

INSTALLATION & OPERATING MANUAL

A COMPLETE GUIDE TO YOUR RI AUTOMATIC CHEMICAL DOSER



insnrg

CONGRATULATIONS ON PURCHASING YOUR INSNRG RI AUTOMATIC CHEMICAL DOSER

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 manual has been designed to cater for installation rules and codes in the USA, Canada and Australia. Specific rules and regulations for each country has been highlighted by the National flag of each country. Please ensure you follow the installation rules specific to your country.

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SECTION 1

WE CARE ABOUT YOUR SAFETY



IMPORTANT WARNINGS

Insnrq highly recommend that this product be installed and serviced by professionals who are qualified in pool and spa product installation and service. Improper installation and/or operation can create an unwanted electrical hazard which can cause serious injury, property damage, or death. Improper installation and/or operation will void the warranty.

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

WARNING

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

WARNING

This appliance is to be supplied by an isolating transformer or supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.

WARNING

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

CAUTION

All components of the filtration system including Pumps, Filters, Heaters must be positioned so as to prevent being used as a 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 ELECTRIC SHOCK

All electrical wiring **MUST** be in conformance with applicable local codes, regulations, and the National Electric Code (NEC). Hazardous voltage can shock, burn, and cause death or serious property damage. To reduce the risk of electric shock, do **NOT** use an extension cord to connect unit to electric supply. Provide a properly located electrical receptacle. Before working on any electrical equipment, turn off power supply to the equipment.



WARNING

To reduce the risk of electric shock replace damaged wiring immediately. Locate conduit to prevent abuse from lawn mowers, hedge trimmers and other equipment.



WARNING

DO NOT MIX Chlorine and Acid, Hazardous fumes can be created causing injury or death. Always check that acid drum is connected to acid pump (right side of controller) and chlorine drum is connected to chlorine pump (left side of controller). If Filtration (water circulating) pump fails disconnect power to the Ri 335 Controller. Do not reconnect power until the Filtration Pump is repaired and working.

ELECTRICAL CODES

All electrical work must be performed by a licensed electrician and conform to all national, state, and local codes. Applicable national codes, include but not limited to the following:

- In the USA, National Electrical Code (“NEC” or NFPA-70)
- In Canada, Canadian Electrical Code (“CEC” or C22.1)
- In Australia, AS3000 Wiring Rules

and/or any other local and national installation codes.

GENERAL SAFETY GUIDELINES

The Insnrg appliance has been designed specifically for domestic (residential) swimming pool use. Using the product for any other purpose could affect performance, void warranty, and may result in property damage, serious injury, or death. Consult your local pool professional if you have any doubts.

The following general guidelines should be followed upon installation:

- Care should always be taken to not operate the Insnrg Chlorinator without any water flowing through the cell.
- Always install equipment out of reach of children.
- A damaged power supply cable should only be replaced by the qualified service agent, electrician or manufacturer.
- When installing and using this electrical equipment, always follow basic safety precautions.
- When preparing to install the Insnrg appliance, disconnect all power to your installation area.
- Ensure you connect to a circuit that is protected by a ground fault circuit interrupter (GFCI).
- The Insnrg appliance requires airflow to assist in cooling down the unit during operation, therefore, do not install within an outer

enclosure or beneath the skirt of a hot tub or spa.

- To avoid damage due to water from rain, splash-off, the control box must be installed a minimum of 1.5 metres (5 feet) vertically from the ground.

Your Insnrg appliance is intended for use with permanent swimming pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity.

To reduce the risk of electric shock, fire or injury, service should only be attempted by a qualified pool service professional.

EQUIPMENT UNDER PRESSURE

Always turn pump and other equipment off prior to installing or servicing the Insnrg appliance control box and/or cell. Your filtration system operates under pressure and this pressure must be released before you begin work to avoid any serious injuries or equipment damage. Please refer to your Pump and/or Filter instruction manual for further instructions.

To reduce the risk of injury, do not remove the suction fittings of your spa or hot tub. Never operate a spa or hot tub if the suction fittings are broken or missing. Never replace a suction fitting with one rated less than the flow rate marked on the equipment assembly.

PREVENT CHILD DROWNING

Do not let anyone, especially small children, sit, step, lean or climb on any equipment installed as part of your pool's operational system. Locate the components of your operational system at least 3 metres (10 feet) from the pool so children cannot use the equipment to access the pool and be injured or drown.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

PROTECTION OF SURROUNDS

Your Insnrg appliance maintains your water quality with little assistance required from the pool owner. However, it is important to consider the surrounding areas of your swimming pool and spa and carefully select materials that are compatible with the chemicals commonly used to make your pool and spa water clean, safe and healthy for your family to use. These include Salt, Minerals, Acids, Chlorine, Stabilizers and other additives. Before selecting materials to be used in and around your pool and spa, please discuss all options with your contractor or pool professional to assess the compatibility of such materials and chemicals.

Some areas you should consider include the following:

- **Plants** - choosing plants that can withstand water containing chlorine, salt and other chemicals.
- **Metals** - any objects containing metal components that are regularly used in the pool area should be of a high grade, quality stainless steel.

