

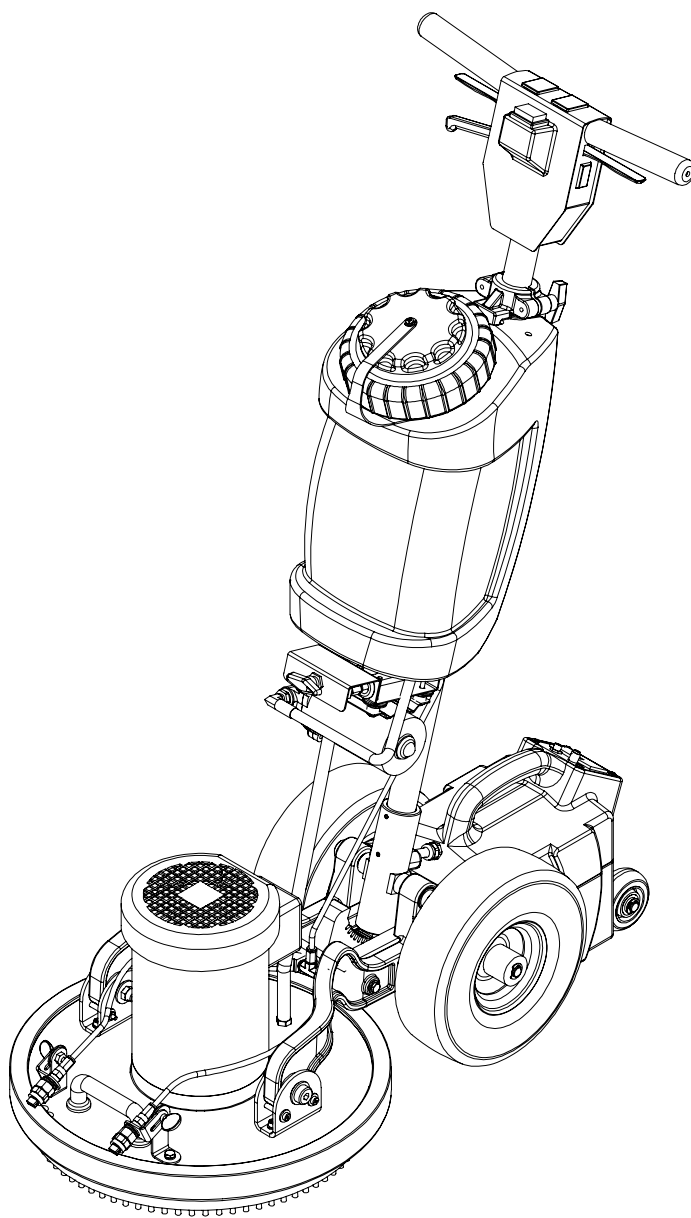
*User Manual*



# ORBITAL

Model: ECO-15-24VDC  
Battery Powered Orbital Floor Machine

REV. 2/12/18



13655 Stowe Dr. Poway, CA 92064 • P: (858) 679-1191 • F: (858) 726-6005

[New & Reconditioned Equipment & Parts - www.southeasternequipment.net](http://www.southeasternequipment.net)

***Dear Customer:***

Congratulations on the purchase of your new Battery Orbital All-Surface Floor Machine.

As technology continues to develop you can work confidently knowing that both Mytee Products and its employees are equally dedicated to developing with the industry and its advances.

Like any other piece of machinery or technology, the ECO-15-24VDC also requires proper maintenance and care to keep the product working over extended use. Neglecting your machine, abusing it or not operating it properly can void its warranty and prevent the machine from performing to the quality and standard you'd expect out of the Mytee Products line.

If you have any warranty concerns or questions, please review this manual thoroughly or do not hesitate to contact your distributor. If there are questions regarding maintenance, replacement, or ordering parts please contact an authorized Mytee Products Service Center. To see an updated list please visit our website at <http://www.mytee.com/support/service-centers>.

Before using your Mytee product, please read this manual thoroughly.

*Sincerely,  
Mytee Customer Care Dept.*

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# IMPORTANT SAFETY INFORMATION

## Grounding Instructions

This machine must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electrical shock. This machine is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed in accordance with all local code and ordinances. Do not remove ground pin; if missing, replace plug before use.



Improper installation of the equipment-grounding conductor can result in a risk of electric shock. Be sure to check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. If the plug will not fit in the outlet do not modify either the plug nor the machine's cord, instead have a proper outlet installed by a qualified technician.

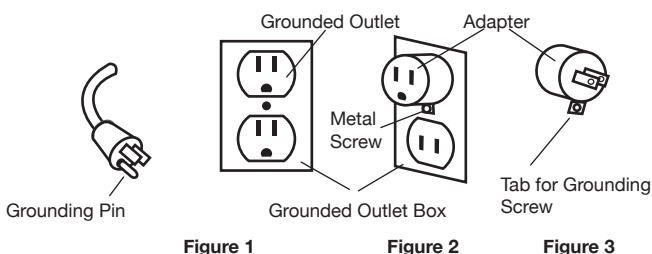
This machine is for use on a nominal 120-volt circuit and with a grounding plug similar to the one in Figure 1 below. If a proper outlet is not available, follow the illustrations of Figure 2 & 3 to install a temporary-grounding plug. This temporary work-around should be used only until a proper outlet (Figure 1) can be installed by a qualified electrician. When and if this type of adapter is employed, screw the adapter's extended tab into place with a metal screw. However, grounding adapters are not approved for use in Canada.

Again, be sure to check the grounding pin for damages and replace if necessary.

The Green, or Green-Yellow, wire in the cord is the grounding wire. When replacing a plug, this wire must be attached to only the grounding pin.

DO NOT use extension cords.

**Please Note for America use only.**



## Parts and Service

Please contact a Mytee service personnel or Mytee authorized Service Center using Mytee original replacement parts and accessories for repairs are needing to be performed. When and if calling Mytee for support, please have your Model and Serial Number available for faster assistance.

