

Another First From...  **foxpool**
corporation

FOX POOLMATE SPA

INSTALLATION MANUAL



...The Strongest Name in Pools

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PoolMate Pool/Spa Combo

Components Supplied/Bill of Materials

12 Jet White (W17WFR12W)

12 Jet Gray (W17WFR12G)

(1) W17-WFR12W	Pre-Plumb Waterfall Shell White Or
(1) W17-WFR12g	Pre-Plumb Waterfall Shell Gray
(1) W17-10 Or W17-10G	Kiddy Pool Insert
(1) W14-H250N	250,000 Btu Natural Gas Heater
(2) F3-10	Fox Smart Valves
(1) W11-SPA12	Winterizing Kit 12 Jets
(1) W2-1833	Hard Cover In Gray

Components Supplied/Bill of Materials

25 Jet White (W17wfr250w)

25 Jet Gray (W17wfr25g)

(1)W17-WFR25w	Pre-Plumb Waterfall Shell White Or
(1) W17-WFR25g	Pre-Plumb Waterfall Shell Gray
(1) F3-134	1-1/2 Hp 2sp Pump & Motor
(1) W17-10	Kiddy Pool Insert White Or
(1) W17-10G	Kiddy Pool Insert Gray
(1) W14-H250N	250,000 Btu Natural Gas Heater
(2) F3-10	Fox Smart Valves
(1) W11-SPA25	Winterizing Kit 25 Jets
(1) W2-1833	Hard Cover In Gray

PoolMate Pool/ Independent Equipment

Components Supplied/Bill of Materials

12 Jet White (W17WFR12W)

12 Jet Gray (W17WFR12G)

(1) W17-WFR12W	Pre-Plumb Waterfall Shell White
Or	
(1) W17-WFR12g	Pre-Plumb Waterfall Shell Gray
(1) W17-10	Kiddy Pool Insert White
Or	
(1) W17-10G	Kiddy Pool Insert Gray
(1) W17-177	11kw Electronic Spa Pack
(2) F3-10	Fox Smart Valves
(1) W11-SPA12	Winterizing Kit 12 Jets
(1) W2-1833	Hard Cover In Gray

Components Supplied/Bill of Materials

25 Jet White (W17WFR25W)

25 Jet Gray (W17WFR25G)

(1)W17-WFR25W	Pre-Plumb Waterfall Shell White
Or	
(1) W17-WFR25G	Pre-Plumb Waterfall Shell Gray
(1) F3-134	1-1/2 Hp 2sp Pump & Motor
(1) W17-10	Kiddy Pool Insert White
Or	
(1) W17-10G	Kiddy Pool Insert White
(1) W17-177	11kw Electronic Spa Pack
(1) W17-176	Booster Pump
(2) F3-10	Fox Smart Valves
(1) W11-SAP25	Winterizing Kit 25 Jets
(1) W2-1833	Hard Cover In Gray

Section I: LOCATING THE IN-GROUND SHELL PLACEMENT

The Pool Mate spa shell is 85" round and 34" high. The excavation of the pit should not exceed 40" deep. This depth will allow for a 6" bed of concrete to support the foot well of the shell. The top of spa shell will finish approximately 6" above the finished deck. Note: you can make adjustments to the elevations if you have a specific look or design to the finish deck.

INSTALLING

1. We have identified the spa shape and dig area. Vertical dig the spa pit straight down to the depth of the foot well and, at this point, you can complete your dig to the proper depth for the concrete bed foundation. All these dimensions should be slightly oversized to allow for ease of fit. Once the pit is dug, dig the plumbing trenches into the pit area.
2. With a transit, recheck the elevation to be certain you have the proper depth to set the shell correctly. Once this is determined, you can prepare the foundation for the shell.

After building your foundation you are ready to place the spa in the pit. Use plenty of help to place the shell. DO NOT LIFT THE SHELL BY THE PLUMBING! Let it rest on the bottom foundation bed. Check the elevation to determine if it is at the proper level. Once the elevation is good, level it with a straightedge and a level. Check the level in all directions and adjust as necessary. DO NOT STAND IN THE SHELL!

