RINSE PUMP Manual

V. 1. 1. 21

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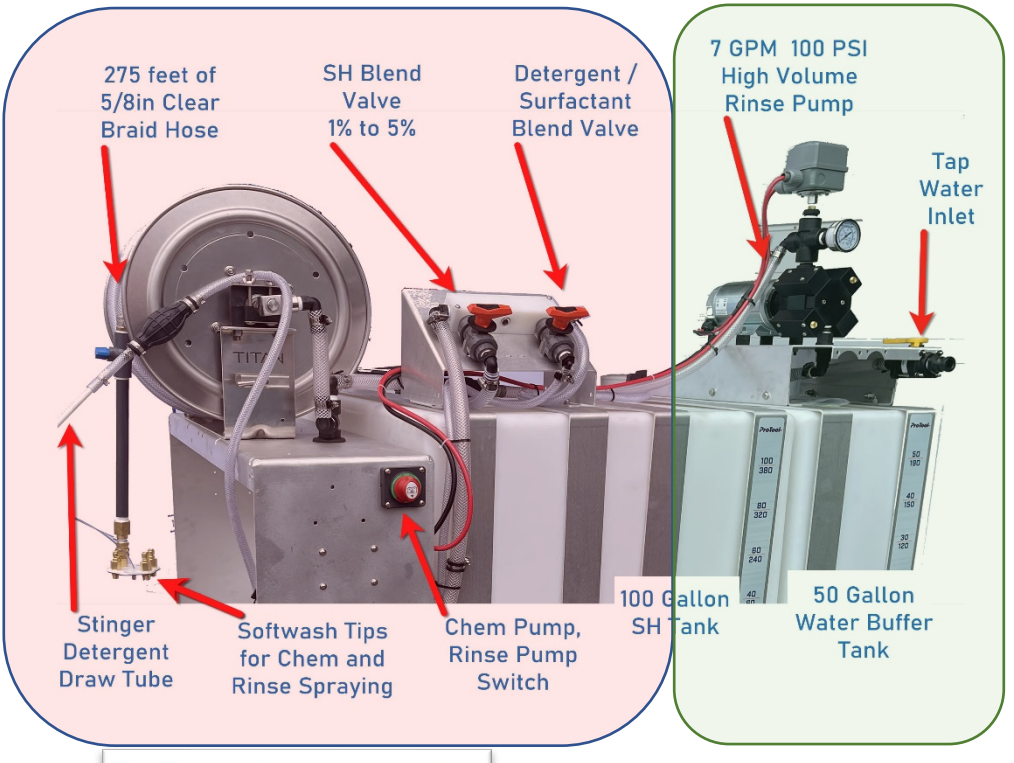
The Rinse Pump is part is the ProTool Blend 100-50 Sprayer

This manual outlines the use of the Green Highlighted Section below

Working side of the 50-100 Blend Rinse Sprayer Skid



The Hose Reel at the end pf the Sprayer sprays both the Rinse Water and the Cleaning Chemical, This is based upon the position of the power switch.

Change the Tips to the larger 0060 tips for rinse spraying

Rinse Pump Introduction

Where Can I Find Help?

This owner's manual is your first source for support and direction on your new ProTool Rinse Pump Module.

In this owner's manual you will find step by step directions for basic operations.

Call Technical Support at **201 809-7500** after reviewing the manual and checking for solutions in the troubleshooting section.

Powering Your SoftWash Rinse Pump Module

Proper Battery Choice The ProTool recommended battery choice is: Group 24 or Group 31 Marine Grade Deep Cycle DC Batteries

Only deep cycle Marine batteries can be used.

Do not use marine / start or starting batteries.

Marine deep cycle batteries can be found at any RV or Boat supply or even discount stores like Walmart or Sam's Club, etc.

The general rule of thumb is 1 battery = 1 hour of "Spray time" (when the pump is running)

For All day Spraying install 4 batteries with a RV/Trailer DC Charging System that operates off of your alternator and run the engine occasionally to charge in the field

Battery Mounting Options

Make sure you mount your battery in either a battery tray or within the battery cut out slot on the Lower Skid Unit; and is shielded from weather and other mechanical operations.

Charging and Care of Your Batteries

Deep cycle batteries generally require daily charging.

Make sure to visit your battery manufacturer's web site for care and maintenance guidelines. Poorly charged batteries will cause issues with the performance of the module.

