SoftWash SYSTEMS®

RINSE DC PLUS

COMMERCIAL SOFT WASHING MODULE

RINSE DC PLUS MODULE

GENERATION III

OWNERS MANUAL

V1.0.2.2021

TABLE OF CONTENTS

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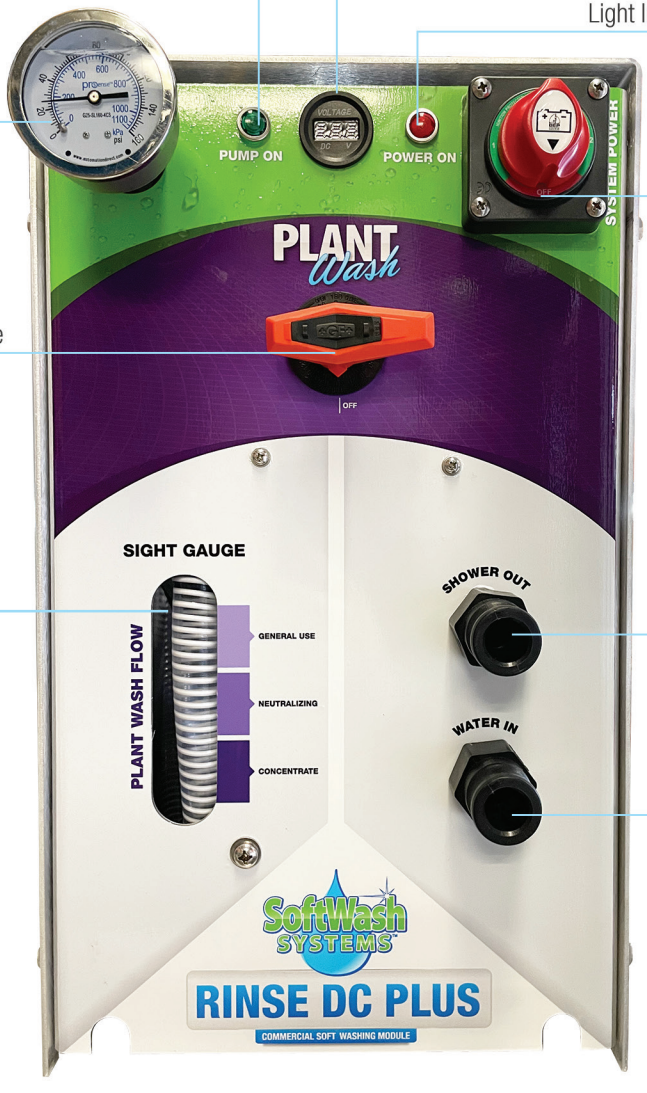

Rinse DC Plus Introduction

Where Can I Find Help?

This owner's manual is your first source for support and direction on your new Soft-Wash Systems Rinse DC Plus Module. In this owner's manual you will find step by step directions for basic operations. Other sources for finding and getting support are:

1. The Facebook "**SoftWash Systems In-Network Companies**" group.

   Please note you need to be Certified to join this online group. You can post questions to the group about your equipment whether it's about a malfunction or to learn about its potentials from others in the network. You will get much quicker answers to your questions posting on this Facebook page than anywhere else.

2. Call Technical Support at **855.763.8669** and select the extension for Technical Support when prompted. Do this after reviewing the manual and checking for solutions in the troubleshooting section.

Powering Your SoftWash Rinse DC Plus Module

Proper Battery Choice

The SoftWash Systems 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) We usually install 4 batteries with a Stealth AC/DC Charging System and it lasts all day without a problem.

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 marine batteries 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 50 or 100-Gallon Water Buffer Tank

On the face of the SoftWash Systems Blend Module (2D or 3D), 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 to the “2” position to power the rinse pump ON. (“1” powers the small hand shower pump located in the bottom of the tank, “1 & 2” powers both the hand shower and rinse pump).
3. When done using the Rinse DC Plus Module, turn the power switch to off and release any pressure in the hose by opening the rinse wand.

Note: *Never open the wand partially. Always have it turned completely on or completely off. If ignored this will damage components greatly shortening the life of the pump.*

Pump Operating Pressure

The pump should operate at a pressure of around 90 PSI based upon tip 0070 selection. When set correctly, the pump should automatically shut off at 135-140 PSI.

Plant Wash Operation

When rinsing the DC Plus pump runs in an “On demand style”, allowing the pump to run while Rinse wand is open and automatically turning off when the wand is closed.

1. On the front of the Rinse DC Plus Module, turn the metering valve dial to the desired amount of Plant Wash you wish to add to the water in your rinse hose. (use the color scale on the front panel to determine streight of Plant Wash you are using)
2. Set the Power Switch to “2” to turn on the pump.
3. Open the rinse wand.