3. When you are satisfied that the spa shell is level and at the proper elevation, start preparing to connect the plumbing. As each line is installed and placed in the trench to the support pad, mark it to identify its function for proper manifold hook-ups at the filter pad.
4. Allow sufficient time for the glued joints to setup and fill the spa with water up to the seat level. Backfill the excavation with wet sand up to the same seat level. Use a garden hose to flow the sand into voids under the spa, adding sand as needed to bring the fill area back up to the original level. Do not use excessive amounts of water. If you use too much water the spa could start to float. During this stage of backfilling, check the level of the spa several times making sure you don't flow it out of level. Level the spa by flowing sand under the low points created by changing the elevation of the sides. At the same time you are flowing sand around the spa, carefully set the plumbing lines in order in the trench and sand area. *It is important that the plumbing is nested and supported to avoid broken plumbing.*

5. The spa shell is in place and the next step is to prepare for the deck area around the spa.
6. Proper placement of the concrete at the spa lip is vital. In working the concrete elevation, make certain that the concrete goes under the lip of the spa. Expansion and contraction of this lip is an important function. If it is imbedded in concrete, it could be damaged. Prior to pouring concrete, cover the spa with plywood or heavy cardboard to protect it from overspill and splashing.
7. Remember that soil quality dictates the success of your deck installation. If there are any questions about the soil, take the time to dig postholes on the perimeters (to the frost line) and rebar these for a monolithic pour for support and strength. Another method is to use Sonotubing to create concrete columns for support.

SECTION II: SPA SHELL INSTALLATION IN DECK

This section is restricted to deck floor heights not exceeding 60" from the existing ground levels.

Working with the homeowner and using your deck drawings, determine the exact placement of the spa. Be candid with the owner, explaining any pit falls the installation might create. Watch for traffic areas that spa placement might interrupt (e.g. trip hazard or roadblock). Consider safety factors involving small children and the need to secure the spa area. Do not be afraid to be honest with the consumer. They will respect your judgment and expertise.

Once the spa location has been mutually agreed upon and the drawings have been completed, have the homeowner sign the drawings as consent agreement. With these items out of the way, you can proceed with preparations to install the spa.

In preparation for the spa installation, stake out the ground location where the spa will be placed. With this area referenced, find the deck elevation on the house, or if freestanding, on a stake in the center of the spa ground location. This referencing will give you the exact dimensions your spa shell will occupy—on, above or sunken into the ground. These three methods of placement require three separate methods of installation. Remember, the spa shell bottom and the spa shell lip are not intended to support the weight of the vessel. Proper sand bedding will distribute weight throughout the entire structure of the shell.

Low Deck Installation - When installing a spa shell in a low deck setting, it will necessitate excavating the ground area immediately below the spa site. In this type of installation, you can excavate your spa pit as explained in the section dealing with in-ground applications. It is easier to excavate prior to framing the deck members, and if the spa area is limited in elevation (being very close to ground clearance), you may consider setting the spa shell and plumbing trenches prior to framing.

In low deck installations, it is necessary to pre-set the spa shell. In presetting, you must determine the finished floor elevation by using a transit to determine at-grade elevations versus flooring elevations

1. The average spa lip is 10" in height. The flat vertical surface of the spa lip is 6" high with a 4" taper to the top of the spa shell. With the spa shell at 34" high you need to determine how high the shell will protrude out of the deck. If sand is being used as a base, allow ½" drop for compression from water weight. Remember, the weight of the spa shell must be supported by the foot well not the lip.
2. Using your transit for reference, check the elevation of the excavation. If you are satisfied that your references are correct, dig the plumbing supply trench. Local codes will define the depths and a good rule of thumb is a minimum depth of 18". Once this is completed, refer to the section of "setting the in-ground spa" for final preparation and bedding of the shell.
3. With the spa shell leveled, squared and at the proper elevation, cover it with heavy cardboard, plywood, etc. to protect it from possible damage and foreign material.
4. The deck building can now be finished around the spa area. With the spa properly bedded, it will not place emphasis on the joisting system, but it is recommended that the joists that carry the cross bridging support around the spa be doubled up for carry strength.

SECTION II: INSTALLING THE SPA/POOL COMBO

GENERAL POINTS OF INTEREST: The object of this section is to provide the builder with general installation guidelines. *Note: It is also very important to explain the plumbing and valve operation to the homeowner. Improper operation may cause the spa to overflow and drain the pool.*

In your planning considerations, your first job is to locate the spa area and the support equipment area. When using the PoolMate spa in conjunction with the pool support equipment, the spa will have to be placed in an area adjacent to the pool. In this type of installation, proximity to the pool's, as well as to the spa's elevation, must be considered.

Another consideration that enters into your choice of site is the location of the trees in the immediate area. Extensive tree root systems will pose a future threat to plumbing and concrete.

In selecting your spa location consider that some building departments require that there be a minimum footage of level ground around a spa installation regardless of the depth of the installation.

