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MSB-11 ORB OPERATING MANUAL

MSB-11 ORB MACHINE DATA

Model: <u>MSB-11 ORB</u>
Serial: _____
Date of Purchase: _____
Dealer: _____
Address: _____
Phone Number: _____
Sales Representative: _____

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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.

The model and serial number of your machine is located on the left side of the handle, from the operators perspective.

The SAFETY section contains important information regarding hazardous or unsafe practices of the machine. Levels of hazards are identified that could result in product damage, 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. They are listed in this general order:

- Storage
- Maintenance
- Troubleshooting

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 this machine, basic precautions 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:

- Use only indoors. Do not use outdoors or expose to rain.
- Store the machine indoors where temperature is between 32° and 104°F (0° and 40°C).
- Use only as described in this manual. Use only manufacturers recommended components and attachments.
- 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 operate the machine with any openings blocked. Keep openings free of debris that may reduce airflow.
- Machine can cause a fire when operating near flammable vapors or materials. Do not operate this machine near flammable fluids, dust or vapors.
- This machine is suitable for commercial use such as: in hotels, schools, hospitals, factories, shops, and offices for more than normal housekeeping purposes.
- Maintenance and repairs must be done by qualified personnel.
- During operation, use caution around other persons, especially children.
- The machine shall only be operated by instructed and authorized persons.
- When leaving unattended, unplug the machine.
- Do not handle the plug or machine with wet hands.
- Do not unplug machine by pulling on cord. To unplug, grasp the plug and not the cord.
- Do not use with damaged cord or plug. Follow all instructions in this manual concerning grounding the machine.
- Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners.
- Do not pull/run machine over cord. Keep cord away from heated surfaces.
- Connect to a properly grounded outlet. See Grounding Instructions.
- If the supply cord is damaged it must be replaced by an authorized service agent.
- Unplug before cleaning or servicing.
- Operational hazard may occur when running the machine over the supply cord.
- This appliance has been designed for use with pads specified by the manufacturer. The fitting of other pads may affect its safety.
- This machine is for dry use only and shall not be used or stored outdoors in wet conditions
- Moving Parts - To reduce the risk of injury, unplug before servicing.

READ AND SAVE THESE INSTRUCTIONS

SAFETY

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

HAZARD INTENSITY LEVEL

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



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



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

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. The 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 only manufacturer approved replacement parts.

ITEM	SPECIFICATIONS
Motor	36 V/330W - DC, 3000 RPM, 59 dB with protective cover
Dual Speed	3000 RPM (Orbital), 120 RPM (Rotational)
Base Diameter	11" (27.9 cm)
Wheel Diameter	4" (10.16 cm)
Solution Tank Capacity	3/4 Gallon (2.84 L)
Pump	58 PSI (4 BAR)
Noise Level	59 dB
Height	47" (119 cm)
Weight	28 Lbs/12.7 Kg (+6 lbs/2.7kg w/tank & battery)
Battery (BMS)	Lithium-ion 36V/40W/6Ah (Battery Management System)
Run Time	Up to 45 Minutes (depending on floor type/pad)
Charge Time	90 Minutes



OPERATION

Unpacking

Open shipping box (both sides). Remove packaging material and roll machine out of the box.

Solution Tank

Disconnect the quick-connect fitting located at the bottom of the solution tank. Remove solution tank by pulling away from the handle frame. Add water or cleaning detergent of choice. Snap solution tank onto frame. Reconnect the quick-connect fitting.

CAUTION

Ensure solution tank cap is securely fastened to avoid leaks and spills.

Pads/Brushes

Choose an Orbot pad or brush of choice to clean or restore the desired floor.

Place under the hook pad driver BEFORE powering on machine.
To remove, simply peel off.

Power Switch

Turn power switch to the OFF position located at the top of the handle. The power switch will illuminate when powered ON.

Battery

Insert the battery into the battery tray located inside the base housing cover.

Ensure to completely lock the battery into position until you hear a click sound.

To remove the battery, release the battery lever and pull out. You can use your right hand to help push the battery out of the tray.

WARNING

Always remove battery and immediately charge to avoid damage.



Handle Position

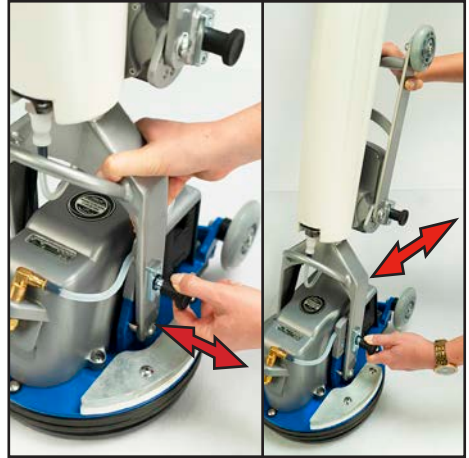
Before powering ON the machine, lower the handle into a comfortable position by pulling out the pull-pin lever located on the lower left side of the handle fork.

Operating Machine

Turn power switch on, and begin to maneuver the machine over the floor surface.