## Name Plate

The Model and Serial Number are located on the lower half of the back of the machine near the power plugs and will be required for ordering replacement parts. You can use the space provided on the front of this manual to note down both for future referencing.

## Unpacking the Machine

When your new machine is delivered, please carefully inspect both the shipping carton and the machine for damages. If damage is evident, save both the shipping carton and machine so that the delivering carrier can inspect it. Contact the carrier immediately to file a freight claim if there has been any damage.

## Caution and Warnings

### Symbols

Mytee uses the symbols below to signal potentially dangerous conditions. Always read this information carefully and take the necessary steps to protect personnel and property.



**DANGER**

Is used to warn of immediate hazards that will cause severe personal injury or death.



**WARNING**

Is used to call attention to a situation that could cause severe personal injury.



**CAUTION**

Is used to call attention to a situation that could cause minor personal injury or damage to the machine or other property. When using an electrical appliance, basic precautions should always be followed, including the following: Read all instructions before using this machine. This

product is intended for commercial use only.

**To reduce the risk of fire, electrical shock, or injury:**

1. Read all instructions before using equipment.
2. Use only as described in this manual. Use only manufacturer's recommended attachments.
3. Always disconnect machine from power source before attempting any adjustments or repairs.
4. Do not unplug charger by pulling on cord. To unplug, grasp the plug, not the cord.
5. Do not pull or carry by cord. Do not close a door on cord or pull cord around sharp edges or corners.
6. Keep charger power cord away from heated surfaces.
7. Do not use charger with damaged cord or plug. If cord is damaged, repair immediately.
8. Do not use outdoors or on wet surfaces and or standing water.
9. Always unplug or disconnect the appliance from battery when not in use.
10. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
11. Do not use in areas where flammable or combustible material may be present.
12. Do not leave the unit exposed to harsh weather elements. Temperatures below freezing may damage components and void warranty.
13. Use only the appropriate handles to move and lift unit. Do not use any other parts of this machine for this purpose.
14. Keep hair, loose clothing, fingers, and all parts of the body away from all openings and moving parts.
15. Use extra care when using on stairs.
16. To reduce the risk of fire or electric shock, do not use this machine with a solid-state speed control device.
17. When cleaning and servicing the machine, local or national regulations may apply to the safe disposal of liquids which may contain: chemicals, grease, oil, acid, alkalines, or other dangerous liquids.
18. Be sure that the air is free of flammable vapors before

charging or running the machine.

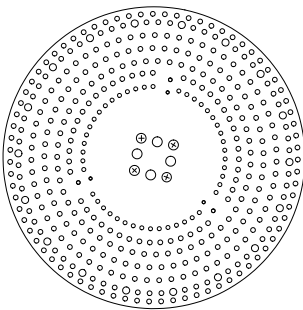
19. Do not open the battery box, there are no user serviceable parts inside.
20. Do not burn the battery, dispose of it properly.
21. Do not leave operating unattended.

# 1 - AT A GLANCE

## 1.1 - Technical Specifications

<b>Cleaning Path</b>	15"
<b>Solution Tank</b>	4 gallons
<b>Motor</b>	3/4 horsepower
<b>Motor RPM</b>	1,800
<b>Orbit</b>	9/16"
<b>Pump PSI</b>	100
<b>Pump GPM</b>	1.3
<b>Battery Life</b>	1 hour per charge
<b>Machine Weight</b>	130 lbs.
<b>Machine Dimensions</b>	36" x 15.5" x 48.5"

