



ENDLESS POOLS E Series Modular Pool and Swim Spa Winterization Instruction Manual

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ENDLESS POOLS E Series Modular Pool and Swim Spa Winterization



Specifications

- Product Name: Modular Pool and Swim Spa Winterization Service Instructions
- Brand: Endless™ Pools
- Model Number: D90010_en 0824

Product Usage Instructions

1. Remove the eyeball fitting from the water quality system return through the wall fitting.
2. Plug the return fitting with a 1.5 threaded plug with an o-ring.
3. If the pool contains hydrotherapy jets, follow the steps to plug them in accordingly.
4. Drain the water from the pool to a level approximately 6 inches below the top-most edge of the liner.
5. If the pool has a gas heater, ensure water is removed from the heat exchanger following the specific instructions provided in the manual.
6. Turn off the gas to the unit and power toggle switch to the off position.

Overview

NOTICE

- It is imperative that a pool be properly winterized if it will be susceptible to freezing temperatures. The pool and its components will be damaged if it is not done properly. The following covers all but the most unique of installations.
- Endless™ Pools is not responsible for damage to the pool or its components as a result of freezing temperatures.
- The best way to ensure that the pool is properly winterized is to employ a local Pool/Spa professional to perform the winterization procedure.

A pool left inactive during the winter months is susceptible to damage from freezing water. The purpose of winterizing the pool is to ensure that the PVC plumbing lines and water quality components (pump, filter, heater, UV, etc.) do not sustain freeze damage over the winter months. Each pool may potentially have a different equipment configuration, and site conditions vary, but the concepts are still the same. The overall goal is to isolate

the water in the pool from the plumbing systems and then remove all of the water from these lines. Depending on the pool design, removing a large volume of water from the pool is not recommended or necessary. In most cases, gravity will suffice to rid the pipes of water, although in some instances, a wet/dry vacuum or a small air compressor with a quick coupler fitting may be necessary to flush out the lines. When using a compressor, take care not to exceed 10 psi in the system.

Winterizing Original Series and WaterWell® Pool

1. Turn off the power to all pool equipment.
2. Plug the water quality system suction. The procedure for this step is dependent upon the pool model and skimmer.

POOLS WITH INTERNAL SKIMMER FILTER

Endless Pools Original Series: Remove the two screws that secure the skimmer shroud lid to the right side of the propulsion housing. If present, remove two screws that secure the bottom of the skimmer shroud to the front base assembly (not all models have these screws). Once screws are removed, position the skimmer away from the front wall to exposed the flex hose. Remove the flex hose attached to the elbow that is threaded into the water quality system suction thru-wall fitting, and then remove the entire skimmer assembly. Remove the elbow from the suction thru-wall and plug the fitting with a 1.5" threaded plug with an o-ring. Store the skimmer assembly for the winter.

Endless Pools WaterWell: The skimmer assembly will be located in the corner at the front of the pool. Remove the skimmer shroud lid by removing the screws. With two people, lift the shroud lid and skimmer housing out of the skimmer shroud. While the assembly is elevated (or resting on the coping), remove the flex hose attached to the elbow that is threaded into the water quality system suction thru-wall fitting. Remove the elbow from the suction thru-wall and plug the fitting with a 1.5" threaded plug with an o-ring. Store the skimmer assembly for the winter.

POOLS WITH EXTERNAL SKIMMER FILTER

Remove all components of the skimmer/filter. Some models with the external skimmer/filter are equipped with a secondary suction line that tees to a separate fitting. For Endless Pools original series, the fitting will be behind the shroud (45-degree angled plate on the right side of the propulsion housing). If this condition exists, remove the shroud by removing the screws. For WaterWells, the fitting will either be on an opposing wall or above the water quality system return fitting. Plug the secondary suction fitting. The fitting will either be a VGB fitting with a perforated suction cover held on by two small set screws, or a standard thru-wall fitting. If the fitting is standard, plug with a 1.5" threaded plug with an o-ring. If it's a VGB fitting, remove the perforated suction cover and plug with a #10 rubber expanding winter plug.