- **Stones** - the porosity and hardness of natural stones varies greatly. Consult with your builder or stone contractor on the best choice for stone materials around your pool or spa. They may also recommend a regular sealing schedule to prevent weathering, staining or premature degradation.
- **Chemicals** - use only chemicals recommended by your pool professional, others may be hazardous and cause serious damage. Always follow the chemical manufacturers instructions on the label when dispensing.

Insnrq does not warrant or guarantee that the chlorinated water generated by the Insnrq appliance will not damage or destroy certain types of plants, decking, coping and other materials in and around your pool and spa.

SECTION 2

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

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

INSTALLATION

The Insnrg appliance has been designed to withstand the harshest conditions, however, to prolong the life and get the most value out of your appliance it is important to consider the following:

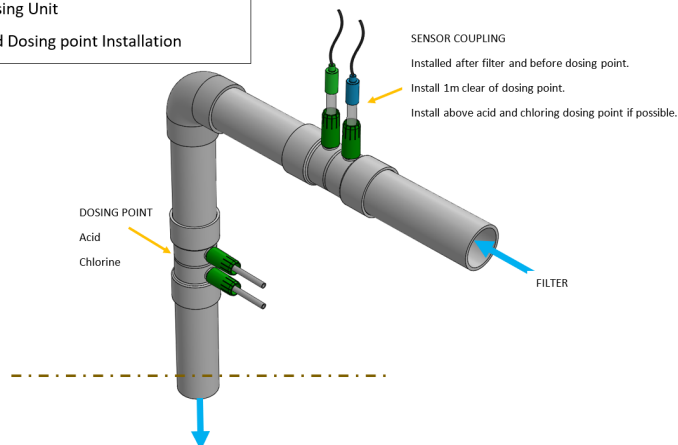
- Choose a location that is preferably out of direct sunlight
- It should be near the filter system
- The controller should be located 1.5 metre (5 feet) above ground level to prevent rain splash back or sprinkler system damage to the underside of the controller
- The controller must be mounted on a vertical surface/wall
- Mount the wall bracket using the screws provided on a secure wall.
- If mounted on a post, a flat sheet 20mm larger than the controller housing must be used

Chlorine and Acid Connection

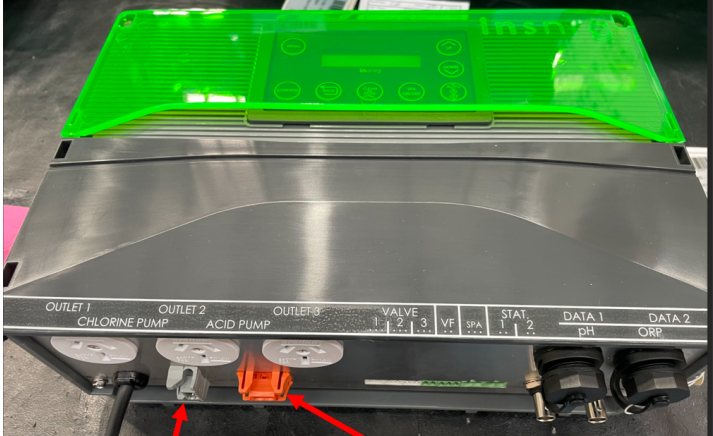
It is important that the Chlorine and Acid Bottle or Chlorine Drum is connected correctly onto the Peristaltic Pump on the correct side of the unit. Use the diagram below to ensure the correct flow of Chlorine and Acid. The Supply Tube to the Pool Return must be installed into the supplied coupling (see below) and sealed. This coupling needs to be installed as the last point before the water returns to the pool. It must not be placed before any equipment such as Filters, Chlorinator Cells or Heaters otherwise it will affect the performance and warranty of these units.

