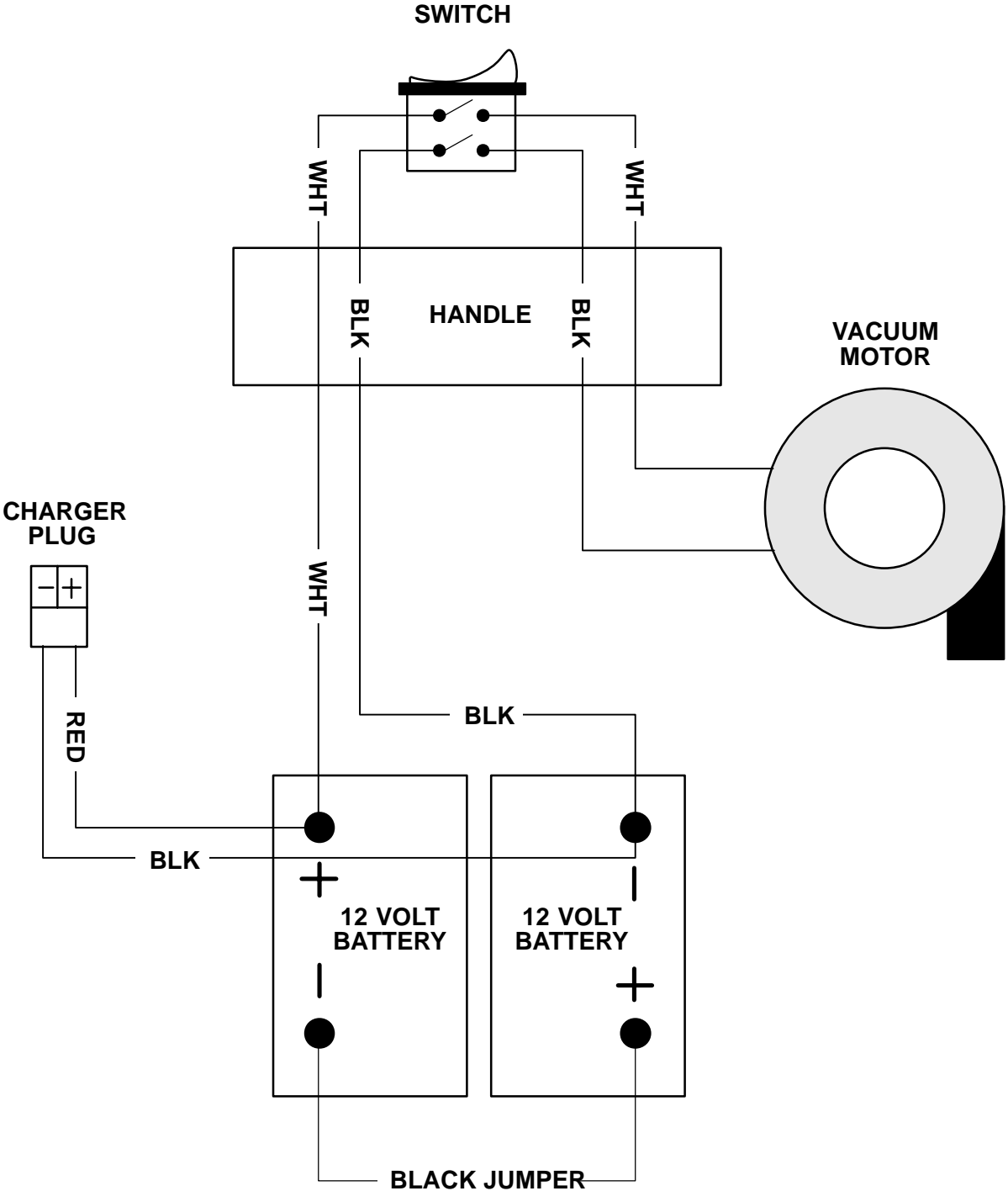
OPERATION

TROUBLE SHOOTING

PROBLEM	CAUSE	SOLUTION
No power.	Faulty ON/OFF switch	Contact Service Center.
	Batteries need charging.	See BATTERY CHARGING.
	Faulty battery(s).	Replace battery(s).
	Loose battery cable.	Tighten loose cables.
	Batteries are not connected correctly.	See BATTERY INSTALLATION.
	Vacuum motor thermal overload tripped.	Check air flow for obstruction, wait 20 minutes for motor to cool.
	Faulty vacuum motor wiring.	Contact Service Center.
Poor pick-up.	Air flow obstruction.	Remove obstruction from ball float screen, vacuum hose, accessory tool or squeegee.
	Vacuum bag is full.	Empty or replace bag.
	Ball float screen is activated.	Drain recovery tank.
	Drain hose plug is loose or off.	Secure drain hose plug.
	Cover latches are not engaged.	Engage cover latches.
	Batteries need charging.	Charge batteries.
	Worn cover gasket.	Replace gasket.
	Vacuum motor carbon brushes worn.	Contact Service Center.
Short run time.	Batteries not fully charged.	Charge batteries.
	Faulty battery(s).	Replace battery.
	Batteries need maintenance.	See BATTERY MAINTENANCE.
	Faulty charger.	Replace charger.

