

INSTALLATION AND OPERATING MANUAL

A GUIDE TO YOUR UF ULTRA FINE FILTER



insnrg



CONGRATULATIONS ON PURCHASING YOUR INSNRG UF ULTRA FINE FILTER.

THIS MANUAL HAS BEEN CAREFULLY DEVELOPED TO GIVE YOU ALL THE INFORMATION YOU NEED TO GET THE BEST VALUE FROM YOUR PURCHASE.

It is important that you read through the manual to identify the key areas you need to understand, particularly the following:

- Health and Safety Concerns
- Installation requirements
- How to operate the major features of the unit
- The importance of maintenance
- If you have a problem, what to trouble shoot before you contact your professional
- Finally, your entitlements under your product warranty.

Insnrg have developed their product to provide you with the ultimate experience and are sure you will be delighted with your purchase.

Please note: This equipment must be installed in a location that allows for regular maintenance and service by the pool owner and service technicians. Insnrg will not put service technicians at risk of injury by servicing difficult to access appliances.

THE IMPORTANT BITS

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SECTION 1

WE CARE ABOUT YOUR SAFETY



IMPORTANT WARNINGS

Warning – read and follow all instructions in this owners manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

Insnrq highly recommend the installation of all their equipment by a suitably qualified pool professional who will ensure your high performance Insnrg products are installed to your local standards and codes to ensure optimum safety and performance.

CAUTION

All components of the filtration system including Pumps, Filters, Heaters must be positioned so to prevent being used as means of access to the pool by young children. To reduce risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times.



WARNING- HAZARDOUS PRESSURE.

Pool and Spa water circulation systems operate under hazardous pressure during start up, normal operation, and after pump shut off. Stand clear of circulation system equipment during pump start-up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover, and/or filter housing and clamp due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation systems, all system and pump controls must be in the off position and filter manual relief valve must be in open position. Before starting system pump, all system valves must be set in a position that allows system water to return back to the pool. Do not change filter control valve position whilst system pump is operating. Before starting system pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air) is discharged.



WARNING- RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.

Ensure that you position the filter to allow for the air/water bleed valve located in the lid to safely direct water drainage and purged air or water. Water discharged from an improperly position filter can create an electrical hazard that can cause severe personal injury as well as damage property.

SECTION 2

WE WANT YOU TO BE
DELIGHTED WITH YOUR
PURCHASE, CORRECT
INSTALLATION WILL PROLONG
LIFE AND MAXIMISE THE
PERFORMANCE OF THIS UNIT.

Congratulations on your
purchase of an Insnrg
UF Ultra Fine Filter.

Your filter is high performance
and corrosion proof
designed with superior flow
characteristics that is easy to
operate. Everything is made
simple from installation,
operation, to the maintenance
of the filter. Your Insnrg filter
will provide crystal clear,
healthy swimming water with
minimal maintenance.

Insnrg highly
recommend the
use of qualified
service technicians
to ensure the best
performance as
well as the health
and safety of your
family.

HOW IT WORKS

Your Insnrgr Ultra Fine Filter has a purpose built oven weave polyester filter element designed to be coated with Perlite, a naturally formed and mined volcanic glass media. This media traps the smallest of particles suspended in your pool and spa water as the filter pump operates, maintaining crystal clear, healthy water.

If maintained, it will provide you with years of trouble free operation. The pool water which contains dirt particles is pumped through your system to the filter. As pool water passes through the filter, dirt particles will be caught by the Perlite coating the filter element and removed from the water. The cleaned pool water is returned back to the pool through your piping system. The entire process is continuous and automatic while your filter pump is operating. It is this process that provides the filtration and removal of organic material such as dust, dirt and fine particles in your pool water.

