

Carpet Maintainer

Operating instructions (ENG)

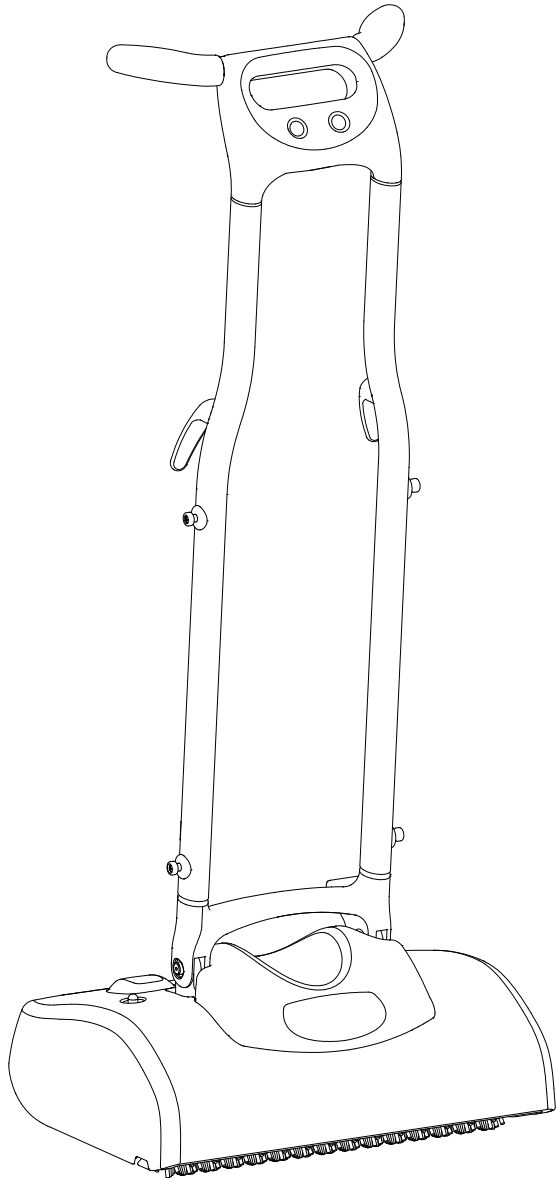
MODELS:

IM
10066360

IMIE17
10066550

IMX
10066400

IMXIE17
10066410



Read these instructions before using the machine.



Model:	_____
Date of Purchase:	_____
Serial Number:	_____
Dealer:	_____
Address:	_____
Phone Number:	_____
Sales Representative:	_____

OVERVIEW

The Carpet Maintainer is designed to maintain carpet using the Quick Dry Carpet Care System. The machine has two counter rotating brushes that scrub chemical into the carpet. The chemicals, iCapsol or Prochem ProCaps, encapsulates the dirt, allowing both to be vacuumed up once the chemical has dried. The brushes also raise the pile of the carpet. The Deluxe models have a solution tank and pump powered spraying system, which applies the chemical to the carpet as the machine is used.

Warranty Registration

Thank you for choosing our product. Warranty registration is quick and easy. Your registration will allow us to serve you better over the lifetime of the product.

To register your product go to:

<http://warranty.karcherna.com/warrantyregistration.aspx>

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How to Use This Manual

This manual contains the following sections:

- HOW TO USE THIS MANUAL
- SAFETY
- OPERATIONS
- MAINTENANCE
- PARTS LIST

The HOW TO USE THIS MANUAL section will tell you how to find important information for ordering correct repair parts.

Parts may be ordered from authorized dealers. When placing an order for parts, the machine model and machine serial number are important. Refer to the MACHINE DATA box which is filled out during the installation of your machine. The MACHINE DATA box is located on the inside of the front cover of this manual.

Model: _____
Date of Purchase: _____
Serial Number: _____
Dealer: _____
Address: _____
Phone Number: _____
Sales Representative: _____

The model and serial number of your machine is on the operator's left hand side, side panel of base.

The SAFETY section contains important information regarding hazard or unsafe practices of the machine. Levels of hazards is identified that could result in product or personal injury, or severe injury resulting in death.

The OPERATIONS section is to familiarize the operator with the operation and function of the machine.

The MAINTENANCE section contains preventive maintenance to keep the machine and its components in good working condition.

The PARTS LIST section contains assembled parts illustrations and corresponding parts list. The parts lists include a number of columns of information:

- **REF** – column refers to the reference number on the parts illustration.
- **PART NO.** – column lists the part number for the part.
- **PRV NO.** – reference number.
- **QTY** – column lists the quantity of the part used in that area of the machine.
- **DESCRIPTION** – column is a brief description of the part.
- **SERIAL NO. FROM** – If this column has an (*) and a Reference number, see the SERIAL NUMBERS page in the back of your manual. If column has two asterisk (**), call manufacturer for serial number. The serial number indicates the first machine the part number is applicable to. The main illustration shows the most current design of the machine. When a boxed illustration is shown, it displays the older design.
- **NOTES** – column for information not noted by the other columns.

NOTE: If a service or option kit is installed on your machine, be sure to keep the KIT INSTRUCTIONS which came with the kit. It contains replacement parts numbers needed for ordering future parts.

NOTE: The manual part number is located on the lower left corner of the front cover.

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precaution must always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS MACHINE.

⚠ WARNING: To reduce the risk of fire, electric shock, or injury:

Connect to a **properly grounded outlet**. See Grounding Instructions.

Do not leave the machine unattended. Unplug machine from outlet when not in use and before maintenance or service.

Do not allow machine to be used as a toy. Close attention is necessary when used by or near children.

Use only as described in this manual. Use only manufacturer's recommended components and attachments.

Do not use damaged electrical cord or plug. Follow all instructions in this manual concerning grounding the machine. If the machine is **not working properly**, has been dropped, damaged, left outdoors, or dropped into water, return it to an authorized service center.

Do not pull or carry machine by electrical cord, use as a handle, close a door on cord, or pull cord around sharp edges or corners.

Do not run machine over cord or allow the rotating brushes to come in contact with the cord. Keep cord away from heated surfaces.

Do not unplug machine by pulling on cord. To unplug, grasp the electrical plug, not the electrical cord.

Do not handle the electrical plug or machine with wet hands.

Do not operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.

Machine is designed for indoor use only and must not be operated or stored outdoors in wet conditions.

Turn off all controls before unplugging.

This machine is suitable for commercial use, including hotels, schools, hospitals, factories, shops and offices for more than normal housekeeping purposes.

Maintenance and repairs must be done by qualified personnel.

Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.

SAVE THESE INSTRUCTIONS

Hazard Intensity Level

The following symbols are used throughout this guide as indicated in their descriptions:

There are three levels of hazard intensity identified by signal words -**WARNING** and **CAUTION** and **FOR SAFETY**. The level of hazard intensity is determined by the following definitions:

WARNING - Hazards or unsafe practices which could result in severe personal injury or death.

WARNING:

CAUTION - Hazards or unsafe practices which could result in minor personal injury or product or property damage.

CAUTION:

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

Report machine damage or faulty operation immediately. Do not use the machine if it is not in proper operating condition. Following is information that signals some potentially dangerous conditions to the operator or the equipment. Read this information carefully. Know when these conditions can exist. Locate all safety devices on the machine. Please take the necessary steps to train the machine operating personnel.

FOR SAFETY:

DO NOT OPERATE MACHINE:

Unless Trained and Authorized.

Unless Operation Guide is Read and understood.

In Flammable or Explosive areas.

In areas with possible falling objects.

WHEN SERVICING MACHINE:

Avoid moving parts. Do not wear loose clothing; jackets, shirts, or sleeves when working on the machine. Use approved replacement parts.

This Product Is For Commercial Use Only.

Electrical

In the USA, this machine operates on a standard 15 amp 120V, 60 hz, A.C. power circuit. The amp, hertz, and voltage are listed on the data label found on each machine. Using voltages above or below those indicated on the data label will cause serious damage to the motors.

Extension Cords

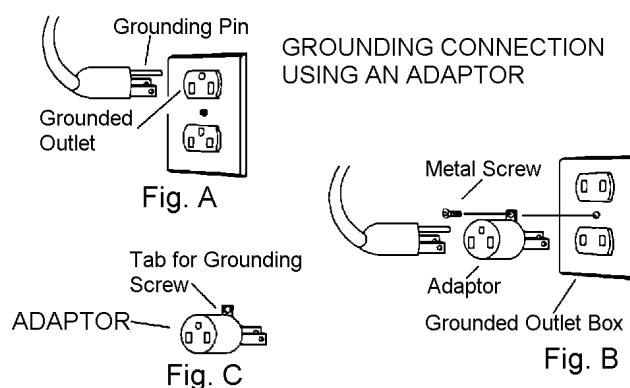
If an extension cord is used, the wire size must be at least one size larger than the power cord on the machine, and must be limited to 50 feet (15.5m) in length.

Grounding Instructions -

120V Only

This appliance must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

This appliance is for use on a nominal 120-volt circuit, and has a grounded plug that looks like the plug in "Fig. A". A temporary adaptor that looks like the adaptor in "Fig. C" may be used to connect this plug to a 2-pole receptacle as shown in "Fig. B", if a properly grounded outlet is not available. The temporary adaptor should be used only until a properly grounded outlet (Fig. A) can be installed by a qualified electrician. The green colored rigid ear, lug, or the like extending from the adaptor must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adaptor is used, it must be held in place by a metal screw.



Note: Adaptors are not allowed in Canada.

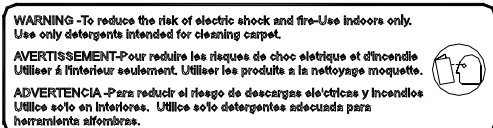
! WARNING:

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

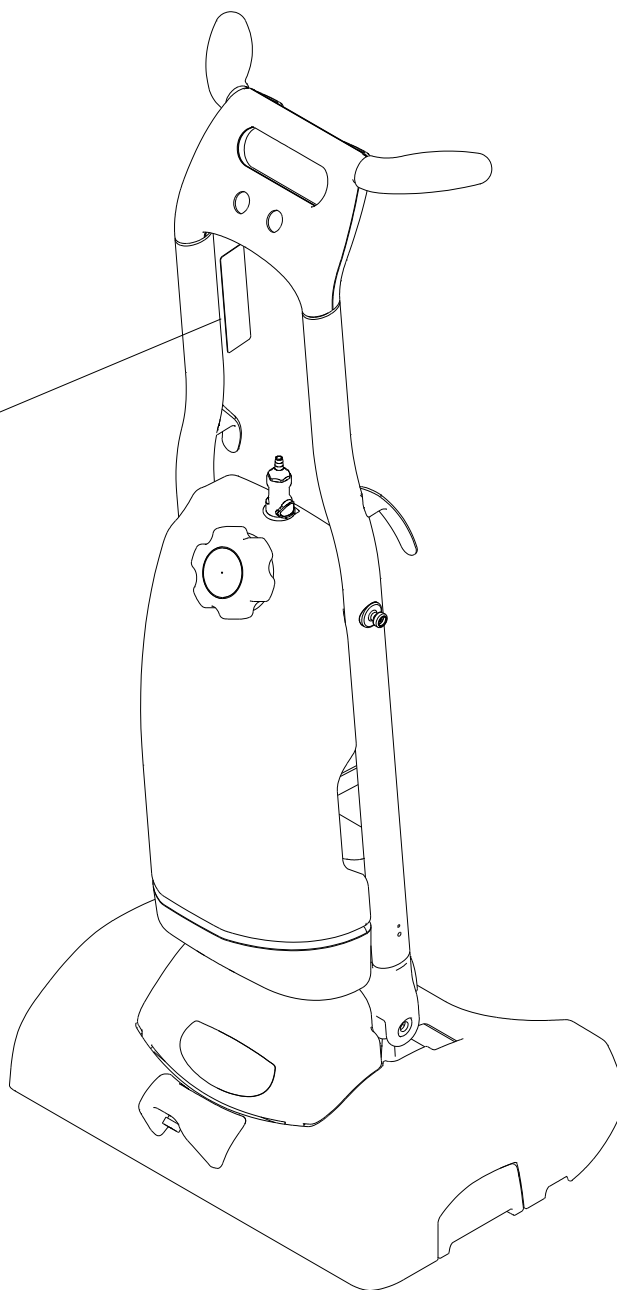
Safety Label Locations

The following WARNING LABEL(S) are found on your cleaning unit. These labels point out important Warnings and Cautions which should be followed at all times. Failure to follow warnings and cautions could result in fatality, personal injury to yourself and/or others, or property damage. Follow these instructions carefully! DO NOT remove these labels.

NOTE: If at any time the labels become illegible, promptly replace them.



WARNING LABEL
PART NUMBER 86220140
PRV 500895



Technical Specifications

120V

ITEM	DIMENSION/CAPACITY
Electrical	120V
Nominal Power	0.5 HP
Rated Amperage	7 Amps
Brush Width	17 - 16.5" (430 - 420 mm)
Brush RPM	470 RPM
Wheels	3 inches (75 mm) non-marking grey
Dimensions - Weight	48 lbs. (22 kg)
- Weight - Deluxe	56 lbs. (25 kg)
Dimensions - Height with handle	45.5" (1.16 m)
Dimensions - Depth	16 inches (0.4 m)
Power Cord	40 feet (12.2 m)
Solution Tank Volume - Deluxe	2 gallon
Pump Pressure - Deluxe	50 psi
Solution Flow - Deluxe	0.1 gpm
Spray Jet Size - Deluxe	.010

230 V

ITEM	DIMENSION/CAPACITY
Electrical	230V
Nominal Power	0.5 HP
Rated Amperage	4 Amps
Brush Width	17 - 16.5" (430 - 420 mm)
Brush RPM	470 RPM
Wheels	3 inches (75 mm) non-marking grey
Dimensions - Weight	48 lbs. (22 kg)
- Weight - Deluxe	56 lbs. (25 kg)
Dimensions - Height - with handle	45.5" (1.16 m)
Dimensions - Depth	16 inches (0.4 m)
Power Cord	40 feet (12.2 m)
Solution Tank Volume - Deluxe	2 gallon
Pump Pressure - Deluxe	50 psi
Solution Flow - Deluxe	0.1 gpm
Spray Jet Size - Deluxe	.010

Special Notes:

The sound pressure level at the operator's ear was measured to be 67.7dBA. This was a nearfield, broad-band measurement taken on a carpeted floor. This appliance contains no possible source of impact noise. The instantaneous sound pressure level is below 63 Pa.

The weighted root mean square acceleration at the operator's arms was measured to be below 2.5m/s². This was a tri-axial, third-octave-band measurement made during normal operation on a composite tile floor. The measurement and related calculations were made in accordance with ISO 5349-1.

NOTE: This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

How The Machines Work

The Carpet Maintainer is designed to maintain your carpet using the Quick Dry Carpet Care System. By using the Carpet Maintainer in conjunction with iCapsol or ProChem ProCaps chemical solution, you can perform a regular light cleaning and grooming of your carpet very quickly, and have the carpet dry and ready for traffic within 20 minutes.

The handle movement flexibility allows the machine to clean under low furniture. There is a hand operated on/off switch and auto-handle lock keeping the handle in an upright position. This unit is equipped with a safety feature that when unplugged from the wall or the handle dropped, will automatically reset to the off position.

The debris tray is used to catch unwanted carpet debris and should be cleaned regularly and prior to transporting.

This appliance conforms with international and national safety directives: EN55014-2, EN5504-1, EN61000-3-2/3-3, EN60335-1/2-10/2-69/2-67. IEC 60335-1/2/10/2-67/2-69. LVD 73/23/EEC.

Deluxe

This unit is equipped with an onboard spray pump and solution tank. By using the onboard spraying system a light treatment of chemical can be applied to the carpet and brushed in during a single pass of the machine.