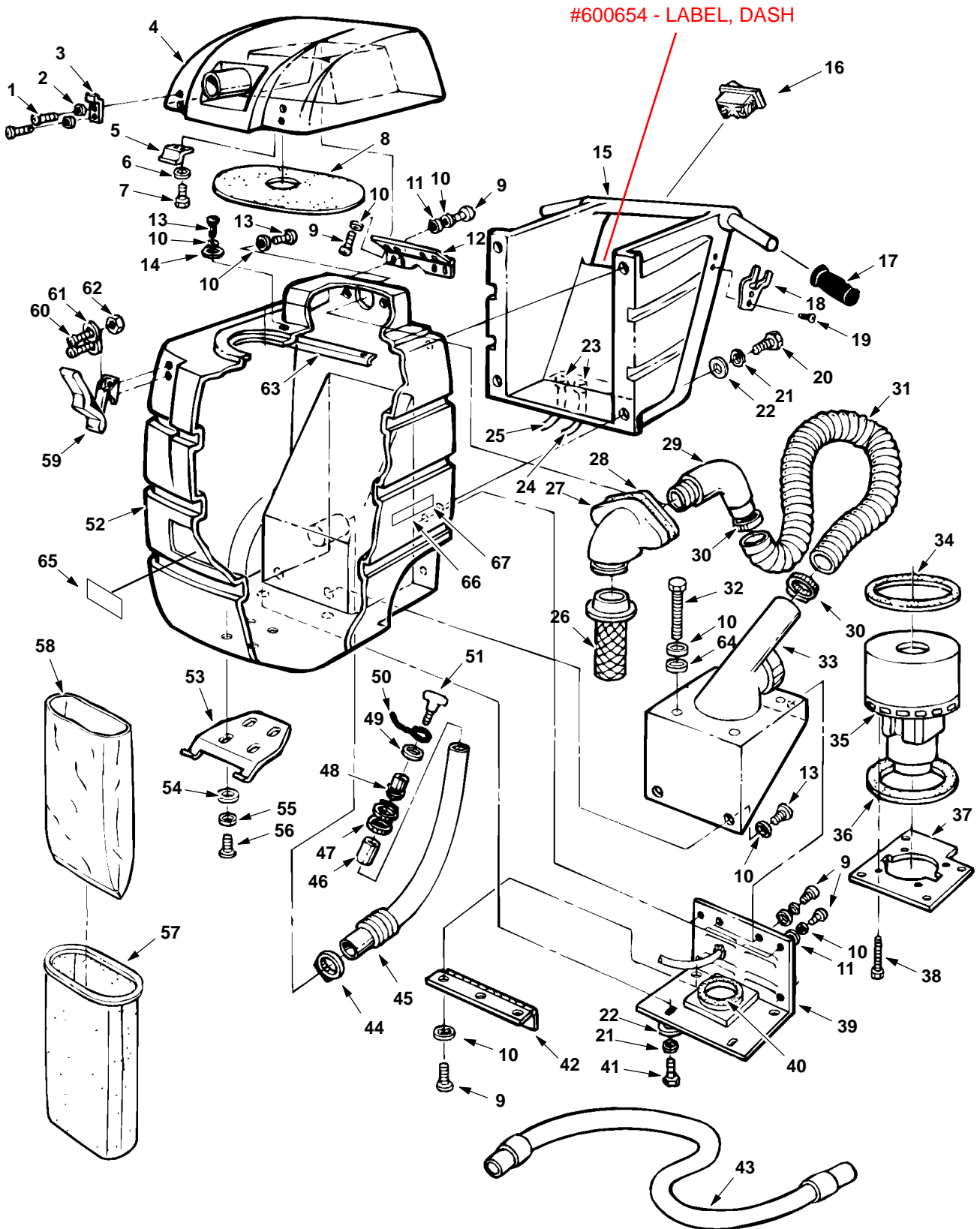
SPECIFICATIONS

Model	TYPHOON™ 16B
LENGTH	840 mm (33 in)
WIDTH	530 mm (21 in)
HEIGHT	1090 mm (43 in)
WEIGHT – WEIGHT WITH BATTERIES	41 Kg (90 lbs) – 107Kg (235 lbs)
VACUUM MOTOR	24V, 3-stage, .75hp, 23A, 566W
SEALED WATER LIFT	1780 mm (70 in)
BATTERIES	2-12V deep cycle lead acid, 105AH or 130AH
RUN TIME on full charge	4 hours
DECIBEL RATING AT OPERATOR'S EAR, INDOORS ON TILE	>70dB(A)