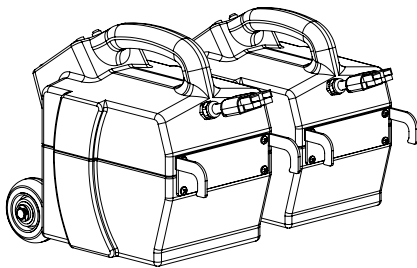
## 1.2 - Included with the ECO-15-24VDC



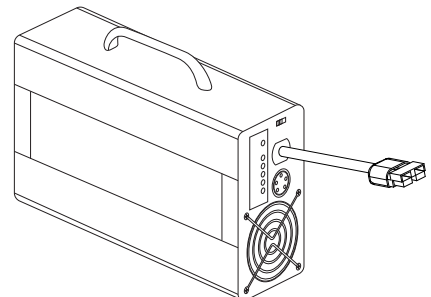
**Pad Driver**



**Two Cleaning Pads**

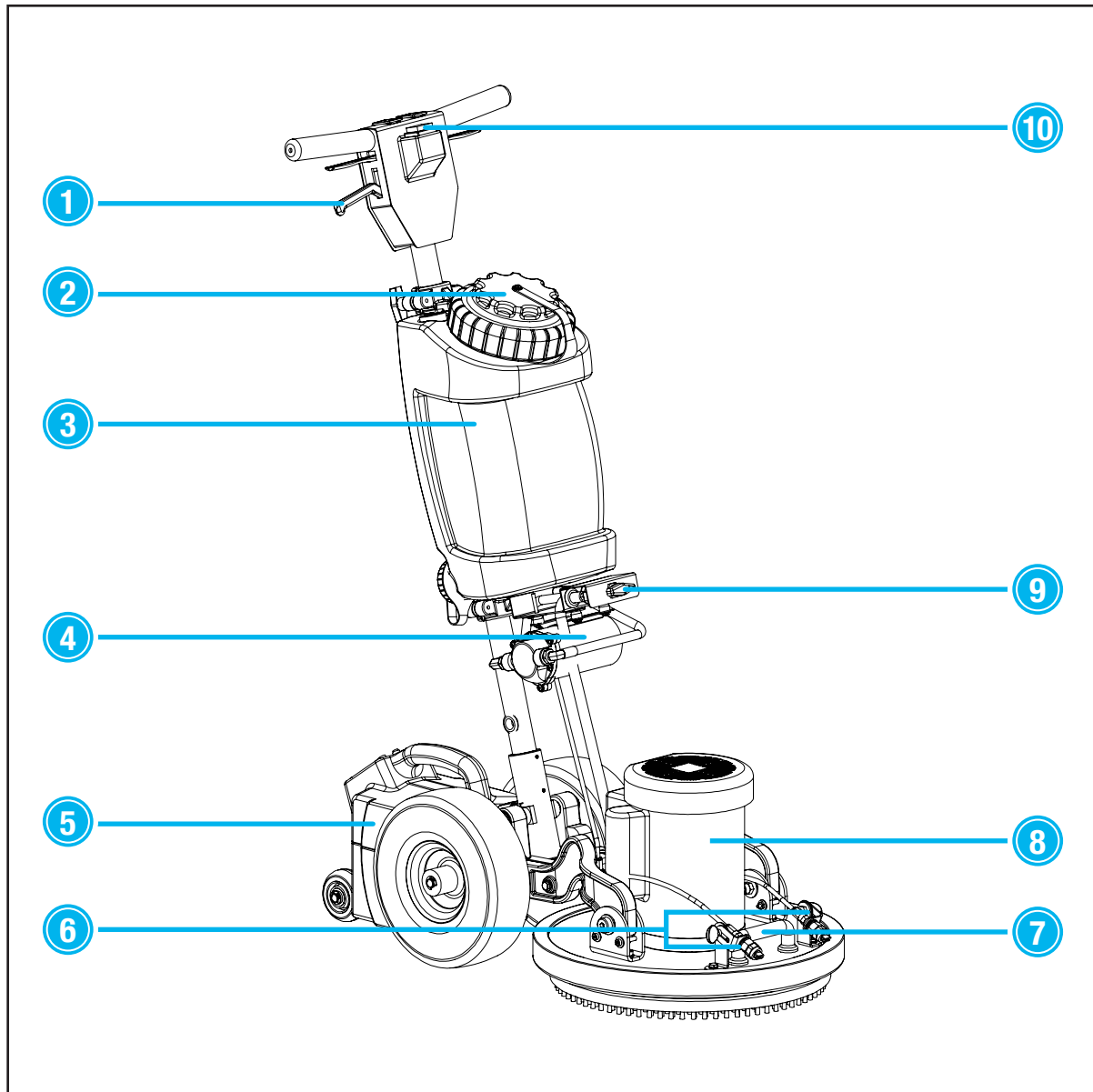


**Two Battery Packs**



**Battery Charger**

## 1.3 - ECO-15-24VDC Front View

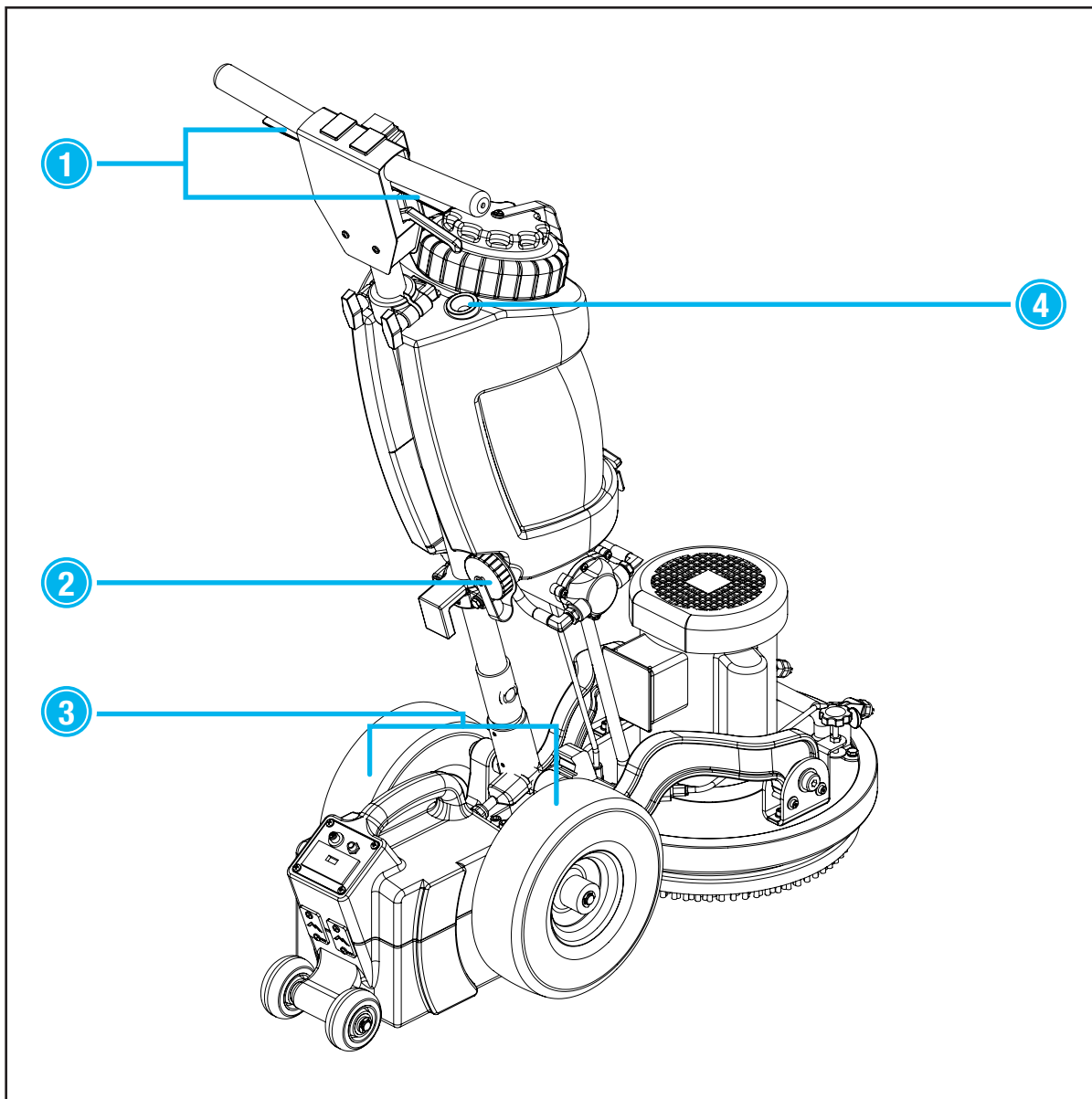


- 1. Handle Height Adjustment Lever
- 2. Solution Tank Lid
- 3. 4 Gallon Solution Tank
- 4. 100 PSI Diaphragm Pump