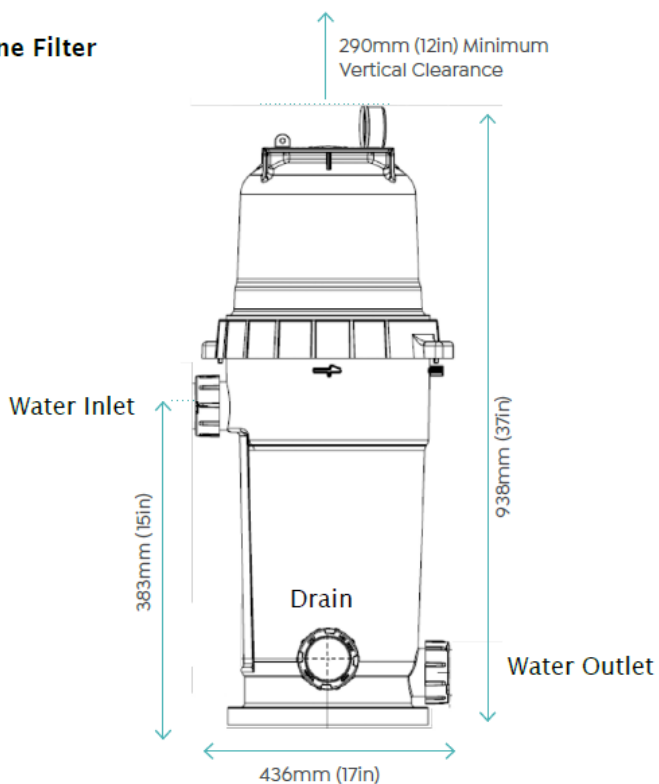
During this process, dirt will accumulate in the Perlite media and gradually increase the pressure in the tank and reduce the flow of water through your filtration system. This means it is time to clean your filter element. A good indication when to clean the filter element is by checking the pressure gauge reading. Cleaning should be performed when you notice the pressure has increased by 20 kPa from when it was clean. Follow the cleaning procedure for the best results.

SPECIFICATIONS AND DIMENSIONS

The Insnrg UF Ultra Fine Filter has a filter element that is 35 square feet creating a large surface area for the Perlite to coat. It requires approximately 1 - 1.25 kg of Perlite mixed in a bucket of water, then gradually poured into your skimmer box while the filter pump is running. The addition of Perlite should only happen after the filter has been cleaned.

MODEL	UF Filter
Filtration Area (m ²)	4.65
Filtration Area (ft ²)	50
Max Flow Rate (lpm)	400
Max Flow Rate (gpm)	108
Turnover Capacity 8 Hours (Litres)	190,000
Turnover Capacity 8 Hours (Gallons)	50,000

UF Ultra Fine Filter



INSTALLATION

The UF Filter should be installed as close to the pool as possible but keep a distance of at least 3.6 metres. Locate the Filter on the same rigid, level surface, as the filter pump, preferably in a dry, shaded, and well-ventilated area. Prior to installation take into consideration the following conditions:

- Position of suction and return PVC connections
- Access for cleaning operation and servicing, particularly important if installing under a deck or roof structure that enough space is provided to remove the element for cleaning
- The operation of the Air-Bleed will discharge water from the filter, you must position the filter so none of this water can come in contact with electrical devices and cause electric shock or electrocution
- Protection from sun, rain, splashing etc
- Drainage of filter room
- Ventilation and protection of the full filtration system

Once you are happy that the above has been considered, follow these steps:

- 1) Place the filter in position
- 2) Line up the PVC pipe from the Pump with the Inlet on the Cartridge Filter and use Lock Nut and Tail to install. The inlet has been designed so you are able to come directly from the Pump and minimise bends to reduce pressure and improve water flow.
- 3) There are two outlets at the base of the filter. One, identified as "outlet" must be plumbed to the return pipe to the pool and spa. The other is only a drain valve to enable you to drain the filter of water.

- 4) Connect the Outlet to the PVC pipe with Lock Nut and Tail.
- 5) Replace Element into Tank
- 6) Replace Lid onto Tank and tighten. Press the lid and lid O ring firmly into the body of the filter tank. Rotate the lock ring clockwise until the safety lock click three or four times. Do not overtighten as this could cause tank to warp and product to leak.
- 7) Gently install Pressure Gauge into Lid after wrapping the pressure gauge thread with teflon tape. Do Not Overtighten or you may crack the lid of the cartridge filter.
- 8) Install Air-Bleed into Lid. Do not tighten and allow air to escape once water starts flowing through the filter.

WARNING – RISK OF ELECTRICAL SHOCK OR ELECTROCUTION.

Ensure that you position the filter to allow for the air/water bleed valve located in the lid to safely direct water drainage and purged air or water. Water discharged from an improperly position filter can create an electrical hazard that can cause severe personal injury as well as damage property.