PARTS LIST

UPPER HOUSING PARTS



UPPER HOUSING PARTS LIST

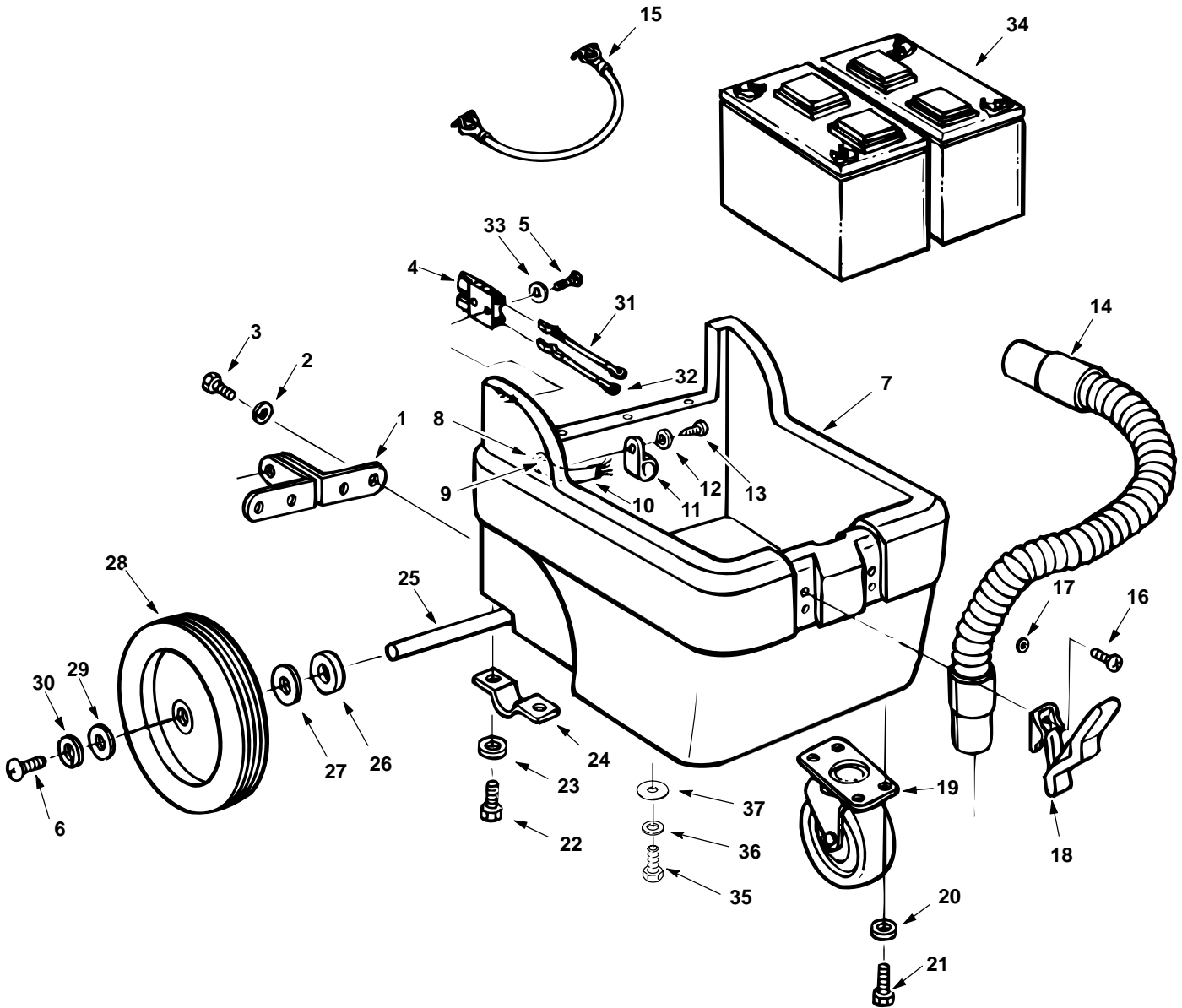
REF	PART #	DESCRIPTION	QTY.
1	140801	SCREW, 8-32X3/8	4
2	140023	WASHER, LOCK	4
3	140932	LATCH, RUBBER	2
4	608613	COVER, GREEN	1
5	230497	BRACKET	1
6	140031	WASHER, LOCK	2
7	140197	SCREW, 10-24X3/8	2
8	100097	GASKET	1
9	140885	SCREW, 1/4-20X1/2	20
10	578244000	WASHER, LOCK	25
11	140000	WASHER, FLAT	10
12	230318	HINGE	1
13	140824	SCREW, 1/4-20X5/8	6
14	140003	WASHER, FENDER	2
15	608461	HOUSING, HANDLE, GREEN	1
16	19417	SWITCH	1
17	200823	GRIP, HANDLE BK	2
18	230696.BK	BRACKET, DRAIN HOSE	1
19	140825	SCREW, #6X1/2	2
20	140231	SCREW, 3/8-16X1 1/2	2
21	140017	WASHER, LOCK	6
22	140028	WASHER, FLAT	6
23	130110	BUSHING, STRAIN RELIEF	2
24	130384	ASM. WIRE 14/2X26"	1
25	130385	ASM. WIRE 14/2X45"	1
26	180613	FLOAT, AUTO SHUT-OFF	1
27	100381	ELBOW, VAC TUBE	1
28	100096	GASKET	1
29	700435	ASM. PVC ELBOW	1
30	140308	CLAMP	2
31	160482	HOSE, VACUUM	1
32	140199	SCREW, 1/4-20X4 1/2	4
33	100380	MOUNT, VAC MOTOR	1
34	100038	GASKET	1