Acid and chlorine Injection

Ri 335 Chemical Dosing Unit
Sensor Coupling and Dosing point Installation

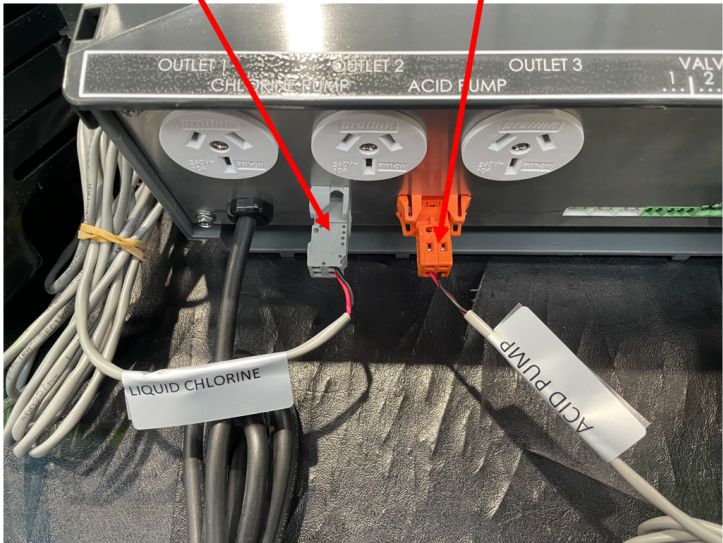


INSTALLATION

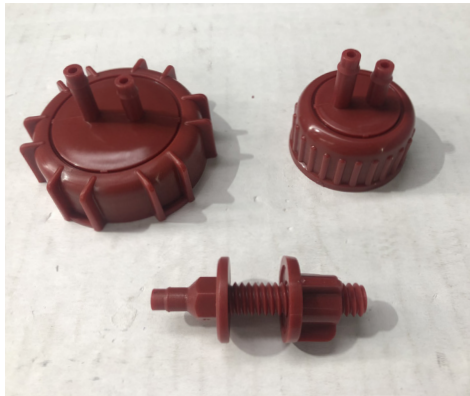


Chlorine Pump Connection
Grey Connector

Acid Pump Connection
Orange Connector



You have been supplied with 2 sets of bottle caps, each containing a larger cap for 15 or 20 litre drums and smaller caps for 5 litre bottles, 1 set to be used with Chlorine and 1 set for Acid. To install, simply connect the long clear tube to the bottom of the cap you wish to use, then screw onto the bottle. Connect the Supply Tube from the Control box to the taller prong. The smaller prong allows you to vent any fumes away from the pool equipment, take some Supply Tube and attached to the smaller prong then place the other end into a safe position. If you have your equipment in a pool shed or enclosure, use the venting device by simply drilling a hole through the wall, then screw the nut to hold into position, fix the other end of the supply tube and any fumes are removed from the enclosure protecting any equipment.



Bottle Caps and venting device

 **WARNING**

DO NOT mix hydrochloric Acid with Chlorine. MAY CAUSE DEATH.

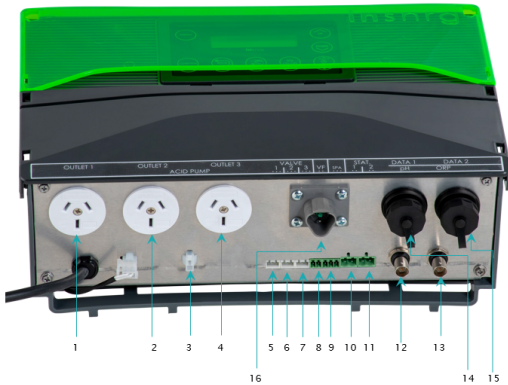
 **WARNING**

Hydrochloric Acid is classified as a dangerous good and must be handled correctly, for full directions refer to the appropriate MSDS. When handling Hydrochloric Acid for your pool requirements, you must follow the below warnings:

- Always wear gloves, face mask and eye protection and cover any exposed skin, NEVER let Acid come in contact with your skin
- DO NOT ingest Hydrochloric Acid
- Always add Hydrochloric Acid to the water, not water to the Hydrochloric Acid
- Only handle outdoors or in well ventilated areas
- Thoroughly wash hands with water after handling Hydrochloric Acid
- Refer to the appropriate MSDS for further information