- 5. ECO-BP Battery Pack
- 6. Forward-Facing Spray Jets
- 7. Lifting Handle
- 8. 3/4 Horsepower Motor

- 9. Spray Jets/Gravity Feed Selector Valve
- 10. Power Switch

## 1.4 - ECO-15-24VDC Rear View

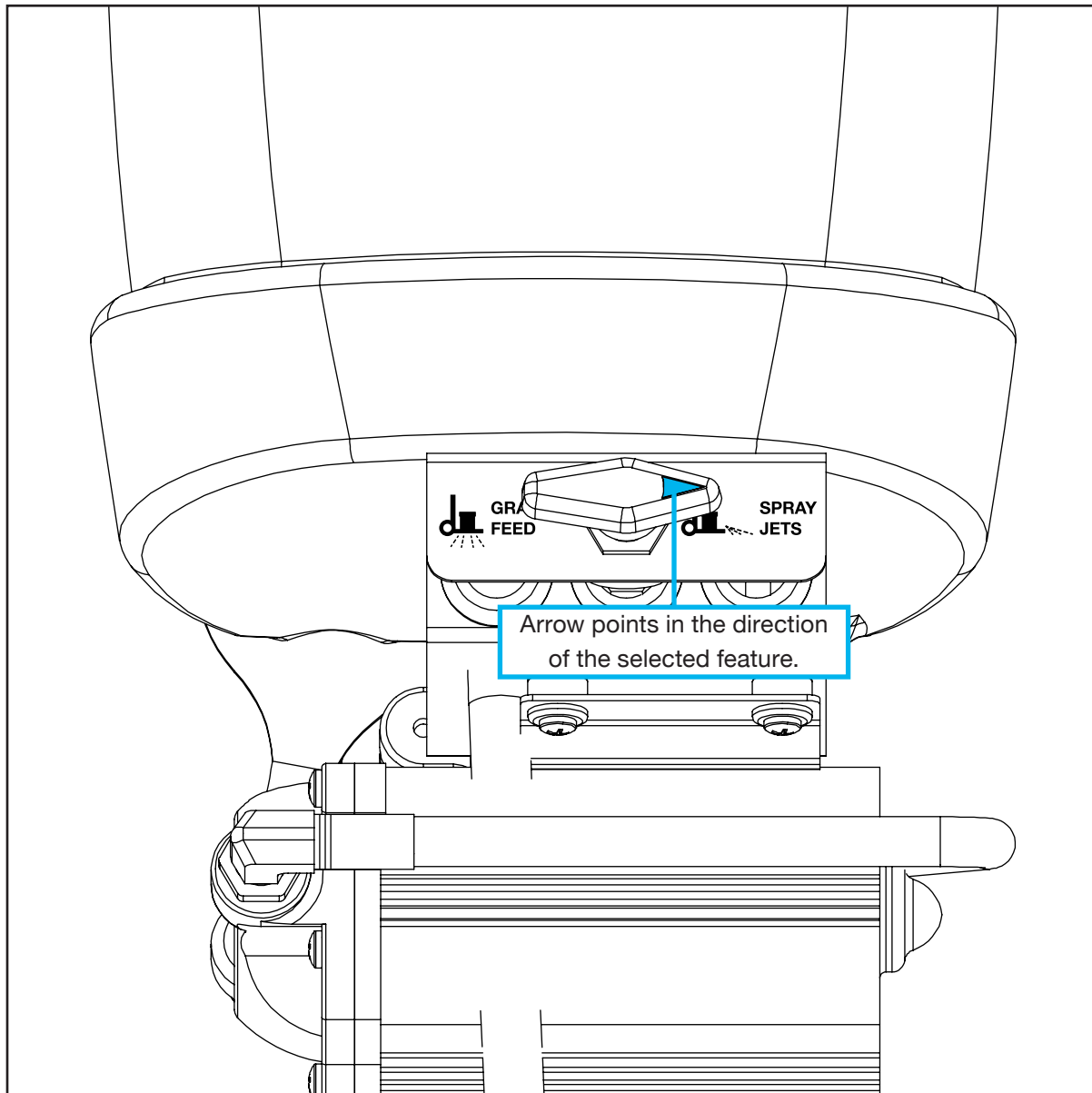


- 1. Solution Spray Levers
- 2. Solution Tank Drain Cap

- 3. 10" Foam-Filled Wheels
- 4. Faucet Fill Hose



### 1.5 - Gravity Feed/Spray Jets Selector Valve



#### Gravity Feed

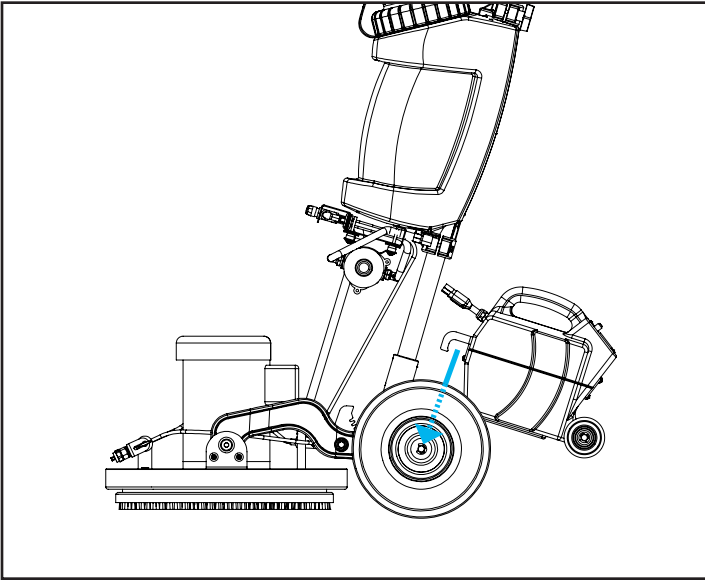
Water or shampoo solution is pumped down to the cleaning head, wetting the floor directly under the pad or brush.

#### Spray Jets

Water or shampoo solution is pumped out of the spray jets on the front on the machine, wetting the floor directly in front of the unit.

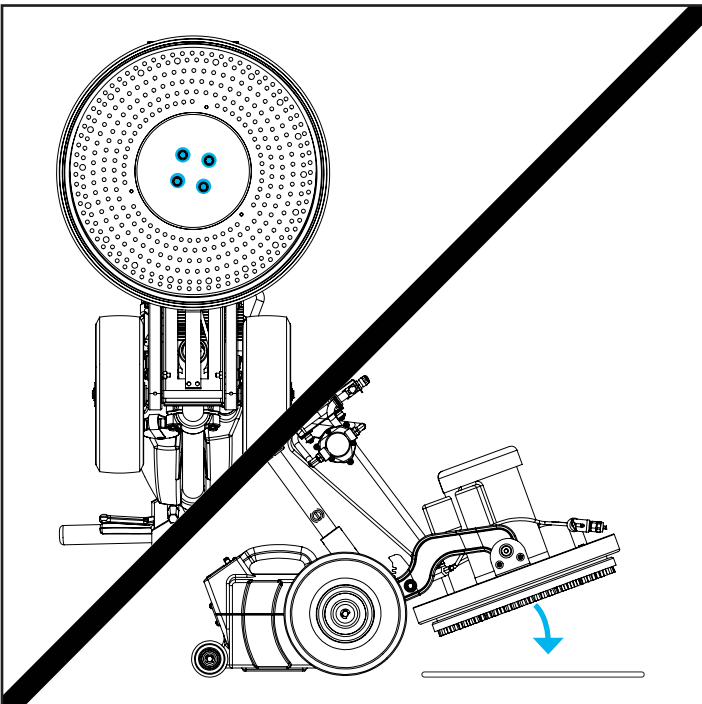