Quick Dry Carpet Care System Instructions

Test for colorfastness in an inconspicuous area before use.

1. Vacuum carpet to remove loose soil.
2. Dilute iCapsol or ProChem ProCaps at 8oz. per gallon of water (1:16) into the solution tank.
3. Pre-spray carpet to be cleaned at a rate of 600-1000 sq. ft. per gallon of diluted solution. Do not over wet.

4. No dwell time is required. Do not allow chemical to dry before brushing.
5. Brush treated area to emulsify soils using the Windsor iCapsol or other carpet-brushing machine.
6. Allow to dry until dry to touch (approximately 20 minutes) before opening area to traffic.
7. Vacuum carpet when fully dry to remove encapsulated soil.

Tips: Pre-treat carpet spots with iCapsol Interim cleaning solution. Work on a manageable area and do not allow cleaning solution to dry on carpet before brushing.

Deluxe

The Deluxe is provided with a removable solution tank. To remove tank for filling and cleaning, press the gray release button on the blue coupler located at the top of the tank. Next remove upper straps from mounting pegs. The tank will now freely separate from the machine base. After filling tank remount to machine by reversing the process mentioned above.

The proper 1:16 dilution ratio can be achieved by adding one pint (16 oz.) of recommended chemical and slowly filling the tank with water (2 gallons). Adding water slowly will help prevent foaming.

To achieve a coverage rate of 600-1000 sq. ft. per gallon using the onboard sprayer, spray solution only during the forward stroke of operation. Use the back-stroke to brush the chemical into the carpet.

Machine Operation

Pre-Run Inspection

Perform a pre-run inspection to find possible problems that could cause poor performance or lost time from breakdown. Check the rating plate to confirm voltage and frequency is the same as the power supply. NOTE: A 10% variation in voltage is acceptable.

Starting Machine

NOTE: Perform pre-run machine check before operating machine.

FOR SAFETY: Before starting machine, make sure that all covers are in place and secured properly.

1. Connect the machine to a power supply.
2. Release the handle lock.
3. (a) Press green button to power on the machine, 120V only.
(b) Set black on/off switch to "on" position, 230V only.
4. Press green button to start brushes.

After applying a light spray of diluted interim carpet cleaner onto the carpet using a pressurized tank sprayer, commence cleaning by pushing and pulling the machine slowly over the wetted carpet.

Move the machine in multiple directions and overlapping strokes.

For best results use Windsor iCapsol or ProChem ProCaps products.

Starting Machine - Deluxe

NOTE: Perform pre-run machine check before operating machine.

FOR SAFETY: Before starting machine, make sure that all covers are in place and secured properly.

1. Connect the machine to a power supply.
2. Release the handle lock.
3. (a) Press green button to power on machine, 120V only.
(b) Set black on/off switch to "on" position, 230V only.
4. Press green button to start brushes.
5. Press and hold blue button to spray chemical. Once machine is plugged in spray function is operational.

Apply a light spray of diluted interim carpet cleaner onto the carpet using the onboard spraying system. Spray chemical while pushing the machine forward. Brush the chemical into the carpet while pulling the machine slowly over the wetted carpet. Move the machine in multiple directions and overlapping strokes.

For best results use Windsor iCapsol or ProChem ProCaps products.

WARNING:

Flammable materials can cause an explosion or fire. Do not use flammable materials with this machine.

Operations

Transporting A Sprayer

This machine has the capability to mount a small pump-up sprayer.

Transporting Chemical - Deluxe

This machine has the capability to mount chemical bottles or trigger sprayers to the back of the solution tank.

WARNING:

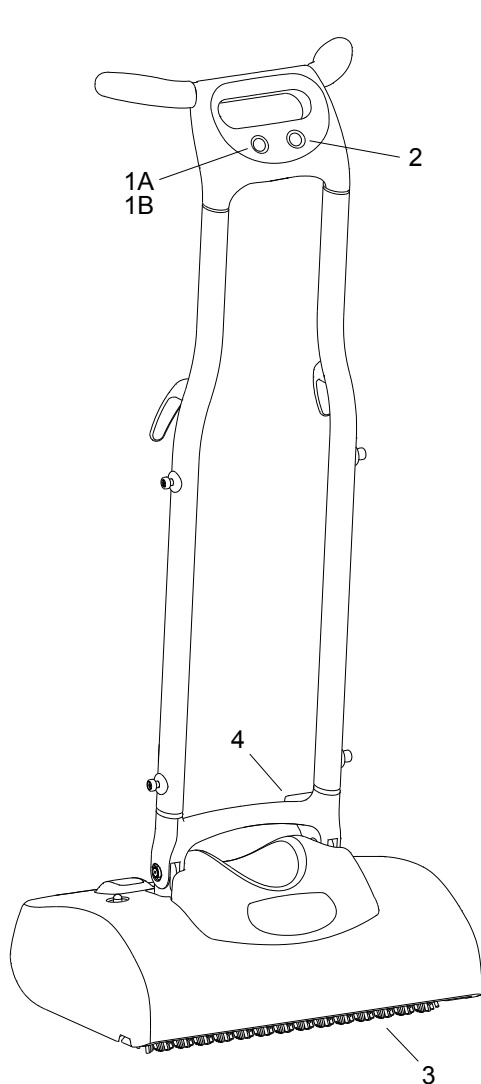
This Machine is not intended to carry more than 30 pounds. Carrying more than 30 pounds could cause damage to the machine.

Shut-Down And Storage

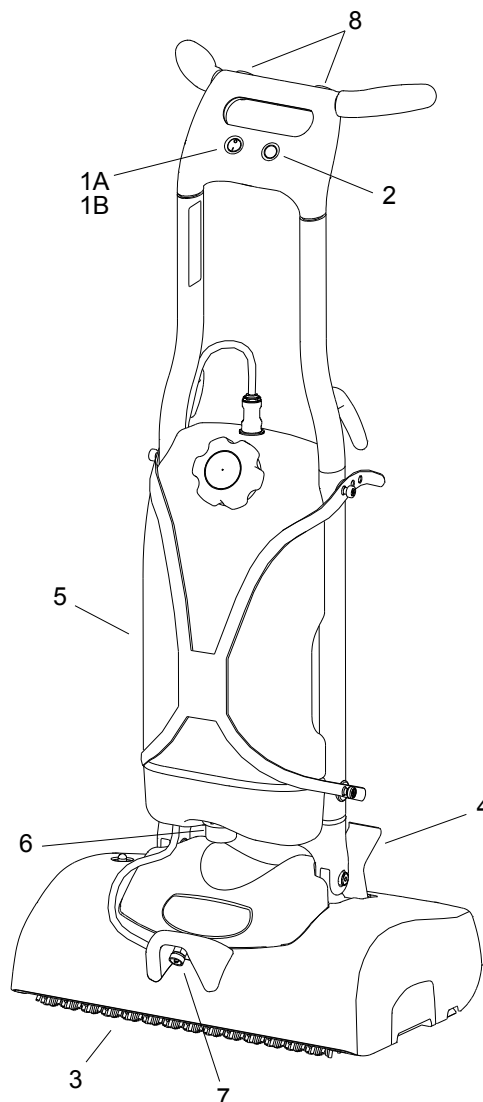
1. Flush the spray jet and tank with hot water (Deluxe only)
2. After flushing, uncouple quick disconnect to prevent water from dripping out of front jet.
3. (a) Press red button to power off machine 120V only.
(b) Set black on/off switch to "off" position 230V only.
4. Lock handle in the upright position.
5. Disconnect the power cord from the power supply. Wind the power cord around the cable holders on the handle.
6. Remove the brushes for cleaning. See Brush Cleaning and Maintenance section.
7. Clean debris tray.

The machine is now ready for storage until the next use. Make sure to store your equipment in a dry place to prolong the life of your machine. Storage outdoors or unprotected could cause damage to your machine or internal parts, therefore voiding your warranty.

Components



iCapsol Mini



iCapsol Mini Deluxe

- 1. A. Stop Switch (red-120V only)
B. On/Off Switch (black-230 only)
- 2. Start Switch (green)
- 3. Brushes
- 4. Handle Release

- 5. Tank
- 6. Strainer
- 7. Jet
- 8. Spray Pump Switch

Maintenance

Brush Cleaning And Maintenance

After each session of carpet cleaning, the brushes and the brush housing should be cleaned. Before cleaning or changing the brushes, always unplug the machine from the power supply.

Brushes are removed without tools. After handle is in locked position, tilt the machine back and rest on handle. To release brush from spring clip pull spring clip away from brush end cap. Lift brush out of machine.

The brushes may be soaked in warm or hot water using mild detergent, and then rinsed with warm water.

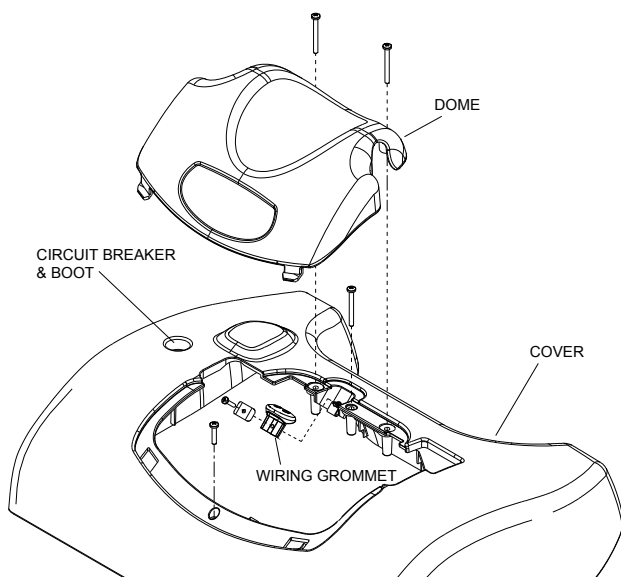
NOTE: Brushes with crushed bristles can often be restored to original condition by soaking in hot water.

Keep brushes clean and free from debris. Rotate brushes after every use as this will increase the life span of the brushes and ensure even wear.

Before reinstalling brushes, clean out machine brush housing and hopper by wiping with a clean damp cloth.

Motor Replacement & Grooved Belt Tensioning

1. Disconnect machine power supply.
2. Detach quick disconnect hose from top of solution tank. (Deluxe Only)
3. Remove elastic straps and solution tank. (Deluxe Only)
4. Remove two dome screws and dome assembly.

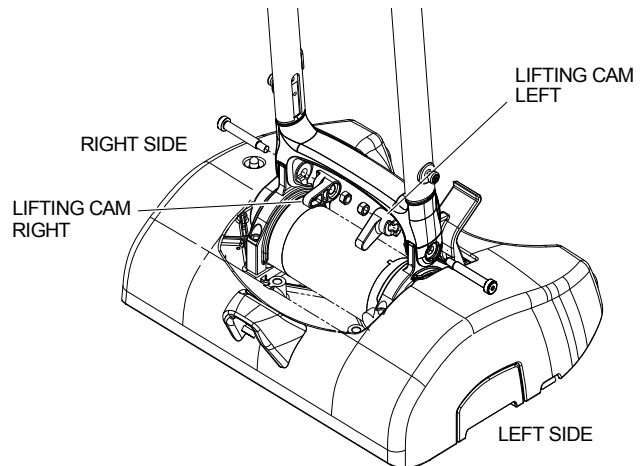


5. Remove the circuit breaker boot and push the circuit breaker clear of cover.

NOTE: All directions mentioned in this manual are from the operator's point of view.

6. Mark left and right on the lift cams.
7. Remove the two cam bolts. This will also free the lift cams.

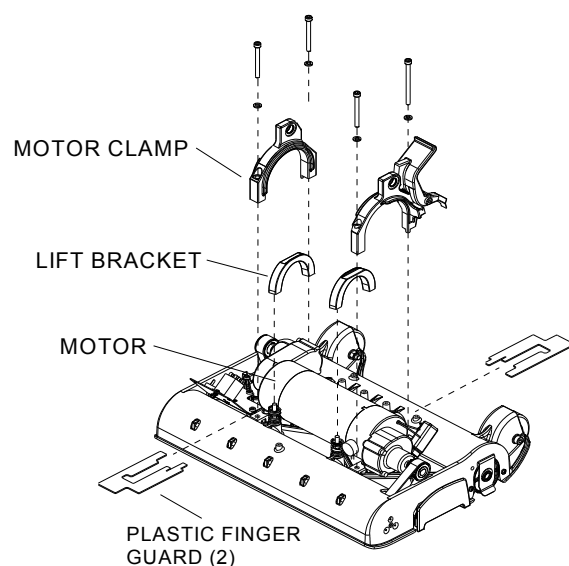
NOTE: There are four plastic bushings that the handle pivots on, leave them on the motor clamps.



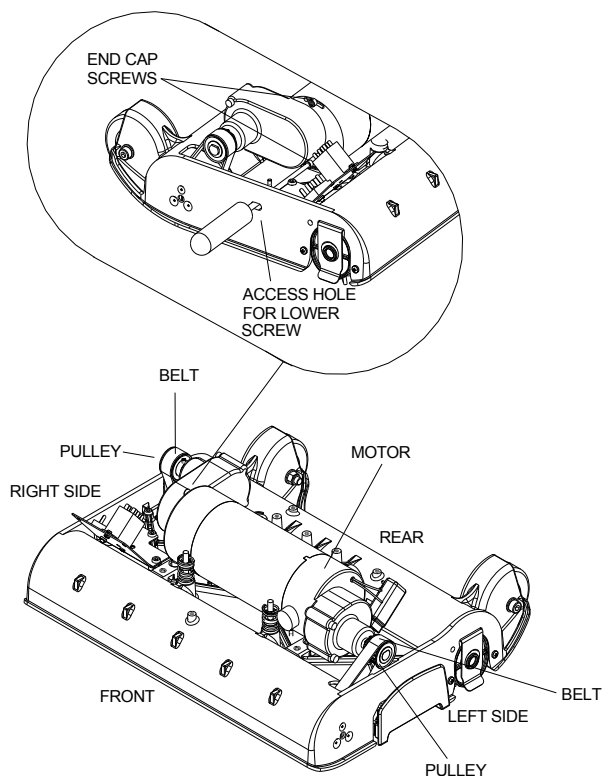
8. Remove the handle assembly.
9. Unscrew the wiring grommet from the main cover, and set retaining bracket and screw aside.
10. Remove the front and back screws and move the main cover to the side.

NOTE: The handle assembly and cover are still attached to the frame by wiring. Be careful not to pinch wiring when reassembling.

11. Remove the (2) plastic finger guards.
12. Mark the tension set screws for reference when reassembling.

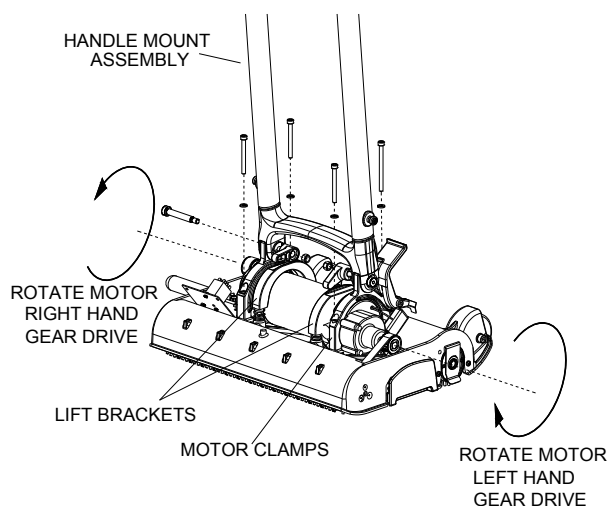


13. Unplug motor wires. Loosen end cap screws, 1 full turn.



14. Back off set screws to release belt tension.
 15. Remove the motor clamps and lift brackets.
 16. Remove belts and belt covers.
 17. Lift motor out of housing. Remove pulleys and adjustment bracket with screw. Set parts aside for re-installation.
 18. Take the new motor and loosen the screws in the long rear drive end cap. This allows the end cap to swivel +/- 20 degrees. Do not remove the end cap screws, only back them off 1 full turn. Install adjustment bracket to the opposite end. Torque to 40 in-lbs (4.5Nm)
 19. Put the motor in the cradle on the frame. Place pulleys onto motor shaft's. Loop the drive belt onto the right motor drive pulley
NOTE: Do not let the pulleys extend more than 0.5mm (0.02in) past the motor shaft.
 20. Reinstall the motor clamps, only tighten the rear screws. The front screws will be tightened later.
 21. From the bottom, remove the left driver plate (front brush).