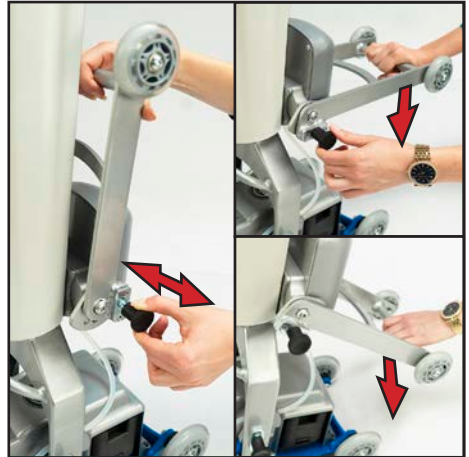
The machine can be moved in all directions.

When cleaning carpet, the machine is best moved forward to backwards, while spraying only forward.



Operating Option

To increase operator comfort, the wheel kit can be lowered down onto the floor by releasing the pull-pin lever and choosing the desired height.



Spray System

To apply water or detergent to the floor surface, press the spray switch located on the top right side of the handle.

System Light Indicators (Located on Top of Motor Cover)

Blue lights:

- One Blue Light: Low Battery Level
- Two Blue Lights: Medium Battery Level
- Three Blue Lights: Full Battery Level

Red light:

- Machine is working over full load capacity. Run times will lessen.

Green light:

- Machine is working under light load capacity. Run times will increase.



HANDLING & STORAGE/ACCESSORIES & APPLICATIONS

Lifting & Handling

To lift the machine into a vehicle, use handle located on fork. To lift the machine up stairs, lower the wheel kit to 90 degrees.

CAUTION

Storage

Always keep machine stored in the upright position. Do not store brushes under pad driver when not in use.

ACCESSORIES AND APPLICATIONS

WARNING

Never store the accessories in wet conditions. Keep away from extreme heat and from chemicals.

Pad Driver

To replace the pad driver, remove the 4 screws using a #3 Phillips/Star screwdriver. Using the incorrect screwdriver can result in stripping the screw head.

Pad drivers should be replaced when the hook material becomes clogged with excess lint and debris.

CAUTION

It is important to operate the machine using clean pad drivers to ensure optimal cleaning performance. When excess clogging occurs from lint and debris, the hook tensile strength is reduced which leads to damaged pads and brushes.

WARNING

Never place driver onto floor surface without a pad or brush.



SuperZorb Pad

Our exclusive SuperZorb pad is made of a special cotton and polyester blend. One of the primary components that help to extract an essential amount of soil from the carpet fibers. They also play an important role to achieve fast dry times. SuperZorb pads can be used on both sides. SuperZorb pads are machine washable. Allow to air dry.

SuperZorb pads are also great to be used to power mop hard floors.

MicroFiber Pad

Use for cleaning all carpets and hard floors. Best used for high friction floor types. Choose over SuperZorb Pads when laundry machines are limited. Can be easily washed by hand.

UltraLift Pad

The UL pads are used to remove stubborn stains and grease trapped in microporous hard floors such as tile, stone, VCT/vinyl, concrete, wood, epoxy, and more.

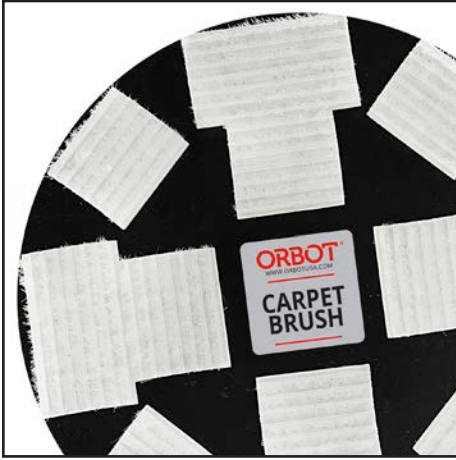
Use with water or mild detergents.

AkwaStrip Pad

The AkwaStrip pad is a chemical free stripping pad made of a unique material filled with diamonds. Used for deep cleaning and to remove wax off of vinyl, VCT, linoleum, wood, safety tiles and more. Used on both sides. Thoroughly rinse with clean water after use.



OPERATION



Carpet Brush

To lift carpet fiber piles.

Use for extra scrubbing power to release stubborn stains.

Also use on hard or rubber floors to release dirt from small cracks, crevices, and pores.

⚠ CAUTION

Do not store brushes under the machine. As a result, bristles will become damaged and deformed.



Tile & Grout Brush

Use for cleaning hard floor tiles, grout lines, pores, cracks, and crevices.

⚠ CAUTION

Do not store brushes under the machine. As a result, bristles will become damaged and deformed.