## 2 - MACHINE OPERATION

### 2.1 - Connecting the Battery Pack



To connect the battery pack to the machine, position the hooks above the wheel axle and angle it slightly while lowering until the hooks engage on the axle. Then plug in the battery to the cable from the machine. ♦

### 2.2 - Pad Driver and Pads



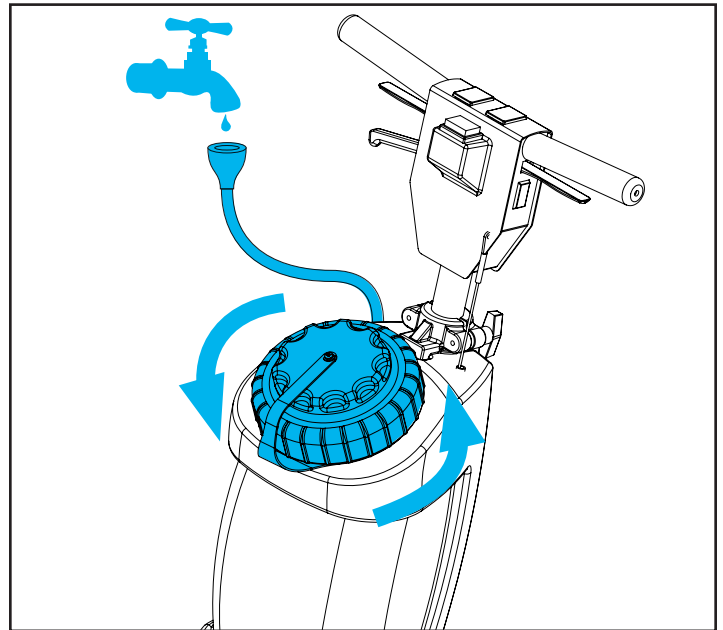
#### Pad Driver

The pad driver comes pre-installed on the ECO-15-24VDC. To remove the pad driver, undo the four screws on the bottom of the pad driver.

#### Applying Cleaning Pad

To apply a cleaning pad, just lower the machine with pad driver onto a 17" cleaning pad. Make sure the pad is as centered as possible on the pad driver with no driver bristles exposed to carpet. ♦

