

WATERRA
OWNER'S MANUAL

12 VOLT SUBMERSIBLE PUMPS



12 VOLT SUBMERSIBLE PUMPS FEATURES & SPECIFICATIONS

Features & Specifications

The Waterra 12-volt Submersible Pump has been designed for well purging and sampling procedures. These pumps can greatly speed up the process of purging and sampling monitoring wells especially if dedicated installations are used.



WSP-12V-1 (Single Stage)

PARAMETER	VALUE
Shipping Weight	4 lbs. (2kg)
Maximum Lift Capacity	40 ft / 12 meters
Length/Diameter	5"(123mm) / 1.6"(41mm)
Input Voltage	12-13 volts DC
Cable Gauge/Length	AWG 12 / 35 ft (10.6 m)
Current Draw	4 amps
Duty Cycle	Continuous
Maximum Flow	12 L/min
Tubing Diameter	1/2" X 3/8"

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Optional Feature

Waterra can install an on/off switch on the pump's electrical cable that allows the user to control the pump without having to disconnect it from the power supply.



WSP-12V-2 (Double Stage)

PARAMETER	VALUE
Shipping Weight	6 lbs. (3kg)
Maximum Lift Capacity	60 ft / 18 meters
Length/Diameter	9.6"(248mm) / 1.6"(41mm)
Input Voltage	12-13 volts DC
Cable Gauge/Length	AWG 12 / 65 ft (19.8 m)
Current Draw	7 amps
Duty Cycle	Continuous
Maximum Flow	11.35 L/min
Tubing Diameter	1/2" X 3/8"

12 VOLT SUBMERSIBLE PUMPS ASSEMBLY & OPERATION

Assembly & Operation

These pumps can be used in 2" monitoring wells and can remove a considerable amount of water with great ease.

In order to use the 12-volt Submersible Pump, you will need a 12 volt power supply. Many of today's generators are equipped with a 12-volt output, sometimes designed for battery charging. As long as this output can supply up to 8 amps of power continuously, it should be sufficient for powering the 12-volt pump. Check the generator owner's manual for the specific requirements for using this generator feature.

A battery, including a vehicle battery, can also power the 12-volt pump. If a vehicle battery is being used, it is important that the vehicle be turned on and run for 5 minutes every 15 minutes in order to maintain the charge in the vehicle's battery. Failure to do this may result in damage to the battery and being unable to start the vehicle.

Prior to inserting the pump into the well you will need to connect the pump to a length of 1/2" X 3/8" tubing. We recommend LDPE (low-density polyethylene) as it is softer and easier to connect to the pump. If high-density tubing is used, it is recommended the end of the tubing be softened with heat, or stretched prior to attaching it to the pump. Fastening a hose clamp over the coupling is optional.

Lower the pump into the well so that the pump intake is submerged. Better flow rates will be achieved if the pump is lowered to near the bottom of the well. However the 12-volt pumps can also pump with only 1 to 2 inches of the pump submerged beneath the water.

Connect the negative alligator clip securely to the negative terminal on your power supply, then connect the positive alligator clip to the positive terminal. The pump should now be operating. If the pump had the optional on/off switch installed, it must be switched to the on position before pumping will begin.

When pumping is completed, the pump may be removed from the well or dedicated to the well so that it is ready for the next pumping event.

12 VOLT SUBMERSIBLE PUMPS CLEANING & DECONTAMINATION

If the pump is removed from the well, ensure that it has drained by holding the pump in the upright position so that all water will drain from the unit. Allowing water to remain in the pump could damage the unit if this water freezes.

Cleaning & Decontamination

The Waterra 12-volt submersible pumps can only be partially decontaminated. There is no decontamination procedure that can ensure that all contaminant is completely removed from the pump. The best way to ensure that you will not have cross contamination between wells is to use a different pump for each well.

Decontaminate the 12-volt submersible pump by immersing it and the electrical into a bucket of warm water with a non-phosphate detergent. Attach a short section of tubing to the pump outlet to re-circulate the cleaning solution back into the bucket. Attach the pump to your power supply and allow the cleaning solution to circulate through the pump. The amount of time that is required for this will vary depending on the concentration and type of contaminant the unit was exposed to. When this step is complete, repeat the procedure with clean water. If required, check the decontamination by passing a rinse blank sample through the pump.

12 VOLT SUBMERSIBLE PUMPS PARTS LIST



– WSP-12V-1 (Single Stage)

There are no replacement parts for this pump.



– WSP-12V-2 (Double Stage)

There are no replacement parts for this pump.



– Optional ON/OFF Switch

12 VOLT SUBMERSIBLE PUMPS WARRANTY INFORMATION

Warranty Information

Waterra USA Inc. and Waterra Pumps Limited ("Waterra") warranty the Waterra 12-Volt Submersible Pumps (WSP-12V-1 & WSP-12V-2) to be free from defects in material and workmanship affecting its use for a period of 3 months following the date of purchase.

Exclusions and Conditions

The Waterra Warranty does not include shipping or an obligation to provide another unit while the original Waterra 12 Volt Submersible Pump is being repaired or replaced.

The Waterra Warranty does not apply to 12 volt submersible pumps used as rental equipment or to submersible pumps contaminated by materials harmful to such products.

The Waterra Warranty does not apply to parts failure due to neglect in cleaning or servicing the Waterra 12 Volt Submersible Pump nor does it cover failure of a part caused by misuse or inappropriate use of the 12 volt submersible pump.

The Waterra Warranty is not valid if the Waterra 12 Volt Submersible Pump is not paid for in full within 60 days of the invoice date.

Returning 12 Volt Submersible Pumps to Waterra

Waterra requires that all customers notify Waterra prior to returning Waterra 12 Volt Submersible Pumps under the Waterra warranty program. The 12 Volt Submersible Pump will only be accepted if it has been thoroughly cleaned and decontaminated. The 12 Volt Submersible Pump must be properly packaged.

Please contact Waterra in order to obtain a shipping address.

12 VOLT SUBMERSIBLE PUMPS **CONTACT WATERRA**

As of January 2006 Waterra can be reached as follows:

Canada and International

Waterra Pumps Limited,
5200 Dixie Road, Unit 44
Mississauga, ON L4W 1E4
CANADA
voice: 905.238.5242
fax: 905.238.5704
email: waterra@jdirect.com

United States

Waterra USA Inc.
715 West Orchard Drive, Unit 5
Bellingham, WA 98225
USA
voice: 360.738.3366
fax: 360.738.3399
email: waterra@openaccess.org