3. Remove the eyeball fitting from the water quality system return thru-wall fitting (keep in mind there are three pieces, all of which must be removed from the return fitting). Plug the return fitting with a 1.5" threaded plug with an o-ring.
4. If the pool contains hydrotherapy jets, the jet suction must be plugged. Remove the perforated suction covers from the jet suction fittings. Plug with #10 rubber expanding winter plug. If a standard thru-wall fitting has been used, a 1.5" threaded plug with an o-ring can be used. For Endless Pools original series, the suction(s) will either be behind the 45-degree shroud on the right side of the propulsion housing or under the rear base assembly.

Remove all jet nozzles, taking care not to lose the nylon rings that create a seal around each jet nozzle. Plug all jet bulkheads with #11 rubber expanding winter plugs. Remove the threaded winterizing plugs located near the front of the jet pump at the bottom of the pump housing. Partially disconnect unions at the suction and

discharge of the pump.

Allow all water to vacate the lines, making sure that potential low spots in the pipe runs are voided of water.

5. Drain the water from the pool to a level approximately 6" below the top-most edge of the liner.
6. Water **MUST** be removed from the water quality system plumbing lines. Usually, simply loosening all union collars is sufficient to drain the system. Using a compressor or wet/dry vacuum may be necessary when gravity draining the lines will not suffice. Make sure to focus on any low points in the plumbing system; this is where water will collect. If you have a secondary suction line (described in section 2 above) there will be a 2lb. Check valve in place that will not open to release the water in the pipe without some suction – use wet/dry vacuum. If the water quality system is equipped with an upgraded pump (most common for remote water quality systems, gas heaters, EZ50), remove the two drain plugs in the pump housing to remove the water. If the pool is equipped with a filter tank, remove the plug at the bottom of the tank to drain the water.
7. If the pool has a gas heater, water **MUST** be removed from the heat exchanger. All heaters come equipped with a winter drainage accommodation attached to the heat exchanger. These are generally threaded into the exchanger at its lowest point and can either be removed or opened completely. In certain model heaters, the pressure switch must be disconnected from its copper tube. Turn off the gas to the unit and turn the power toggle switch to the "off" position.
8. Add a non-chlorine winter chemical kit to the pool water. Kits vary in many ways. The most important characteristic you should look for is that the kit has a "non-chlorine" floater that will slowly disperse the contents throughout the winter. Generally speaking, Endless Pools tend to be much smaller than what the industry would consider a small pool, so usually, the kit labeled for the smallest gallonage will suffice. Additional chemicals such as algaecide stain and scale control, and others may be included with this kit, none of which will damage the equipment but may not be necessary. Winterization kits can be purchased through Endless Pools Customer Service.
9. If outdoors, place a fully inflated "exercise ball" in the pool to provide support for the cover while the water level is lowered for the winter. These can be sourced at your local sporting goods store. Close the retractable security over the exercise ball. Place the cover pump on top and plug into the outlet (if outdoors). Be sure that the discharge hose from the cover pump drains the water away from the pool area. It is a good idea to periodically check the function of the pump and outlet throughout the winter.
10. If a bi-fold cover is installed, snow **MUST** be monitored and removed from the top of the cover to prevent damage.
11. If you do not have an ASTM-rated cover or bifold cover, you must consider safety when covering the pool. Tarps tend to work the best but can be dangerous if not supported underneath. A platform comprised of plywood and lumber is recommended in these circumstances to support the tarp.
12. To construct a winter cover:
 - a. Lay 2×4's on edge across the width of the pool. Space them 16" apart on center.
 - b. Create a pitch to the cover by laying a 2×4 along one long side of the pool on top of the 2×4's that are spaced every 16".
 - c. Cover these 2×4's with plywood and cover the plywood with a tarp.