35	130397	MOTOR, VAC 24VDC	1
	190163	BRUSH, CARBON (2/PK)	2

REF	PART #	DESCRIPTION	QTY.
36	100143	GASKET	1
37	230522	BRACKET, VAC MOUNT	1
38	140340	SCREW, #10X5/8	4
39	230980.BK	PLATE, COVER MOTOR	1
40	100831	GASKET	1
41	140201	SCREW, 3/8-16X3/4	2
42	230951	HINGE	1
43	160481	HOSE, VACUUM, 3M	1
44	140307	CLAMP	1
▽	701170	ASM., DRAIN HOSE	1
▲45	160418	HOSE, DRAIN	1
▲46	140921	SLEEVE, DRAIN HOSE	1
▲47	140072	CLAMP	2
▲▽	701061	ASM., DRAIN PLUG	1
▲48	140955	PLUG, DRAIN HOSE	1
▲49	140056	WASHER, FENDER	1
▲50	230882	STRAP, RUBBER	1
▲51	230831	KNOB, DRAIN HOSE	1
52	608616	TANK, RECOVERY, GREEN	1
53	230949	PLATE, LATCH	1
54	140027	WASHER, FLAT	4
55	140015	WASHER, LOCK	4
56	140226	SCREW, 5/16-18X5/8	4
57	900105	BAG, CLOTH FILTER	1
58	900102	BAG, PAPER (PKG OF 10)	1
59	140932	LATCH, RUBBER	2
60	140287	SCREW, M4X.7X16MM	4
61	140011	WASHER, FLAT	4
62	140288	NUT, LOCK	4
63	230482.BK	BRACKET, SUPPORT	1
64	140003	WASHER, FENDER	4
65	608186	DECAL, NOBLES LOGO	1
66	608494	DECAL, "TYPHOON 16B"	2
N/S	120649	DECAL, WARNING	1