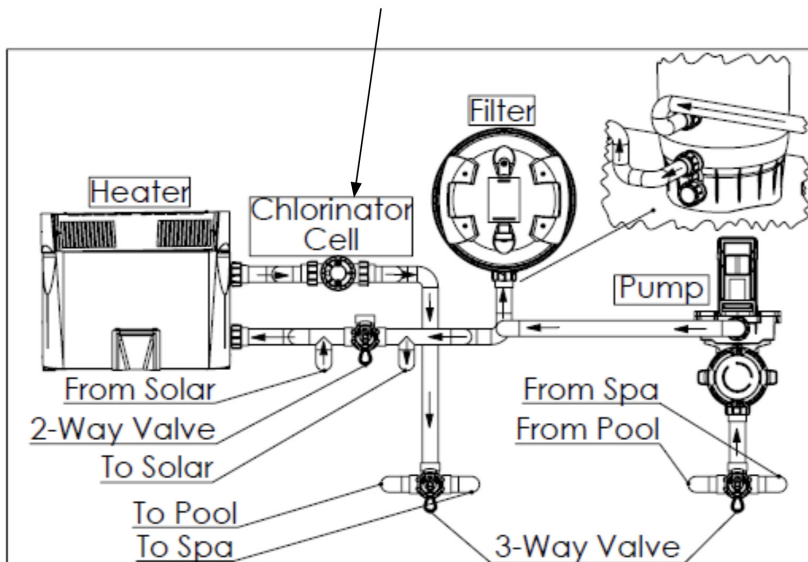
Control Box Connection Points

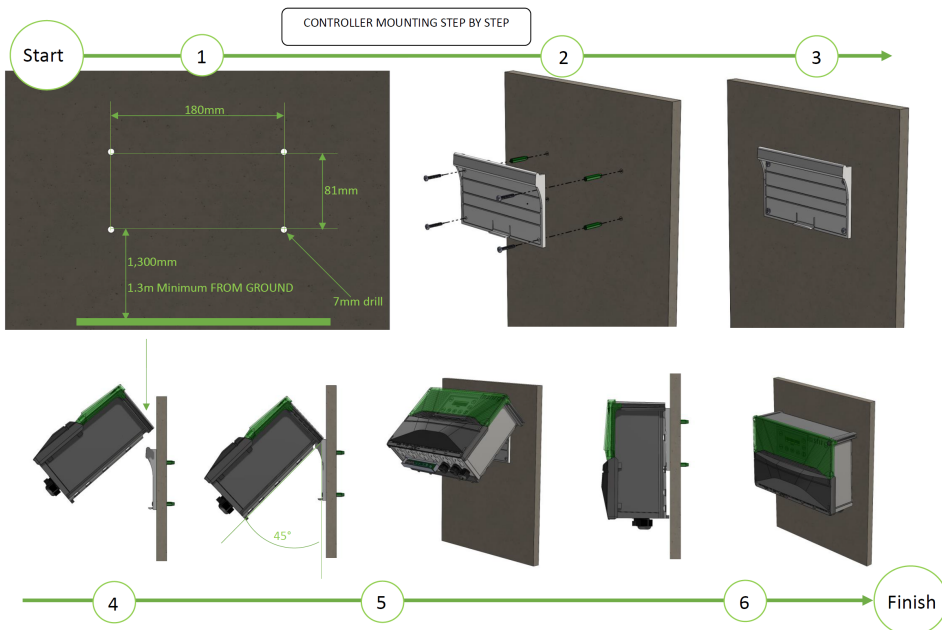
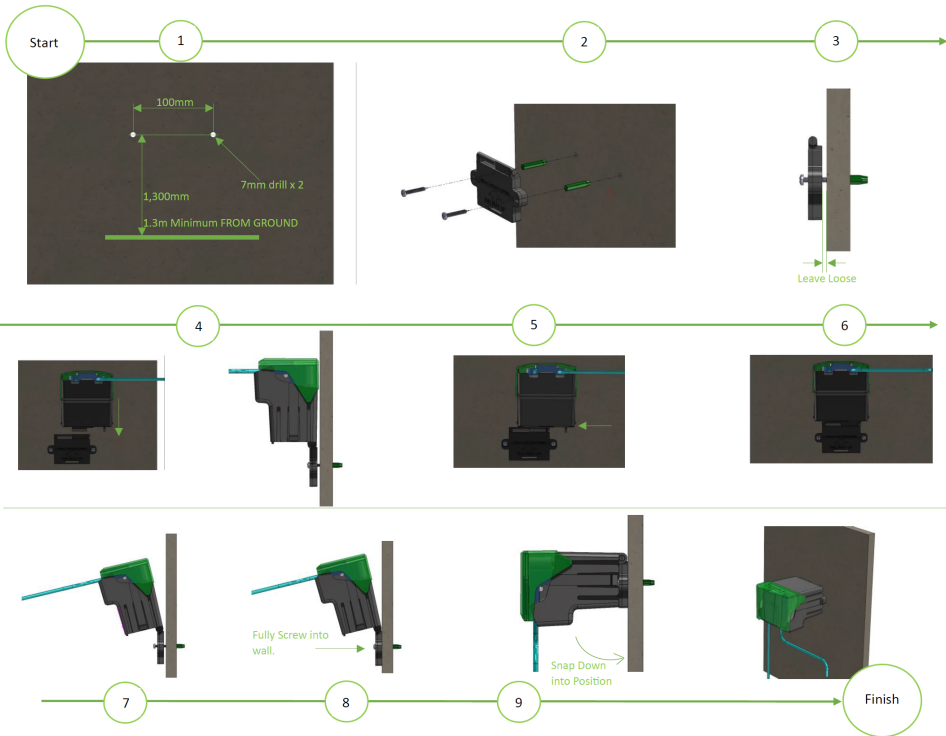
YourRi has many control options which will be utilised by your pool professional. Below details the connections available on your chlorinator.



Key		
1	240V outlet	12 x different appliances
2	240V outlet	12 x different appliances
3	Low voltage outlet	pH Dosing Pump
4	240V outlet	12 x different appliances
5	Valve Actuator	4 x valve functions
6	Valve Actuator	4 x valve functions
7	Valve Actuator	4 x valve functions
8	Control Lead	Heat Pump/Gas Heater
9	Control Lead	Aux Spa Control
10	Water Sensor	Heater/Solar Control
11	Roof Sensor	Solar Control
12	pH Sensor	pH Balance Control
13	Chlorine Sensor	Chlorine Production Control
14	Data Cable	Wi-Fi Connection
15	Data Cable	System integration
16	Salt Cell Power	Powers Mineral Cell

Must be Installed after, pump, filter and heater on return line to pool





WATER CHEMISTRY

Your Insnrg appliance is designed to operate every day to ensure that your pool is correctly sanitised. During Summer the sun removes chlorine from the water and we recommend increasing the running times compared to the cooler winter months. Timer periods on the appliance are initially defaulted to operate for 10 hours 0800 till 1800. In most instances this will be sufficient. However, consider the below for the different seasons:

SUMMER

You should set your appliance to operate for 8 to 10 hours per day. Ideally, run it for 4-5 hours in the morning (say 8-1pm) and 4-5 hours in the evening (say 4-9pm). In extremely hot weather it may be necessary to extend the running time if you find that the free chlorine level is too low.

WINTER

You should set your appliance to operate for 6 to 8 hours per day. Again, running it in the morning and evening is preferable. A lower chlorine output level may also be selected.

CHECKING CHLORINE LEVEL

Ideally, check your chlorine level after the morning operating period. The free chlorine residual level should be somewhere between 1 and 3 parts per million. Increase or decrease the output of the appliance to get the right residual chlorine level. It may also be necessary to adjust the operating period if you are running at minimum or maximum output.