22. Loop and align the belt on the motor pulley.
 23. Install one screw from the service kit (P/N 9.841-005.0) into the pulley, captured by the belt.
 24. Rotate the pulley to install the second captured screw.
 25. Use the 2 screws to rotate the assembly to install the third screw.
 26. Rotate the pulley and guide the belt onto the pulley. To ensure proper alignment, reverse rotation may be necessary. Use caution when prying against the frame.
 27. Gently pry the motor up from the frame and tighten the left set screw. Use the kit's distance tool to center the motor and set the belt tension.
 28. Repeat the previous step for the right set screw.
 29. Place lift brackets on motor, align over pins.



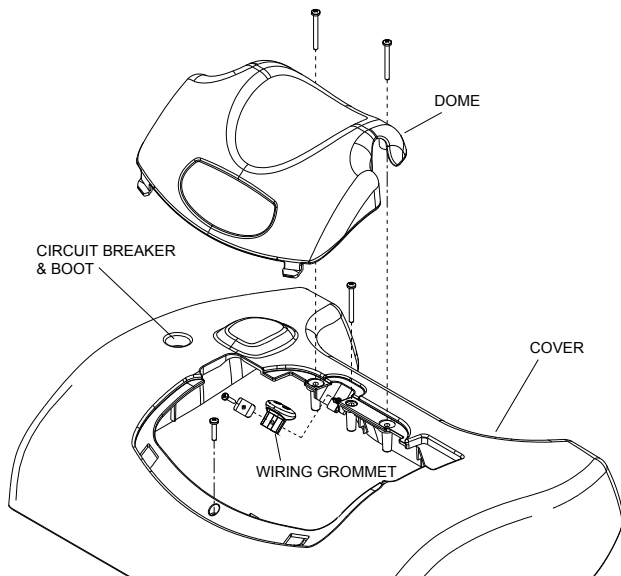
30. Tighten the screw in the long gear drive cap.
 31. Tighten all four motor clamp bolts.
 32. Check both belts for equal tension. The belts should not sag under their own weight, however, should flex easily when squeezed with fingers. If the tension is clearly unequal, loosen the motor mount bolts and retighten. This will equalize the belt tension from one side to the other.
 33. Reinstall finger guards.

Maintenance

34. Reinstall lift brackets with top surface lip on inside.
35. Reinsert circuit breaker through hole in cover, reattach cover, circuit breaker boot, and wiring grommet.
36. Verifying lifter cams are on correct side, reattach handle assembly and belt covers.
37. Reattach dome cover.
38. Reattach solution tank and reconnect top hose. (Deluxe Only)
39. If new belts were installed, run the machine unloaded for 10 minutes to seat them properly.

Motor Replacement & Toothed Belt Tensioning

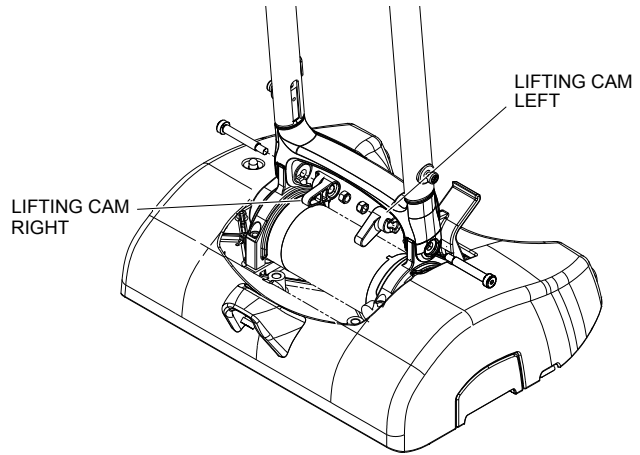
1. Disconnect machine power supply.
2. Detach quick disconnect hose from top of solution tank. (Deluxe Only)
3. Remove elastic straps and solution tank. (Deluxe Only)
4. Remove two dome screws and dome assembly.



5. Remove the circuit breaker boot and push the circuit breaker clear of cover.

6. Mark left and right on the lift cams.
7. Remove the two cam bolts. This will also free the lift cams.

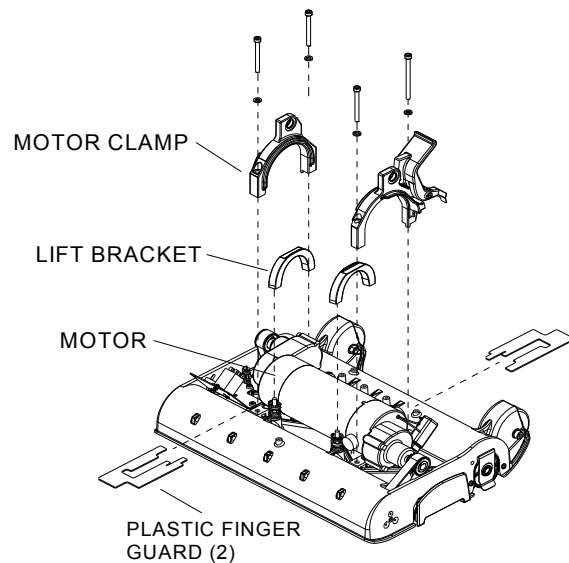
NOTE: There are four plastic bushings that the handle pivots on, leave them on the motor clamps.



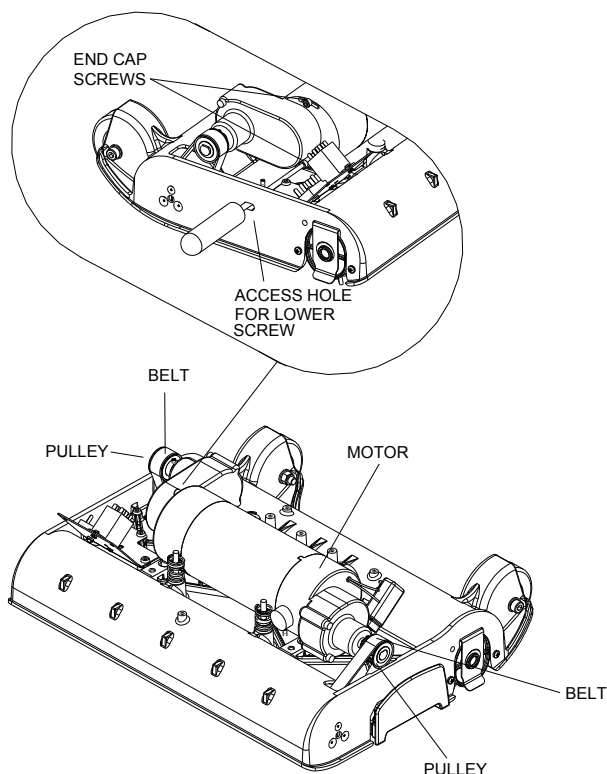
8. Remove the handle assembly.
9. Unscrew the wiring grommet from the main cover, and set retaining bracket and screw aside.
10. Remove the front and back screws and move the main cover to the side.

NOTE: The handle assembly and cover are still attached to the frame by wiring. Be careful not to pinch wiring when reassembling.

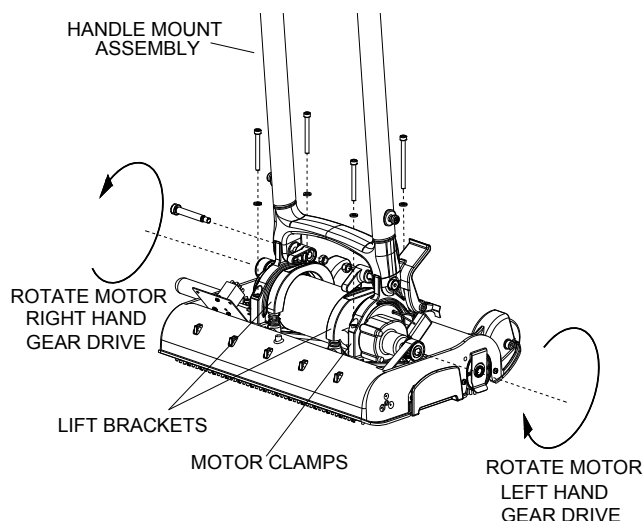
11. Remove the (2) plastic finger guards.
12. Remove the motor clamps and lift brackets.



13. Unplug motor wires. Loosen end cap screws, 1 full turn.



14. Remove belts.
15. Lift motor out of housing, and remove pulleys. Set pulleys aside for re-installation.
16. Take the new motor and loosen the screws in the long rear drive end cap. This allows the end cap to swivel +/- 20 degrees. Do not remove the end cap screws, only back them off 1 full turn.
17. Put the motor in the cradle on the frame. Place pulleys onto motor shaft's. Loop the drive belts onto motor drive pulleys.
18. Place lift brackets on motor, align over pins. Put the motor/clamp mount assembly over the motor and lightly snug the retaining bolts. The motor must be able to turn inside the motor clamps. If clamps are too tight to move the motor by hand, loosen clamp bolts.



19. Turn the motor body inside motor clamps so that the left hand gear drive pivots upwards. Take all of the slack out of the left hand gear drive belt and snug left hand motor clamp bolts.
20. While holding the motor stationary, turn the right hand gear drive downward so that the gear drive housing touches the setscrew in the frame. This set screw was installed on the assembly line and establishes the correct position for the motor.
21. Tighten the screw in the long gear drive cap.
22. Tighten all four motor clamp bolts.
23. Check both belts for equal tension. The belts should not sag under their own weight, however, should flex easily when squeezed with fingers. If the tension is clearly unequal, loosen the motor mount bolts and retighten. This will equalize the belt tension from one side to the other.
24. Reinstall finger guards
25. Reinstall lift brackets with top surface lip on inside.
26. Reinsert circuit breaker through hole in cover, reattach cover, circuit breaker boot, and wiring grommet.
27. Verifying lifter cams are on correct side, reattach handle assembly.
28. Reattach dome cover.
29. Reattach solution tank and reconnect top hose. (Deluxe Only)

Maintenance

Machine Maintenance

The Maintainer requires very little maintenance. Wipe down the machine periodically with a clean cloth. DO NOT spray water directly over the top of machine.

CAUTION:

Deformation of the brush bristles can result in unbalanced running and excessive vibrating or jumping.

The machine is fitted with a circuit breaker. In the unlikely event of overloading, the circuit breaker will automatically trip. It can be reset after approximately 30 seconds (or when the machine cools down) by pushing the set button located on the cover housing.

Daily Maintenance

1. Clean and inspect brushes.
2. Clean and inspect brush housing, debris tray and machine. Rinse debris tray if needed.
3. Inspect power cord for wear or damage. This cable will lie on wet carpet. To prevent electrical shock replace cords that are frayed or have cracked insulation immediately.
4. Flush the tank, pump and spray jet with hot water (Deluxe only).
5. Clean Strainer.

Periodic Maintenance

1. Check all handles, switches, electrical cables and connections on your machine for damage. Repair or replace immediately.
2. Inspect and/or replace brushes.
Replace brushes when main bristles are worn to the same level as the yellow indicator bristles.
3. Check spray pattern. Clean or replace jet if the pattern is blocked or uneven

Annual Maintenance

1. Check all bearings for noise and wear.
2. Check motor for operation.
3. Check overall machine for operation.
4. Check belts for wear and change belts every second year.

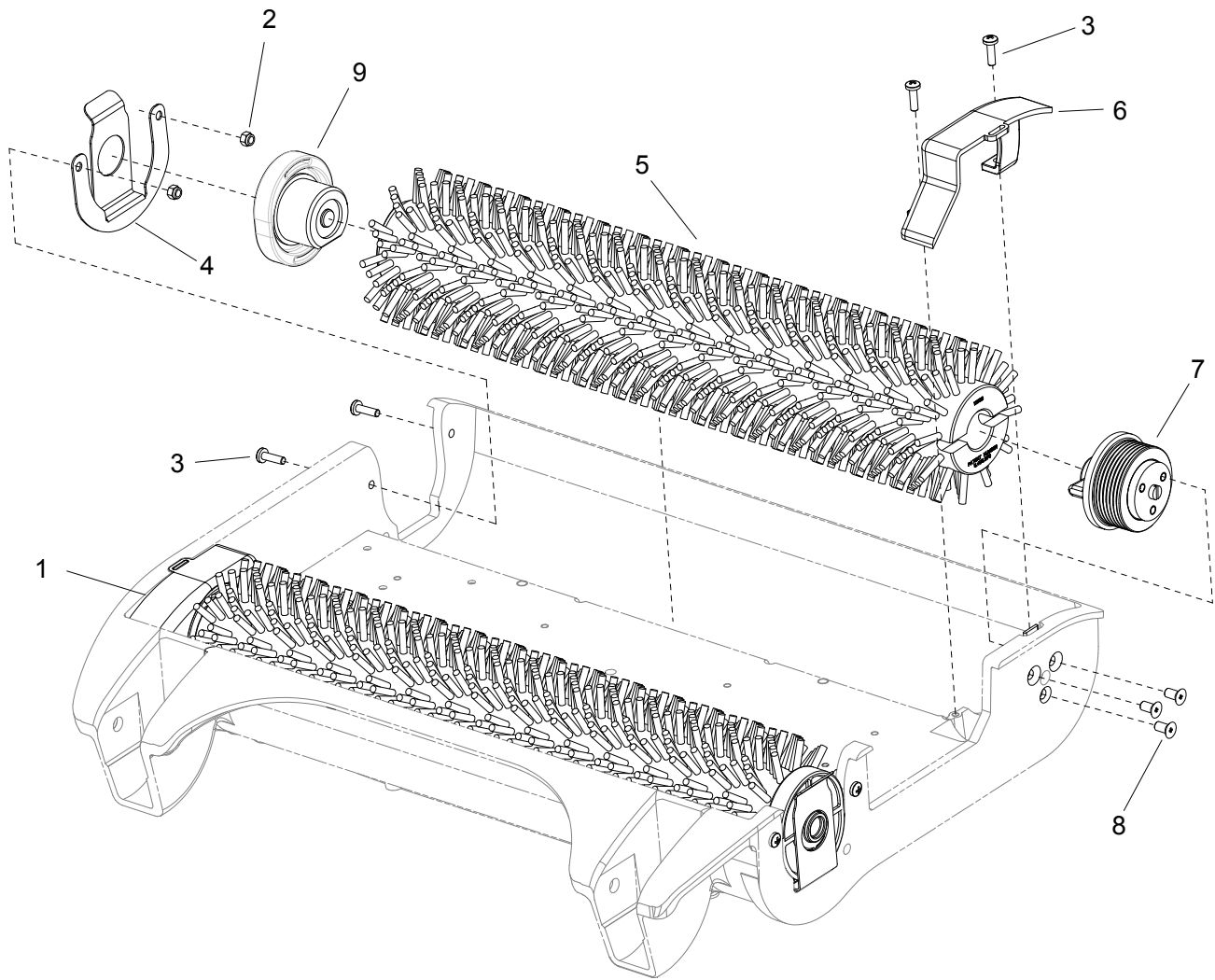
Machine Troubleshooting

PROBLEM	CAUSE	SOLUTION
No power to machine	Tripped electrical circuit breaker in fuse box of building	Check building circuit breaker
	Faulty power cord	Replace power cord
	Power switch failure or relay failure	Replace power switch or relay
	Tripped circuit breaker	Reset circuit breaker. Higher amp draw may indicate faulty parts. Find parts not moving freely and correct as needed.
	Internal wiring problem	With machine unplugged, check for and correct, any loose wire connections.
	Faulty rectifier	Replace rectifier
Electrical Shock	Equipment not grounding	Follow grounding instructions, pg 2-3
	Receptacle not grounded	Have an electrician inspect the building's wiring
	Internal electrical problem	Check for any loose wire connections, replace any items that are short circuiting
Nuisance tripping of circuit breaker	Faulty circuit breaker	Replace circuit breaker
	Mechanical problem	Test circuit breaker for continuity. Higher amp draw may indicate faulty parts. Find parts not moving freely and repair or replace.
Brush not turning or scrubbing	Faulty brush motor/gear box	Replace brush motor/gear box
	Belt failure	Replace belts
	Worn brush motor brushes	Replace brushes, check commutator
Power to motor but motor does not run	Worn brush motor brushes	Replace brushes, check commutator
Bearing squealing or grinding in brush housing	Worn bearings	Replace worn bearing
Machine will only run if the green (on) switch is continuously held down	Defective red (off) switch. Sends constant "off" signal.	Replace or reconnect wire to red (off) switch
No flow or uneven flow from jet (Deluxe only)	Clogged jet	Clean or replace jet
Weak flow from clean jet (Deluxe only)	Clogged strainer	Clean strainer
Pump runs but no flow from jet (Deluxe only)	Disconnect coupling at solution tank	Attach the quick coupling to the solution tank

