

Team

PUMPTEC

Series 348

OWNER'S MANUAL

Congratulations on your purchase of Pumptec's Series 348 Pump and Motor Assembly. With proper care and maintenance you will get dependable service from your Pumping Unit. To prolong the life of your Pump, It is important that you rinse your Pump out with clear water after each day's use. Chemicals left inside your pumping unit will damage your pump. (Chemicals are hard on all pumps.) Take good care of your equipment and your equipment will take good care of you.

INSTALLATION INSTRUCTIONS

POSITION MOTOR UNIT.

-When selecting position consider length and downward angle of suction line from tank to pump.

-Consider length of wire from battery to motor.

-To reduce shock and vibration, heavy duty motor mounts with lock nuts and washers are provided.

-Pump may be mounted in any position except vertical with pump above motor (water would leak into motor). Vertical mount with motor above pump is not a problem.

-Mount pump and motor in location where it is reasonably protected from dust, dirt, mud, water, impact shock, chemical spill, or direct sunlight. A simple well ventilated enclosure should be adequate.

LAYOUT AND INSTALL SUCTION LINE.

-Most important! Always have suction line in continuous downward slope from tank to pump. This will allow air bubbles to travel uphill back into tank thereby eliminating the majority of priming and erratic performance problems.

LAYOUT AND CONNECTION TO ELECTRICAL SUPPLY.

NOTE: 12 Volt Pumping systems are unique in that "problems" are most likely to be electrical.

-If the pump motor is running and no water is coming out of the pump - you have a pump system problem.

-Almost every other problem will be related to electrical issues.

-The most common electrical problems are poor connections. Among those: Corroded battery terminals, ground wire corroded, Wire connector corroded, inadequate wire size for load and damaged wire.

IMPORTANT: WARRANTY VOID IF YOU CONNECT ELECTRICAL WIRES BACKWARDS.

RED IS POSITIVE (+) BLACK IS NEGATIVE (-)

RETRACE ELECTRICAL WIRES TO BATTERY TO BE ABSOLUTELY CERTAIN (+) TERMINAL ON BATTERY GOES TO RED MOTOR WIRE.

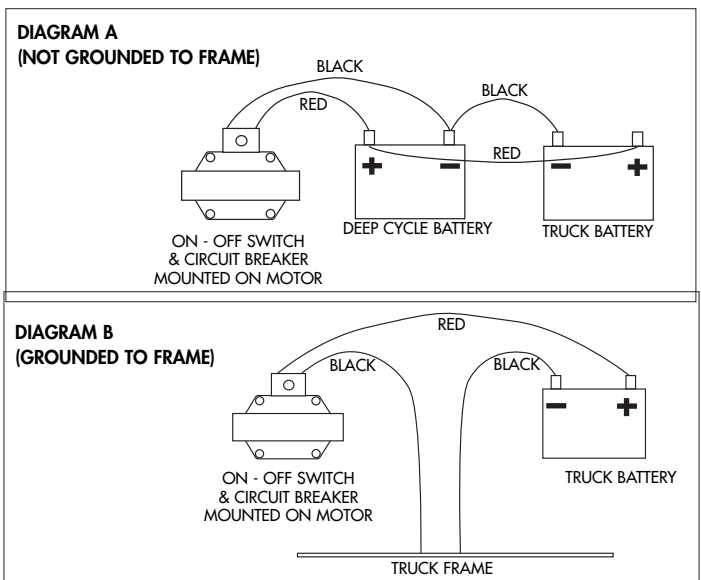
BLACK WIRE OF MOTOR GOES DIRECTLY TO (-) TERMINAL ON BATTERY OR TRUCK FRAME.

-NOTE: Our 12 volt motors with switches have circuit breakers built into the switch box.

CAUTION: CIRCUIT BREAKERS WILL AUTOMATICALLY RESET & THE MOTOR WILL RESTART AUTOMATICALLY.

WIRING DIAGRAMS:

Important: Use 4 gauge welding cable.