Winterizing Streamline® Pool

1. Turn off the power to all pool equipment.
2. Drain approximately 18" of water from the pool.
3. When the water level is below the suction and return piping, all water **MUST** be removed from the plumbing

lines.

Usually, loosening all union collars is sufficient to drain the system. A compressor or wet/dry vacuum may be necessary to ensure all water is removed.

4. Remove the two drain plugs from the two-speed pump housing to remove the water.
5. Add a non-chlorine winter chemical kit to the pool water. Kits vary in many ways. The most important characteristic you should look for is that the kit has a “non-chlorine” floater that will slowly disperse the contents for the winter. Generally speaking, Endless Pools tend to be much smaller than what the industry would consider a small pool, so usually, the kit labeled for the smallest gallonage will suffice. Additional chemicals such as algaecide stain and scale control, and others may be included with this kit, none of which will damage the equipment but may not be necessary.

Winterization kits can be purchased through Endless Pools Customer Service.

6. If outdoors, place a fully inflated “exercise ball” in the pool to provide support for the cover while the water level is lowered for the winter. These can be sourced at your local sporting goods store. Close the retractable security cover over the exercise ball. Place a cover pump on top and plug into the outlet (if outdoors). Be sure that the discharge hose from the cover pump drains the water away from the pool area. It is a good idea to periodically check the function of the pump and outlet for the winter.

Winterizing Swim Spa

- Refer to the instructions below for legacy spa series models and the following page for E-series, X-Series, and R-series swim Spas.

LEGACY SWIM SPA (SHIPPED BETWEEN 2010 – 2016)

1. Turn off the circuit breaker or electrical disconnect to the swim spa.
2. Drain the swim spa.
3. If you have an air compressor, remove the drain plug from the jet pump housing and blow out the jet lines. If you do not have an air compressor, please proceed to the next step.
4. Disconnect all of the plumbing unions and remove the drain plug from the jet pump housing (you may want to have a shop vac on hand to help contain the water that will drain out, especially if the swim spa is indoors).
5. If a bi-fold cover is installed, snow **MUST** be monitored and removed from the top of the cover to prevent damage.
6. If the swim spa does not have a bifold cover, construct a winter cover:
 - a. Lay 2×4's on edge across the width of the swim spa. Space them 16" apart on center.
 - b. Create a pitch to the cover by laying a 2×4 along one long side of the swim spa on top of the 2×4's that are spaced every 16".
 - c. Cover these 2×4's with plywood and cover the plywood with a tarp.

E-SERIES, X-SERIES, R-SERIES SWIM SPAS (SHIPPED 2017- PRESENT)

1. Turn off the circuit breaker or electrical disconnect to the swim spa.
2. Drain the swim spa.
3. Remove filters and vacuum filter plumbing to clear all water from those lines. Clean and store filters in a dry place

4. If you have an air compressor, remove the drain plug from the jet pump housing and blow out the jet lines. If you do not have an air compressor, please proceed to the next step.
5. Vacuum the inside of the swim spa and remove all water from the vessel floor, including under the treadmill, if applicable.
Apply suction to all jets and footwell suction until all water is removed from every jet line. Make sure the air controls are open.
6. Remove equipment area doors and possible side panel to get to the plumbing.
7. Loosen plumbing unions on pumps and heater one at a time and use a vacuum to catch water.
8. Open all unions one at a time and collect the O-ring /gasket, then place in a zip lock bag. Vacuum ozone unit plumbing line.
9. Open the drain line on the side of the swim spa and vacuum to remove all water from that line.
10. Leave all unions open so that any remaining moisture can evaporate.
11. If the swim spa has a treadmill, then detach the plumbing on the heat exchanger and vacuum to remove the water.
12. Replace the equipment compartment door and make sure it is properly secured.
13. Covering the swim spa:
 - a. If the swim spa is indoors, prop the covers open or leave it partially or completely uncovered to allow air flow into the swim spa to prevent condensation and mold. This will also allow any residual moisture to evaporate.
 - b. If the swim spa is outdoors, it is imperative that you tarp the entire swim spa with a heavy-duty tarp to keep moisture, such as rain or snow, from entering the vessel and causing damage in freezing weather. Make sure all covers are properly secured.

