

## Poolrite Equipment Pty. Ltd.

A.B.N. 11 001 674 004

**Poolrite Equipment Pty. Ltd.**  
415 Creek Road,  
P.O. Box 520,  
**Mt. Gravatt. QLD. 4122 Australia**  
Telephone: (07) 3323 6555  
Facsimile: (07) 3323 6500

**Poolrite Equipment Pty. Ltd.**  
15 Yiannis Court,  
**Springvale. VIC. 3171 Australia**  
Telephone: (03) 9547 4188  
Facsimile: (03) 9547 1023

**Poolrite Equipment Pty. Ltd.**  
36 Hugh Ryan Street,  
**Garbutt. QLD. 4814 Australia**  
Telephone (07) 4779 4880  
Facsimile (07) 4779 6714

**Poolrite Equipment Pty. Ltd.**  
6 Forsyth Close,  
P.O. Box 7055,  
**Wetherill Park. N.S.W. 2164 Australia**  
Telephone: (02) 9729 0166  
Facsimile: (02) 9729 2759

**Poolrite Equipment Pty. Ltd.**  
Unit 10/16 Ledger Road,  
**Balcatta. W.A. 6021 Australia**  
Telephone: (08) 9344 3871  
Facsimile: (08) 9345 3923

**Poolrite Equipment Pty. Ltd.**  
Unit 22, 761 Great South Road,  
**Penrose. Auckland**  
New Zealand.  
Telephone: (09) 571 0210  
Facsimile: 0800 766 574



# owners manual

## Operational Check Points

Weatherproof gauge cover is in position.

Filter pump should not be connected via extension leads.

At least 150mm clearance be provided at fan cowl end (rear) of motor for efficient ventilation.

Should filter system be housed in an enclosure, provision must be made for adequate ventilation.

Filter system must be installed in a position with effective drainage to guard against potential flooding in heavy rain or malfunctions in plumbing.

A Diatomaceous Earth Filter system must not be run for any period without the correct charge of Diatomaceous Earth or approved filter powder.

The pool water level must be at least half way up the skimmer box opening.

Make sure both skimmer box basket and pump basket are in place.

Do not operate the filter system in FILTER position unless the free chlorine level is between 0.5 and 2.0ppm and the pH level is between 7.2 and 7.6 for concrete pools and 6.8 and 7.2 for other types of pools.

Do not vacuum clean the pool when the valve is in BACKWASH position.

### Important

Read the following instructions carefully to ensure trouble free efficient operation of your filtration system for many years.

Failure to adhere to the above directions will void the Warranty.

## Warranty Card

### Titan Series Filtration Systems Poolrite Equipment Pty. Limited

Your Poolrite Filtration Equipment is manufactured to the highest possible standards and most up-to-date technology. Accordingly the equipment carries the following Warranty, should a fault occur due to faulty manufacture or materials.

#### Important

In the event of a fault covered by Warranty occurring, the Purchaser must, in the first instance, contact Poolrite Equipment Pty. Ltd. or the closest authorised Poolrite Distributor.

1. All components in the Filtration System (with the exception of the tank part) carry 1 year (12 months) warranty from the Date of Purchase by the Owner.
2. (10 year extended warranty effective from 1-1-93).

The Filter Tank Component is the most important part of your Filter System. Due to Poolrite's Advanced Moulding Technology the Tank Part carries a special Extended Warranty of 10 years. The terms of this Warranty cover Full replacement of defective Filter Tank Part for a period of 5 years (60 months) and additionally for a further 5 years (60 months) the Tank Part will be replaced at pro-rata cost from the date of purchase by the owner. No claim in pursuance of this Warranty will be recognised unless received by Poolrite during the Warranty period.

The "Tank Part" is defined as the Filter Housing Moulding only, without any attachments such as gauges, clamp band, internal septums fittings or plumbing, etc.

3. The Warranty is void if the following are not adhered to:

- The equipment must be installed and used in accordance with the instructions supplied.