PUMP OPERATING INSTRUCTIONS FOR 12 VOLT SYSTEMS

Each Pumptec power sprayer is tested and inspected prior to shipment from our facility in Ramsey, Minnesota. This routine includes setting the pressure to optimum performance levels. **Do not** attempt to increase pressure above a backflow or recycle mode gauge reading of 200 PSI. Only through tampering or extremes during shipment should a unit need pressure adjustment upon arrival to end-user. Before making and adjustments, call **Shawn Glover, National Sales Manager/Repair @ (866)857-7078**, or **Greg Thoennes, Sales / Repair @ (763) 433-0303, fax (763)433-0404**.

We recommend that you perform an **initial set up and test** of your system **with clean water** to check for leaks. **Do not** install chemicals before completely testing pumping module and all connections.

Note: Always flush and rinse system after every use. **Never** change chemicals without completely rinsing tank and whole pumping system. **Always** read chemical label and exactly follow recommendations for system flushing.

1. Check water/chemical supply. Water/chemical in supply tank? Garden hose/water supply on if used?
2. Do you have adequate filtration? Check line strainer / filter to make sure it is clean and free of debris.
3. If it is necessary to disassemble the filter to inspect or clean, be certain to seat the gasket property, along with the screen and tighten extra firmly. Any air leakage at this point will cause drop in pressure and loss of pump prime.
4. Check all plumbing connections to make sure they are tight.
5. Check your power source. Make sure your battery is fully charged and connected correctly. (See Installation Instructions.)

6. Prime your pump before using or connecting spray hose to outlet of pump.

Note: If you have a direct garden hose water supply to pump inlet, you will not need to prime your pump.

7. To prime your pump remove spray hose (if connected). Put supply line in tank if not permanently connected to tank. If you have a bypass hose quick disconnect from inlet side of pump / unloader / regulator and direct hose back to tank or to ground away from motor.

8. Start pump and allow all air to purge from system (5 to 15 seconds). Stop pump and reconnect bypass hose to inlet side of pump / unloader / regulator.

9. Connect spray hose to outlet side of pump / unloader / regulator. Connect spray gun assembly to discharge end of spray hose.

Note: The pressure is factory set as a result of the water / chemical flow restriction unique to that of the gun and tips in place and included with each Pumptec unit. Changing tips or guns may affect the application pressure.

10. Hold trigger open on spray gun and start pump. Allow all air to purge from system and liquid to spray. Trigger the spray gun a few times to check pressure and nozzle function. If you are happy with spraying pressure and nozzle performance you will not need to make any adjustments.

Note: Short burst applications will maintain maximum pressure. Extended actuation of trigger will result in a drop in pressure due to 300ft hose length. Again, **DO NOT attempt to adjust above back flow pressure above 200 PSI**.

11. With spray gun triggered you can adjust the spraying pressure by adjusting the unloader or regulator valve.

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Note: Do Not adjust regulator valve except in small increments. Over-adjustment in either direction will cause damage to the spring. Never adjust to a back pressure of over 200 PSI.

There are two easy ways to lower your pressure:

1. Turn the unloader/ regulator knob counter clockwise.

2. Change to larger size nozzle tip.
(RECOMMENDED)

Note: the opposite of either will raise the pressure.

12. Adjust the nozzle tip on the gun supplied with the system if needed.

Note: Higher pressure requires more amperage. Use only the pressure you need. Do not unnecessarily overload system. Should the system overload, a breaker will trip resulting in a power interruption. In this case, carefully remove the breaker box cover located on the top of the motor to access the re-set switch inside. Do this only after the pressure adjustment has been made. Never leave cover off during operation avoiding moisture entry and damage to system, and nullifying the warranty.

13. **To shut down unit**, first turn unit OFF.

14. Turn water supply OFF.

15. Actuate spray gun trigger to relieve system pressure.

16. Disconnect the pressure hose.

Note: Always flush and rinse system after every use. Attempt to use the entirety of tank mix each day to avoid separation / settlement of product overnight. This may cause the pump undue strain while pumping the more viscous material upon next use. **Never** change chemicals without completely rinsing tank and whole pumping system. **Always** read chemical label and exactly follow recommendations for system flushing.

17. Other maintenance:

- Use entirety of product in the tank daily. Flush briefly with clean water.
- Tighten all screws periodically to insure safety and proper performance.
- Do not move pick-up tube.
- Make sure water soluble packs fully dissolve.
- In all times keep one spare replacement motor and repair kit in stock (See diagram).