NOTE: If the outdoor swim spa is located where heavy snow accumulation is normal, it may be beneficial to build a support to fit inside of the spa and provide support under the cover so that heavy snow does not collapse or bow the covers.

Winterizing Fiberglass Pool


1. Turn off the power to all pool equipment.
2. Drain the water in the pool to just below the return fitting.
3. Disconnect the plumbing unions on both sides of the circulating pump and remove the pump. Store the pump in a safe place (note that o-ring seals on unions must be retained for future use).
4. All water **MUST** be removed from the plumbing lines and the heater controller using a shop vac or an air compressor.
5. Remove the eyeball fitting and plug the return line with a 1.5" threaded plug with an o-ring.
6. Install a #10 winterizing plug in the bottom of the skimmer filter.
7. The secondary suction for the water quality system, located 4' down from the top of the fiberglass shell, should also be plugged with a #10 winterizing plug.
8. Fill a plastic 2-liter or quart-sized bottle 1/2 full of water or sand. Cap the bottle and place it in the skimmer. This bottle will prevent the skimmer housing from cracking if it fills with water and that water happens to freeze.
9. If the pool has Hydrotherapy Jets:
 - a. Remove the jet nozzles and plug the jet fittings using #11 winterizing plugs. Take care not to lose the nylon rings that create a seal around each jet nozzle.
 - b. Close the ball valve on the suction side of the jet plumbing.

- c. Remove the drain plugs from the jet pump housing to remove water.
 - d. Use an air compressor hooked up to one of the drain plugs on the pump to blow the water out of jet lines. The water will be forced out of the air pipes on top of the jet fittings.
 - e. Turn off the air compressor. Close the ball valve on the return side of the plumbing and then open the ball valve on the suction side of the jet plumbing.
 - f. Use the air compressor to blow air through the jet pump and out into the pool through the jet suction fittings.
 - g. Close the ball valve on the suction side of the jet plumbing, then promptly turn off the air compressor.
10. Add a non-chlorine winter chemical kit to the pool water. Kits vary in many ways. The most important characteristic you should look for is that the kit has a “non-chlorine” floater that will slowly disperse the contents for the winter. Generally speaking, Endless Pools tend to be much smaller than what the industry would consider a small pool, so usually, the kit labeled for the smallest gallonage will suffice. Additional chemicals such as algaecide stain and scale control, and others may be included with this kit, none of which will damage the equipment but may not be necessary.
- Winterization kits can be purchased through Endless Pools Customer Service.
11. Float air pillows or inner tubes over the entire surface of the water and tie them off as necessary.
12. Tarp the pool and weigh down the tarp with water bottles, water pillows, sandbags, etc. (if the optional Retractable Security Cover was purchased, this cover may be used to cover the air pillows/inner tubes instead of the tarp).
13. Place the cover pump on top of the cover to remove any water that may have accumulated.
14. Monitor the amount of snow/water on top of the cover during the winter. Remove excess snow and/or move cover pump as necessary.

FAQ

- **Q: Do I need to hire a professional to winterize my pool?**
 - **A:** While it is recommended to employ a local Pool/Spa professional for proper winterization, you can follow the provided instructions carefully to do it yourself.
- **Q: What should I do if I exceed 10 psi when using a compressor?**
 - **A:** Ensure that you do not exceed 10 psi when using a compressor to avoid damaging the system. If exceeded, stop immediately and release pressure before proceeding further.

Documents / Resources

	<p>ENDLESS POOLS E Series Modular Pool and Swim Spa Winterization [pdf] Instruction Manual</p> <p>D90010_en, 0824, E Series Modular Pool and Swim Spa Winterization, E Series, Modular Pool and Swim Spa Winterization, Swim Spa Winterization, Winterization</p>
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References

- [User Manual](#)

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