COMMON MAINTENANCE

Cleaning the Machine

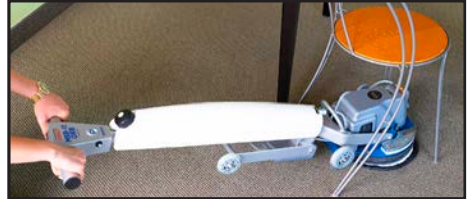
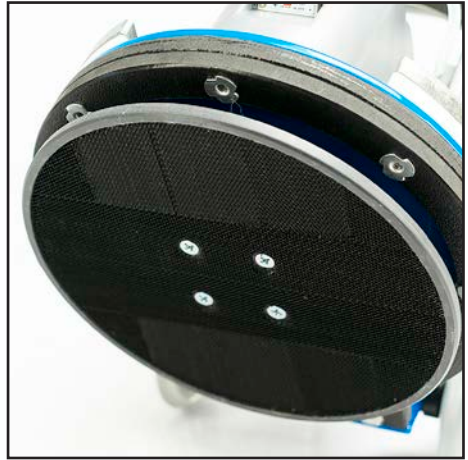
- Always maintain a clean machine to preserve it's presence and optimal performance.
- Maintain clog free hook pad drivers to maximize cleaning performance and eliminate damage to pads and brushes.

Checking the Machine

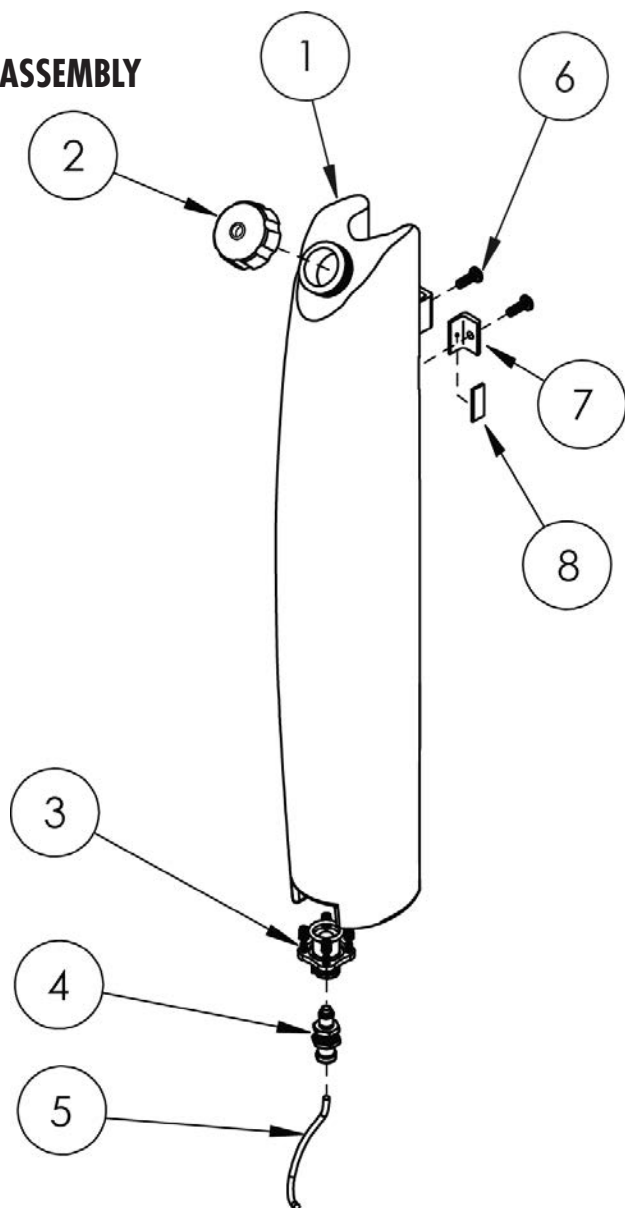
- Check counter weight bearing to ensure optimal performance and minimal vibration.
- Check for any loose nuts and bolts to minimize vibration.
- Check pull lever pins for any loose fasteners.
- Check solution tank filters to ensure maximum solution flow.

Cleans in Small Spaces

- Ease of cleaning in tight and narrow spaces such as under chairs.
- Ease of cleaning within hard to reach spots in bathrooms.
- Ease of carrying up stairs as well as cleaning them.
- Also, planes, trains, automobiles, etc. are very hard to clean where the SLiM comes in handy to assist in these areas. Plus many more possible opportunities where most cleaning machines are too large to get to those small spaces.