General System Operation & Processes

Filling the 50 Water Buffer Tank

On the right corner of the ProTool Rinse Buffer tank connect a garden hose to the Water-In port with a Banjo cam-lock quick connect on the end of your garden hose.

Spraying Procedure

1. Open the 6” ball valve wand at the end of the rinse hose.
2. Turn the power switch power the rinse pump ON.
3. When done using the Rinse Pump Module, turn the power switch to off and release any pressure in the hose by opening the rinse wand.

Note: *Always open the wand Competely.*

When Rinsing spray using the wand turned completely on.

(*or completely off).*

If not “On or Off” you will internal damage components and greatly shortening the life of the pump.

Pump Operating Pressure

The pump should operate at a pressure of around 90 PSI based upon tip 0060 selection the pump should automatically shut off at 135-140 PSI.

While rolling up the hose, use a rag with armor all (or a similar product) to clean and protect the hose to help it last longer.

Troubleshooting Options

Loss of Power to System Pump

Breaker Switch

Under the house reel mounting area, there is a breaker switch for the Rinse Pump. Make sure the yellow plunger is pushed in or the system will not turn on.

Low Batteries

If your batteries are below 12. 0 volts, they need to be charged. The Rinse System will not work or struggle if below correct voltage.

Electrolyte Level

Your 12-volt batteries may be low on distilled water.

Check fluid level inside the battery and be careful to not overfill.

While the battery is charging, the fluid level inside will slightly rise and if the batteries are overfilled, they will leak battery acid.

Lead cells should be slightly covered under caps.

Pressure Switch

The pressure switch not being set correctly could cause the pump to not turn on at the desired PSI. Adjust your pressure switch so that the pump shuts off at 135-140 PSI.

System Pump is Struggling to Make Pressure

Water Storage Tank is Low

Your water tank may be out of water. Fill your water storage tank. (See Filling Water 50 Gallon Storage Tank.)

Air Leak

There are only a few points at which air can leak into the system. Check fluid levels on both the water storage tank Then make sure all hose clamps in the system are tightened.

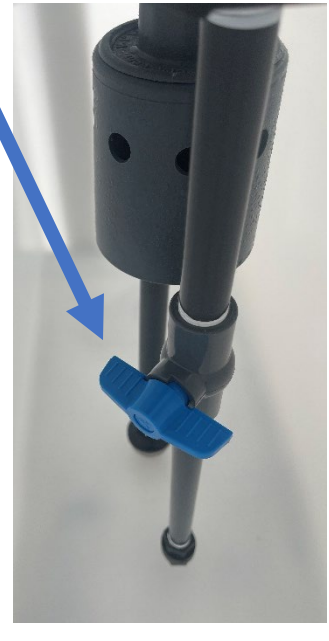
Pressure Switch

The pressure switch not being set correctly could cause the pump to not turn on at the desired PSI. Adjust your pressure switch so that the pump shuts off between 135-140 PSI.

System Pump is Overheating

Our 12-volt pump has a thermal protection circuit. In the event the pump motor gets too hot the pump will shut itself off for a period of about five minutes or until the pump cools.

There could be air in the draw tube side of the pump, reach into the buffer tank and while the pump is running, slowly open and then reclose the Control Valve attached to the buffer tanks draw tube.



If the pump and valve housing is exposed to direct sunlight try covering the pump and valve housing with a towel or even shade it with an umbrella. Always try to park the truck in the shade.

If the pump is repeatedly overheating, you may trip the 100 AMP Breaker.

Maintenance

Refer to the chart below for information about how often to perform maintenance on each part of your system.

MAINTENANCE INTERVALS

Maintenance Tasks	DAILY	WEEKLY	MONTHLY	QUARTERLY	YEARLY	AS NEEDED
End-of-Day Procedure	X					
Wipe off hose when winding	X					
Rinse exterior of system	X					
Charge battery with AC charger	X					
Apply Armor-All to hose		X				
Check for loose hose clamps		X				
Test circuit breaker		X				
Wipe down system's aluminum with Pledge		X				
Check electrical connections			X			
Lubricate fasteners			X			
Check/ fill battery water level			X			
Check for loose fasteners			X			
Vacuum tanks			X			
Rotate Hose on Reel					X	

Helpful Tip: Set calendar reminders to do these items.

Tanks & Hoses

1. Coat the tanks from time to time with a plastics care product like Armor All Tire Foam or alike product. Allow to soak overnight and then wipe away excess in the morning. You can also use these type of dressing sprays on your hoses throughout the system as well.