Notes:

PARTS

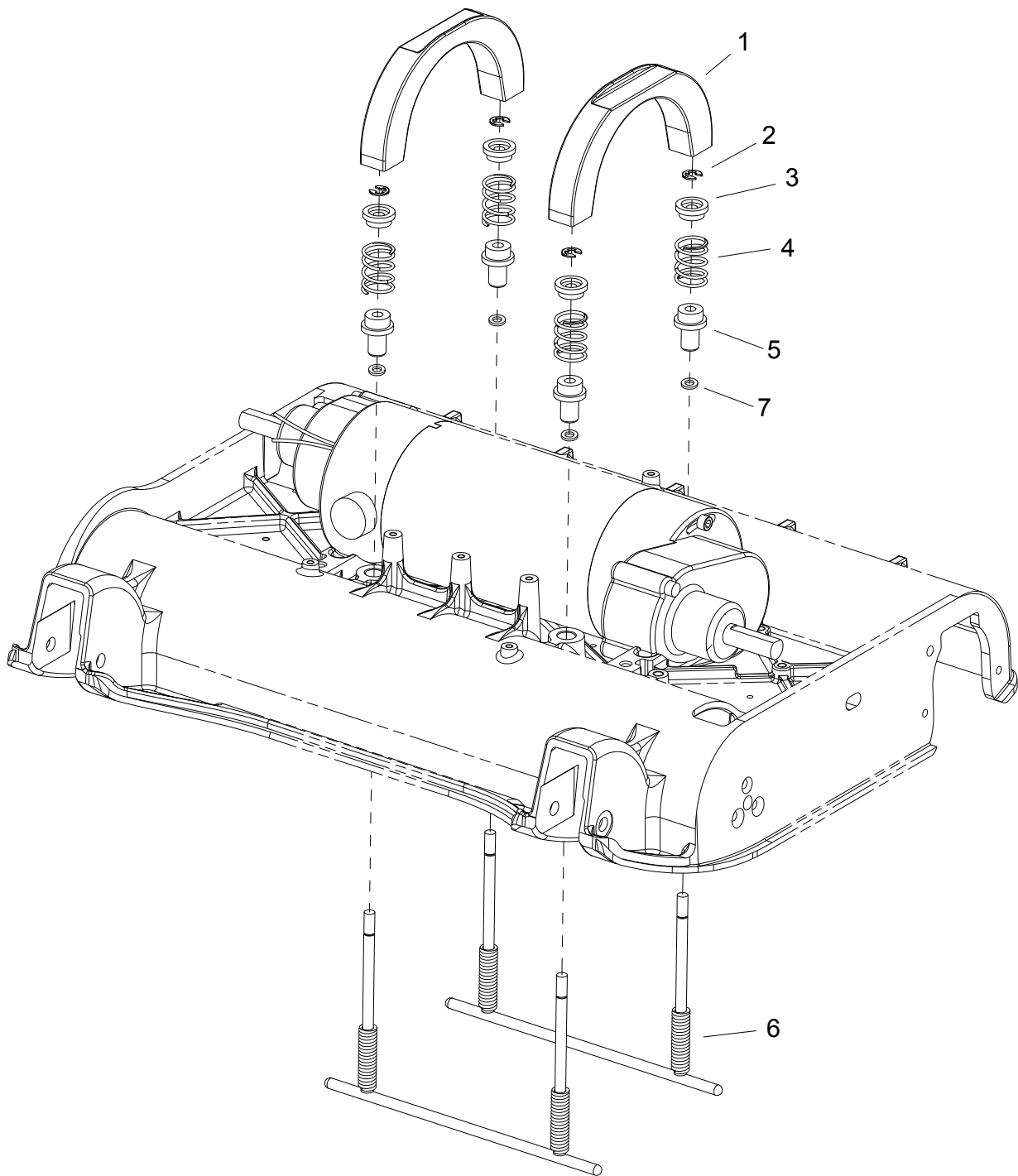
Brush



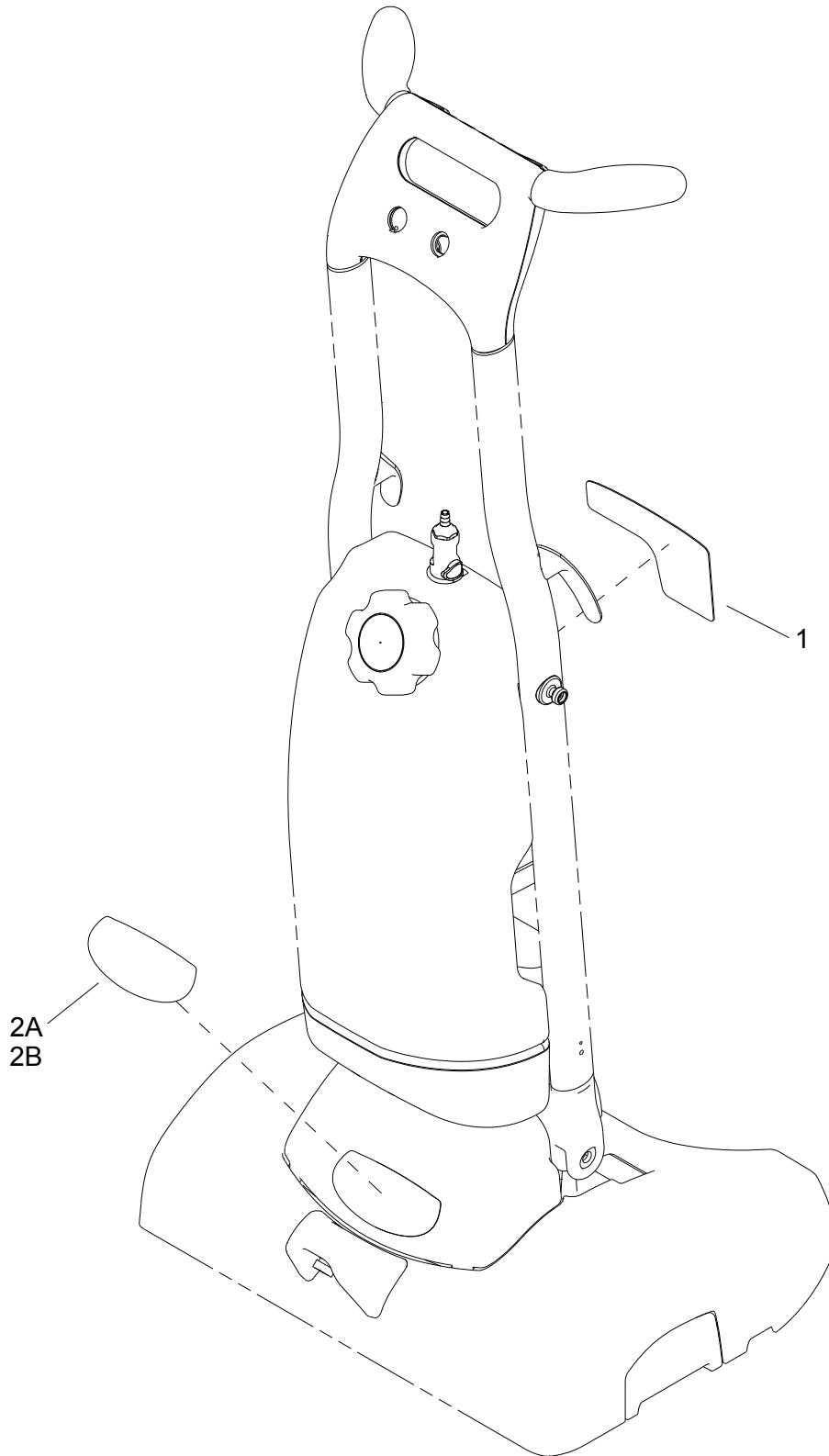
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86217340	1	COVER, BELT, RIGHT		
2	86172630	4	NUT, M4, LK, SST	*(2)	WAS QTY 2
3	86172870	8	SCR, M4X14, PHMS, DIN7985 SST	*(2)	WAS QTY 6
4	86322460	2	SPRING CLIP, BRUSH ICAPSOL	*(2)	WAS 86224670
5	86214850	2	ASSY, BRUSH & HUB		INCLUDES 86214840
6	86217330	1	COVER, BELT, LEFT		
7	86345210	2	ASM, BRUSH DRIVE	*(3)	
8	86172840	6	SCR, M5X10, PHS, FHD, SST		
9	86214840	2	ASSY, BRUSH, COAST		

*See Serial Number Page

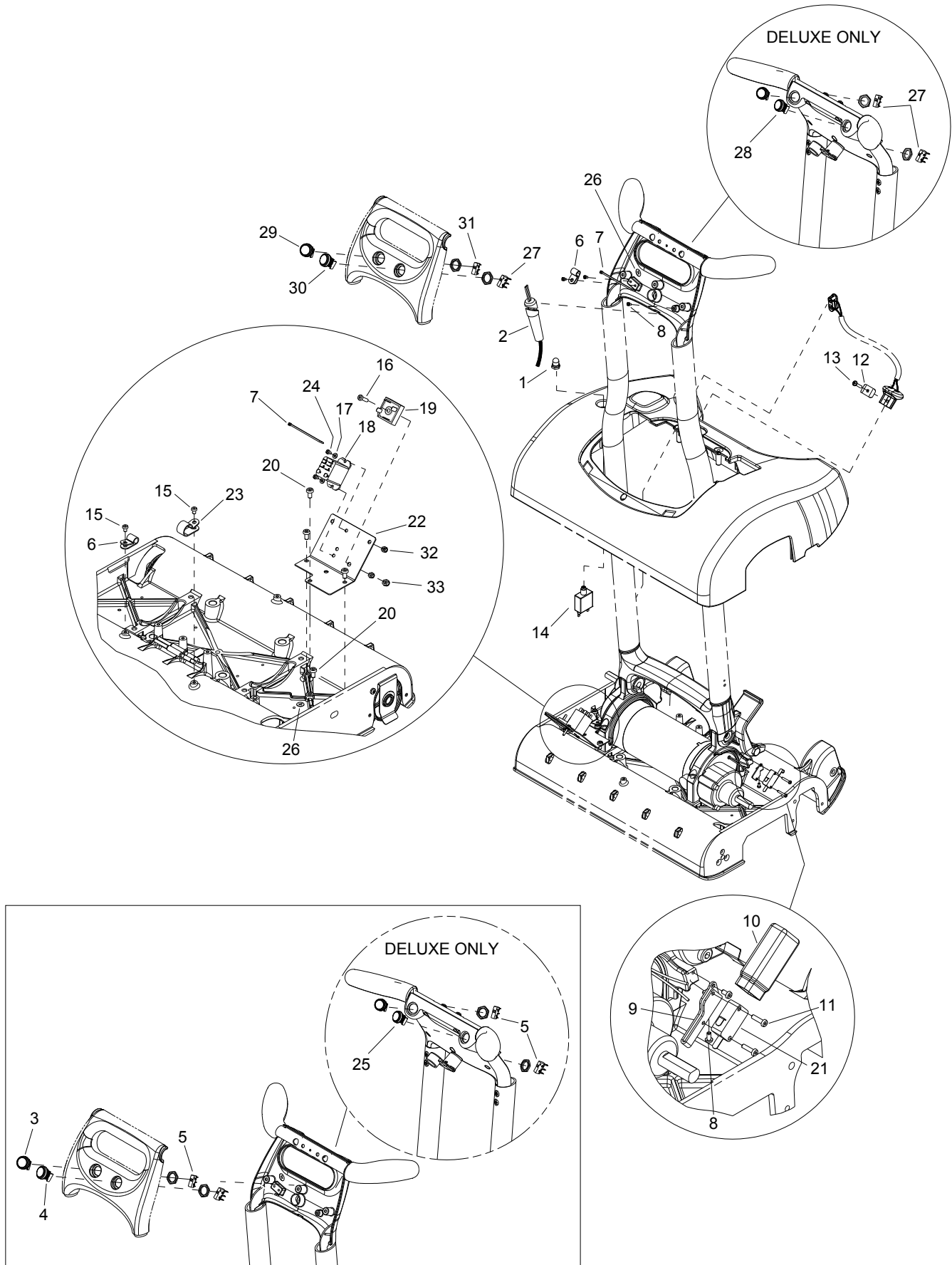
**Call Manufacturer For Serial Number



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86215580	2	BRACKET, CROSSOVER PUSH		
2	86172700	4	RING, E-TYPE, 5MM ID, DIN6799		
3	86215750	4	BRG, FLNG, 6MM IDX7MM LONG		
4	86348880	4	SPRING, CMP, 18ODX 6,1N		
5	86215740	4	BRG, FLNG, 6MM IDX24MM LONG		
6	86223620	2	ROD, LIFTING		
7	86348900	4	WASHER, ROD WIPER, 6MM		



