

# SHARP EV4



## Operators Manual

**ELECTRIC HYDRO VAC EV-4** Rev. 0.5

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Operators Manual

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\* Subject to change without notice.

## **SAFETY WARNINGS:**

**Warning: To reduce the risk of injury, the user must read and understand the Operator's Manual before using this product!**

**Do Not open the batteries or any control box or any other electrical box. Damage to personnel or property may occur!**

### **California Proposition 65**

**Warning: Cancer and reproductive harm; [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)**

- Follow all local road laws.
- Follow all local and federal laws, rules and regulations for spoils dumping.
- If a trailer unit, make sure trailer is properly and legally secured to the towing vehicle.
- Check tire pressure at least weekly.
- Notify One-Call services before using.
- USA/Canada: call 811 or 888-258-0808. Also contact any local utility that does not participate in the one-call service.
- In countries that do not have a One-Call service, contact all the local utility companies to have underground utilities located.

- **Know the color code for utilities:**

White: Proposed for Excavation

Pink: Temporary Survey Markings

Red: Electric Power lines, Cables, Conduit and lighting cables

Yellow: Gas, Oil, Steam, Petroleum or Gaseous Materials

Orange: Communication, Alarm or Signal Lines, Cables Conduit

Blue: Potable Water

Purple: Reclaimed Water, Irrigation and Slurry Lines

Green: Sewer and Drain Lines

- Observe local ordinances, rules and regulations when operating the Sharp Electric Hydro vac.  
**Sharp Equipment will not be held liable for any damage done by anyone operating the Sharp Hydro vac.**
- All PPE (Personnel Protective Equipment) must be used by operators of the Sharp Electric Hydro vac. Please consult with your company or OSHA regulations for proper PPE.
- Though the Sharp Electric Hydro Vac is quieter than other Hydro Vacs on the market, one should still use proper hearing protection.

## **GENERAL INTRODUCTION:**

Operating the Sharp Electric Hydro Vac is much like operating a traditional Hydro Vac. There are a few differences which we will discuss in this manual.

Being a fully electric system, we use electric motors; electric motors have instant torque and near instant RPM. Sharp Equipment has built-in a 2 second delay to ramp up. This is so the components are not met with

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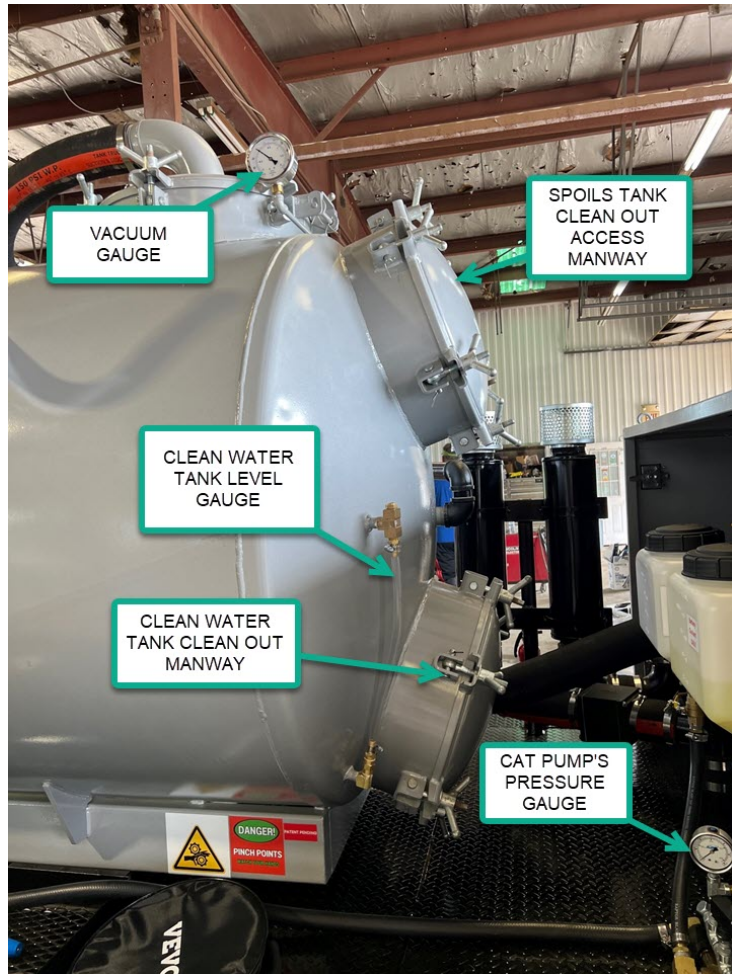
full torque and RPM all at once. The reason is to prolong the life of the components and help prevent failure.

The Sharp Electric Hydro Vac is a direct drive system which simply means an electric motor directly drives the water pump and another electric motor directly drives the blower. The machine does not have belts, pulleys, tensioners or clutches.