### 2.3 - Filling the Shampoo Tank



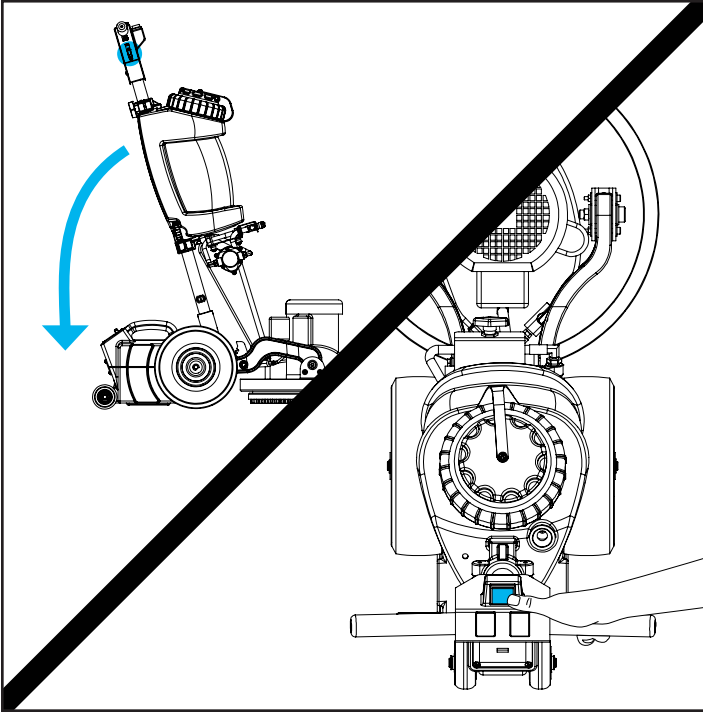
#### Faucet Fill

The shampoo tank can be filled from a standard faucet. Simply lift the Faucet Fill hose out of the tank and press it against the faucet. Turn on the faucet to allow water to flow down into the tank.

#### Bucket Fill

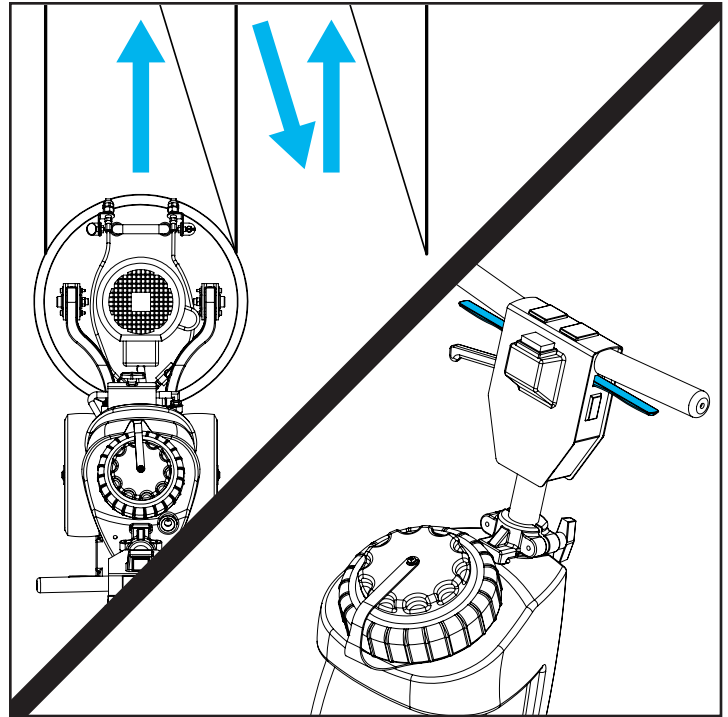
To fill using a bucket, twist off the shampoo tank cap counter-clockwise and pour in water. Add shampoo or chemical if desired. ♦

### 2.4 - Operating the ECO-15-24VDC



#### Switching On the ECO-15-24VDC

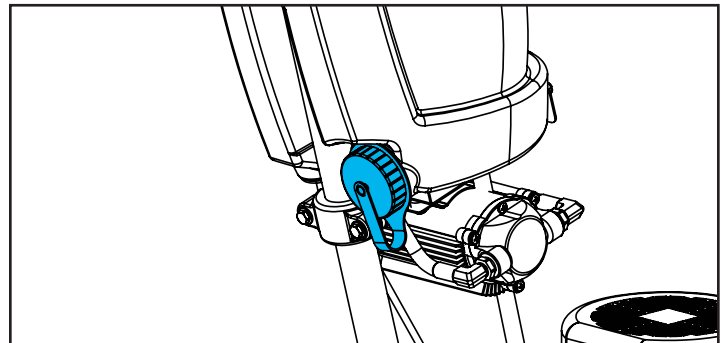
After connecting the battery pack, lower the handle to a comfortable height and press the power switch on the handle to turn on the machine.



#### Running the ECO-15-24VDC

To effectively clean floors, move the machine forwards and backwards, similar to using a household vacuum cleaner. Wet the floor by spraying solution as you roll the unit forwards. ♦

### 2.5 - Emptying the Shampoo Tank



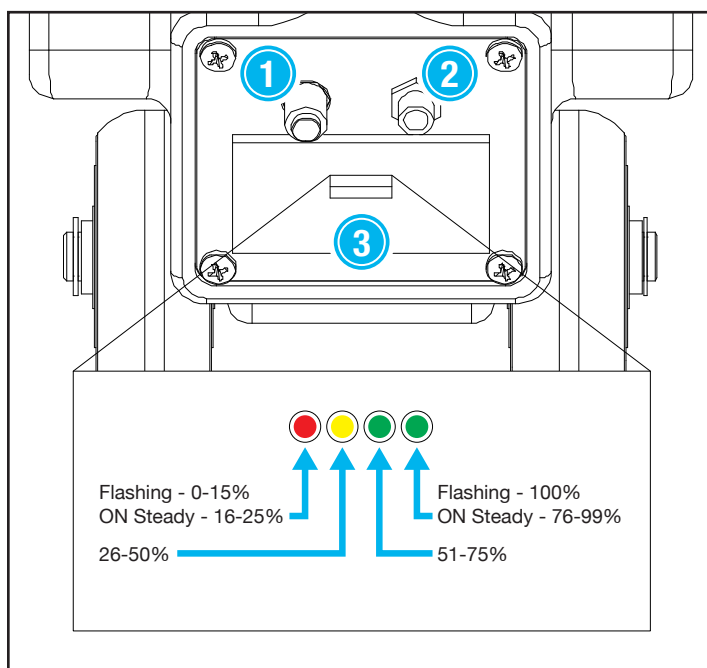
The shampoo tank can be easily emptied into a bucket by unscrewing the drain cap on the bottom of the tank. ♦

## 3 - BATTERY INFORMATION

### 3.1 - About the Battery

There are two batteries supplied with your machine and a charger. Under normal use, the batteries will run the machine for about an hour. The battery charger will also charge the batteries in less than 1 hour. You can have one battery on your machine to run it while the other is charging. In this way, you can keep your machine running continuously. ♦

### 3.2 - The Battery Panel



#### On the Battery Panel:

**1. Circuit Breaker** - The circuit breaker will pop out when the current drawn from the battery exceeds 30A. Currents exceeding 30A can occur when the brush (or pad) gets stuck, too much pressure is applied, or the surface has too much resistance. If this should happen, simply wait 3 minutes and push the button labeled “30” back in. Your machine will be ready for use.