- The pump electric motor is not covered by this Warranty in the case of the water damage or damage caused by extension leads.
- The pump motor must have proper ventilation.
- The equipment is designed to be used in swimming pool water, balanced in accordance with the Langlier Saturation Index with a pH of 6.8 to 8.0 that is regularly treated with a sanitising system utilising chlorine either added in compound form or generated in situ in concentrations as recommended by the relative State Health Departments. Should other chemical treatment systems or parameters be used, Poolrite will not be responsible for damage done by corrosion, scaling or stress cracking of equipment or for shortened filter cycles resulting therefrom.
- The Pressure Gauge will not be covered by Warranty if damaged by water, if the gauge cover is not firmly affixed.
- If, in the opinion of Poolrite, the equipment has been subjected to other than normal pool use, or improperly serviced/maintained, the Warranty will be void.

This Warranty is applicable to workmanship and materials. Poolrite will replace at no charge, all parts returned freight paid, which display faulty workmanship or materials.

Poolrite Equipment Pty. Ltd. accepts no responsibility for loss, damage or injury to person or property arising from Warranty failure of equipment, or installation of that equipment, unless with the express authority of Poolrite. Any repair or replacement shall be provided by Poolrite or its Authorised Distributors and this Warranty shall not extend to any expenditure otherwise incurred.

## Warranty Card

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Name of Purchaser

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Address

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Purchased From

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Date

---

Equipment and Model

**IMPORTANT:** This card must be filled in and returned to Poolrite Equipment Pty. Limited within 14 days of purchase to render the Warranty effective.

**Queensland Head Office  
Sales & Export Brisbane**  
415 Creek Road,  
P.O. Box 520,  
Mt. Gravatt, QLD 4122  
Telephone: (07) 3323 6555  
Facsimile: (07) 3323 6500

**Poolrite Equipment Pty. Ltd.**  
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Telephone: (09) 571 0210  
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## Introduction

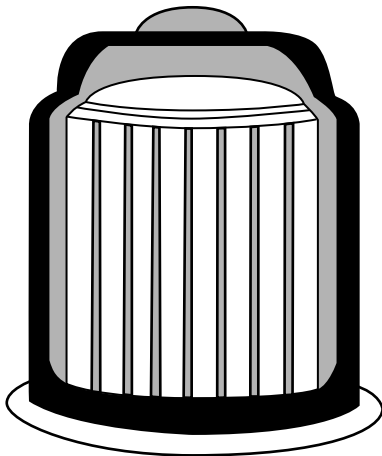
The Poolrite Titan XL Range is designed for a greater flow volume to the pool - where it matters.

The filter tanks are made from a new advanced "Engineering Polymer" material enabling the Poolrite exclusive 5 year Warranty on filter tanks. Poolrite's exclusive square "candlestick" septum construction covered with "rapid flow" tubular terylene material provides extra long filter cycles and efficient backwashing.

The newly designed "multifunction" control valve is extremely easy to operate and is totally maintenance free. The inbuilt sight glass gives positive indication when backwashing is complete - eliminates guess work and waste of pool water.

All systems are fitted with the proven high performance Poolrite Quietline pump, featuring corrosion resistant design. All equipment is weather proof constructed to protect your valuable investment.

Australian design and manufacture is your guarantee of continued after-sales back-up.



## How A Diatomaceous Earth

## Filter Works

The Diatomaceous Earth filter draws water from the pool, via the pump and forces it under pressure through the filter and back into the pool.

Diatomaceous Earth is a fine white powder made from skeletal remains of microscopic organisms. The Earth is retained in the filter by a special filter cloth. It is the Diatomaceous Earth which performs the filter function.

As the water passes through the Earth, suspended particles are trapped within its layers. As the quantity of particles increases the passage of water becomes restricted and the waterflow must be reversed. When the cycle is reversed the Earth with the trapped particles are flushed out of the filter to the drain, in a process called backwashing.

## Delivery of your Diatomaceous Earth Filter XL-40, 50, 60 & 80

Each Poolrite filter plant is delivered in two cartons as follows.

### Filter Carton

- A factory assembled filter system ready for immediate installation.
- Two 40 x 40mm flexible couplings.
- Four 40mm stainless steel clamps.
- Poolrite multi-function valve complete with backnut and 'O' Ring seals.
- Moulded baseplate.
- Moulded plumbing from valve to pump outlet, completely assembled.
- Owners Manual and Warranty Card.