▽ Assembly

▲ Included in Assembly

LOWER HOUSING PARTS

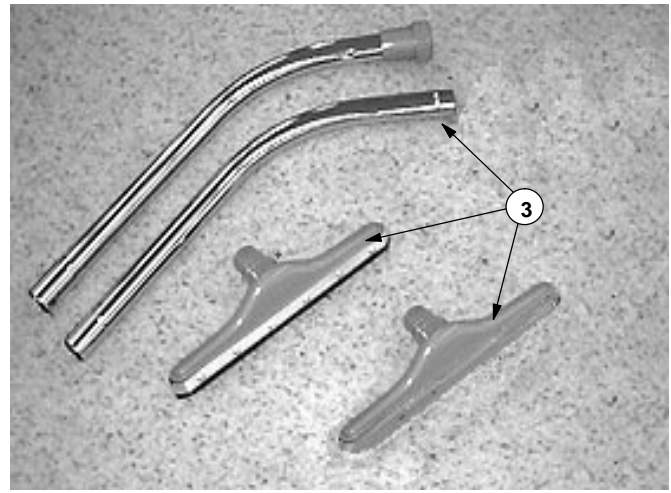
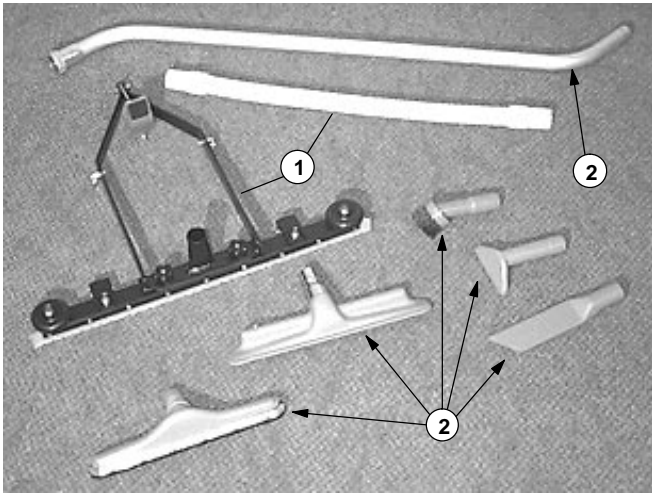


LOWER HOUSING PARTS LIST

REF	PART #	DESCRIPTION	QTY.
1	230950	BRACKET, SQUEEGEE MOUNT	2
2	140016	WASHER, LOCK	4
3	140553	SCREW, 1/4-20X1/2	4
4	27833	PLUG, CONNECTOR	1
5	140827	SCREW, 6-32X3/4	2
6	140885	SCREW, 1/4-20X1/2	2
7	608820	HOUSING, BASE, GREEN	1
8	130110	BUSHING, STAIN RELIEF	1
9	240220	GROMMET	1
10	130385	ASM. WIRE 14/2X45"	1
11	140304	CLAMP	1
12	140011	WASHER, FLAT	1
13	140825	SCREW, #6X1/2	1
14	160630	HOSE, VACUUM	1
15	130364	CABLE, BATTERY	1
16	140801	SCREW, 8-32X3/8	4
17	140023	WASHER, LOCK	4
18	140932	LATCH, RUBBER	2
19	103065	CASTER, SWIVEL 4"	2