STABILISER

Sunlight rapidly dissipates the amount of free chlorine in your pool. Chlorine stabiliser greatly reduces this effect. Without stabiliser, you may need to run your chlorinator and filtration system up to 16 hours per day or longer. Keep the Stabiliser reading between 20 to 30ppm.

PH LEVEL

You should keep your pH level between 7.0 and 7.4 for fibreglass pools and 7.2 to 7.8 for other pools.

TOTAL ALKALINITY

The ideal range is between 80 and 120 ppm.

CALCIUM HARDNESS

The ideal range is between 200 and 250 ppm.



WARNING

**WHEN MIXING ACID WITH WATER:
ALWAYS ADD ACID TO WATER. NEVER ADD
WATER TO ACID.**



WARNING

**NEVER MIX ACID WITH CHLORINE
MAY CAUSE DEATH**

SECTION 3

HAVE FUN AND GET THE MOST OUT OF YOUR PURCHASE

Your Insnrg appliance is the brains of your swimming pool. This section will outline the features of the appliance and instruct on how to set-up for the best results, all year round.





5. BACK Button

The Back button is pressed to return to previous screens within menus



6. CLEAN - DOSE Button

After turning the chlorinator and pump OFF using the IO button, press CLEAN-DOSE and use the up arrow to select how long you wish to backwash or rinse your sand filter. At the end of the selected time (in minutes) the pump will turn off automatically. Can also be used to vacuum your pool for up to 30 minutes on high speed pump operation (when an Insnrg variable speed pump is installed and data cable connected). While in Chemical settings menu, the Clean-Dose button can be used to operate the pH dosing pump and manually add Pool Acid to the water or prime the acid dosing tubes.



7. SPA ON-OFF Button

When motorised valves are installed and connected, pressing the pool spa button will automatically turn valves to isolate the Spa, turn on the heater and reduce chlorine output to suit the spa.



8. Auto>ON>OFF Button

This button controls the power to the Pump and chlorine production. This button will cycle the chlorinator and pool pump between AUTO (Timer function) MANUAL on which over rides timer settings and OFF which shuts down filter pump and chlorine production.

- Manual ON: Press IO until Manual On is displayed and press CONFIRM to turn pump and chlorinator on. Use UP or DOWN buttons to select chlorine output.
- Manual ON and automatically return to Timer mode. Press ATUO>ON>OFF until Manual ON is displayed, press UP or DOWN arrow to select hours of operation and press CONFIRM. If an Insnrg Variable Speed Pump is installed with data cable connected, use UP/DOWN arrows to select pump speed and press CONFIRM. Select chlorine output by pressing UP/DOWN buttons and Press CONFIRM. Chlorinator and pump will now revert to AUTO timer mode at end of selected number of hours.
- Auto – Chlorinator and filter pump will operate in conjunction with the timers that have been set.
- Off – Chlorinator and filter pump are off

MENU OVERVIEW

The MENU button is used to select the relevant area that you want to adjust on your Insnrg Chlorinator. The following areas are accessed by pressing the Mode button the appropriate number of times then press the CONFIRM button to access this menu.

5 MENUS ARE AVAILABLE:

1. Change Settings
2. Set Time
3. Activate Timer Periods
4. Service Menu
5. Install Menu

To access each of the 5 menus, Press the MENU button and the screen will cycle between each menu. When the screen displays the MENU you wish to use, Press CONFIRM to enter than menu.

MENU 1 - CHANGE SETTINGS

Press CONFIRM to access this menu and use UP or DOWN buttons to select the following menus:

1. CHEM BALANCE
2. EQUIP STATUS
3. TEMPERATURE SETTINGS

1. Chem Balance

- pH Set Point - Press up or down button to change value.
- ORP Set Point - Press up or down button to change value.
- Prime Acid Pump – By pressing Backwash Button acid pump will operate quickly prime the tubing for the acid feeder. Use this feature to add acid if needed.

2. Equip Status

This allows assigned equipment to be turned to Auto (timer period), On or Off. This can be achieved all at once or individually. Use the UP or DOWN buttons to toggle between ALL AUTO, ALL ON or ALL OFF or go to INDIVIDUAL to select a specific piece of equipment to set to AUTO, ON or OFF. This operation will only function once equipment has been assigned through the Install Menu.

3. Temperature Settings

- Solar – Used for setting temperature when solar heating is connected.
- Pool – Used for setting temperature when external heater is connected.
- Spa - Used for setting temperature when external heater is connected.

MENU 2 - SET TIME

If Vi Chlorinator is connected via the inTouch Portal select Auto Time, and location for automatic Time setting from the internet.

If the Vi is not connected to the internet, Press the MENU button until Set Time appears on the Display, then press the CONFIRM button. The Cursor will then flashes on hours, press up or down buttons to change hours then press CONFIRM button to move to minutes, press up or down to change and press CONFIRM button to save.

MENU 3 – ACTIVATE TIMER PERIODS

Press the MENU button until Activate Timer Periods appears on the Display, then press the CONFIRM button. Screen will display "Timer 1 Active" with cursor flashing on "Active", press up or down buttons to cycle between "Active" and "Off". Press CONFIRM to select and move to next screen.