Before excavating the spa hole, first determine the lip height of the spa in relation to ground level and centered skimmer heights, if used, with the pool support systems. It is important not to over-dig or under-dig the spa hole. When excavating the mechanical equipment, do not try to dig a completed hole. Use the machinery to remove the initial soil and from that point hand dig the balance. It is important to leave as much undisturbed earth as possible. You need foundation material for your spa bottom, spa side wall and poured deck and undisturbed earth is your best source of structure. A good rule of thumb in digging the spa hole is to allow 6" at the bottom of the hole and under the seat area and 1' around the sides of the hole. The foundation needed for a good spa "bedding" depends on soil condition. If there is any doubt, a concrete pedestal is required.

The pump, filter and heater also require a level foundation. They should be installed on a pad of concrete, which is laid down on a sand base. By elevating this pad 2" and sand bedding, it prevents water from settling around the equipment.

The plumbing trench from the support pack to the spa should be a minimum of 18" deep to comply with most local codes—12", if running under a concrete deck or slab. Check with your local inspectors for proper depths.

When you are ready to set the spa shell in-ground make sure you have enough people to do the job properly. The bedding process may require several attempts to get the proper elevation and fit. Keep the inside of the spa free of sand and dirt and do not stand or walk in the spa as an effort to get it to "bed down." The spa vessel is acrylic which is a durable finish; however, it can be dinged or scratched with careless handling.

When setting a spa and pool combination, the general location of the spa should be defined and the pool building process should be in its advanced stages before the spa shell is brought to the job site. Attempting to set the spa and build the pool at the same time can be a deterrent.

Connecting the Plumbing Lines

Note: The PoolMate Spa comes pre-plumbed from the factory. That means all suction; air and water line connections have been made and tested before the foam installation was applied.

10-JET ONE PUMP HOOK-UP

This spa has two 2" PVC pipes with couplings attached, protruding from the foam insulation. These pipes should be identified at the end coupling with blue & white stickers. One line is marked "SPA RETURN" the other is identified as "SPA SUCTION".

The 2" suction line should be connected to a (3) three Fox Smart Valve directly in front of the "Pool" pump strainer basket. Refer to "Plumbing the Pad" for additional information as shown..

The 2" return line should be connected to a (3) three Fox Smart Valve directly after the pool heater. Refer to "Plumbing the Pad" for additional information.

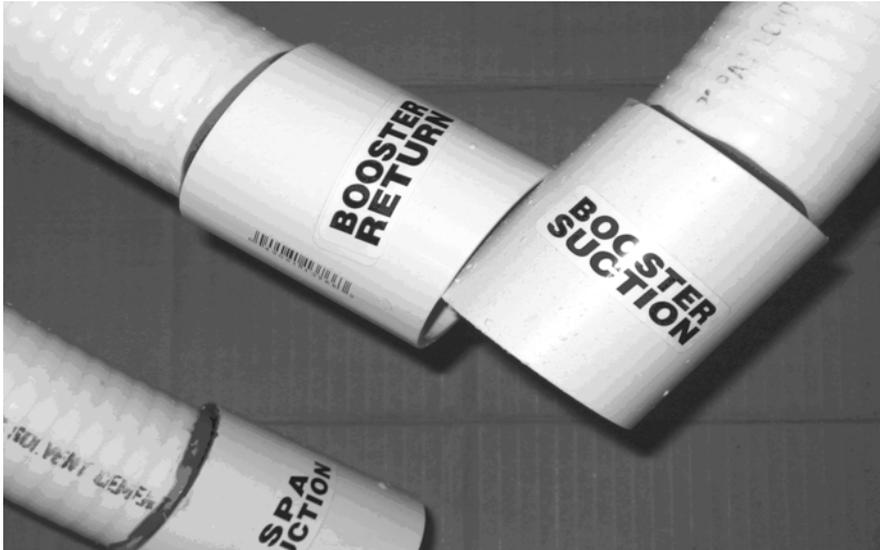
25-JET TWO PUMP HOOK-UP

This spa has four 2" PVC pipes with couplings attached, protruding from the foam insulation. These pipes should be identified at the end coupling with blue & white stickers. These lines are marked "SPA RETURN", "SPA SUCTION", "BOOSTER SUCTION" AND "BOOSTER RETURN".

The 2" SPA SUCTION line which is attached to the two bottom suction fittings should be connected to a (3) three Fox Smart Valve directly in front of the "Pool" pump strainer basket. Refer to "Plumbing the Pad" for additional information as shown in figure #25 & #26.

The 2" SPA RETURN line which feeds the jets to the right side of the stairway should be connected to a (3) three Fox Smart Valve directly after the pool heater. Refer to "Plumbing the Pad" for additional information as shown in figure #27.