- 9) Check that all other fittings in the filtration system are correct and ready for operation. Make sure any Valves that you closed are re-opened ready for filtration.
- 10) Fill the pump hair and lint bowl with water and turn on. Prior to starting the filtration process by turning on the pump, we highly recommend that you read through the pump instruction manual to ensure proper installation and to avoid the risk of electric shock.
- 11) Water will start to move through Filter and release Air through the Air-Bleed. Once a full stream of water comes through the Air-Bleed gently tighten to seal.
- 12) Check for any other leaks and tighten as necessary
- 13) Fill bucket with water. Add 1 to 1.25 kgs of Perlite to the full bucket and stir until dissolved. Gently add the bucket to the skimmer box in your pool until the bucket is empty.
- 14) Leave the pump operating on high speed and note where the pressure gauge is setting. this is your clean filter pressure. When the pressure increases by 20 kPa it is time to clean your filter.

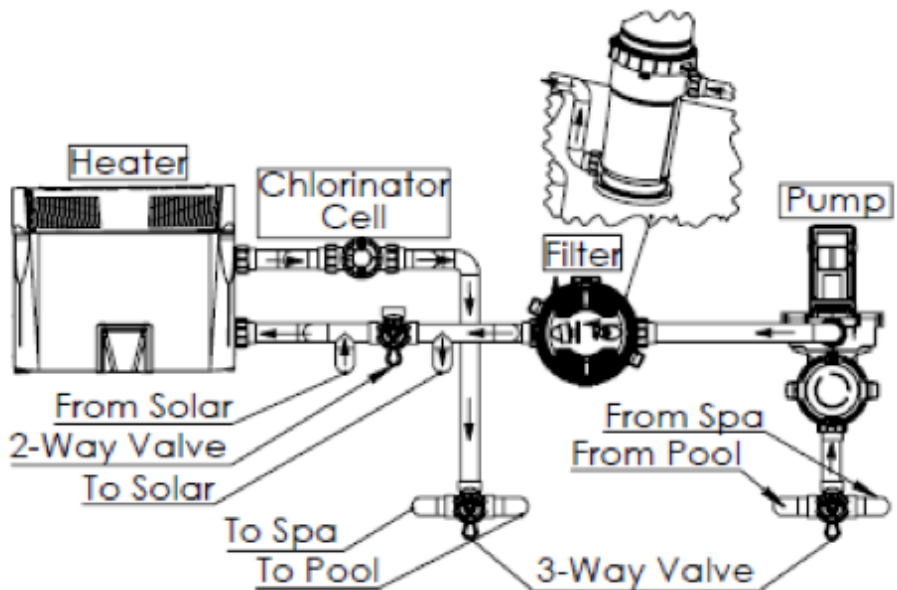
**CONGRATULATIONS, YOU HAVE NOW
INSTALLED YOUR NEW INSNRG FILTER.**

OTHER IMPORTANT INSTALLATION TIPS

1. Never subject the filter to pressure in excess of the maximum working pressure, even when conducting hydrostatic pressure testing. Pressures above the maximum working kPa pressures can cause the lid to be blown off and result in severe injury, death or property damage. Maximum working pressure is 250 kPa.
2. The filter should be mounted on the same level concrete slab that the filter pump is installed on. Position the filter so that the instructions, warning and pressure gauge are visible to the operator. It should also be positioned so that the piping connections, control valve and drain port are convenient and accessible for servicing and winterizing.
3. Install electrical controls (timers, Chlorinators, power points) at least 1.2 meters from the filter. This will allow you enough room to stand clear of the filter during start up.
4. All filter connections are provided with an gasket / o-ring seal. To avoid damage to the gasket / o-rings, use only a silicone base lubricant. Do not use any other substances as it will degrade the gasket / o-ring and reduce its performance and lifespan.
5. Install the pressure gauge (supplied with the filter) into the marked hole in the lid, using Teflon tape wrapped around the pressure gauge thread. **DO NOT OVERTIGHTEN.** If a leak is apparent after gently tightening the filter gauge it can always be tightened a little further.

6. If the filter is installed below water level, isolation valves must be installed on the inlet & outlet to enable the filter to be dismantled for cleaning without the loss of water from the pool or spa.

7. It is recommended that a 3 way valve be installed on the return line to allow draining of water from the pool or spa when necessary.



SECTION 3

HAVE FUN AND GET THE MOST OUT OF YOUR PURCHASE

Now that your Insnrg Cartridge Filter is installed and operating, it is important to understand how to keep it in the best condition and give you the best results for many years to come.