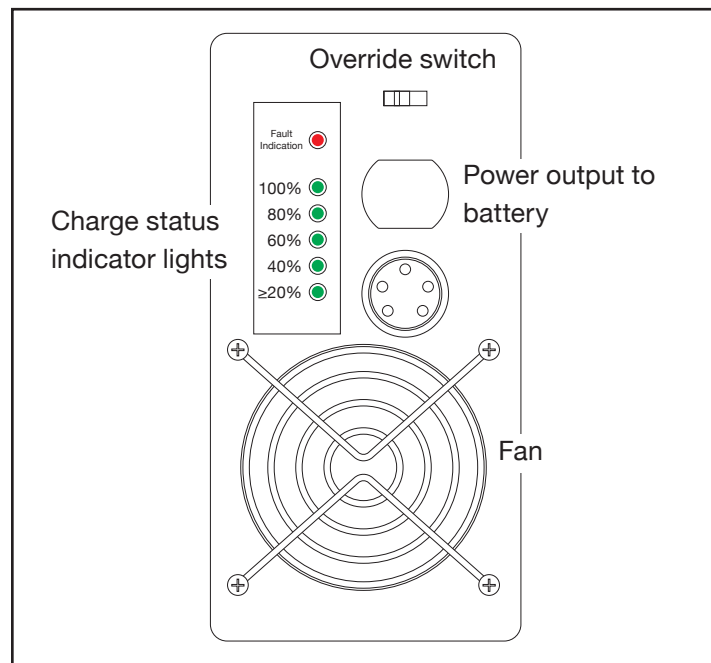
**2. Factory Service Connector** - The factory service connector is for performing initial calibration of the battery management computer inside the battery pack. It is for use only at the factory.

**3. Charge Display** - The charge display will tell you how much charge is still in the battery, just like the gas gauge in your car tells you how much gas is left. ♦

### 3.3 - About the Battery Charger

To charge the battery, first plug the battery into the charger and **then** plug the charger into a wall outlet. The fan in the charger will start and the LEDs will go on both on the charger and on the battery's charge display.

#### Battery Charger Display:



When the charger is plugged in and charging the batteries, the column of green LEDs will light one on top of the other. When the battery is low the first green LED will flash, indicating that the battery is less than 20% charged. When the battery reaches 20%, the 20% light will stay on and the 40% light will flash. This will continue until the battery reaches 100% and all the LEDs will be lit. The fan will usually turn off when the battery is charged, however it is not sign of a problem if the fan stays on. ♦

### 3.4 - Tips For Battery Longevity

- Charge the battery every 3 months when it is stored for an extended period.
- Do not submerge the battery in water or other liquids.
- Do not spray the battery with high pressure spray.
- Do not use or charge the battery in temperatures below -20F or above 150F.
- Use the charger supplied with the machine. Other chargers may damage the battery and void the warranty. ♦

### 3.5 - Battery Troubleshooting

Problem	Solutions
Machine won't run.	Check battery is securely plugged into charger.
	Make sure battery is charged.
	Check circuit breaker has not popped out.
Battery charger not turning on.	Check battery charger is securely plugged into AC power.
	Ensure the outlet that the charger is plugged into is working.

Lights on battery do not turn on when plugged into charger.	Plug battery into charger while the charger is unplugged from AC power. Only plug charger into AC power after battery is plugged into charger.
	Check battery is securely plugged into charger.
	Check battery charger is securely plugged in to AC power.
	Check outlet charger is plugged into is functional.
Red light on charger blinks.	Check battery is securely plugged into charger.
	Check circuit breaker has not popped out.
	Check Override switch is in the "on" position.
	Put charger and battery in cooler location.
Battery does not run long enough.	With the battery still plugged into the charger, unplug the charger from the wall outlet for 20 seconds. Then plug back into the wall.
	Charge battery again.
	Apply less pressure to brush or pad.

## 4 - MACHINE MAINTENANCE

In order to keep the Orbital Floor Machine running smoothly and reduce the risk of damage to the machine and subsequent downtime, Mytee recommends following the maintenance schedule to the right:

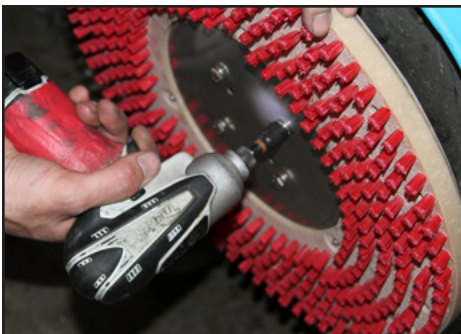
Maintenance Item	Daily	Weekly
Clean and inspect motor.	X	
Check power supply cable.	X	
Clean machine with all purpose cleaner and cloth.	X	
Inspect machine for water leaks and loose hardware.		X

### 4.1 - Flywheel Bearing Replacement

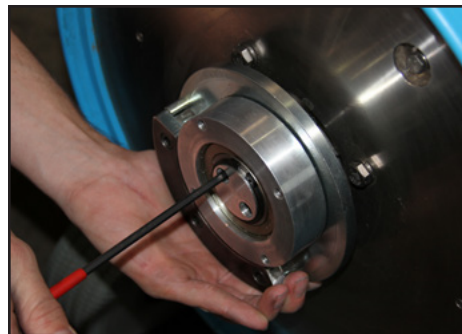
The flywheel bearing is a wear part, similar to rotors on a car. Over time, the bearing will require replacing.