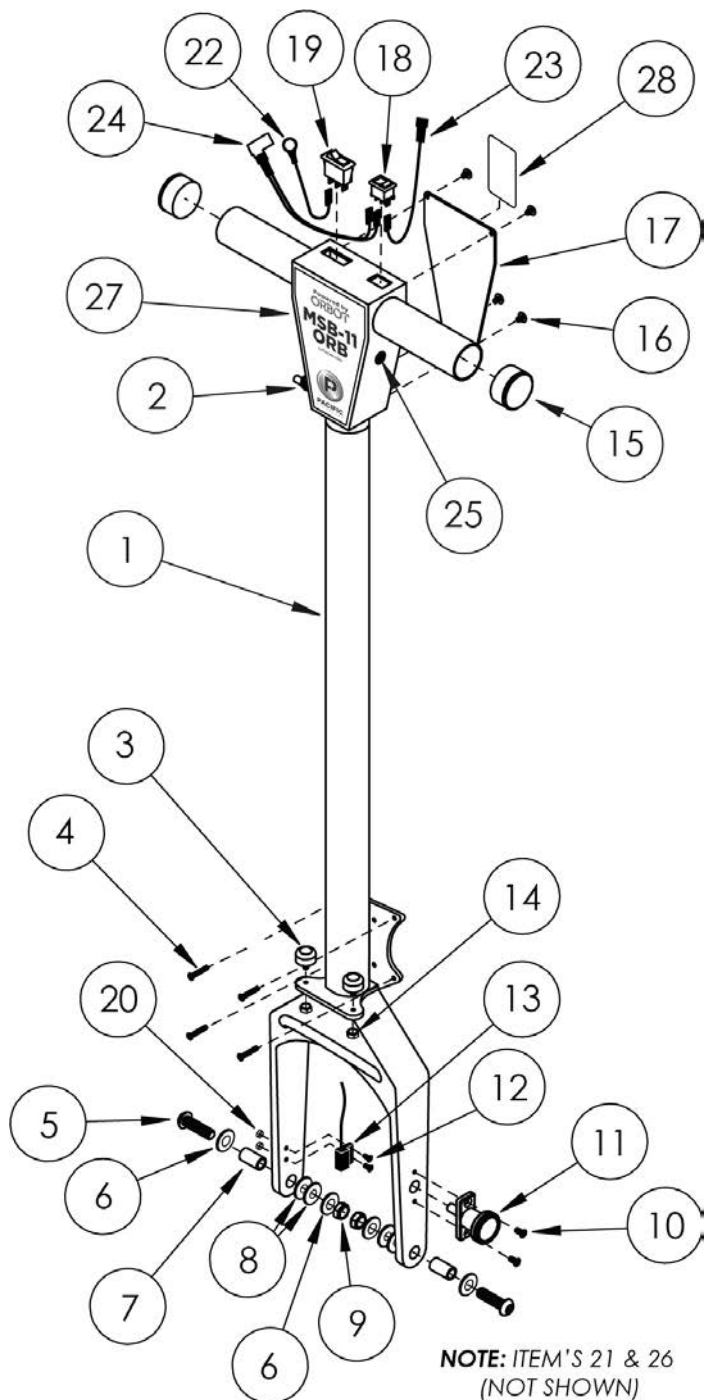
SOLUTION TANK ASSEMBLY



ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	570237	SOLUTION TANK	1
2	570238	TANK CAP ASSEMBLY	1
3	570239	TANK FILTER ADAPTER ASSEMBLY	1
4	570240	MALE QUICK-CONNECT	1
5	570241	TANK HOSE	1
6	570242	TANK TAB SCREW, 10-32 X 1/2"	2
7	570243	TANK TAB	2
8	570244	TANK TAB, FOAM ADHESIVE, 1"	2