REF	PART #	DESCRIPTION	QTY.
20	140015	WASHER, LOCK	4
21	140226	SCREW, 5/16-18X5/8	4
22	140553	SCREW, 1/4-20X1/2	4
23	140016	WASHER, LOCK	4
24	230746	BRACKET, AXLE	2
25	230953	AXLE	1
26	140063	WASHER, FLAT	2
27	140045	WASHER, FLAT	2
28	103009	WHEEL	2
29	140003	WASHER, FENDER	2
30	578244000	WASHER, LOCK	2
31	701163	ASM WIRE #14X17" RED 3/8" XAC	1
32	701164	ASM WIRE #14X22" BLK 5/16" XAC	1
33	140019	WASHER, EXTERNAL LOCK TOOTH	2
34	130869	BATTERY, 12V 130AH	2
35	140201	SCREW, 3/8-16X3/4	2
36	140017	WASHER, LOCK 3/8	2
37	140028	WASHER, FLAT 3/8	2
N/S	130948	CHARGER, 24VDC 15AMP	1

ACCESSORY KITS



REF	PART #	DESCRIPTION	QTY.
1	190108	KIT, SQUEEGEE, 660 mm (26 in)	1
	190972	KIT, SQUEEGEE, 840 mm (33 in)	1
	190958	KIT, SQUEEGEE, 990 mm (39 in)	1
2	16593	∇KIT, ACCESSORY TOOL	1
	6108.1	▲Two Piece Wand	1
	6117	▲Dusting Brush	1
	6057	▲100 mm (4 in) Upholstery Tool	1
	6170	▲Crevice Tool	1
	14043	▲410 mm (16 in) Floor Tool	1
	13840	▲Squeegee Tool	1

REF	PART #	DESCRIPTION	QTY.
3	190142	∇KIT, ACCESSORY TOOL	1
	190722	▲Two Piece Wand	1
	603840	▲360 mm (14 in) Carpet Tool Scalloped Face	1
	13840	▲360 mm (14 in) Squeegee Tool	1

SQUEEGEE KIT BREAKDOWN

REF	PART #	DESCRIPTION	QTY.
∇	190108	Squeegee Kit 670 mm (26 in)	1
	190972	Squeegee Kit 840 mm (33 in)	1
	190958	Squeegee Kit 990 mm (39 in)	1
▲1	230453.BK	Weldment, Squeegee Lift	1
▲2	230456	Pedal, Lift	1
▲3	230454	Bracket, Squeegee Mount	1
▲4	140232	Screw, 3/8-16x1-1/4	1
▲5	140925	Spacer, 3/16	1
▲6	140028	Washer, Flat 3/8	1
▲7	140515	Nut, Lock Nylon 3/8-16	1
▲8	630258	Pin, Clevis	3
▲9	612254000	Pin, Hair	3
▲10	102560	Pad, nonstick	1
▲11	160462	Hose, Vacuum 1.5x33"	1
▲12	602831	Asm., Squeegee 670 mm (26 in)	1
	603494	Asm., Squeegee 840 mm (33 in)	1
	603496	Asm., Squeegee 990 mm (39 in)	1
▲13	230727.BK	Weldment, Squeegee 670 mm (26 in)	1
	230682.BK	Weldment, Squeegee 840 mm (33 in)	1
	230692.BK	Weldment, Squeegee 990 mm (39 in)	1

REF	PART #	DESCRIPTION	QTY.
▲14	100150	Gasket	1
▲15	230725.BK	Plate, Rear 670 mm (26 in)	1
	230669.BK	Plate, Rear 840 mm (33 in)	1
	230685.BK	Plate, Rear 990 mm (39 in)	1
▲16	230723.BK	Plate, Front 670 mm (26 in)	1
	230670.BK	Plate, Front 840 mm (33 in)	1
	230686.BK	Plate, Front 990 mm (39 in)	1
▲17	603659	Blade, Squeegee 670 mm (26 in)	2
	603661	Blade, Squeegee 840 mm (33 in)	2
	603662	Blade, Squeegee 990 mm (39 in)	2
▲18	140890	Screw, 10-24x1/2	18-28
▲19	140018	Washer, #10 Int Lock	18-28
▲20	27257	Knob, Squeegee	2
▲21	140221	Screw, 5/16-18x1-1/4	2
▲22	630450	Wheel	2
▲23	140799	Screw, 5/16-18x1-1/2	2
▲24	700844	Asm., Squeegee Roller	2
▲25	140226	Screw, 5/16-18x5/8	2
▲26	140015	Washer, Lock	2

∇ Assembly

▲ Included in Assembly

SQUEEGEE KIT BREAKDOWN