2. Vacuum out residual trash from inside the tanks on a monthly basis. Then rinse the tanks out with clean clear water.
3. Remove and rinse the in-tank sediment filter monthly when you vacuum out the tanks. Look for corrosion on any of the stainless-steel hardware on tank lids, hose clamps and tank straps and replace if anything looks worn.
4. Daily when closing out your truck wind up the 5/8-inch spray hose through a rag moistened with Armor All so that the UV protectant in the Armor All coats and protects the spray hose.

Float Valves

The Float Valves should be routinely cleaned to maintain optimal performance. Depending on your water source, cleaning should take place between 2-6 times per year. The more silt, rust, debris, etcetera in your water, the more often you need to clean the valve. Moss, algae and other debris can clog the small holes that run through the valve causing it to stop working properly.

1. Turn your water source off and remove the valve.
2. Unthread the cap from the body of the valve.
3. Remove diaphragm and retainer ring.
4. Turn valve over and, using a screwdriver, remove screw to drop float out of the valve body.
5. Wash all parts with warm soapy water and rinse thoroughly.
6. Hold the silicone diaphragm up to the light to make sure that the hole running through the stem is open and clear.
7. If the stem is not clear, try to run water or compressed air through it.

   Do Not try to stick a needle or pin through the hole as this could alter the size of the diaphragm hole causing the valve to fail. If you are unable to clear the debris, contact us.
8. Hold the body of the valve up to the light to make sure that the stainless steel insert running through the body of the valve is open and clear.
9. If the insert is not clear, try to run water or compressed air through it.

Do Not try to stick a needle or pin through the hole as this could alter the size of the insert hole causing the valve to fail. If you are unable to clear the debris, contact us.

10. Check the shut-off pad on the float. Look for any tears or indentations on the shut-off pad. The valve will not be able to shut off if the shut-off pad is damaged in any way.
11. If the shut-off pad is damaged, contact us.
12. Reassemble the valve.

Stainless Steel Hardware, Brass Connections & Aluminum

1. Look for corrosion on any of the stainless-steel hardware, hose clamps and tank straps and replace if anything looks worn.
2. Apply WD40 to these hardware items on a regular basis.

Maintenance of Pump

Included in your owners' packet, you will receive a pump owner's manual from the pump manufacturer. This is separate from the ProTool Rinse Pump Owner's Manual and should be referred to when maintaining the pump itself.

Winterizing the System

Note: *Each system is configured differently and instructions may differ slightly from system to system.*

1. In the water storage tank place 8 gallons of RV-20 antifreeze (the hose reel and hose will hold up to 8 gallons, so you will need 5 gallons in the tank to cover tank, pump, and hose reel).
2. Run the antifreeze through the system pushing all the water out of the valves, pumps, and hoses.
3. Place your gun in the tank after all the clear water has been pushed from the hose reel and recirculate the antifreeze through the module.
4. Make sure your entire system has the colored antifreeze in each and every line that is visible.
5. Pump the extra or excess antifreeze out into a holding container.

Note: *If possible, park the truck inside somewhere above freezing.*

Definitions / Glossary

50 Gallon Poly Tank

This system comes with a 50 gallon polyethylene Water Buffer tank. The tank is chemical resistant and meets USDOT standards.

Graduated Tank Strap

The 50 Gallon Poly Tank is secured to the skid with our proprietary Graduated Tank Strap. Not only does this strap act to secure the tank to the skid but it also provides mounting brackets atop for our pumps, plumbing, electrical and control panel. The tank strap has been laser cut with graduations that approximate the level of the fluids in your tank. These graduations and the sight gauge are laser cut through so that you can view your fluid level through the graduations.

Power Switch

The control panel is equipped with a marine rated, corrosion resistant, power switch. Turn the switch to “2” on the dial position to power your system on.

WARRANTY

Other Manufactures of Components

Some of the components of our equipment carry their own manufacturer’s warranties which supersede ProTool expressed warranties. A partial list of those components are but not limited to:

Hose Reels

Pumps

Switches

Breakers

The owner of the ProTool equipment will need to contact that manufacturer directly, for all other than the pumps, see “Pump Warranty Procedures” below. For help identifying the correct manufacturer, please call ProTool Customer Service at **201-809-7500**.

Proper Care

Discussed in this Owner's Manual are procedures for caring for and cleaning your equipment daily. It is required that your equipment be flushed internally daily and washed externally with Final Wash in order to keep your warranty in force. If ProTool finds that you are not performing the correct end of day procedure on your equipment we may deny your warranty claim.