PARTS

HANDLE / FRAME ASSEMBLY

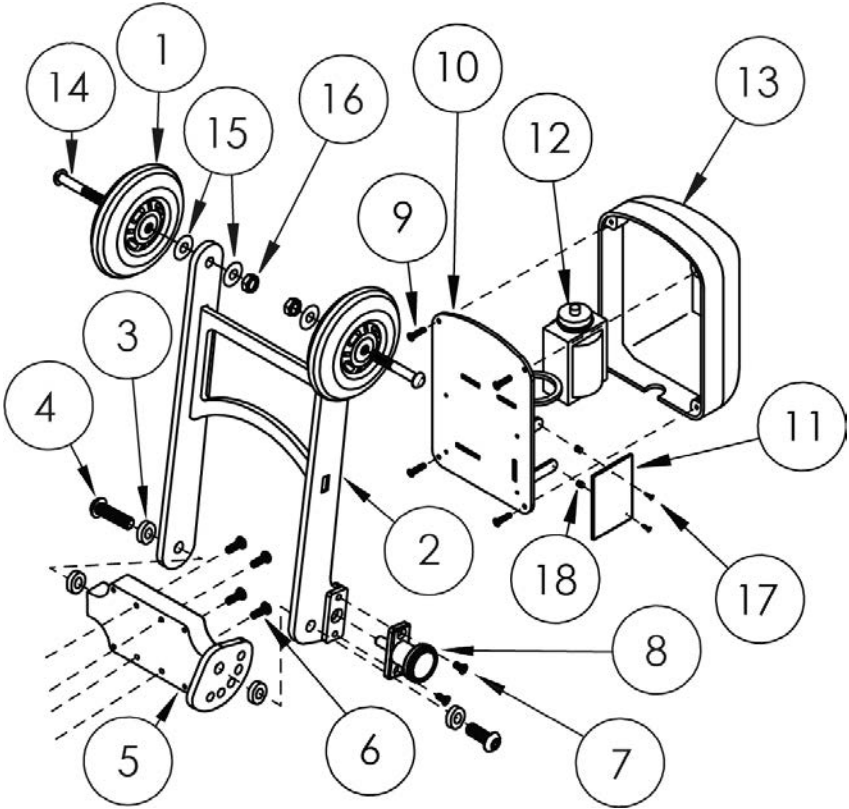


HANDLE / FRAME ASSEMBLY

ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	570209	WELDED ALUMINUM HANDLE ASSEMBLY	1
2	570210	15 AMP CIRCUIT BREAKER	1
3	570211	RUBBER, TANK MOUNT STOP	2
4	570212	PUMP MOUNT SCREW 6-32 X 1-1/4"	4
5	570213	HANDLE FORK MOUNTING SCREW, 3/8-16 X 1-3/8"	2
6	570214	HANDLE FORK MOUNTING WASHER 3/8"	4
7	570215	HANDLE FORK SPACER	2
8	570216	HANDLE FORK INNER MOUNTING WASHER 1/2"	4
9	570217	HANDLE FORK MOUNTING NUT 3/8"	2
10	570218	PULL PIN MOUNTING SCREW 10-24 X 9/16"	2
11	570219	PULL PIN	1
12	570220	SAFETY SWITCH, SCREW, 6-32 X 5/8"	2
13	570221	SAFETY SWITCH	1
14	570222	RUBBER, TANK MOUNT STOP, NUT, 8-32	2
15	570223	PLASTIC CAPS, TUBE	2
16	570224	TERMINAL BOX COVER SCREW, 8-32 X 3/16"	4
17	570225	TERMINAL BOX COVER	1
18	570226	POWER SWITCH	1
19	570227	SPRAY SWITCH	1
20	570228	SAFETY SWITCH, NUT, 6-32	2
21	570229	COMPLETE WIRING HARNESS	1
22	570230	GROUND WIRE, POWER SWITCH, GREEN	1
23	570231	WIRE, POWER SWITCH to SPRAY SWITCH, BLUE	1
24	570232	WIRE HARNESS, POWER SWITCH to BREAKER, WHITE	1
25	570233	PLASTIC PLUG for TERMINAL BOX	2
26	570234	GROUND WIRE SCREW, 8-32 x 3/8" HEX, SS	4
27	570235	LABEL, SLIM, FRONT	1
28	570236	LABEL, QR CODE, REAR	1

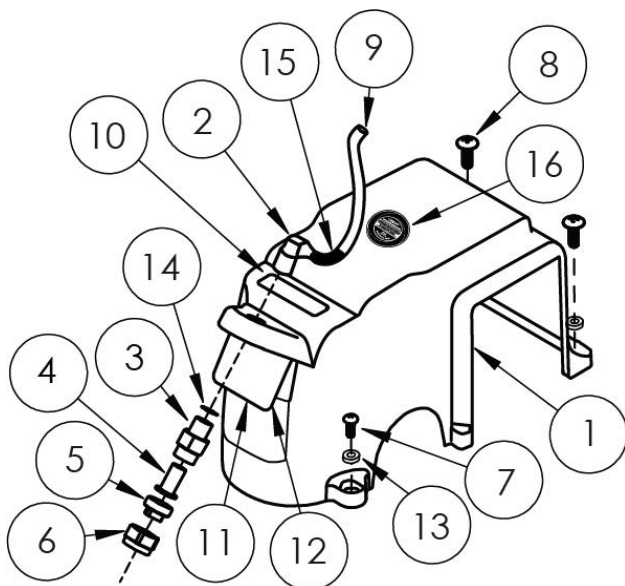
PARTS

WHEEL KIT / PUMP ASSEMBLY

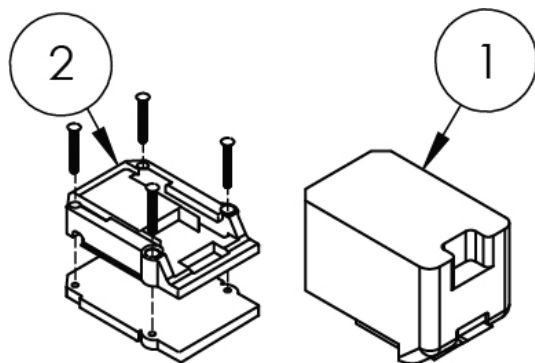


ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	570245	WHEEL, 3"	2
2	570246	WHEEL KIT FRAME ASSEMBLY	1
3	570247	WHEEL KIT WASHER, NYLON, 3/8" ID X 3/4" OD	4
4	570248	WHEEL KIT MOUNTING SCREW, 3/8"-16 X 1"	2
5	570249	WHEEL KIT MOUNT	1
6	570250	WHEEL KIT MOUNT SCREW, 10-24 X 3/4"	4
7	570251	PULL PIN MOUNTING SCREW, 10-24 X 9/16"	2
8	570252	PULL PIN	1
9	570253	PUMP COVER SCREW, 8-32	4
10	570254	PUMP MOUNT	1
11	570255	PUMP CIRCUIT BOARD	1
12	570256	PUMP ASSEMBLY, 58 PSI / 4 BAR	1
13	570257	PUMP COVER	1
14	570258	WHEEL KIT, SCREW, 5/16-18 x 1-3/4"	2
15	570259	UPPER WHEEL, WASHER	4
16	570260	UPPER WHEEL, NYLOCK, 5/16-18	2
17	570261	PUMP, CIRCUIT BOARD, SCREW, 6-32 x 5/8"	2
18	570262	PUMP, CIRCUIT BOARD SPACER, 1/4" BLK	2