If "Active" is selected, cursor will move to Timer 1 Start and flash under hours, press up or down button to change, then press CONFIRM button, cursor will move to minutes, press up or down button to change then press CONFIRM button, cursor will then move to Timer 1 Finish and flash under hours, press up or down button to change, then press CONFIRM button, cursor will move to minutes, press up or down button to change, then press CONFIRM. If Insnrg Variable Speed Pump has been set-up the cursor will now move to "Pump Speed", press up or down button to select the correct speed, then press the CONFIRM button to save.

This process can now be repeated for the four (4) available timer periods available in the MENU.

"Each timer period will ask if you want the Chlorinator or Filtration Pump to operate with these timers. Specify 'NO' if you want to operate other equipment during set timer periods without the chlorinator or filtration pump operating.

MENU 4 – SERVICE MENU

Press the MENU button until Service appears on the screen, then press the ENTER button to enter menu. Enter the code 1 1 1 1 to access the SERVICE MENU. We recommend you do not divulge the code to casual users of your equipment.

Once the combination of secret buttons is entered, the Screen will display:

- Calibrate pH – This allows you to change the pH value by pressing the up or down button.
- Calibrate ORP – This allows you to change the ORP value by pressing the up or down button.
- Calibrate Stat 1 - Allows calibration of connected thermistor to allow for different types of thermostat wells.
- Calibrate Stat 2 - Allows calibration of connected thermistor to allow for different types of thermostat wells.
- Polarity - Allows you to change the polarity of the cell.
- Total Hours – Shows number of hours that the cell has been operating
- Reversal Hours – Shows number of hours that the cell has been in reversal
- Cell Replaced – When cell is replaced, can reset hour statistics by pressed YES
- Volts / Amps – This shows cell output in both volts and amps.
- Set Up Wi-Fi - displayed only if inTouch Portal is connected. Allows selection of Wi-Fi network , enter WiFi password using the Pool/Spa button to select upper or lower case, numbers or symbols and UP/DOWN arrows to select digits. Allow cursor to move to next position before entering the next Wi-Fi password digit. Use back arrow to go to previous cursor position. After password is entered allow cursor to move to last position after password and press enter to make connection.
- View Wi-Fi - displays Wi-Fi connection, signal strength, server status and enables Reset Wi-Fi. Do not reset Wi-Fi unless you have installed a new modem, Wi-Fi or a new Internet provider.
- Temperature – Shows internal temperature of the chlorinator box
- Version – Shows version number of Firmware
- Prime Protect - If activated it will turn pump off and protect mechanical seal if the water sensor in the cell does not sense water flow within 5 minutes.
- Probe Settle Time - If activated it will sense pH and ORP for one hour before activating cell or dosing acid. Sensors can take up to an hour before sensing correct ORP and pH when circulating pump is first turned on each day. It is only recommended for indoor swimming pools and prevents over chlorination.
- Test Output – This is used to test the outlets and connections to the chlorinator

MENU 5 – INSTALL MENU

Press the MENU button until INSTALL MENU appears on the screen, then press the ENTER button to enter menu.

Screen will display:

- Insnrg Pump – If you have an INSNRG Qi Pump installed, you can select YES and the Pump and Chlorinator will talk together. Requires a separate Cable that can be purchased from your selected Pool Professional.
- Calcium Level – Will adjust the reversal time of the cell to handle high Calcium levels. By increasing the Calcium level it will shorten the life of the cell. Please discuss with your Pool Professional before changing this setting.
- Solar – Allows you to set-up the chlorinator to activate your Solar System as per the following options
 - 1. None – Solar not used
 - 2. Ind Pump – When independent pump is running solar it allows you to set temperature and start time
 - 3. Valve – Operates assigned valve for solar
 - 4. Inline
- Channel 1 - Press up or down button to scroll through names you want to assign to this Channel.
- Channel 2 - Press up or down button to scroll through names you want to assign to this Channel.
- Channel 3 - Press up or down button to scroll through names you want to assign to this Channel.
- Valve 1 - Press up or down button to scroll through names you want to assign to this Channel.
- Valve 2 - Press up or down button to scroll through names you want to assign to this Channel.
- Valve 3 - Press up or down button to scroll through names you want to assign to this Channel.
- Stat 1 - Can be assigned to air sensor (roof solar sensor) or water sensor (in pipework)
- Stat 2 - Can be assigned to air sensor (roof solar sensor) or water sensor (in pipework)
- Antifreeze - If activated will turn pump on when water approached freezing point to prevent water freezing in pipework. Only works if air sensor installed and activated. This feature is mainly used in the US where temperatures regularly drop below freezing.
- VF Connect - Voltage Free contact used for connection of heat pump or gas heater. If assigned and water sensor (Stat 1 or Stat 2) is connected and assigned, will allow the Vi to turn heater on and off. Usually the water pressure switch or dedicated external connection is wired to the VF contact.
- Heater Run On - Will run circulating pump for 5 minutes after heater turned off to remove residual heat from gas heater.
- pH Sensor Connected – Activates pH sensor.
- ORP Sensor Connected – Activates ORP sensor.
- Pool Size – Press up or down button to input correct pool size.
- Spa Size - Press up or down button to input correct spa size.
- Return To Fact Settings – This will return all settings to the original factory settings.