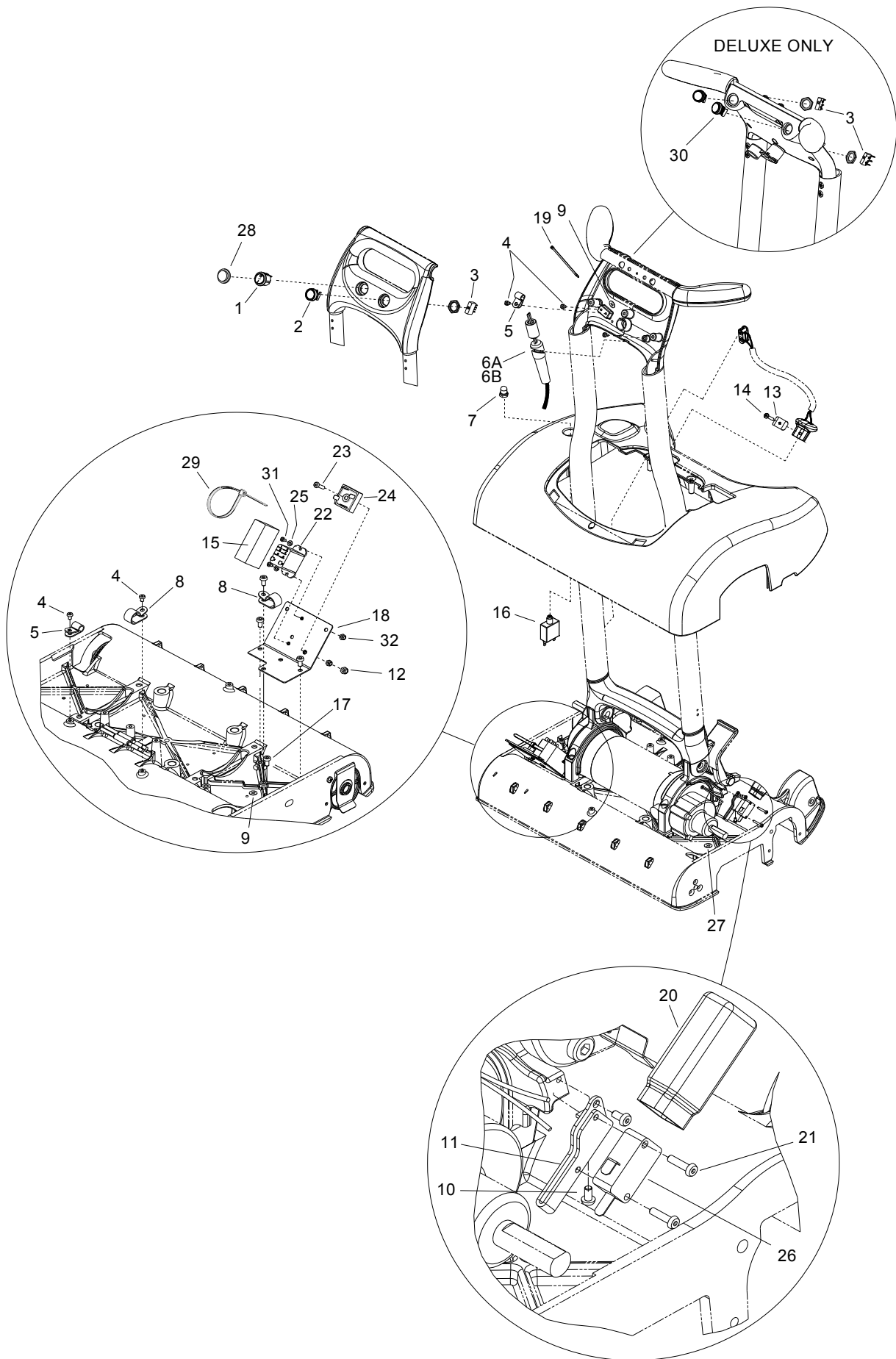
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86221620	1	LABEL, CHEMICAL INSTRUCTION		DELUXE ONLY
2A	86244630	1	LABEL, MAIN, ICAPSOL MINI		WINDSOR ONLY
2B	86244920	1	LABEL, PROCAP PROCHEM		PROCHEM ONLY



REF	PART NO.	PRV NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86002010	14942	1	BOOT, 3/8 CIRCUIT BREAKER		
2	86217120	23729	1	CORD SET, 18/3 X 40FT SJT		
3	86214770	38370	1	ASM RED BUTTON W/BEZEL		
4	86214780	38371	1	ASM GREEN BUTTON W/BEZEL		
5	86225070	38372	2	SWITCH, ITW, MICRO		
6	86198450	20005	2	CLAMP, 5/16 NYLON		
7	86225320	78601	1	TIE, CABLE NYLON		
8	86173100	70935	2	SCR, M3X6, BSHCS, SST		
9	86291470	-	1	BRKT, MTR BRKT, SWITCH, CVR		
10	86291490	-	1	COVER, SWITCH, BRKT		
11	86291880	-	2	SCR, M3X12, BSHCS, SST		
12	86216800	20110	1	CLIP, WIRE		
13	86277600	70882	1	SCR, M4X20, PPHMS, SST		
14	86215670	140839	1	BREAKER, 8A VDE CIRCUIT		
15	86172880	70901	5	SCR, M4X6, BSHCS, SST		
16	86173200	70950	1	SCR, M4X16, BSHCS, SST		
17	86225850	87517	2	WASHER, M3, FL, ISO7089, SST		
18	86223400	67516	1	RELAY, 15A 120VAC MINI		
19	86223390	67488	1	RECTIFIER, 50A 600V BRIDGE		
20	86173210	70951	4	SCR, M5X10, BSHCS, SST		
21	86291860	70930	1	SWITCH, 125VAC SP NC ROLLER		
22	86222680	05264	1	PLATE, BASE, ELECTRICAL BOX		
23	86216740	20040	1	CLAMP, 17,7 NYLON		
24	86223850	-	2	SCR,M3X8, BHCS, ISO 7380, SST		
25	86013570	-	2	SWITCH, PUSHBUTTON, BL, DLX		DELUXE ONLY
26	86299320	-	2	LABEL, GROUND SYMBOL		
27	86313930	-	1	SWITCH, W/COUPLER, N.C.	*(1)	DELUXE (QTY 3)
28	86295190	-	2	ASM, BUTTON, BLUE, W/BEZEL	*(1)	DELUXE ONLY
29	86295150	-	1	ASM, BUTTON, RED, W/BEZEL	*(1)	
30	86295180	-	1	ASM, BUTTON, GREEN, W/BEZEL	*(1)	
31	86314630	-	1	SWITCH, W/COUPLER, N.O.	*(1)	
32	86329030	-	2	NUT, M3 HEX NYLOCK		
33	86172630	57314	1	NUT, M4, LK, ISO7040,SST		

*See Serial Number Page

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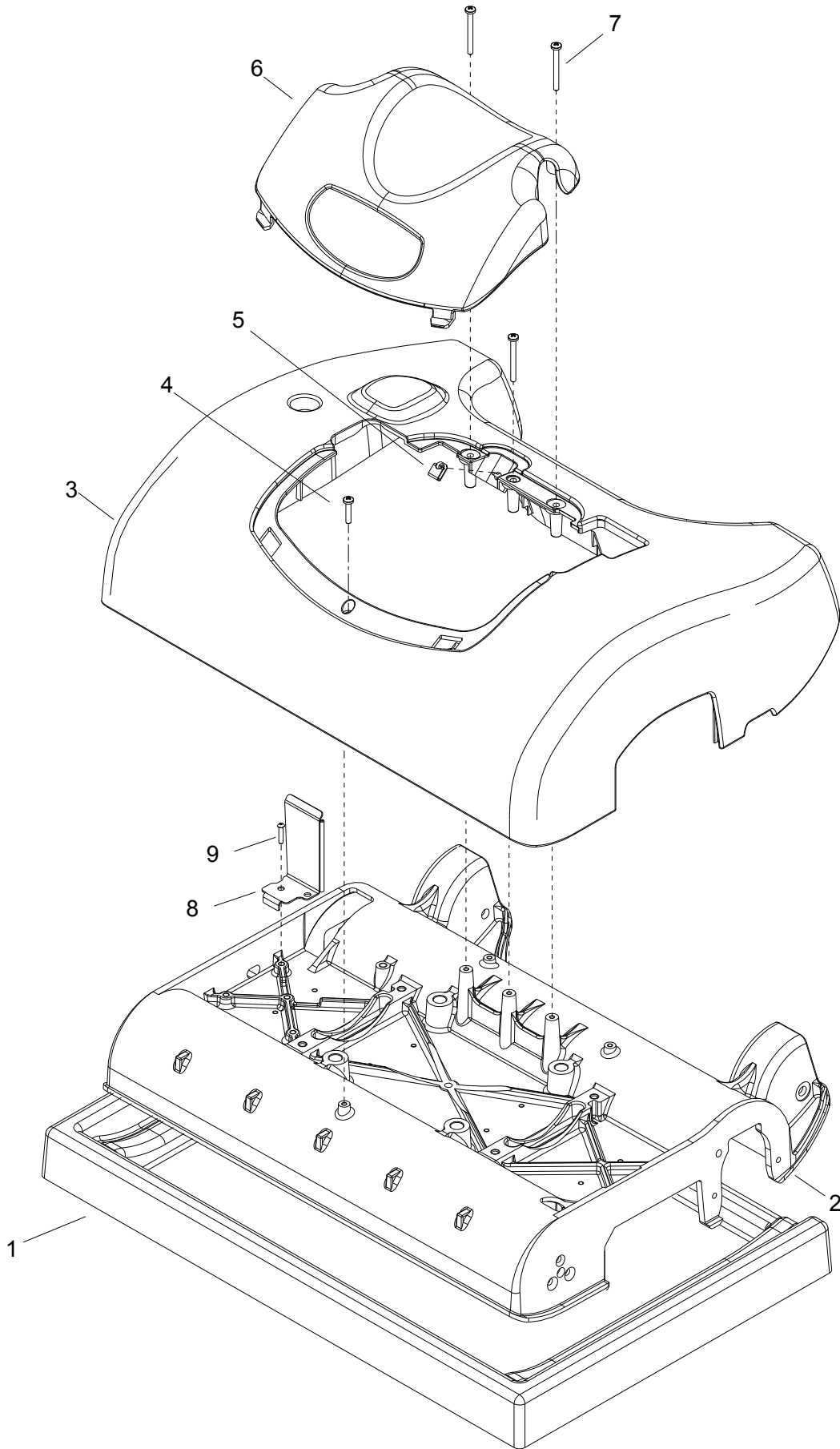


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86299810	1	SWITCH, BLACK, ROCKER, DPST		
2	86295180	1	ASM, BUTTON, GREEN, W/BEZEL		
3	86313930	1	SWITCH, W/COUPLER, N.C.	*(1)	DELUXE (QTY 3)
4	86172880	5	SCR, M4X6, BSHCS, SST		
5	86198450	2	CLAMP, 5/16 DIA NYLON		
6A	86217200	1	CORD SET, EURO 1MM X 40 BLACK		
6B	86310620	1	CORD SET, 18/3 X 40FT AUS		
7	86002010	1	BOOT, 3/8 CIRCUIT BREAKER		
8	86216740	2	CLAMP, 17,7 NYLON		
9	86299320	2	LABEL, GROUND SYMBOL		
10	86173100	2	SCR, M3X6, BSHCS, ISO7380, SST		
11	86291470	1	BRKT, MTR BRKT, SWITCH		
12	86172630	1	NUT, M4, LK, ISO7040,SST		
13	86216800	1	CLIP, WIRE		
14	86277600	1	SCR, M4X20, PPHMS, SST		
15	86302450	1	ASM, FILTER, EMI MAIN		
16	86215710	1	BREAKER, 5A VDE CIRCUIT		
17	86173210	4	SCR, M5X10, BSHCS, SST		
18	86222680	1	PLATE, BASE, ELECTRICAL BOX		
19	86225320	4	TIE, CABLE NYLON		
20	86291490	1	COVER, SWITCH, BRKT		
21	86291880	2	SCR, M3X12, BSHCS, ISO7380, SS		
22	86223420	1	RELAY, 10A 230V MINI SPDT		
23	86173200	1	SCR, M416, BSHCS, SST		
24	86223460	1	RECTIFIER, 50A 1000V BRIDGE		WAS 86223390
25	86225850	2	WASHER, M3, FL, ISO 7089, SST		
26	86291860	1	SWITCH, 125VAC SP NC NO-ROLLER		
27	86299320	1	LABEL, GROUND SYMBOL		
28	86299830	1	COVER, SWITCH, PVC		
29	86264940	2	CABLE TIE, 11.38" UL/CSA		
30	86295190	2	ASM, BUTTON, BLUE, W/BEZEL		DELUXE ONLY
31	86223850	2	SCR,M3X8, BHCS, ISO 7380, SST		
32	86329030	2	NUT, M3 HEX NYLOCK		

*See Serial Number Page

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Frame

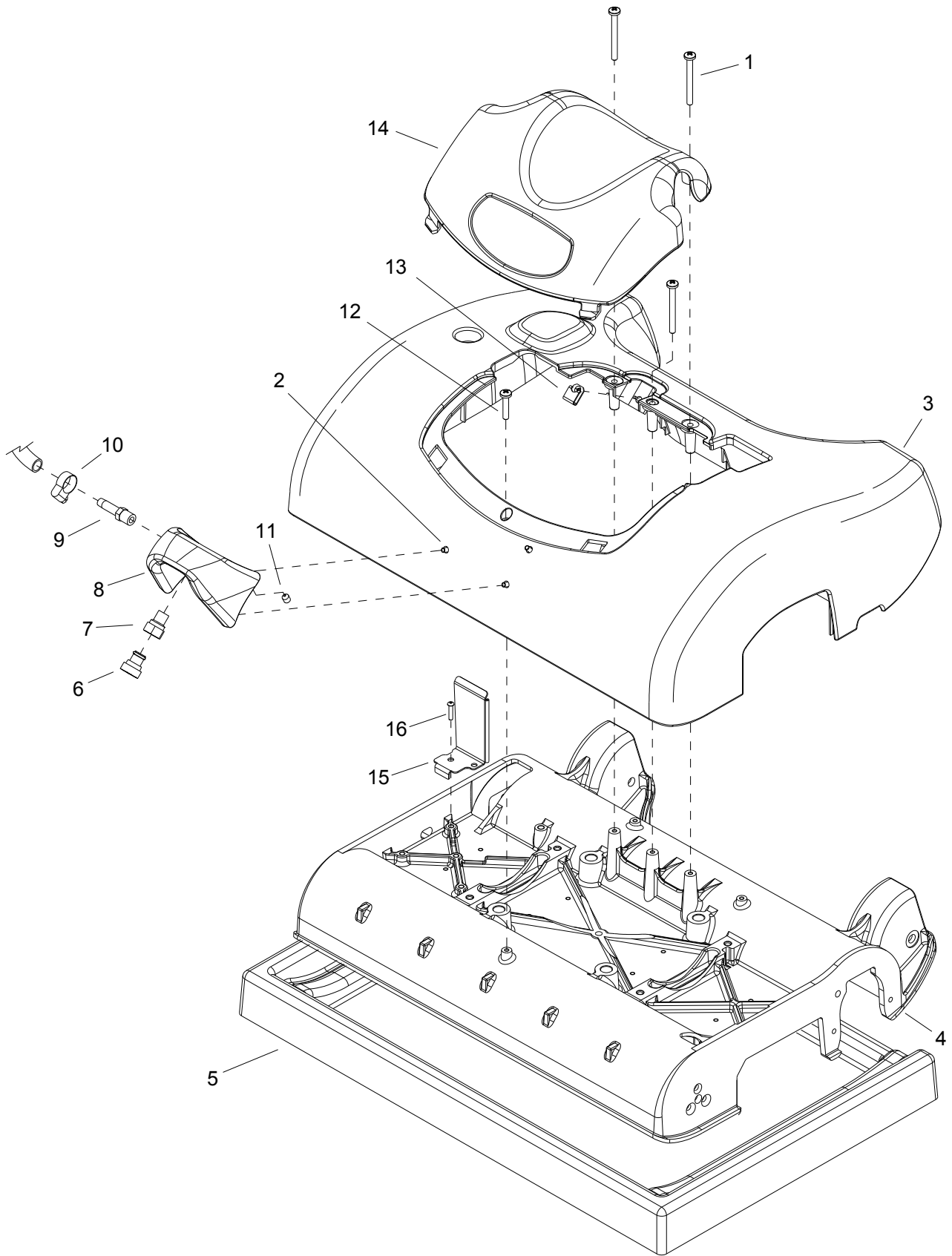


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86225340	1	TRAY, IRENEW MINI		
2	86217930	1	FRAME, 3.5", SINGLE MOTOR		
3	86214820	1	ASSY, COVER, INSULATION		
4	86277600	1	SCR, M4X20, PPHMS, SST		
5	86222360	1	NUT, M4X0.7, U-CLAMP, 3MM PANEL		
6	86214830	1	ASSY, DOME, INSULATION		
7	86173050	3	SCR, M4 X 40 PPHMS ISO7045,SS		
8	86348890	1	PLATE, SPLASH GUARD	**	
9	86173210	1	SCR,M5X10,BSHCS,ISO7380,SS	**	