STORAGE

Flush unit after each use with solution specified by the chemical manufacturer. See label on chemical container. Store in protected area.

WINTER STORAGE

If freezing is a possibility, flush completely and store with solution of antifreeze and water.

RECOMMENDED PUMP MAINTENANCE INTERVALS ARE AS FOLLOWS:

Hours of Service	Replacement of Parts
500 hours	Install Kit A & C
1000 hours	Install Kit B

Trouble Shooting Guide

Problem	Possible Cause	Remedy
No water flow	Tank is empty Loose fittings / air leak Lost prime	Fill tank Check fittings Prime pump according to directions on Operation page
Loss of pressure	No water flow Worn nozzle(s) Regulator set incorrectly Air leak	See above Check alignment - filter gasket / screen Replace with new nozzles Re-adjust to desired pressure Check fittings
Erratic Pressure	Air in water line Regulator leaks Pump check valves	Check fittings / Check alignment (Filter gasket / Screen) Check for water in Regulator Check / clean Valves
Motor stopped	Fuse is blown - Reset Pump froze (mechanical) Too much pressure / flow	Check back-up breaker switch @ battery Replace fuse Repair pump, install Kit A Slow Pump / Motor down
Motor won't start	Fuse blown Pump froze (chemical) Pump froze (temperature) Motor froze Motor Control burned out Pressure Regulator stuck	Check back-up breaker switch @ battery Replace Disassemble and clean parts Thaw out, Install Kit B Take to repair shop for exam Call distributor Adjust / clean

LIMITED WARRANTY ON PUMPTEC, INC., PUMPS AND OTHER PUMPTEC, INC., PRODUCTS

PUMPTEC, INC., as a manufacturer warrants to the original purchaser, each new pump or other product of its own manufacture, for a period of one year from the date of shipment from the factory, to be free from defects in material and workmanship under normal use and service. "Normal use and service" means not to operate in excess of recommended maximum speeds, pressures, temperatures (140°F) or handling fluids not compatible with component materials. This warranty does not apply to any pump or other product which has been repaired or altered to affect the performance or reliability of the pump or other product.

Neither this warranty nor any implied warranty apply to damage or harm caused by any or all of the following:

1. freight damage
2. damage from freezing or cavitation.
3. damage caused by parts and/or accessories or components not obtained from or approved by PUMPTEC, INC.
4. any consequential or incidental damages, other than injury to the person, arising from the use of any pump or other product manufactured by PUMPTEC, INC., except in states that do not allow the exclusion or limitation of incidental or consequential damage.
5. damage due to misapplication and/or misuse. The use of a solution greater than 140°F or a fluid with pH less than 7 or greater than 9 could be a misapplication of our anodized aluminum pumps. CONSULT FACTORY for specific material compatibility recommendations for applications outside of this pH range. Numerous coating choices for aluminum and Stainless Steel components as well

as various elastomer choices are available at extra cost.

6. normal wear of moving parts or components affected by moving parts.
7. USE WITH FLAMMABLE MATERIALS IS ABSOLUTELY FORBIDDEN!

The liability of PUMPTEC, INC., under the foregoing warranty is limited to the repair or replacement (at PUMPTEC, INC.'s option) without charge for labor or materials of any parts upon return of the entire pump or other product or of the particular part to the PUMPTEC, INC., factory within the warranty period, at the sole expense of the purchaser, which part shall upon examination appear to PUMPTEC, INC.'s satisfaction to have been defective in material or workmanship.

PUMPTEC, INC., expressly warrants its pumps and other products as above stated. There are no other express warranties. Any implied warranties, including implied warranty of merchantability or of fitness for a particular purpose, are limited in duration to one year from the date of purchase by the original purchaser except in states that do not allow time limitations on implied warranties. There is no implied warranty of fitness for a particular purpose or merchantability when this product is put to an industrial, commercial or rental use.

No person including any dealer or representative of PUMPTEC, INC., is authorized to make any representation or warranty concerning PUMPTEC, INC., products on behalf of PUMPTEC, INC., or to assume for PUMPTEC, INC., the obligations contained in the warranty. PUMPTEC, INC., reserves the right to install the same upon its existing products or products then in process or manufacture.

This warranty gives you specific legal rights, and you may also have other rights, which vary, from state to state.

SERIES 348 EXPLODED VIEW