Note: *It will take a couple minutes before the Plant Wash begins to spray out the end of the hose due to travel time through the 300 feet of hose. Plant Wash color may be evident in the hose, but may not be in the stream right away.*

End of Day Procedure

1. Make sure to run clean water all the way through the system and flush out any remaining Plant Wash in the hose.
2. Turn off the power switch on the front of the Rinse Module.

3. Open the rinse wand to release pressure in the hose. **Do not roll up the rinse hose with pressure still in the line, this may cause the hose to burst!**

4. 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 DC Plus Module. Make sure the yellow plunger is pushed in or the system will not turn on.

Low Batteries

Located on the front of the Rinse DC Plus Module is a volt meter for monitoring the levels of the batteries on your system. If your batteries are below 12.0 volts, they need to be charged. System will not work, or will 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 or 100-Gallon Storage Tank.)

Plant Wash Tank is Low, or Valve is Open

Check the level of Plant Wash in your Plant Wash saddle tank. If empty refill by adding two scoops of Plant Wash and filling the rest of the way up with water.

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 and the Plant Wash saddle 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. 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 SoftWash Systems DC Plus Rinse Module 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. Completely remove all the Plant Wash from your Saddle Tank and rinse entire system out with water.
2. 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).
3. Run the antifreeze through the system pushing all the water out of the valves, pumps, and hoses.
4. 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.
5. Make sure your entire system has the colored antifreeze in each and every line that is visible.
6. Pump the extra or excess antifreeze out into a holding container.

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

Recommended Parts to Keep on Hand

Hose Reel Swivel

General Life Span – Around 6 Months

The O-Rings in the hose reel swivel will begin leaking at around 6 months. We have several different types of Swivels in stock as well as a rebuild kit available for you at SoftWash Systems.

150 PSI Liquid Filled Pressure Gauge

General Life Span – Around 1 year

This part though sealed and filled with protective oil, fails on a yearly basis. Care as discussed above helps this gauge last longer.

Solenoid

This device creates a magnetic field from electric current and uses the magnetic field to create linear motion. Common applications of solenoids are to power a

switch, like the starter in an automobile, or a valve, such as in a sprinkler system. Used to Harness the power of the batteries and send it to the pump.

Pressure Switch

A pressure switch is a type of switch that closes an electrical contact when a certain set fluid pressure has been reached on its input. This Switch automatically shuts the pump off when it reaches a set pressure. (for the Rinse DC Plus, this is about 140 PSI).

Definitions / Glossary

50 or 100 Gallon Poly Tank

This system comes with a 50/100-gallon poly ethylene mixing tank. This is a square tank and it fits universally into our SoftWash System Generation III Cradle Skid. The tank is chemical resistant and meets USDOT standards.

Plant Wash Metering Ball Valve

On the control panel the top most valve is the Metering Ball Valve. There is only one on the Rinse DC Plus Module that is designated for Plant Wash. This valve allows the user to control the flow rate for Plant Wash for “on the fly” adjustments of rinsing and plant protection strength rates. This Metering Ball Valve is plumbed to the Plant Wash Saddle Tank that is included on the Rinse DC Plus Module.

Graduated Tank Strap

The 50/100-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.

Valve Panel Assembly

The control panel is a considerable upgrade from our systems in the past. Now all your valves and switches are mounted to a single panel atop the water storage tank and set curbside for safe and easy access. The control panel houses all plumbing and electrical systems along with a George Fischer Metering Ball Valve. The panel decal is applied with valve positions and other control identifications.

WARRANTY

Other Manufactures of Components

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

Hose Reels

Pumps

Switches

Breakers

The owner of the SoftWash Systems 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 SoftWash Systems Customer Service at **855-763-8669**.

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 SoftWash Systems 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, SoftWash Systems 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 SoftWash Systems Network, you will continue to receive free Technical Support over the phone.

If you are not a member of the SoftWash Systems 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

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

SoftWash Systems 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 SoftWash Systems. 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 SoftWash Systems warranty. We strive to help you with factory warranties – however, only items manufactured by SoftWash Systems 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 SoftWash Systems skid owner's manual and must not suffer from abuse or neglect as determined by SoftWash Systems. 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 SoftWash Systems 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.

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WARNING: These materials may contain a chemical known to the State of California to cause birth defects or other reproductive harm. *www.P65Warnings.ca.gov*

SoftWash SYSTEMS™

2021

LIFETIME LIMITED WARRANTY

Certificate

PRESENTED TO THE ORIGINAL OWNER OF:

SERIAL NUMBER

SIGNATURE

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