*See Serial Number Page

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Frame Deluxe

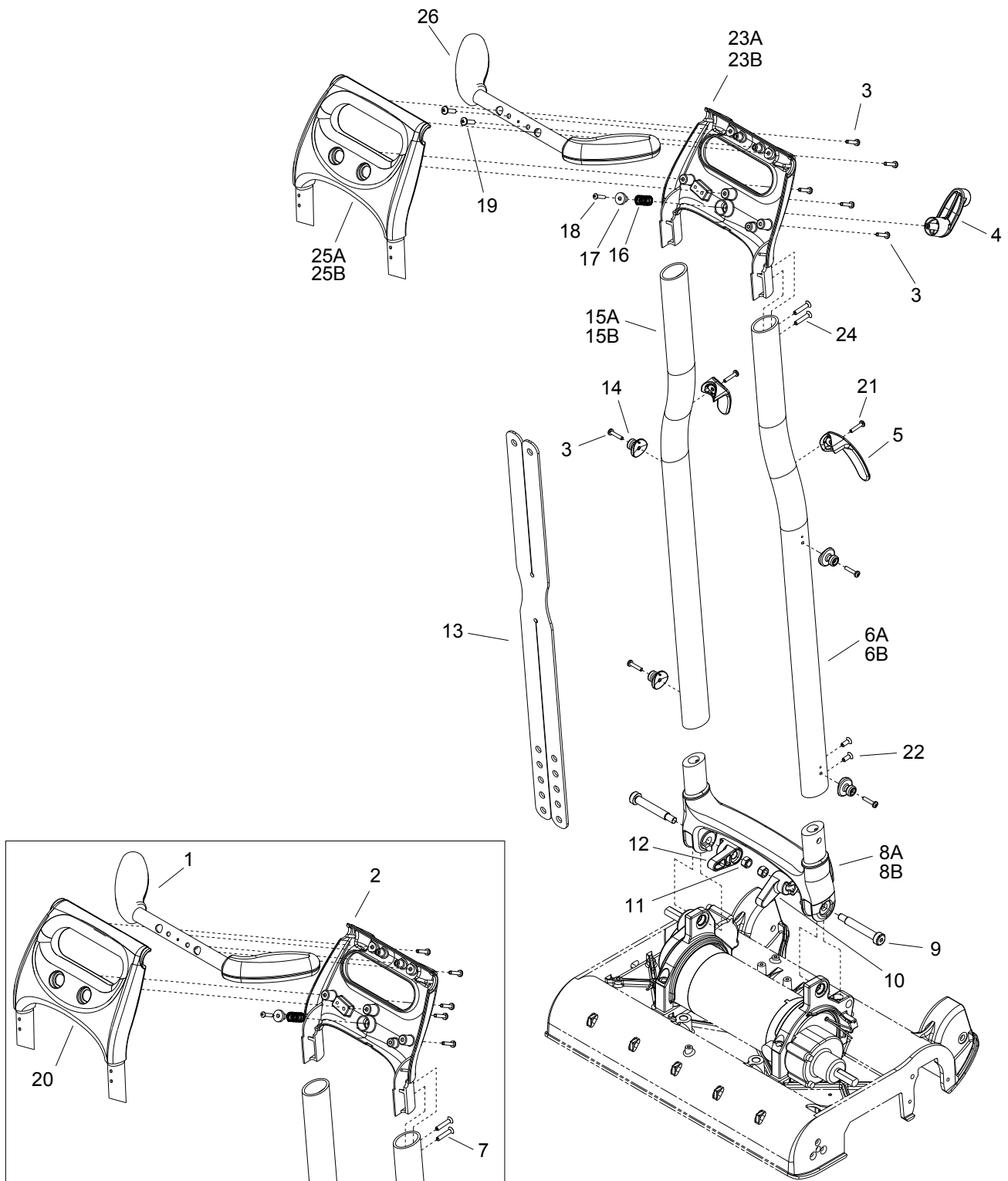


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86173050	3	SCR, M4 X 40 PPHMS, SS		
2	86173040	3	SCR, M4 X 10 SHCSB BUTHD		
3	86011610	1	ASSY, COVER, INSULATION, DLX		
4	86217930	1	FRAME, 3.5, SINGLE MOTOR		
5	86225340	1	TRAY, IRENEW MINI		
6	86012550	1	JET, PROMAX, 11001		
7	86004570	1	JET BODY, MINI PROMAX BODY		
8	86012440	1	MANIFOLD, SPRAYER, DLX, IMX		
9	86197520	1	HOSEBARB, 1/8MPT X 1/4 DL		
10	86233090	1	CLAMP, 1/4 ID HOSE		
11	86290790	1	SCR, M6 X 8, CP, BLK		
12	86277600	1	SCR, M4 X 20, PHMS, SST		
13	86222360	1	NUT, M4 X 0.7, U-CLAMP, 3MM PANEL		
14	86214830	1	ASSY, DOME, INSULATION		
15	86348890	1	PLATE, SPLASH GUARD	**	
16	86173210	1	SCR,M5X10,BSHCS,ISO7380,SS	**	

*See Serial Number Page

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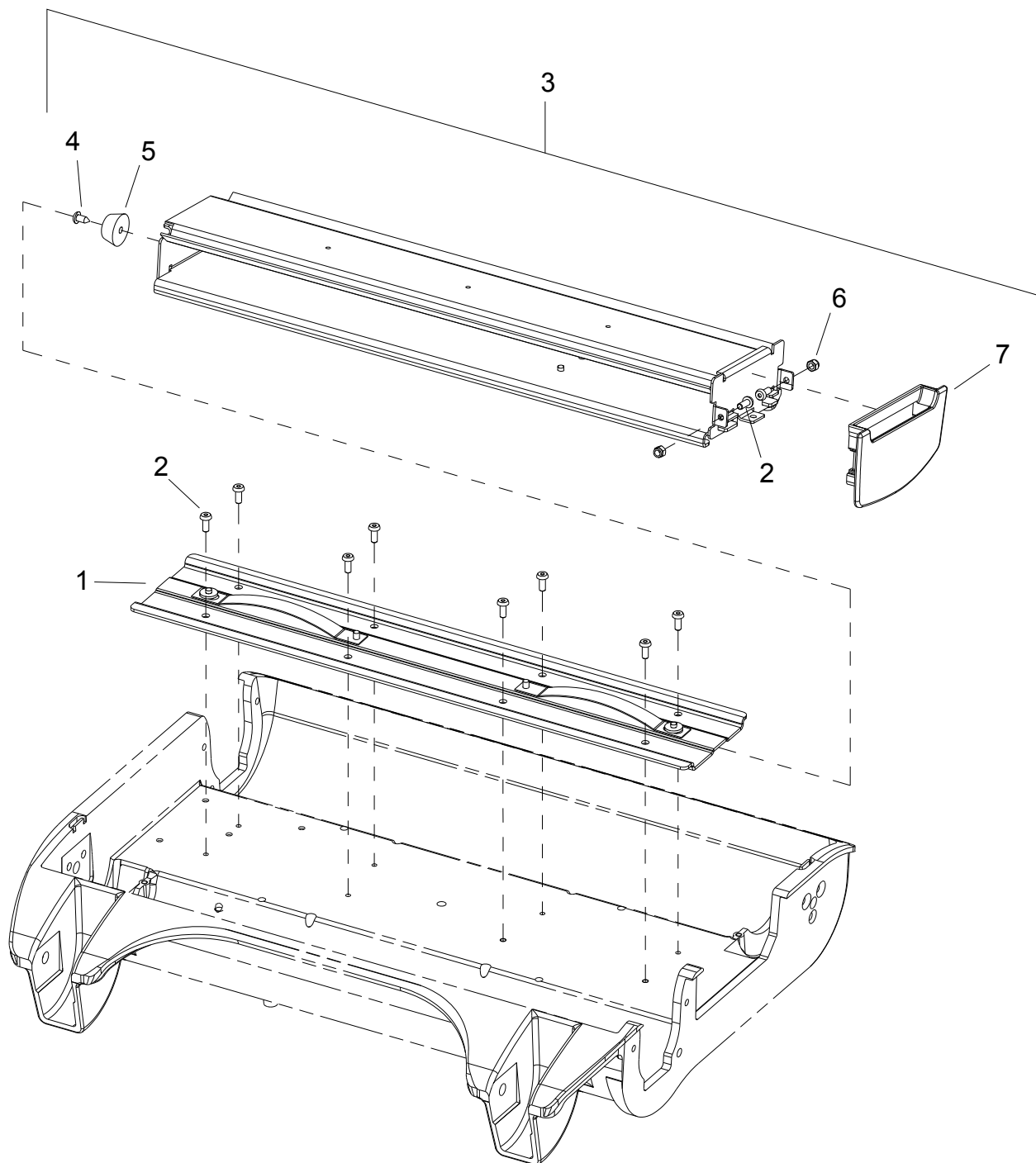
Handle



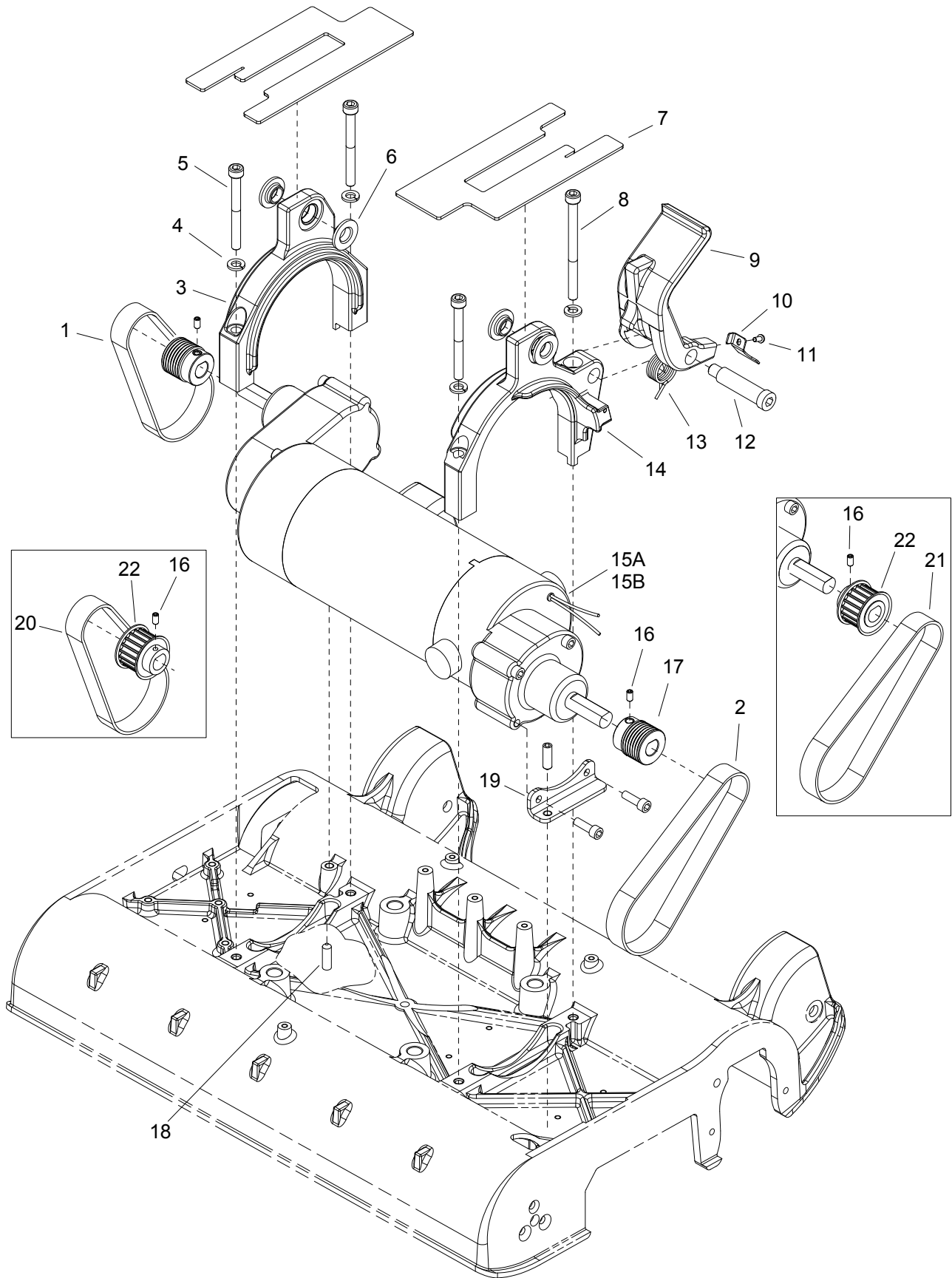
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86011380	1	GRIP, HANDLE		
2	86059580	1	CONSOLE, BOTTOM		
3	86277600	9	SCR, M4X20, PPHMS, SST		
4	86217230	1	CORD HOOK, UPPER		
5	86217220	2	CORD HOOK, LOWER		
6A	86218680	1	HANDLE, EXTRUSION, LEFT		DELUXE ONLY
6B	86218510	1	HANDLE, EXTRUSION, LEFT		
7	86173070	4	SCR, M5X12, CSK.OVL,ISO 7047,SS		
8A	86013820	1	PIVOT CASTING, DLX		DELUXE ONLY
8B	86222650	1	PIVOT CASTING		
9	86173180	2	SCR, 10M8X55, SHLD, BLK		
10	86221800	1	LIFTING CAM, LEFT		
11	86172640	2	NUT, M8, LK, SST		
12	86221810	1	LIFTING CAM, RIGHT		
13	86224970	1	STRAP, SPRAYER HOLD DOWN		
14	86223640	4	RUBBER STRAP HOOK		
15A	86218690	1	HANDLE, EXTRUSION, RIGHT		DELUXE ONLY
15B	86218520	1	HANDLE, EXTRUSION, RIGHT		
16	86224680	1	SPRING, COMP, 11.56D X 19.05L		
17	86223450	1	RETAINER, SPRING, CORD HOOK		
18	86012940	1	SCR, KA40X35, PT OVAL, WN1412, PL		
19	86172820	2	SCR, M5X20, PPHMS, SST		
20	86216890	1	CONSOLE, TOP		
21	86172870	2	SCR, M4X14, PPHMS, ISO7045, SST		
22	86294260	4	SCR, M5X12, W/LOCTITE		
23A	86305580	1	CONSOLE, BOTTOM, DLX	**	DELUXE 110V & BASIC 110V
23B	86293330	1	CONSOLE, BOTTOM	**	DELUXE 230V & BASIC 230V
24	86308740	4	SCR, M5X30,CSK, OVL, ISO7047,SS	**	
25A	86293340	1	CONSOLE, TOP	**	DELUXE 110V & BASIC 110V
25B	86305590	1	CONSOLE, TOP	**	DELUXE 230V & BASIC 230V
26	86299750	1	GRIP, HANDLE	**	

*See Serial Number Page

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REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86214790	1	ASM, GUIDE, HOPPER		
2	86173040	10	SCR, M4X10, BSHCS, SST		
3	86214800	1	ASM, HOPPER FRAME & PLATE		
4	86173080	1	SCR, 4.2 X 9.5, TAP, ZN		
5	86216310	1	BUMPER, STOP, HOPPER		
6	86172630	1	NUT, M4, LK, SST		
7	86217450	1	COVER, FRONT, HOPPER		