BACKWASHING OPERATION

If you have a Sand or Media Filter Installed you will need to periodically clean your filter as per the instructions provided in the relevant manual. Your Insnrg Chlorinator has a Backwash Menu that will assist you to ensure you get the right amount of time to clean your filter and to eliminate the risk of leaving your pump running too long and wasting your expensive pool water.

Also, as an additional safety feature, when the chlorinator is in Backwash mode, then chlorinator cell stops producing eliminating any risk of excess Chlorine Gas build up in the cell.

Follow your instructions to clean your filter. When you have selected Backwash on your Multiport Control Valve, then select the BACKWASH button as below:

- Press the AUTO-ON-OFF button until the filter pump is OFF.
- Ensure Filter is in Backwash mode (see filter instruction manual)
- Press CLEAN-DOSE button once and determine how long you want to backwash for by pressing UP or DOWN buttons to determine number of minutes to backwash.
- Press CONFIRM button and chlorinator turns pump on but no power to cell. Time clock will start to count down and turn the pump off when timer reaches zero.
- Use this function for both the Backwash and Rinse settings to get the best benefit.

CHLORINE OUTPUT LEVEL

The amount of Chlorine in your swimming pool affects you and your family's enjoyment of swimming. The correct chlorine residual in your pool will eliminate bacteria and algae making your pool clear and healthy to swim in.

Your Vi chlorinator incorporates an ORP sensor to measure and control the activity of the chlorine and a pH sensor to measure and control the pH level of your water.

ORP is not an exact measure of chlorine but rather a measurement of the activity and effectiveness of the chlorine in your pool.

The pH balance of your pool water has a significant impact on the activity of the chlorine, and is critical in keep your pool and spa pleasant to swim in.

ORP readings will fluctuate throughout the day with bather load, sunlight, pH levels, contaminants affect the chlorine level and activity. Your chlorinator will adjust chlorine production to attempt to meet the ORP set point but can take some time, particularly on hot sunny days, or after heavy use.

As chlorine is produced, the pH will gradually increase. The pH sensor will enable the chlorinator to add acid in small quantities to keep the pH close to set point and create a comfortable healthy pool and spa to use. Use the table below as a guide during set up.

Pool Type	pH	ORP	No Stabiliser	30 ppm Stabiliser
			Approx. Free Chlorine	Approx. Free Chlorine
Fibreglass Pool	7.3 to 7.6	660	1 ppm	>1 ppm
			2 ppm	1.5 ppm
			3 ppm	2 ppm
Concrete Pool	7.5 to 7.8	700	1 ppm	>1 ppm
			2 ppm	1.5 ppm
			3 ppm	2 ppm

CYANURIC ACID

Chlorine can dissipate faster than the chlorinator can produce on hot sunny days. The addition of a small amount of cyanuric acid (CYA), also called stabiliser or sunscreen, can retard the activity of chlorine and make it last longer in the pool.

The CYA molecule combines with chlorine during daylight hours, slows the activity of chlorine which makes chlorine last longer. However, at night the CYA dissociates from the chlorine molecule leaving the chlorine to become highly active. This process can significantly affect the ORP reading so when CYA is present in your pool, be sure to operate your chlorinator during daylight hours. Insnrg recommend a maximum CYA level of 30 ppm. Contact Insnrg for further advice.

IMPORTANT MAINTENANCE

To ensure the Vi Chlorinator gives you years of efficient and effective operation, parts of the unit require regular maintenance and replacement of consumables.

Please undertake the following maintenance schedule:

Weekly	Check Acid Drum is full and replenish with a 50:50 blend of water and hydrochloric acid. Access the squeeze tube inside the acid pump and lubricate the rollers and squeeze tube with a silicone based grease.
Quarterly	Remove the pH & chlorine probes after turning off all pumps and other equipment. Gently clean the tip of each with a non abrasive cleaner such as Jiff, wash in fresh water, refit and continue normal operation.
Yearly	Replace Acid Pump tubing, squeeze tube and non return valves. These are sold as a kit and are available from Insnrg. The squeeze tube is pulsed frequently by the roller mechanism and eventually wears out with the risk of splitting and spilling corrosive acid on your equipment and plant room.
2 years	Replace ORP and pH Sensors

SECTION 4

OOPS, SOMETHING'S NOT RIGHT?

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

MAINTENANCE PLAN

Your new Insnrg appliance is one of the hardest working items in your household. It is 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 pro-active maintenance schedule with identify faults early and extend the lifespan of your appliance.

To protect against extremes of temperature, your unit is designed to allow expensive electronics to cool. Ants and some insects are often attracted to the warmer, dry environment inside the enclosure. We recommend that, with power turned off, you spray a surface insecticide on the surfaces surrounding the control to prevent ant and insect ingress. Repeat every three months or as necessary.

WHEN?	WHAT ARE YOU LOOKING FOR?	HOW CAN YOU FIX?
Quarterly	Check all Gaskets	Isolate and turn off the Pump. Remove all gaskets on Chlorinator Cell 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.	Remove any debris that is restricting air circulation around the equipment. 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
	Check for any leaks	Check for leaks from acid and chlorine tubes. Replace tubes if brittle, swollen or leaking from any point. Replace tube check valves on a regular basis.