### Pump Carton

- Poolrite pump motor set, ready for immediate installation.
- Two swivel couplings complete with backnut and 'O' Rings.

# Installation Instructions

## Connecting the Pump

1. Fix baseplate permanently into position on a concrete slab.
2. Position the slot in the filter tank over the key, on the baseplate raised section.
3. Place the Poolrite Pump on the baseplate so that the two elongated holes in the pump mounting skids fit over the two moulded spigots on the base.
4. Connect the multifunction valve via the two 50mm backnuts to the filter inlet and outlet.
5. Connect the plumbing assembly to the inlet on the valve, and the outlet of the Poolrite Pump set using the backnuts on the ends of the plumbing assembly.

## Important

Ensure the 'O' Rings provided for the backnuts on the valve and plumbing are in position before attaching to each outlet.

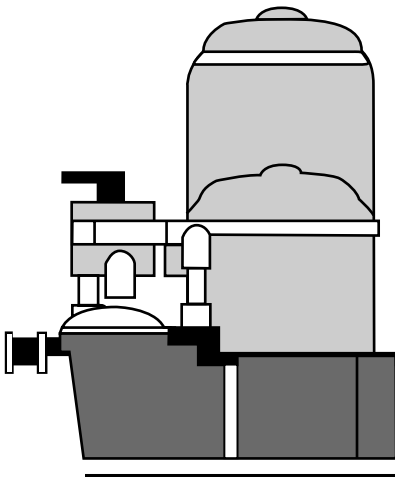
Tighten all backnuts by hand only, DO NOT USE TOOLS.

## Connecting the Filter System

Only three connections are required via flexible couplings and stainless steel clamps.

1. Pump to skimmer box.
2. Valve to waste (drain).
3. Valve to return-to-pool.

**Do not switch on at this stage.**



# Starting Up Procedure

## Priming the Pump

For pump installation above the water level only. If the pump is installed below the water level proceed to "Starting the Filter".

1. Remove clear pump lid then fill the pump bowl with water to the suction inlet level.
2. Check the rubber pump lid seal is clean and in the groove.
3. Replace clear lid.
4. Tighten by hand.

## Starting the Filter

1. Set multifunction valve to FILTER position.
2. Open air release valve on top of filter tank several turns (do not remove).
3. Ensure all plumbing lines to and from the pool are clear (i.e. shut off valves are OPEN).
4. Switch ON the pump.
5. Observe the reaction through the clear lid of the pump. The pump will at first draw the water in surges until all air within the pump bowl and suction piping from the pool, has been expelled.

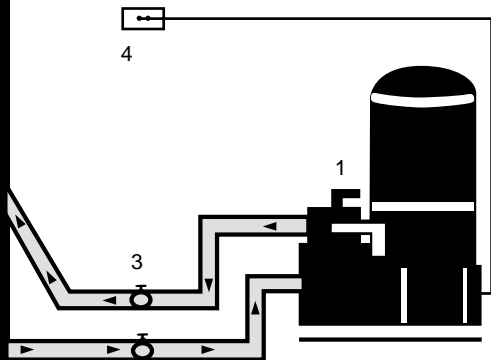
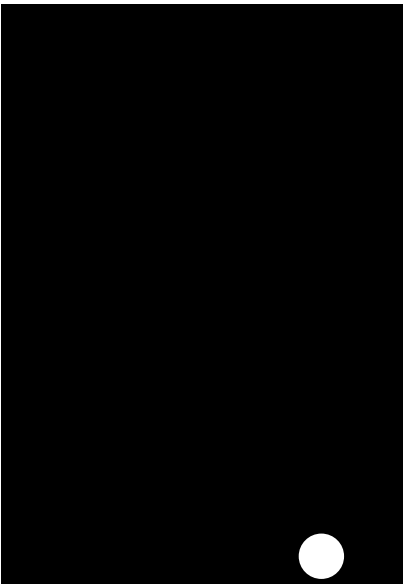
If the air is still present after approximately 3 minutes check the following:

- Ensure clear pump lid is correctly tightened onto the rubber seal.
  - Check the flexible rubber coupling clamps on the pump suction inlet are tight.
  - Check correct water level is in the pool.
  - Check skimmer box weir is free and not jammed.
  - Clear all leaves and debris from strainer basket in skimmer.
  - If air is still present the suction piping to the pool should be checked.
6. When the filter tank is full (i.e. when the water escapes through the air release valve) close the valve, do not over tighten.
  7. Switch pump OFF.
  8. Mix the specified amount of Diatomaceous Earth with water in a bucket forming a slurry. See chart page 5 for correct quantity.
  9. Switch pump ON.
  10. Slowly pour the slurry into the skimmer box to ensure even distribution within the filter.

The filter system is now filtering the pool and the pressure gauge reading in FILTER range.

As the process of filtering continues the unwanted solids build up and the pressure gauge rises accordingly.

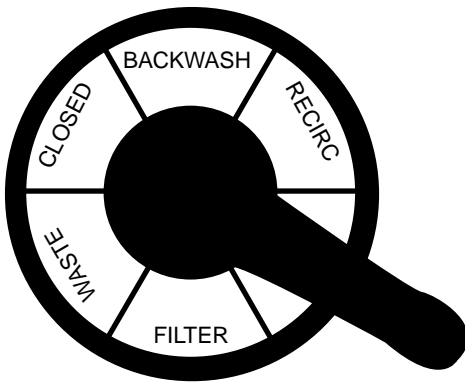
When the pointer reaches the RED section on the dial, the filter must be cleaned by BACKWASHING.



## Filter By-Pass

The pool is often overfilled by rain and to return it to it's normal level proceed as follows:

1. Switch pump OFF.
2. Set multifunction valve to WASTE position.
3. Switch pump ON. The excess water is discharged to waste.
4. Switch pump OFF.
5. Set multifunction valve to FILTER position.
6. Switch pump ON. Filter is now operating normally.



## Recirculate

With multifunction valve set in RECIRCULATE position the pool or spa water is recirculated via the pump only without passing through the filter. This condition can be useful to provide extra flow for boosting spa jets or providing added circulation for heating.

## Valve Closed

The pump must be switched OFF when multifunction valve is in CLOSED position. This setting is used to prevent the filter contents draining back through the pump when pump lid is removed to enable cleaning of the hair and lint pot basket.

## Backwashing

1. Switch the pump OFF.
2. Select BACKWASH position on multi-function valve.
3. Switch pump ON - the pool water will now pass through the filter septums in the reverse direction which will flush the unwanted sludge and diatomaceous earth to waste.
4. Observe water clarity in valve sight glass and when clear switch pump OFF.
5. Return valve to FILTER position and switch pump ON for approximately 20 seconds.
6. Repeat steps 1, 2, 3, 4 and 5 at least six times until sight glass remains clear.
7. Return valve to FILTER position and switch pump ON.
8. Open air release valve.
9. Repeat STARTING THE FILTER par 5 to 10.

**Important:** Before and after backwashing check that pool water level is correct.

## How Much Diatomaceous Earth To Use

Range	Diatomaceous Earth Weight
XL40	906 Grams/32 Ounces
XL50	1133 Grams/40 Ounces
XL60	1360 Grams/48 Ounces
XL80	1530 Grams/54 Ounces

## Vacuum Cleaning

1. Switch pump OFF.
2. Set multifunction valve to FILTER position.
3. Position vacuum plate in skimmer box after first checking MAIN DRAIN CONTROL PLUG is screwed into bottom main drain port.
4. Expel air from vacuum hose. This can be done simply by connecting hose to vacuum head and submersing it in the pool. Switch pump ON then place other end of hose on return to pool inlet thus filling hose with water and at the same time expelling air. Switch pump OFF.
5. Fix handle to vacuum head and connect free end of hose into skimmer box vacuum plate.
6. Switch pump ON and proceed to vacuum clean the pool.



**A useful hint:** when lowering the pool level with multifunction valve set in WASTE position only, vacuum cleaning may be performed at the same time as under this condition the filter will not collect sludge and debris as it will be all discharged to waste.

**Important:** Under no circumstances must the vacuum cleaning operation be performed with the multifunction valve set in BACKWASH or RECIRCULATE positions.