SPRAY NOZZLE & MOTOR COVER ASSEMBLY



ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	570263	MOTOR COVER, SILVER	1
2	570264	90° QUICK-CONNECT SPRAY FITTING	1
3 / 4	570265 / 570266	SPRAY JET BODY / CHECK VALVE STRAINER	1 / 1
5 / 6	570267 / 570268	SPRAY JET TIP / SPRAY JET CAP	1 / 1
7	570269	FRONT MOTOR COVER MOUNTING SCREW, 1/4-20 X 5/8"	2
8	570137	REAR MOTOR COVER MOUNTING SCREW, 1/4-20 X 1"	2
9	570270	SPRAYER HOSE	1
10 / 11	570271 / 570272	LED, LENS COVER, TOP / LED, LENS COVER, BOTTOM	1 / 1
12 / 13	570273 / 570274	LED, CIRCUIT BOARD / MOTOR COVER, WASHER, BLK	1 / 1
14 / 15	570275 / 570276	SPRAYER WASHER, ZINC / 1/4" BLACK TUBE for 90° FITTING	1 / 1
16	570277	LABEL, LOW MOISTURE	1

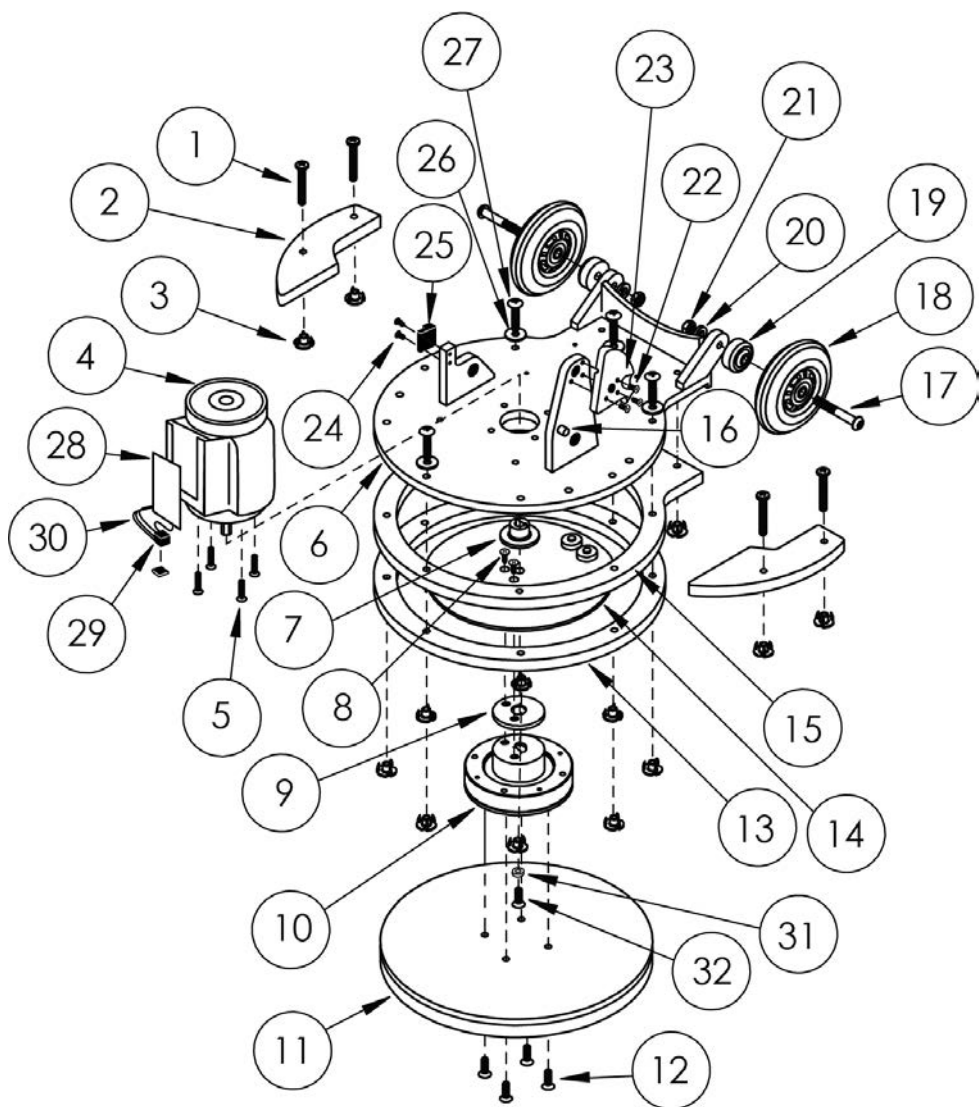


BATTERY ASSEMBLY

ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	571302	BATTERY, 36V, 6AH	1
2	570278	BATTERY TRAY ASSEMBLY	1