CLEAN YOUR FILTER AND REPLENISH THE PERLITE



WARNING

Cleaning your filter is essential to providing clean, safe and healthy swimming water. While landscaping works are undertaken around your pool it is recommended to clean the filter cartridge every 2 or 3 days to remove tile, cement and timber dust and prevent permanent blockage to the polyester element.

The Filter requires cleaning when the water flow through the filtration system reduces or reading on the pressure gauge increases by 20 kPa from the original operating pressure when the filter element was clean.

TO CLEAN YOUR FILTER ELEMENTS, FOLLOW THESE STEPS:

1. Stop the pump and close any valves on the suction and return lines to prevent water being lost, particularly if your filtration system is below the pool water line.
2. Open the air bleed valve (located in the filter lid). Allow all pressure to be relieved.
3. Loosen the Lock Ring around the Lid and remove from the filter. Lifting the filter lid from one side is the easiest way to loosen the lid.
4. Open the drain valve at the base of the filter and hose off Perlite Media, debris and organic material so that it flows out of the drain valve. You may wish to connect a pool hose to the drain valve outlet to run waste to a garden bed.
5. If particularly dirty, you may need to lift the filter element out of the tank and hose off with a high pressure nozzle setting. **DO NOT USE A PRESSURE WASHER.**
6. Reassemble filter leaving the air relief valve slightly loose to bleed air out of the tank and return any valves to operating position.
7. Turn the pump on and add dissolved Perlite (1kg) to the skimmer box as described in the installation section in this manual.

CONGRATULATIONS YOU HAVE
CLEANED YOUR ULTRA FINE FILTER.

SECTION 4

OOPS, SOMETHING'S NOT RIGHT?

Maintenance, Trouble Shooting,
Replacement Parts, Warranty &
Contact Section

MAINTENANCE

Your UF Filter has been designed to withstand harsh outdoor conditions and withstand high velocity water with chemicals. Some of these parts will wear in the normal course of use and require regular checks and maintenance. A well thought out proactive maintenance schedule will identify faults early and extend the lifespan of your Cartridge Filter.

A good tip for all outdoor Filtration Equipment including your UF Filter is to ensure that the equipment area is protected from any insects and vermin with a regular treatment of Surface Spray or suitable Insecticide. Most of the electronics in Pumps, Chlorinators or Heaters are well vented to protect against extremes of temperature, however this creates a popular environment for ants and other insects who are attracted to the warmer, dry environments inside the enclosures. We recommend that, with power turned off to all equipment, you spray a surface insecticide on the surfaces surrounding the equipment to prevent ant and insect ingress. Repeat every three months or as necessary to ensure no nasty surprises.

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PRO-ACTIVE MAINTENANCE PROGRAM

Like your motor vehicle it is important to maintain a regular service program for your pool equipment to ensure the best operation and long lasting results. The below chart provides a guideline to follow to best look after your valuable equipment. Regular maintenance can identify any potential issues early and save on expensive maintenance at a later date.

WHEN?	WHAT ARE YOU LOOKING FOR?	HOW CAN YOU FIX?
Weekly	Check Pressure Gauge.	If pressure increases by 20 kPa, then clean the filter and replenish Perlite as per instructions.
Quarterly	Check all Gaskets & Pressure Gauge	Isolate and turn off the Pump. Remove all Gaskets and turn over. You can also apply a silicon based grease to extend the life. If dry, then contact your local pool professional to replace.
	Check around the unit for leaves/debris or signs of flooding.	Replace any debris that is restricting air circulation around the Filter. If in a flood prone location, rectify.
	Check for any Insects/Ants etc	It is a good practice to use a good quality surface spray around your equipment. Make sure all units are turned off and then spray around all units to eliminate any insect/ants etc
Annual	Check Water Flow to Pool	If water flow is low, clean element thoroughly in cartridge element cleaner.. If flow does not improve, replace filter element.