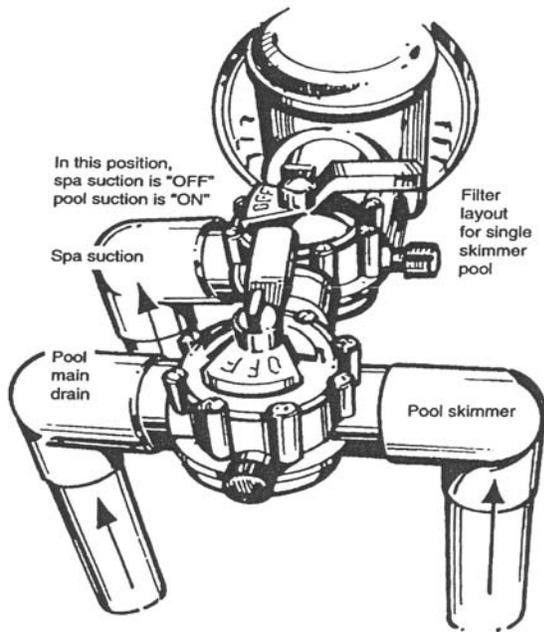
The 2" BOOSTER SUCTION line, which is connected to the spas cartridge filter, should be connected to the suction side of the booster pump. The 2" BOOSTER RETURN line which feeds the left side diverter valve should connect to the discharge side of the booster pump. Refer to "Plumbing the Pad" for additional information as shown in figure #24.



Plumbing the spa in this fashion will allow water filtration for both pumps

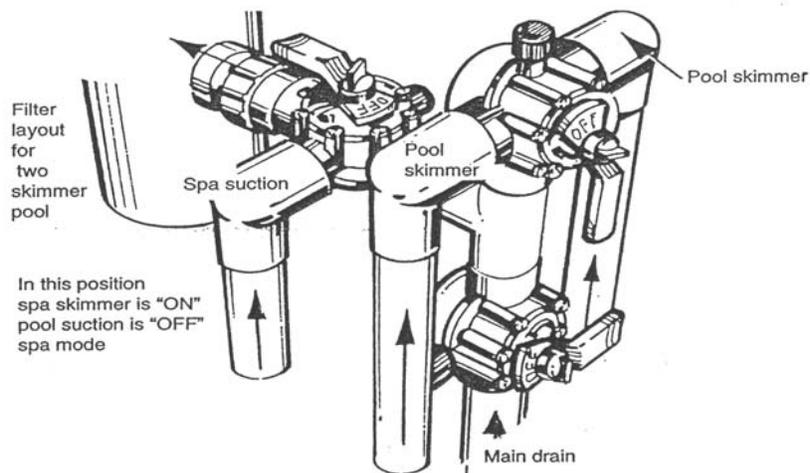
Pool & Spa Sharing Equipment

The following are a series of suggested plumbing diagrams for installing a single filter system that operates both the pool and the spa. These plumbing layouts will allow for automation of the valves when using electronic control systems.

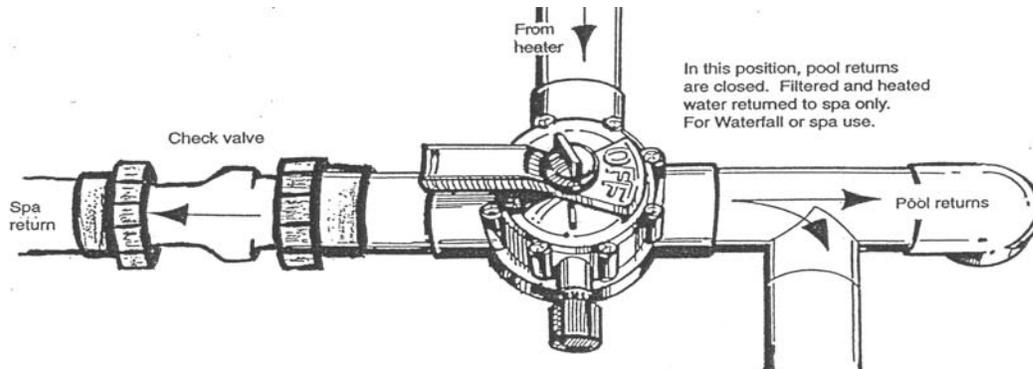


This plumbing illustration is an example of a one skimmer and main drain pool set-up with the spa suction valve in front of the pump. In this position the spa suction is closed and the pool is operational

The illustration below is set-up for a two skimmer pool with main drain and spa suction. In this position the spa suction is open and the pool suction manifold is closed off.



The next illustration shows the filtered return water coming from the heater and going to the return manifold. In this position, the pool return water is closed and the spa is ready for action.