## Maintenance Procedure

Your Poolrite Diatomaceous Earth Filter system should be serviced regularly every 6 months as follows to ensure trouble free efficient operation.

### Clean Internal Septums

1. After backwashing and with multifunction valve still in BACKWASH position switch pump OFF. If pump is below pool water level, close valve on pump suction line.
2. Loosen air relief valve to allow water to drain from tank to waste.
3. Remove the metal clamp band that joins the filter tank top and bottom.
4. Lift UP internal septum manifold assembly from its seat on the vertical white pipe in the tank bottom.
5. Place the top of the manifold on the ground. The individual septums (candles) can now be removed by gripping each septum at the manifold end and then pulling to one side. The septum will simply clip out of the manifold.
6. Septums should be individually hosed and annually soaked in detergent and hot water, then scrubbed with a bathroom nail brush to remove algae etc. from pores of cloth.
7. Under some circumstances cloth may become clogged with calcium. This can be removed by soaking in 10 parts water to 1 part hydrochloric acid for approximately 1 hour. A large plastic rubbish bin can be used for this purpose.
8. After cleaning, replace septums in manifold by bumping in with palm of hand or block of wood and then reposition in tank.
9. Clean tank flanges and 'O' Ring thoroughly then coat 'O' Ring with petroleum jelly and fit to tank bottom.
10. Replace tank top and refit clamp band – do not over tighten.
11. Open valve on pump section line if pump is below water level.
12. Refer to "Starting Up Procedure".

# Trouble Shooting Pools

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**Black Spot Algae in Fibreglass Pools** Add hydrochloric acid to lower pH to yellow on test kit. Brush black spot. When algae has disappeared use soda ash to raise pH back to 6.8. Black spot algae will always reappear if pH is allowed to rise too high.  
**Note:** Do not swim in pool whilst pH is low.

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**Black Spot Algae in Concrete Pools** Add algacide as per manufacturer's recommendation, adjust pH, and brush black spot algae with stainless steel algae brush. The main cause of this algae is ineffective chlorine due to high pH.\*

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**Green Algae** Check and adjust pH.  
Check chlorine level.\*  
Superchlorinate.

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**Brown Algae** Check pH. Add algacide.\*

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**Milky Water** Check pH and adjust. Check filter is operating correctly. Increase running time.

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**Filter Pressure Builds Up Rapidly**

- Clean septums if necessary.
- Check correct filter powder load.
- Acid wash septums if necessary (see section on Maintenance Procedure).
- Check eyeballs in pool are in open position.
- Check for algae in pool.

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**Air Bubbles Back to Pool**

- Check sufficient water in pool.
- Check suction pipe coupling backnut is hand tight.
- Check pump lid 'O' Ring is clean, lubricated with petroleum jelly and correctly fitted and lid is tight.

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### Water Drains Back to Pool when Filter Switched Off

- Check hair and lint pot lid for leaks.
  - Check backwash valve for leaks.
  - Check air release valve for leaks.
  - Check coupling backnuts are hand tight.
- 

### Filter Powder Returning to Pool

- Check filter septums for holes or damage.
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### Pump Loses Suction Power

- Check strainer baskets to ensure they are not choked with debris. Don't forget there are two strainer baskets which need emptying regularly. One is located in the skimmer box, whilst the other is housed in a special compartment within the pump assembly itself. This strainer safeguards the impeller against debris which gets past the skimmer's basket.

Frequently this basket immediately in front of the pump gets overlooked, and service-men are called to investigate malfunctioning equipment which is put right simply by emptying debris from strainer baskets. Get in the habit of checking them regularly, perhaps at the same time as the back-washing operation is to be carried out.

**Remember:** Be sure motor is switched off before opening up the pump's strainer basket compartment.

During the compartment opening and basket emptying process, air will have entered the filtration system. This should be released immediately after switching the motor back on again to re-start filtering.

- Check filter condition from pressure gauge and clean if necessary.
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### \* If a Salt Water Chlorinator is fitted

- Check and adjust pH and Cyanuric stabiliser levels, then superchlorinate.
  - Check/clean electrodes.
  - Check/adjust salt levels.
-