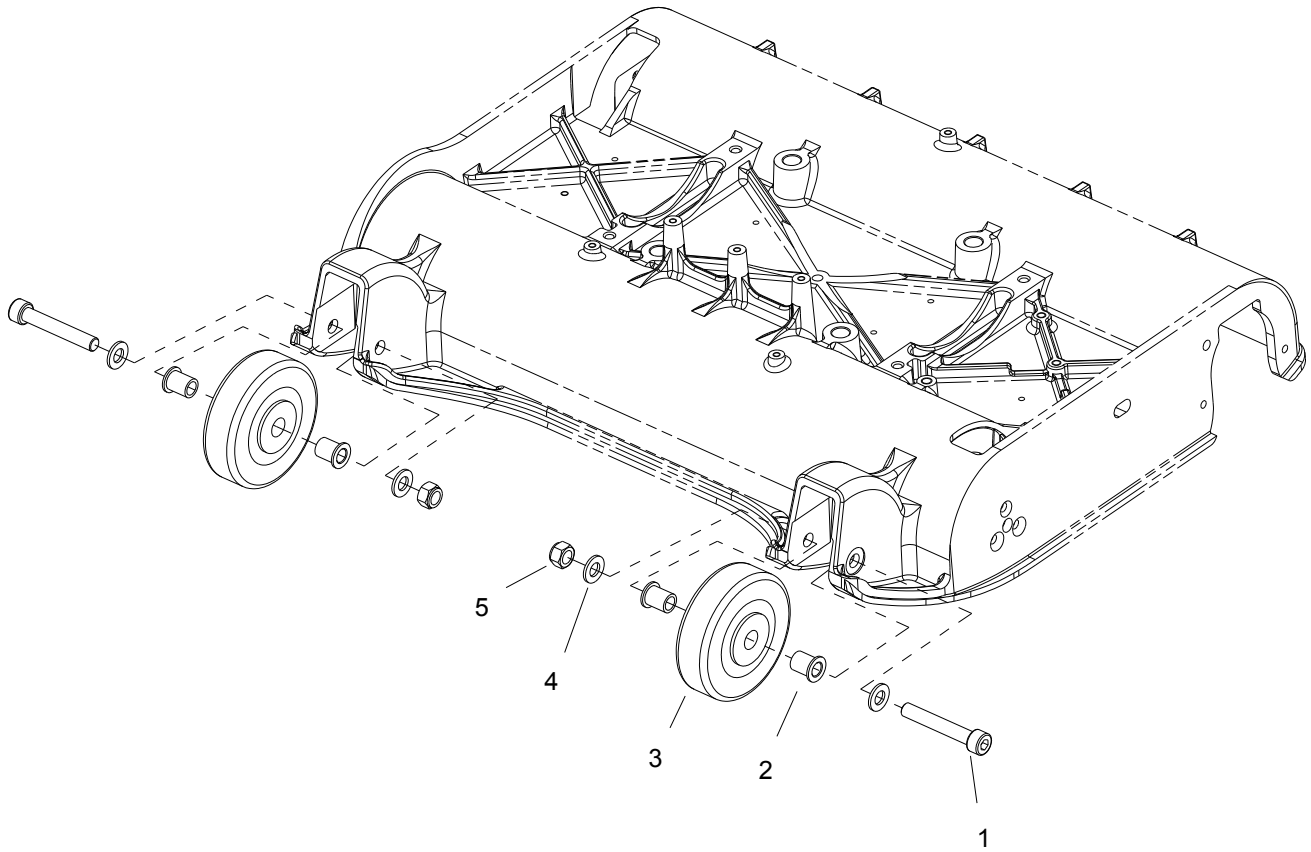


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86343290	1	BELT, FLEX-V, PJ-6, 293	*(3)	
2	86343300	1	BELT, FLEX-V, PJ-6, 319	*(3)	
3	86215960	1	BRKT, MTR MOUNT, RH		
4	86173310	4	WASHER, SPRING LK, 6MM, SS		
5	86173060	3	SCR, SHCS, M6X60, SST		
6	86217890	4	FLANGE, BRG, PIVOT		
7	86217590	2	CVR PLATE, 1.5MM THK, PLASTIC		
8	86173090	1	SCR, SHCS, M6X80, SST		
9	86222530	1	PEDAL, FOOT, HANDLE RELEASE		
10	86291480	1	BRKT, FOOT PEDAL, SWITCH		
11	86173100	1	SCR, M3X6, BSHCS, SST		
12	86223870	1	SCR, SHLDR, 11.00DIAXM8X40		
13	86224620	1	SPRING, TORSION, 19.38 OD		
14	86215950	1	BRKT, MTR MOUNT, LH		
15A	86222200	1	MOTOR, SINGLE, 3.5" DIA		120V ONLY
15B	86222210	1	MOTOR, 230V, IMIE		230V ONLY
-	86216180	1	BRUSH SET, 120V VAC, IM		120V & 230V, NOT SHOWN
16	86290790	2	SCR,M6X8,ISO4029,CP,BLK	*(3)	
17	86343270	2	PULLEY, PJ-6, 27MM	*(3)	
18	86253200	2	SET SCR, M6 X 25 CP		
19	86343310	1	BRKT, MOT0R ADJUSTMENT	*(3)	
20	86215320	1	BELT, HTD, 15MMX300,60TOOTH		
21	86215300	1	BELT, HTD, 15MM X 325 65 TOOTH		
22	86223340	1	PULLEY, HTD, 5MM, 15W, 18T		

* See Serial Number Page

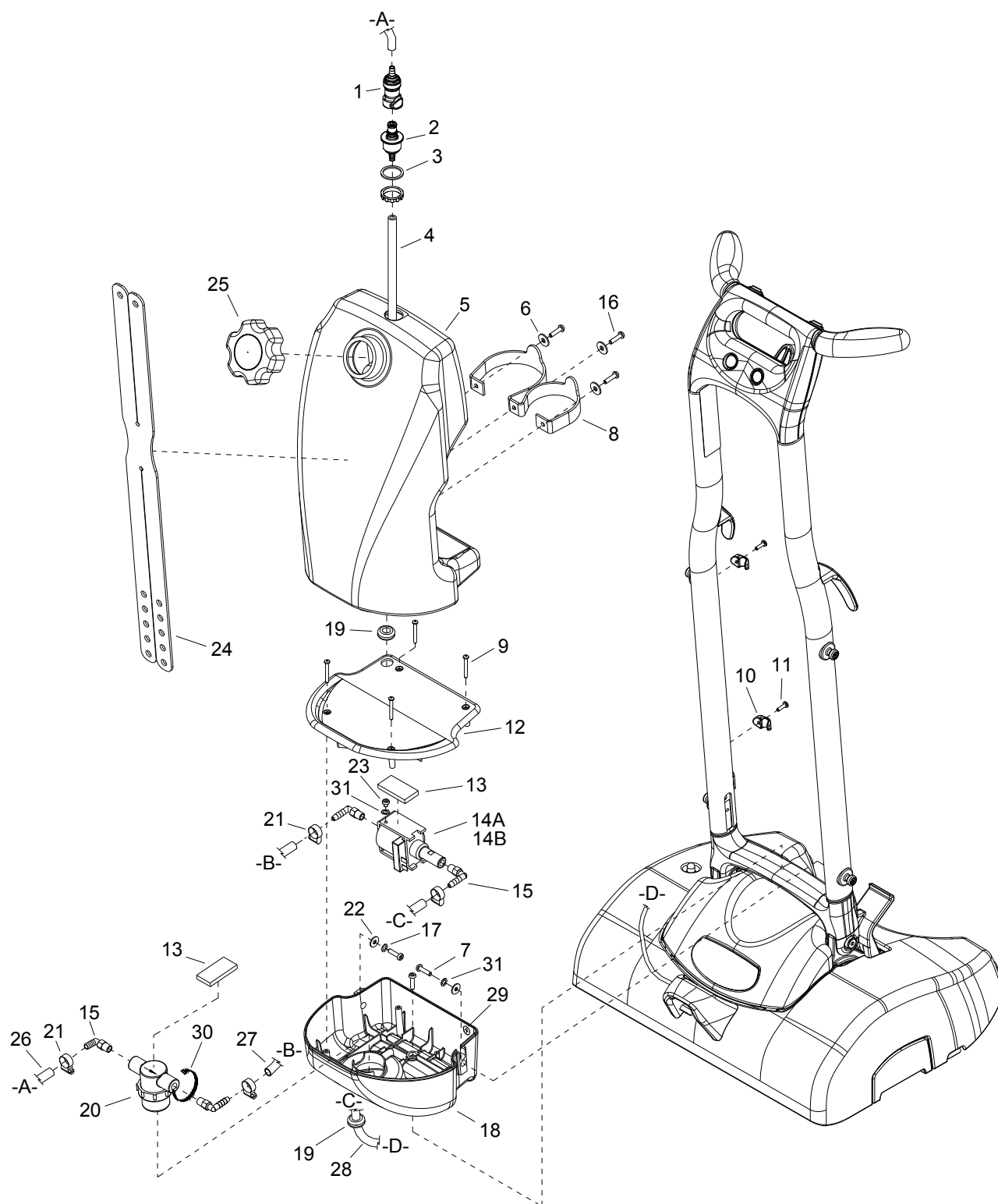
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Rear Wheel

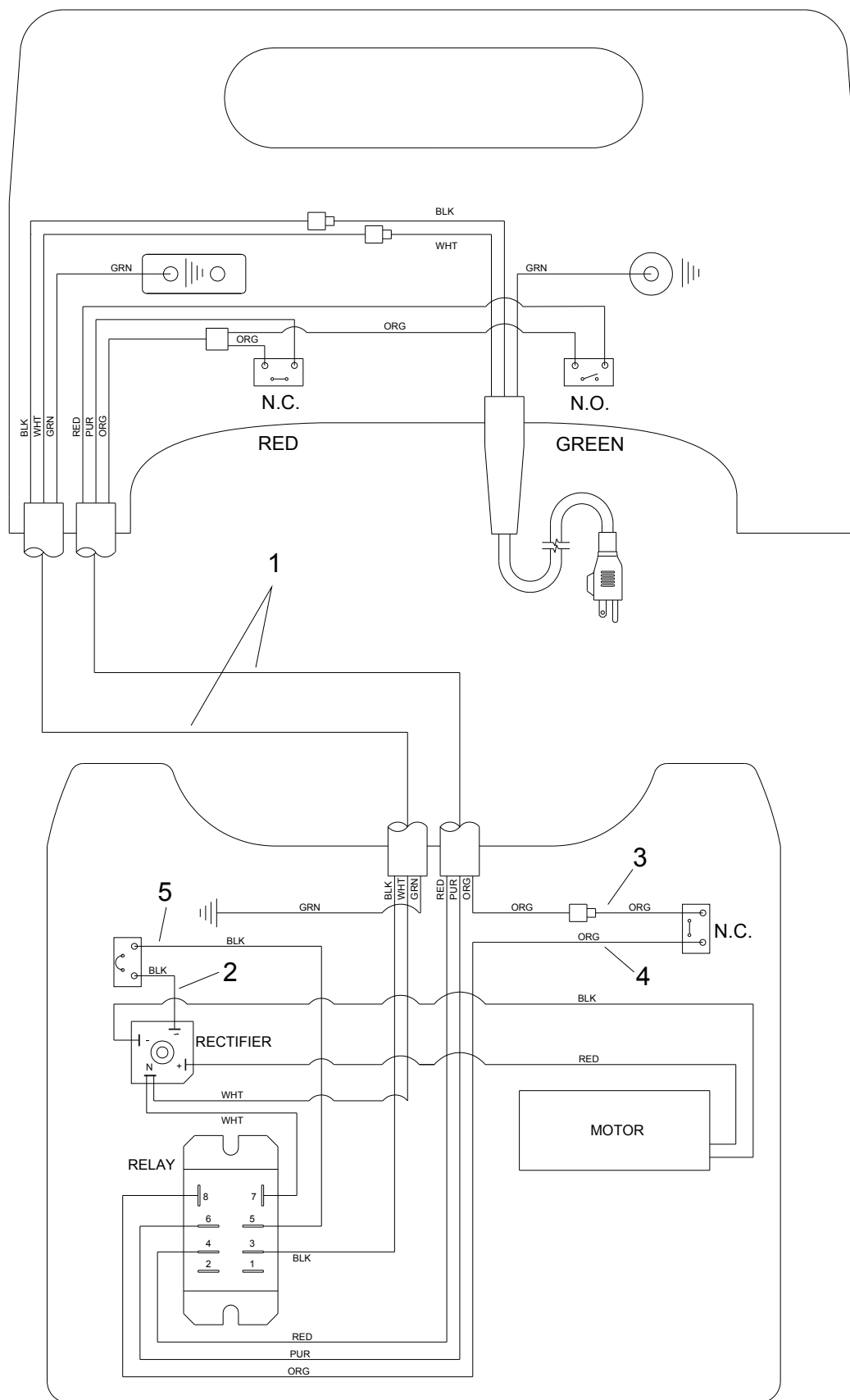


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86172790	2	SCR, SHCS, M8X50, ISO4762, BLK		
2	86216450	4	BUSHING, 11.25MM X 8.0MM, SST		
3	86011020	2	WHEEL, 3" DIA. CUSHION RUBBER		
4	86173300	4	WASHER, M8, FL, ISO7089, SST		
5	86172640	2	NUT, M8, NYLOCK, ISO7040, SST		