SECTION IV: SPA-OUTDOOR PACK OR INDEPENDENT FILTER SET-UP

If you are using the spa with its own filtration set-up or an outdoor spa pack is a skid mounted self-contained unit and should be placed on a level concrete slab. The slab should be elevated a minimum of 2" above ground level for proper drainage.

Pack location should be within a radius of 25 feet of the spa but not less than 5' unless in a secured area away from the spa vessel. The 5' distance is an electrical code requirement and could vary under local codes. Contact your licensed electrician who will do the installation so placement is done properly. Exceeding the 25 ft. radius could impair the water action out of the spa jets.

1. Place the spa pack on the pad and locate the skid centered on the pad. Install the disconnect union on the pump face, tightening only hand tight. Do not over tighten! Using 2" SCH 40 PVC pipe cut a 4" nipple, clean, and glue it in the open end of the union. Clean and glue a 2" valve on the open end of the nipple. Determine the distance to your plumbing trench and cut a length of 2" PVC pipe long enough to clear the edge and glue this pipe in the open end of the valve. Install a 90 degree EL facing down and cut a 2" PVC pipe nipple long enough to reach the line in the bottom of the trench. Install another 90 degree EL to marry the flex supply line to the suction manifold. Be certain to hook-up the proper flex PVC line from the skimmer/main drain.
2. The return line hook-up is made off the heater union with 2" SCH 40 PVC and a series of fittings to connect with the Return flex-pipe supply line. Connection to the flex pipe should be made under ground next to the pad. Keep all visible plumbing square, plumb and level.

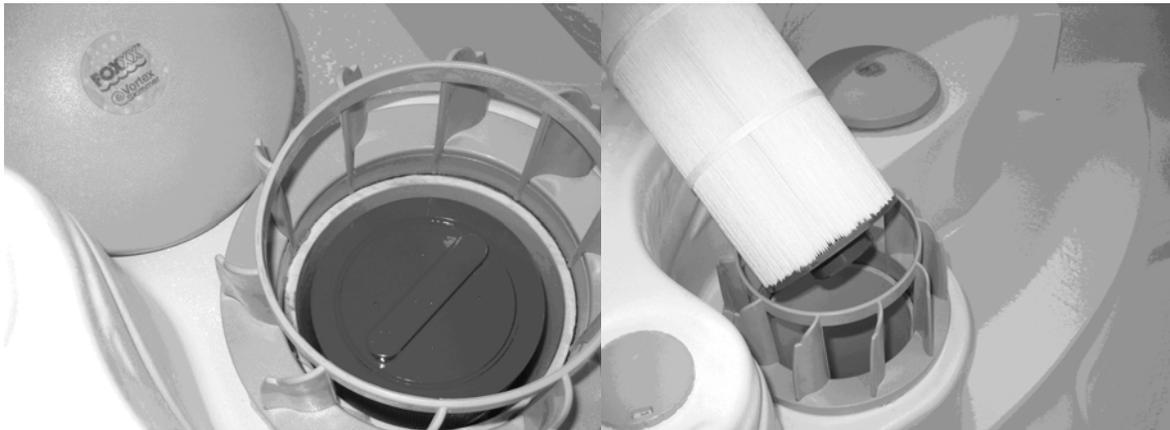
DRAINING AND FILLING THE SPA

WARNING: Do not drain the spa during a ground water saturation condition. Do not leave the spa shell empty for long periods of time. Both of these situations can cause underground water pressure to lift the shell out of position and may void the warranty.

CLEANING THE FILTER

Removing the Cartridge

The Waterfall Spa comes with a pre-installed 50 sq. ft. Anti Vortex cartridge filter system to maintain water clarity. Before removing the cartridge, turn off the spa pumps. Lift the Anti Vortex cover lid from the chamber crown. Using the bar handle on the top of cartridge, turn counterclockwise to remove.



Cleaning the Cartridge Filter

After the cartridge is removed from canister, hold the cartridge in an upright position and spray downward into the pleats of the fabric with a garden hose to flush away debris. Cleaning will be easier if the garden hose can be adjusted to a single jet spray.

After hosing off the cartridge, it is highly recommended that the cartridge be allowed to soak in a filter-cleaning solution which is available through your local dealer. Soak the cartridge for 24 hours to remove body oils and body lotions that become impregnated in the cartridge fabric during filtration. After soaking, rinse the cartridge again before placing it back into operation.

SERIAL NUMBER LOCATION

On your spa, the serial number is located on one of the anti-vortex fins just above of the cartridge filter. Please locate the serial number and document it for future reference.

SPA SERIAL NUMBER: IG-_____