Technical Support

With the purchase of your equipment, ProTool will provide you with **6 Months FREE Technical Support** via phone, which begins when you receive your equipment. After 6 months, if you are a member of the ProTool Network, you will continue to receive free Technical Support over the phone.

If you are not a member of the ProTool Network, all Technical Support calls will be timed and you will be charged a Technical Support Service Fee, which is an hourly rate that we prorate to the closest 15-minute increment.

Please ask your Shield Support Agent for the current Technical Support Service Fee.

LIFETIME LIMITED WARRANTY

ProTool offers a Lifetime Limited Warranty to the original purchaser of any of our skid mounted / ProTool branded equipment. As long as the original purchaser is the current owner of the skid mounted system ProTool will stand behind our Aluminum Structure (Skids, Tank Straps, Control Panels, Reel Stands, Brackets) and our poly holding tanks, manufactured by ProTool for the lifetime of the equipment when installed into a truck or a van. Trailers are excluded from this warranty.

ProTool also provides to the original purchaser a one-year (12 months) full bumper to bumper guarantee on all components attached to our branded skids - for workmanship defects, as part of the original build performed by ProTool. Workmanship defects are defined as defects in the system that inhibit normal operating performance.

Items like hose reels, booster pumps, banjo fittings/valves and pressure washers are manufactured by third party companies

and have their own factory warranty. These items are not covered by ProTool warranty. We strive to help you with factory warranties – however, only items manufactured by ProTool should be returned to our location. All factory warranties will need to be sent to the proper address, with shipping at the customer's expense. Please see (page 18 & owner's manual bag) "Other Manufacturers of Components"

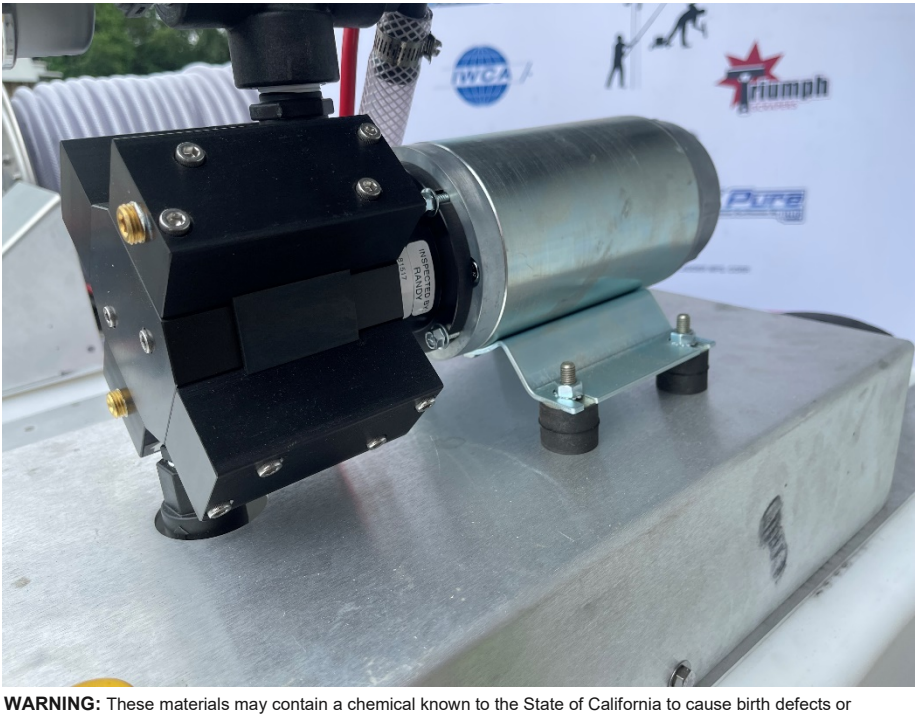
Wear items like chemical pumps, hoses and pressure gauges are not covered by this warranty. The term wear is described as the wear that should be expected in the course of normal operating usage of SoftWash equipment. Additionally, equipment must be cared for in a manner consistent with the ProTool skid owner's manual and must not suffer from abuse or neglect as determined by ProTool. System rust and / or corrosion are indications that your system has not been properly cared for (see page 11, Proper Care) and will result in your warranty claim being denied.

In the event of failure ProTool will repair the deficiency or replace at its option. Parts will be replaced at no cost to the original customer. Shipping and installation will be at customers expense.

ProTool

201 809-7500

helpdesk@jracenstein.com
www.jracenstein.com



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