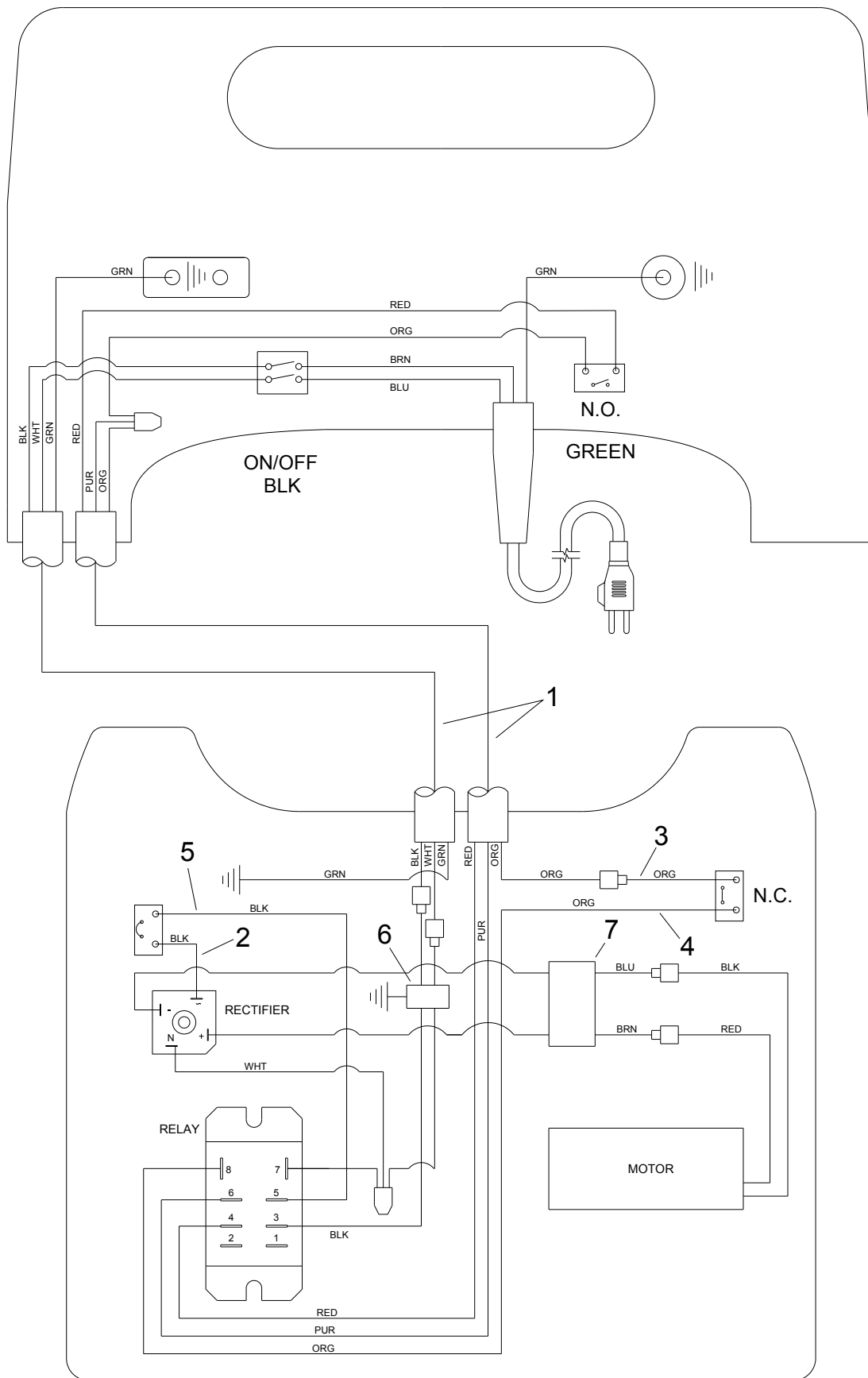
Solution Tank - Deluxe



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86299710	1	CPLR, BODY, 1/4" BARB, GRY		
2	86299720	1	CPLR, PNL MNT, 1/4" BARB, GRY		
3	86012500	1	SEAL, COUPLER, EPDM RUBBER		
4	86219230	1	HOSE, SUCTION, TANK, DELUXE		
5	86225300	1	TANK, DLX (MACH)		
6	86013850	3	WASHER, M6, FNDR, SS		
7	86172820	3	SCR, M5 X 20, PHMS, ISO7045, SST		
8	86012570	1	STRAP, CHEMICAL BOTTLES, DLX		
9	86012940	5	SCR, KA40X35, PT OVL, PL		
10	86216780	2	CLAMP, TUBE 1/4"		
11	86172870	2	SCR, M4X14 PHMS, SST		
12	86217560	1	COVER, PUMP, TOP, DELUXE		
13	86012520	2	GASKET, SEAL, NEOPRENE, RBR		
14A	86201120	1	PUMP, 220/240V 50HZ FLOJET		230V
14B	86201110	1	PUMP, 110/120 60HZ FLOJET		110V
15	86240520	4	HOSEBARB, 1/8MPT X 1/4 90D		
16	86172990	3	SCR, M6 X 12 BHCS, ISO 7380, SS		
17	86013840	1	WASHER SPRING LCK, SMM		
18	86217550	1	COVER, PUMP, DELUXE		
19	86012530	2	GROMMET, 9.3MM ID X 23MM OD		
20	86012560	1	STRAINER, SMALL, 60 MESH		
21	86233090	4	CLAMP, 1/4 ID HOSE		
22	86012970	2	WASHER, M5, FNDR, SS		
23	86006770	1	SCR, 10-32 X 1/4 PHTR PLTD		
24	86224970	1	STRAP, SPRAYER HOLD DOWN		
25	86012470	1	CAP, 2-1/4, POWER GRIP		
26	86290030	1	HOSE, 3/8OD X 1/4ID URTHN X 30"		
27	86290010	1	HOSE, 3/8OD X 1/4ID URTHN X 8"		
28	86290020	1	HOSE, 3/8OD X 1/4ID URTHN X 27"		
29	86299320	1	LABEL, GROUND SYMBOL		
30	86225320	1	TIE-CABLE, NYLON		
31	86010640	2	WASHER, #10 LOCK EXT STAR SS		

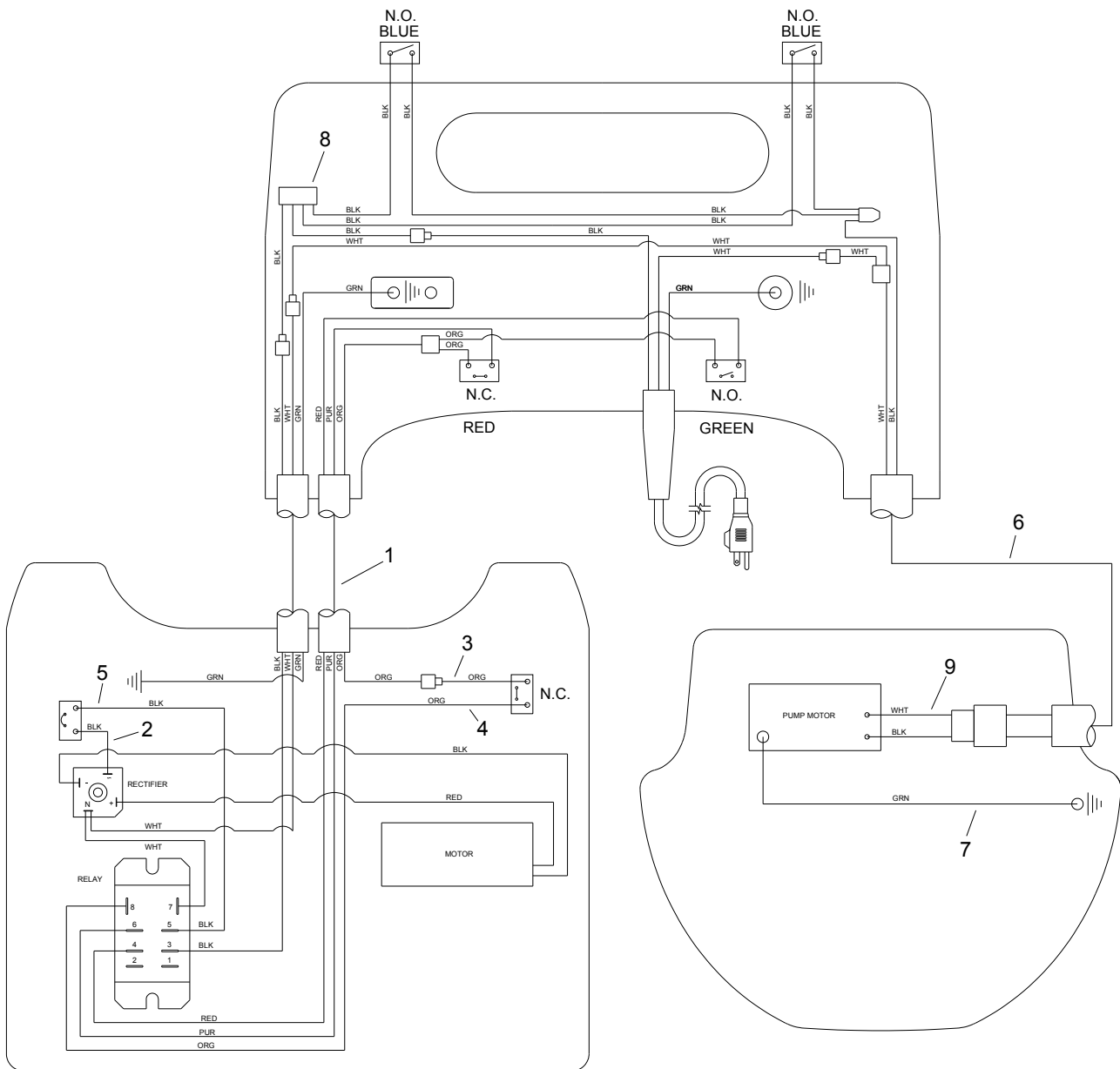


REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86218820	1	HARNESS, MAIN		
2	86226220	1	WIRE, 10" BLK/18 76040		
3	86226260	1	WIRE, 15" ORG/18 76040 X 76040		
4	86226270	1	WIRE, 18" ORG/18		
5	86226280	1	WIRE, 9" BLK/18 76040 X 76040		



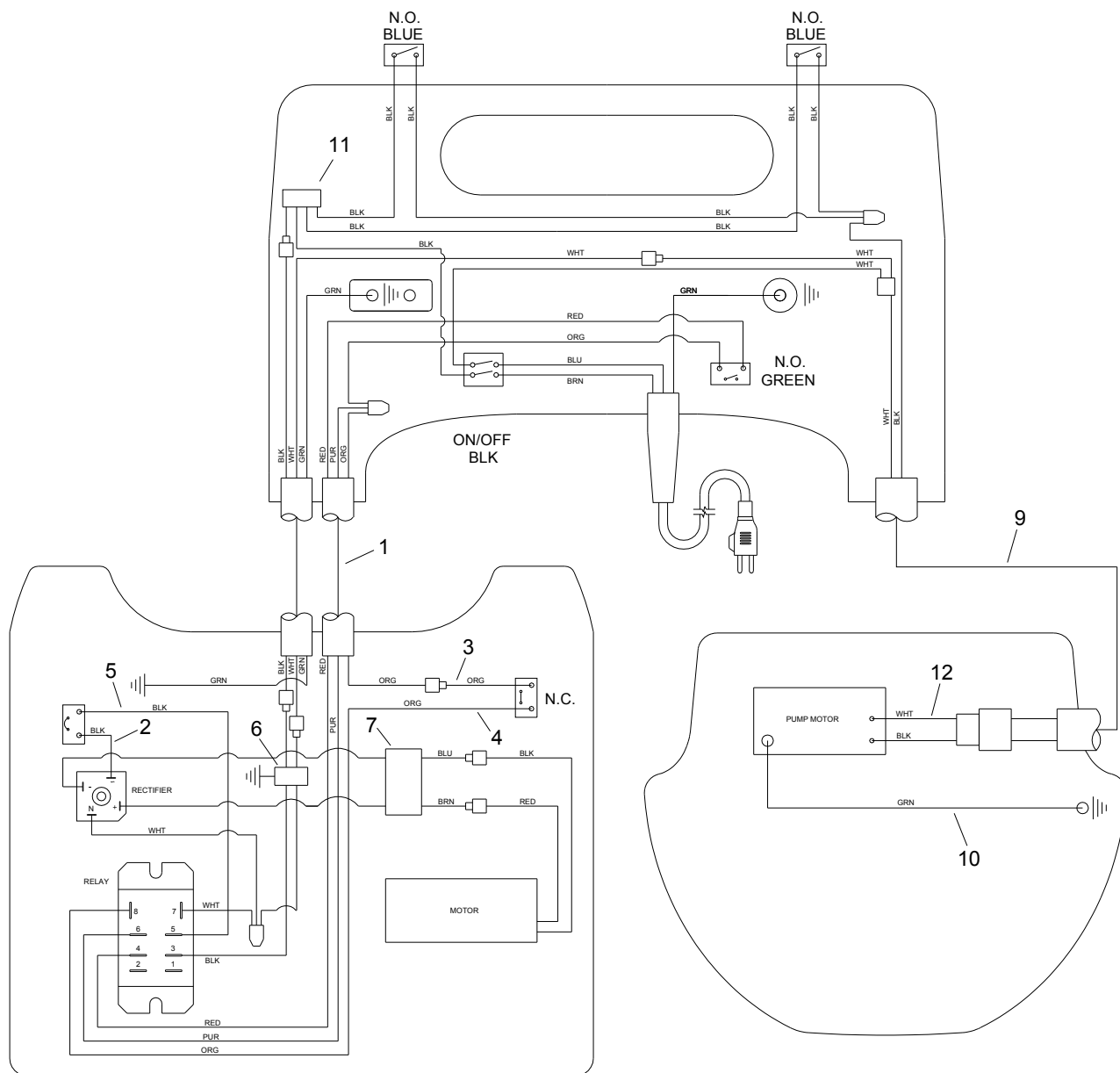
REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86218880	1	HARNESS, MAIN, 230VAC		
2	86226220	1	WIRE, 10" BLK/18 76040		
3	86226260	1	WIRE, 15" ORG/18 76040 X 76040		
4	86226270	1	WIRE, 18" ORG/18		
5	86226280	1	WIRE, 9" BLK/18 76040 X 76040		
6	86302450	1	ASM, FILTER, EMI MAIN		
7	86310150	1	ASSY, FILTER, EMI MOTOR		

Wiring 120V - Deluxe



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86218820	1	HARNESS, MAIN		
2	86226220	1	WIRE, 10" BLK/18 76040		
3	86226260	1	WIRE, 15" ORG/18 76040 X 76040		
4	86226270	1	WIRE, 18" ORG/18		
5	86226280	1	WIRE, 9" BLK/18 76040 X 76040		
6	86013120	1	HARNESS, PUMP HOUSING, DLX		
7	86013090	1	WIRE, 9.5" GRN/18		
8	86013110	1	WIRE, 4 W/WIRE JOINT, BLK		
9	86013950	1	WIRE ASSY, W/2 PIN CONN, DLX		

Wiring 230V - Deluxe



REF	PART NO.	QTY	DESCRIPTION	SERIAL NO. FROM	NOTES
1	86218880	1	HARNESS, MAIN, 230VAC, IMIE		
2	86226220	1	WIRE, 10" BLK/18 76040 X 76040		
3	86226260	1	WIRE, ORG/18 76040 X 76040		
4	86226270	1	WIRE, 18" ORG/18 76040 X 76040		
5	86226280	1	WIRE, 9" BLK/18 76040 X 76040		
6	86302450	1	ASM, FILTER, EMI MAIN		
7	86310150	1	ASSY, FILTER, EMI MTR		
8	OPEN	-	-		
9	86306770	1	HARNESS, PUMP HOUSING, DLX 230		
10	86013090	1	WIRE, 9.5" GRN/18		
11	86306760	1	WIRE, 4 W/WIRE JOINT, BLK		
12	86013950	1	WIRE ASSY, W/2 PIN CONN, DLX		

Suggested Spare Parts

PART NO.	DESCRIPTION	SERIAL NO. FROM	NOTES
86216180	BRUSH SET, MTR, 54206/54216		
86215800	BELT, HTD, 15MM X 325, 65 TOOTH		
86215320	BELT, HTD, 15MM X 300, 60 TOOTH		
86214850	ASSY, BRUSH & HUB		
86217230	CORD HOOK, UPPER		
86224970	STRAP, SPRAYER HOLD DOWN		
86002010	BOOT, 3/8 CIRCUIT BREAKER		
86217120	CORD SET, 10/3 X 40FT SITW		120V ONLY
86217200	CORD SET, EURO 1.0MM X 40 BLK		230V ONLY
86223390	RECTIFIER, 50A 600V BRIDGE		
86291860	SWITCH, 125VAC SP NC NO-ROLLER		
86215670	BREAKER, 8A VDE CIRCUIT		120V ONLY
86215710	BREAKER, 5A VDE CIRCUIT		230V ONLY
86012470	CAP, 2-1/4, POWER GRIP		DELUXE ONLY
86012550	JET, PROMAX, 11001		DELUXE ONLY
86012570	STRAP, CHEMICAL BOTTLES, DLX		DELUXE ONLY
86295190	ASM, BUTTON BLUE, W/BEZEL		
86292780	SWITCH, TONELUCK		
86295150	ASM, BUTTON, RED, W/BEZEL		
86295180	ASM, BUTTON, GREEN, W/BEZEL		
86299810	SWITCH, BLACK, ROCKER, DPST		
86299830	COVER, SWITCH, PVC		
86343290	BELT, FLEX-V, PJ-6, 293	*(3)	
86343300	BELT, FLEX-V, PJ-6, 319	*(3)	

*See Serial Number Page

**Call Manufacturer for Serial Number

REF. NO.	MODEL: SERIAL #
1	IM: 10066360000690 - IMX: 10066400000781
2	IM: 10066360001034 - IMX: 10066400001637
3	IM: 1006636000455 - IMX: 10066400002577 - IMIE17: 10066550000030