Roadside view:



Front of the Tank:



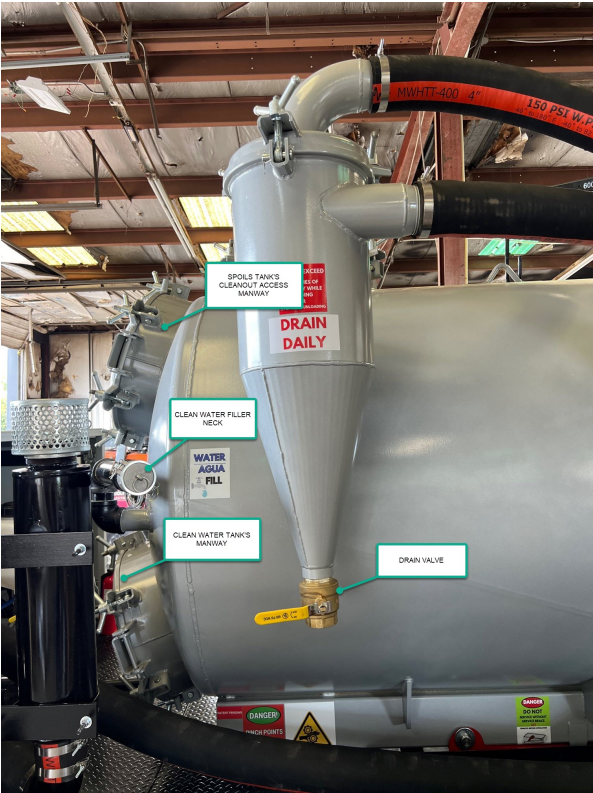


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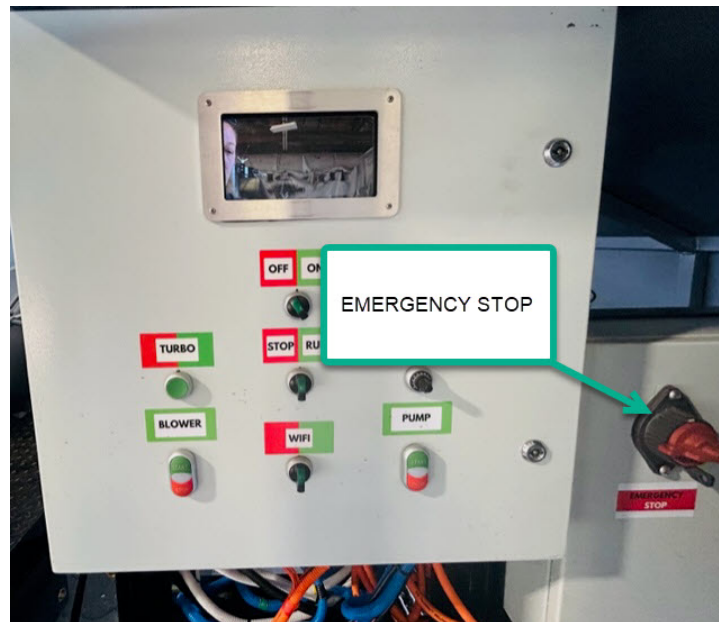
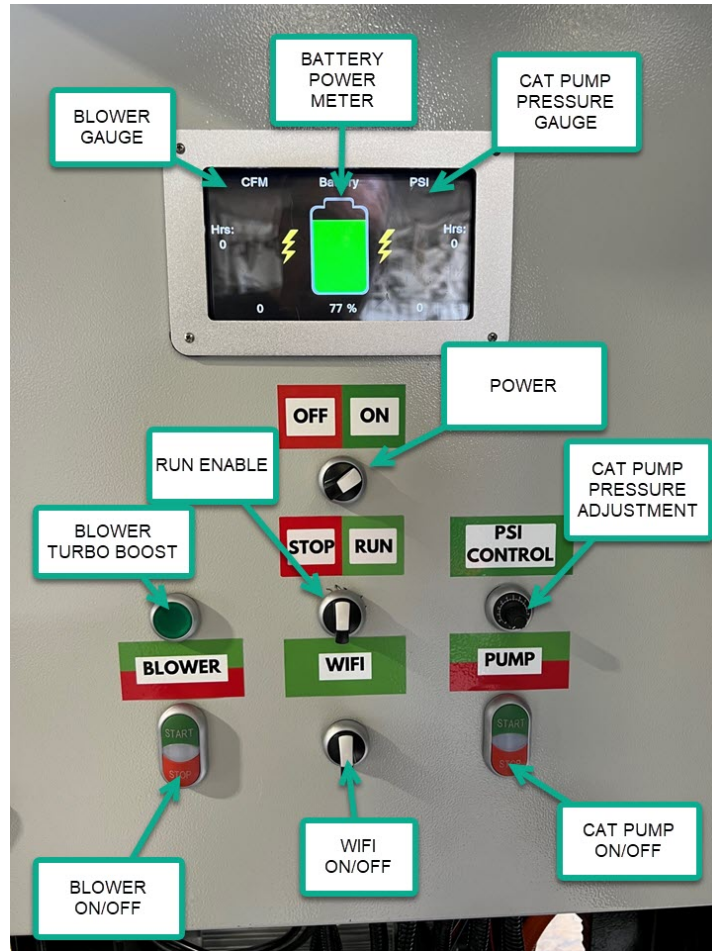
Rear View:



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Control Panel:



## **Operations:**

### Machine Power ON:

1. Turn the POWER Button knob to the ON position.
2. Turn the RUN ENABLE knob to the ON position.

Now the Electric Hydro vac is Ready and Alive.

**Emergency Stop:** Large Red button that will kill/stop all power of the machine in case of emergency.

### BLOWER OPERATION:

To turn **ON** the blower: Press the GREEN Blower button.

To turn **OFF** the blower: Press the RED Blower button.

The blower will run at 540 cfm/14 CMM by default. If you want the blower to run at 1,000 cfm/28 CMM, you must press the green **TURBO** button to activate the 1,000 cfm and this will give you 5 minutes of run time at 1,000 cfm. After 5 minutes you can push the button again to add 5 minutes if it is not pushed it will go back to approximately 540 CFM.

The Max Vacuum is 20 inches/508 mm Hg. Therefore, you can use the lower CFM setting to do 90% of the jobs and only use 1,000 CFM when absolutely needed thus preserving the battery.

To reverse the blower, reach in and shift the yellow handle on the blower. **Check the blower filter weekly and clean it. If you are losing suction, clean the filter as it may be clogged.**

### HIGH PRESSURE WATER PUMP:

Sharp Equipment uses Quick Disconnects for water hose, wash guns and nozzles.

To turn **ON** the high-pressure pump: Press the GREEN Pump button.  
To turn **OFF** the high-pressure pump: Press the RED Pump button.

To select the water pressure, turn the dial to the desired PSI. The water pump PSI can be set from 1,000 psi/69 BAR to 3,000 psi/ 207 BAR and anywhere in between.

To activate the water pump, squeeze the trigger on the wash wand. To deactivate the water pump, release the trigger.

**Always point the wash wand down when first starting so as not to damage the nozzle!**

**DUMPING THE SPOILS TANK:  
Only dump at an approved location!**

1. Open the 6" valve.
2. Let the liquid flow out.
3. Open rear 36" Manway door.
4. Use the Tether control to lift the tank and dump the solids.

**NOTE:** You do not have to turn ON the machine to dump the tank and operate the Tether Control.

5. When the tank is in the upright position, install the safety bar to prevent the tank from accidentally coming down.

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6. Stand on unit and open 20" clean out Manway door at the front of the tank to spray out the spoils tank.
7. Close and secure the 20" Manway.
8. Lower the spoils tank with the Tether Control.
9. Close the 6" valve.
10. Close and secure the 36" Manway.

## SERVICE:

**Daily check oil levels. On the water pump and the blower.**

**Daily check for water leaks. If you have a leak replace or repair the leak. Typically, water leaks are caused by worn or damaged O-Rings.**

### **Water Pump:**

- Change the oil after the first month or 50 hours of use. After the first oil change, change the oil once a year.
- Change the seals every 2 years. Change valves every 3 years. If you have the optional extended warranty, a factory trained Sharp Product Support Rep will do this for you during the warranty period.
- Only use CAT PUMP custom blend premium oil. It is designed specifically for CAT PUMPS.

### **Blower:**

- Clean filter weekly or as needed.
- Change oil after one month of use. After the initial oil change; change the oil once a year.
- Use only Synthetic Oil in the blower!

Mobil SHC 630 or equivalent, Viscosity ISO 220

Mobil SHC 630 oil is available at Amazon, Grainger and other distributors.

**Winterization:**

1. Turn valve to engage the antifreeze tank (Pink Fluid).
2. Squeeze wash wand trigger.
3. Squeeze the trigger until Pink Fluid comes out of the nozzle.
4. Open and leave open the valve to the water tank.
5. You're done.

**Battery Coolant:**

Use a 50/50 coolant like you would use for a car radiator. We suggest Prestone Max Ready to Use. The Battery Coolant reservoir is by the control panel. Keep it  $\frac{1}{2}$  to  $\frac{3}{4}$  full.

**Be extra cautious when using a concentrate coolant! If you do not properly dilute, it can cause damage to the battery cooling system and the battery; thus, voiding the warranty!**