PARTS

BASE & DRIVER PLATE ASSEMBLY

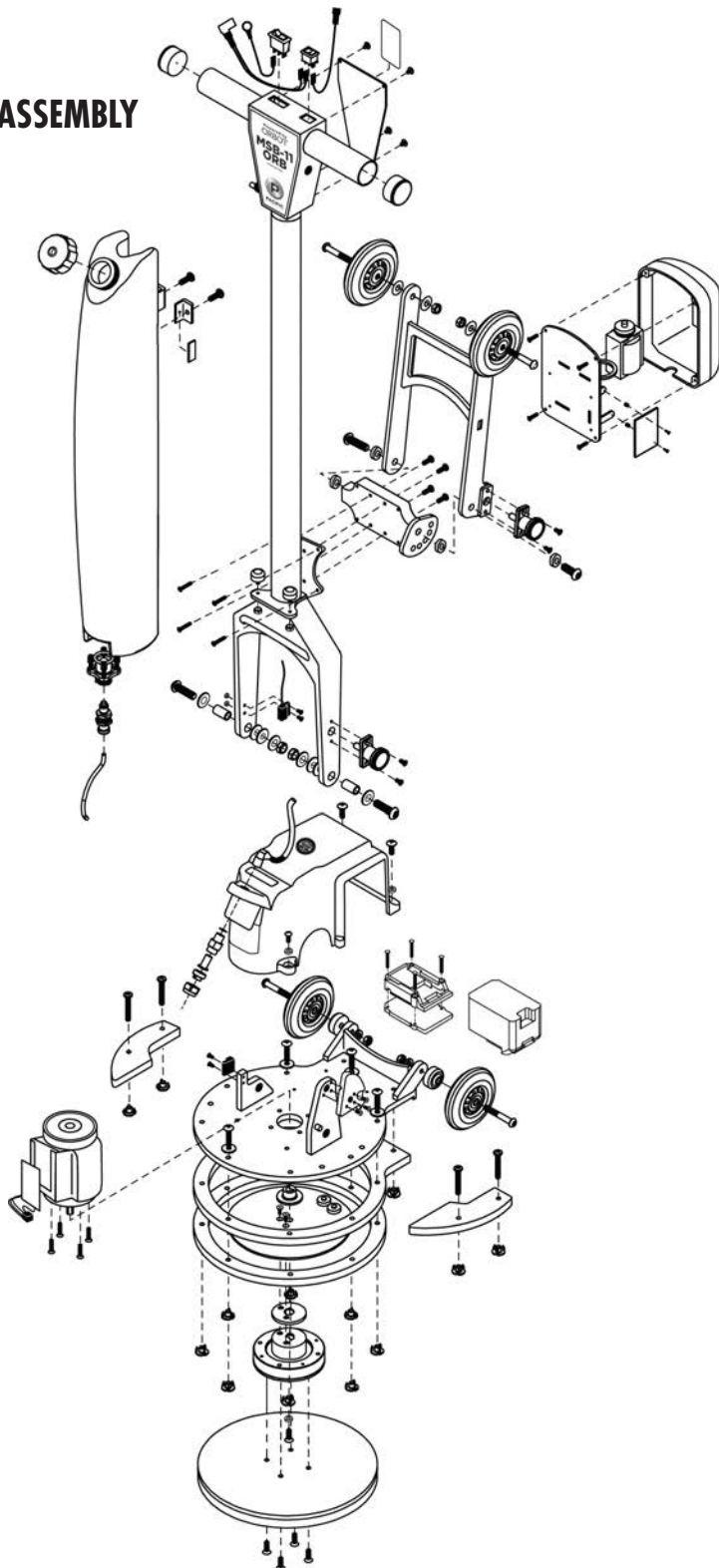


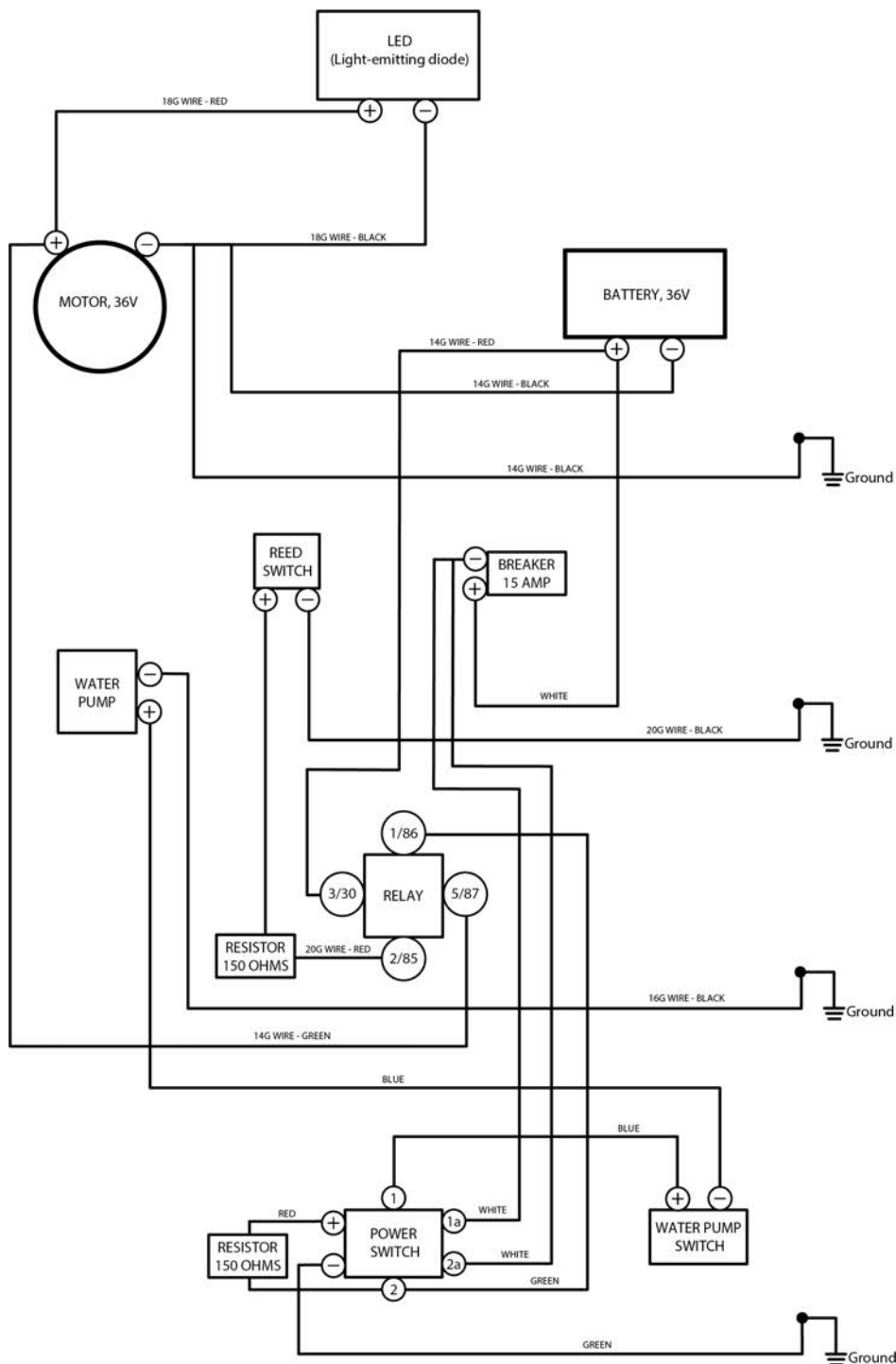
BASE & DRIVER PLATE ASSEMBLY

ITEM NO	PART NUMBER	DESCRIPTION	QTY.
1	570279	WEIGHT KIT MOUNTING SCREW, 1/4-20 X 1-3/4"	4
2	570280	WEIGHT PLATE	2
3	570138	BUMPER THREADED INSERT	16
4	570281	MOTOR, 36V / 330W, 3000 RPM, 59DB	1
5	570282	MOTOR MOUNTING SCREW, 10-32 X 3/4"	4
6	570283	BASE PLATE	1
7	570284	SHAFT SUPPORT	1
8	570285	BEARING ASSEMBLY MOUNTING SCREW, 1/4-20 X 3/4"	2
9	570286	BEARING ASSEMBLY WASHER	1
10	570287	BEARING ASSEMBLY	1
11	570288	DRIVER ASSEMBLY	1
12	570289	DRIVER MOUNTING SCREWS, 1/4-20 X 3/4"	4
13	570290	LOWER BUMPER RING	1
14	570291	COUNTER WEIGHT PLATE	1
15	570292	UPPER BUMPER RING	1
16	570293	EAR STOPPER PIN	1