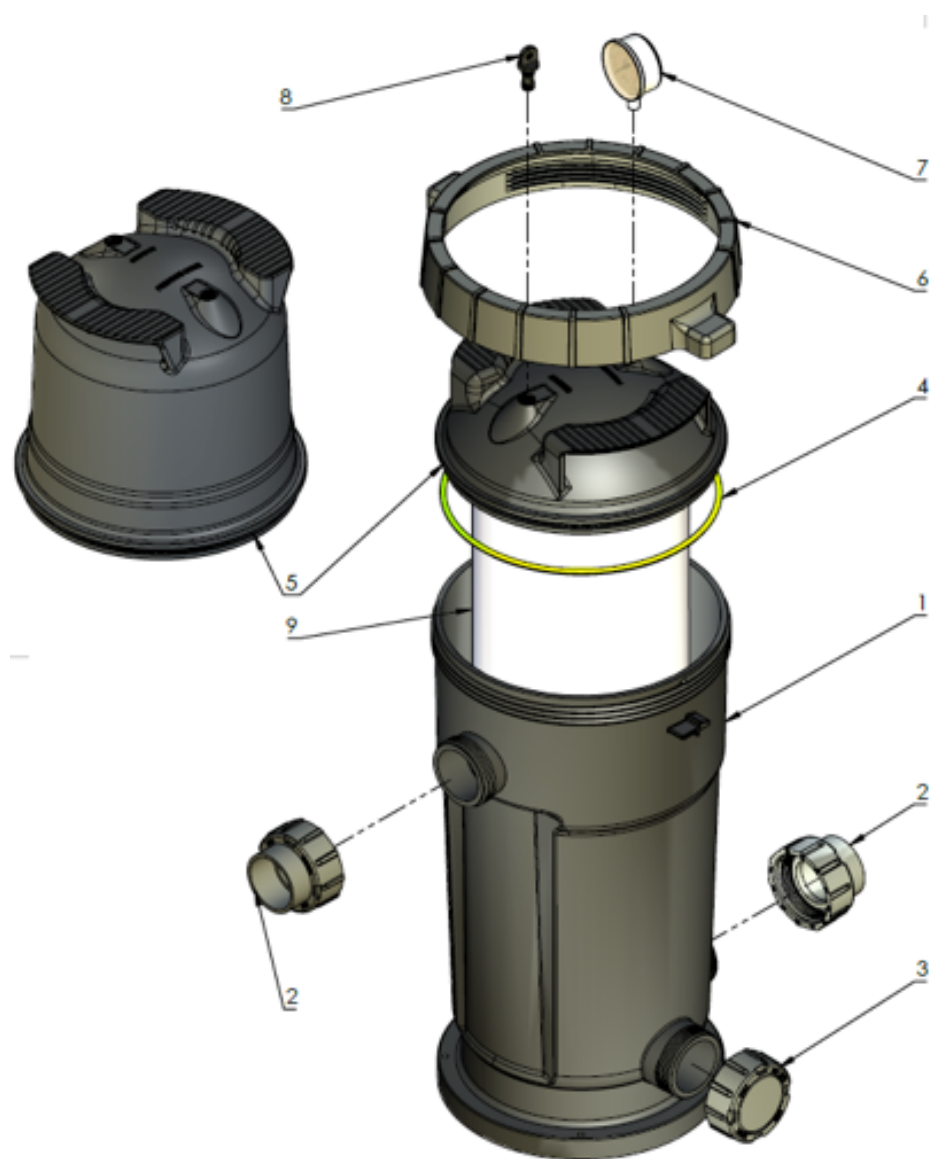
TROUBLESHOOTING

The chart below identifies some of the main issues you may encountered with your CI cartridge filter. This should assist with the majority of problems. Insnrg highly recommends regular checks and maintenance of your swimming pool equipment by a qualified pool professional. This will extend the life of your equipment and give you the best performance.

WHAT IS THE PROBLEM?	WHAT YOU CAN DO ABOUT IT?
Water is not clear	<p>Test and adjust water chemistry levels, and consider a chlorine shock of your pool.</p> <p>Filter could be dirty, clean the filter and replenish the Perlite as described in the manual.</p> <p>Filter element could be damaged, replace element from your local pool professionals.</p>
Low water flow	<p>Check and clean pump strainer baskets.</p> <p>Check for leaks on all equipment, refit gaskets and seal.</p> <p>Filter could be dirty, clean the filter and replenish the Perlite as described in the manual.</p> <p>Check Pool water level is high enough to cover the Skimmer and allow water to be circulated.</p>
High Pressure on Start-up	<p>Pump could be incorrectly sized for the Filter. Check against sizing chart in this manual and rectify as needed.</p>
Dirt returns to Pool	<p>Check for damage to Element and replace as necessary.</p>