#### Tools Needed:

- 7/16" open-ended wrench or socket
- 3/16" Allen wrench
- Blue Loctite®



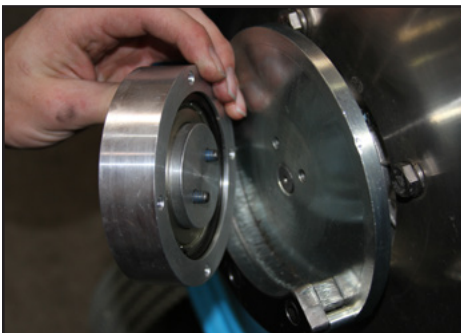
1. Remove the pad driver assembly by removing the four bolts with a 7/16" wrench or socket.



2. Using a 3/16" Allen wrench, undo the two Allen bolts holding the bearing onto the flywheel.



3. Remove the Allen bolts from the bearing and apply Blue Loctite®.



4. Insert the Allen bolts into the new bearing and line up the bolts with the holes on the flywheel.



5. Using the 3/16" Allen wrench, bolt the new bearing onto the flywheel.



6. Apply Blue Loctite® to the pad driver bolts and bolt it back onto the machine. ♦



### 4.2 - Flywheel Replacement

These instructions cover how to remove and replace the flywheel assembly on ECO-17 and ECO-13 models.

#### Tools Needed:

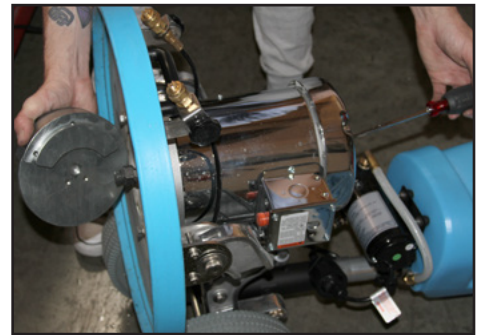
- 7/16" open-end wrench or socket
- 15/16" open-end wrench
- Soft-face dead blow mallet
- Anti-Sieze
- Flathead screwdriver
- Blue Loctite®



1. Remove the pad driver assembly by removing the four bolts with a 7/16" wrench or socket.



2. Hold the jam nut, located between the flywheel and motor, in place with a 15/16" open-end wrench. Using a mallet, tap the flywheel counter-clockwise to loosen.



3. Remove the plastic plug from the top of the motor and hold the motor shaft in place by inserting a flathead screwdriver into the top of the shaft on top of the motor. Loosen the flywheel the rest of the way off with the other hand.



4. Apply Anti-Sieze to the motor shaft. To install the new flywheel, hold the motor shaft in place with the flathead screwdriver just like before and thread the new flywheel on with the other hand until it stops at the jam nut.



5. Use the 15/16" wrench to hold the jam nut in place and use a mallet to strike the flywheel counterweight to tighten the flywheel against the jam nut.



6. Apply Blue Loctite® to the pad driver bolts and bolt it back onto the machine. ♦

## 5 - TROUBLESHOOTING

### 6.1 - Machine Troubleshooting

<b>Plug on the power cord doesn't light up when plugged in.</b>	
Possible Causes	Solutions
Problem with the power cord.	Replace power cord. 38" Pigtail: Part # E575
Burnt out light.	No action needed or replace power cord. 38" Pigtail: Part # E575

<b>Plug lights up when plugged in but machine does not turn on.</b>	
Possible Causes	Solutions
Wires connecting to the switch may be loose or disconnected.	Open up the faceplate on the handle and check the switch for loose or disconnected wires. Re-connect any loose wires.
Bad power switch.	Replace switch. Part # H167
(120 volt units only) Motor circuit breaker may have tripped.	Make sure motor is first cooled down, then reset breaker by pressing button located on bottom of motor conduit box (see <b>Figure A</b> ). Make sure that only the proper Mytee power cord extension is being used, and that it is good condition. If the problem persists or reoccurs, contact a Mytee Service Center.

<b>Motor is drawing too many amps and blowing breakers.</b>	
Possible Causes	Solutions
Power cord is defective or damaged.	Replace power cord. 38" Pigtail: Part # E575

Power switch has shorts or loose connections.	Replace power switch. Part # H167
Power cord from the switch is defective or damaged.	Replace power cord. 38" Pigtail: Part # E575

<b>Machine is making a loud grinding noise.</b>	
Possible Causes	Solutions
Bearing failure.	Replace bearing (click for instructions). Install Part # A140 Kit if using gravity feed (click for instructions).

### 6.2 - Pump Troubleshooting

<b>No water flow.</b>	
Possible Causes	Solutions
Tank is empty.	Fill tank.
Filter is clogged.	Clean the filter.
Pump valves are clogged or damaged.	Examine the valves and clean or replace.

<b>Low pressure.</b>	
Possible Causes	Solutions
Work nozzle.	Replace nozzle with a new one of the same size.
Leak in high pressure hose or connections.	Check the hose and connections.
Filter is clogged.	Clean the filter.
Pump valves are clogged or damaged.	Examine the valves and clean or replace.

<b>Pump pulsates when spraying.</b>	
Possible Causes	Solutions
Filter is clogged.	Clean the filter.
Pump valves are clogged or damaged.	Examine the valves and clean or replace.

<b>Leaks seen under pump.</b>	
Possible Causes	Solutions



Worn pump seals.	Replace with new plunger and seals.
Abrasives in solution have damaged pump seals.	Mix chemical thoroughly and make sure filter is not damaged.

# NOTES



**Mytee Products, Inc.**

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