17	570294	WHEEL MOUNTING SCREW, 5/16" X 2-1/4"	2
18	570295	WHEEL, 4"	2
19	570296	WHEEL SPACER	2
20	570297	WHEEL MOUNTING WASHER, 5/16" X 5/8"	2
21	570298	WHEEL MOUNTING LOCK NUT, 5/16"	2
22	570299	PULL PIN SLIDE MOUNTING SCREW, 10-24 X 1/2"	3
23	570300	PULL PIN SLIDE	1
24	570301	REED SWITCH, MAGNET MOUNTING SCREW, 6-32 X 3/8"	2
25	570302	REED SWITCH, MAGNET	1
26	570303	BASE MOUNTING WASHER, .281 OD, .734 X 1/16"	4
27	570304	BASE MOUNTING SCREW, 1/4-20 X 1-1/4"	4
28	570305	MOTOR, CIRCUIT BOARD	1
29	570306	RELAY	1
30	570307	WIRING ASSEMBLY, RELAY to CIRCUIT BOARD	1
31	570310	MOTOR SHAFT, COUNTERWEIGHT WASHER, 1/4"	1
32	570311	COUNTERWEIGHT MOUNTING SCREW, 10-32 X 9/16"	1

PARTS

COMPLETE ASSEMBLY







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PURPOSE BUILT to CLEAN ANY FLOOR!