REPLACEMENT PARTS OF FILTER

ITEM	DESCRIPTION	PART NUMBER
1	UF Filter Body	16120401001
2	Union Assembly Consisting of	
	O ring Union 50mm	15101603000
	Lock Nut Union Tail 50mm	21C1400001
	Union Tail 50mm PVC White	10C0145001
3	Drain Valve Assembly consisting of	
	O ring Union 50mm	15101603000
	Lock Nut Union Tail 50mm	21C1400001
	Blacking Cap 50mm	10101404003
4	O ring Lid Ci UF Lid	16120602001
5	Lid Ci UF Filter large	16120401003
6	Lock Ring Assembly	16220005
7	Pressure Gauge Oil filled	10101512001
8	Air bleed valve assembly consisting of	
	Air beed plug	16101400001
	O ring air bleed	16C1602010
9	Element UF Filter 35 sq ft	16130511002



WARRANTY

Insrg warrants that, subject to the exclusions and limitations that follow, the product will be free from defects in materials and workmanship during the warranty period. The warranty period for your Insrg Cartridge Filter is set out below and commences from the date of purchase which must be proved by the retailer invoice.

Filter Tank	3 years
Pressure Gauge	1 year
Filter Element	1 Year if properly maintained
Labour Costs	12 months only.

If a defect in materials or workmanship occurs within the warranty period Insrg will, at its discretion repair or replace product or the defective part of the product free of charge or cause the product or the defective part to be repaired or replaced by an Authorised Insrg Service Agent free of charge.

Insrg reserves the right to substitute defective parts or the Product with parts or product of similar quality, grade and performance where an identical part or product is not available. Parts or products may be replaced by refurbished goods of the same type rather than be repaired.

Warranty Procedure:

If a fault that is deemed to be covered by warranty occurs, the customer must first contact their retailer and/or builder from which the product was purchased and/or installed.

Any claim must be justified with the following details:

- Proof of Purchase date along with relevant invoice details,
- Full details of the fault, and
- Customer Name, Address and Contact details

The retailer and/or builder will assess the problem and assist Insnrg with the warranty procedure.

The product must be made available to Insnrg or its authorized service agents for full inspection, diagnosis, testing and repair.

If the installation of the product is outside a radius of 30 km (20 miles) from an Authorised Insnrg Service Agent, a service technician travelling fee will apply.

If no defect in materials or workmanship is found, a fee must be paid for Insnrg's costs of service, diagnosis and testing. If such a circumstance you request that Insnrg or Authorised Service Agent complete the non-warrantable repair, a fee will apply for labour and parts used to repair the product.

EXCLUSIONS

The warranty will not apply where:

- The customer has not complied with Insnrg's terms and conditions of sale
- The product was used in an application for which it wasn't intended
- The product was altered, modified or repaired by any other person than Insnrg or its Authorised Service Agents
- The Product has not been installed, maintained or operated in accordance with Installation and Operating Instructions
- The product has been subject to misuse, abuse, negligence, alteration or accident

Specific warranty exclusions include but are not limited to:

- Normal wear and tear to consumable items such as Gaskets, filter element and Pressure Gauge
- Environmental influences such as flooding, storm, lightning, fire
- Running filtration system without water
- Addition of chemicals in front of pump or directly to skimmer box unless instructed by chemical packaging

Commercial Installations.

Commercial Installation are defined as installations where the pool user pays for the use of the pool either directly or indirectly through hiring or renting of accommodation or membership of a gym, health centre or public pool AND where the pool equipment is operating for more than 16 hours per day.

In such installations the warranty period is limited to 1 year.

Consequential Damages

Insnrq shall have no liability for incidental or consequential damages or delays caused either directly or indirectly by any malfunction, defect or failure of the equipment.

No person is authorized to make any representation or warranty on behalf of Insnrq without express written consent from Insnrq.



Thanks again for purchasing one of our high performance Cartridge Filter

We know that you will get many years of enjoyment from this product.

Insnrg is committed to providing the best quality products and industry best advice and after sales service.

We pride ourselves on developing products that are specifically created for your backyard lifestyle. We are continuously developing new products and ideas to make pool ownership easier and fun.



Should you wish to keep updated with our progress and hear first hand our new products and developments, please feel free to stay in touch by using any or all of the below methods:

MAIL

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LANDLINE

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WEBSITE

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