WINTERISATION

Is it important to protect your Insnrg appliance from freezing water conditions. As water freezes it expands and that can cause the internals of the Chlorinator Cell to break under the intense pressure of expanding water. It is up to you to monitor temperatures and take the following actions:

- 1.** In mild climate areas, when temporary freezing conditions may occur, run your pump and filtering equipment all night to maintain water circulation and prevent freezing.
- 2.** If freezing conditions are expected, take the following steps to reduce the risk of freeze damage. Freeze damage is not covered under warranty.

To prevent freeze damage follow the procedures listed below:

- 1.** Shut off electrical power for the pump at the house circuit breaker.]
- 2.** Drain the water out of the pump housing by removing the two thumb-twist drain plugs from the housing. Store the plugs in the pump basket. This should also drain the Chlorinator Cell.
- 3.** Cover the motor to protect it from severe rain, snow and ice. Once the freezing conditions are finished, it is important to reverse the above procedure and prime the pump for operation.

TROUBLESHOOTING

The chart below identifies some of the main issues you may encounter with your chlorinator. 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?
No Flow	<ul style="list-style-type: none">• Check all valves on system are in the correct position.• Check any blockages in skimmer basket and pump basket.• Check suction cleaner is free from any blockages.• Prime Acid Pump and Chlorine Pump, eliminate air from tubes
Blank Display	<ul style="list-style-type: none">• Check all power connections. Disconnect and reposition. Check. If problem continues contact your pool professional.
Low / No Chlorine Production	<ul style="list-style-type: none">• Check chlorine level in chlorine bottle and refill/replace as necessary• Adjust timer period according to swimming season and bather load.• Increase ORP set point• Ensure Pool/spa size is correctly set in Install Menu• Check water chemistry including pH level and stabiliser level. Adjust as per demands from pool professional.

WARRANTY

Insnrng products are designed and manufactured to the highest possible standards of performance.

Australian Consumer Law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Warranty Period and Conditions

Insnrng Techne Pty. Ltd. (hereinafter “the Company”) is pleased to warrant to the original retail purchaser that this product shall be free of manufacturing and material defects for a period of three (3) years from the original invoice date subject to the following conditions:

1. The product is purchased new from an authorised Insnrng dealership in Australia, New Zealand or North America.
2. This warranty is not assignable and applies to the original retail purchaser only and the original receipt, invoice or any other proof of purchase must be retained and produced if requested by the Company.
3. Nothing in this warranty shall apply to any defects caused by misuse or abuse, neglect, accident, extremes of climate, dampness, humidity, reasonable fair wear and tear and/or any causes other than defects in manufacturing and materials. Proper care and maintenance information is detailed in the Owner’s Manual for this product which you must follow.
4. Where a defect is physically visible or otherwise affects the exterior surfaces of the product, you must notify the Company of such defect within fourteen (14) days from the date of your purchase.
5. If the product is bought as a demonstration, refurbished, ex-rental, discontinued or otherwise previously unboxed unit, the warranty applicable shall be limited to twelve (12) months only.

Warranty Claim Procedure

To exercise your rights under this warranty, you must:

Within fourteen (14) days of you becoming aware of any defect, report the following details to the dealership from which the product was purchased:

- Your name, address and contact information;
- Model, and serial number of the product; and
- A detailed description of the defect.

On receipt of the above information, the Company will allocate to your dealership an Insrg Authorisation Number (IAN).

Depending on the model type, how it is installed, and the defect reported, your nominated dealership will advise on how the warranty service will be performed. This could include, but not limited to, return of product to the dealership, return of product to the company, or a visit by qualified service technician to your poolside.

If advised to return the product, place the defective product in secure packaging, clearly label it with the IAN number allocated and send it to the address of the authorised service agent which will be advised by your dealership.

The Company will not be liable for any transportation costs, or in the event that a poolside call is arranged with an authorised service technician, costs of technician's travel time if the defect is found not to be covered by the consumer guarantees.

In the case of returned product, the authorised service technician or dealership will contact the purchaser when the product has been repaired and is ready for collection.

The Company will repair or replace at its absolute discretion your product at no cost for parts or labour in accordance with the terms stated in this warranty provided that the reported defect is able to be located by the technical staff assigned to the product. If the technical staff is unable to locate the defect, you may be liable to pay for the cost of the technician's travel time and labour.

Commercial Installations

Commercial installations are defined as installations where the pool user pays for the use of the pool either directly or indirectly through hiring, renting of accommodation or membership of gym, health club or public pool and where the equipment is operating for more than 12 hours per day. In installations as above, the warranty period is limited to 1 year.

The benefits under this warranty are in addition to your rights and remedies available under the Australian Consumer Law.

The logo for insnrg features the letters 'i', 'n', 's', 'n', 'r', and 'g' in a lowercase, rounded font. The 'i' is teal, 'n' is orange, 's' is teal, 'n' is teal, 'r' is teal, and 'g' is teal.

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

Insnrg has been founded by persons with over 120 years experience in the Pool and Spa industry.

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:

SNAIL MAIL

57-59 Nantilla Road,
Clayton, VIC, 3168

LANDLINE

1800 INSNRG (1800 467674)

WEBSITE

www.insnrg.com



insnrg

PRODUCTS IN PERFECT SYNERGY