



## ZEPHR 6 SPEED DIGITAL SPA BLOWER

### Installation and Operation Manual



# CONGRATULATIONS ON PURCHASING YOUR INSNRG ZEPHR 6 Speed Digital Spa Blower

The Insnrg Zephr Spa Blower uses an AC to DC Switch Mode Power supply to operate a brushless DC motor. This revolutionary motor spins at over 100,000 RPM and its high efficiency means it consumes one third of the power of a conventional air blower.

Electronic PWM control enables you to choose a comfortable volume of air to make your spa a pleasurable experience while still having the power to purge the blower piping of water on start-up.

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 service provider
- Finally, your entitlements under your product warranty. Insnrg have developed their product to provide you with the best 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 Australia.

# THE IMPORTANT BITS

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We care about your safety

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We want you to be delighted

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## SECTION I

# 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.

## 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.

## ELECTRICAL CODES

All electrical work must be performed by a licensed electrician and conform to all national, state and local codes including AS3000 Wiring Rules.

## GENERAL SAFETY RULES:

The Insnrg Zephr Spa Blower has been designed specifically for 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 during installation:

- Always install equipment out of reach of children
- A damaged power supply cable and/or Blower housing 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 Zephr Spa Blower, disconnect all power to your installation area.
- Ensure you connect to a circuit that is protected by a ground fault circuit interrupter (GFCI)
- The Spa Blower must be installed in a manner to prevent water ingress from the spa or pool and eliminate any splash back from rain, sprinklers and other sources of water.
- To avoid damage due to splash-off, the Zephr Spa Blower must be installed so that run off from roofs or gutters does not fall on the blower and splash back from rain will not occur.

Your Zephr Spa Blower 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.

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

## 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 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.

## INSTALLATION

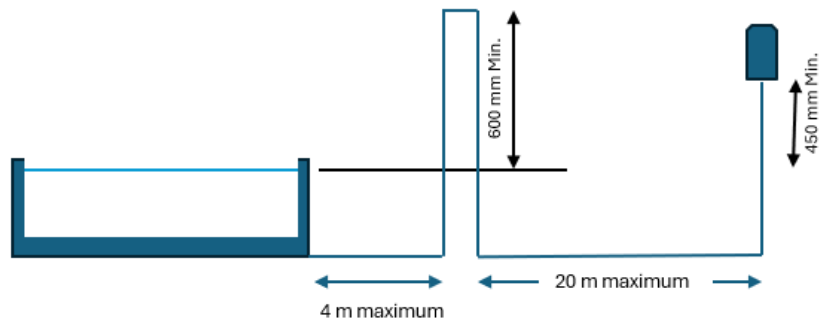
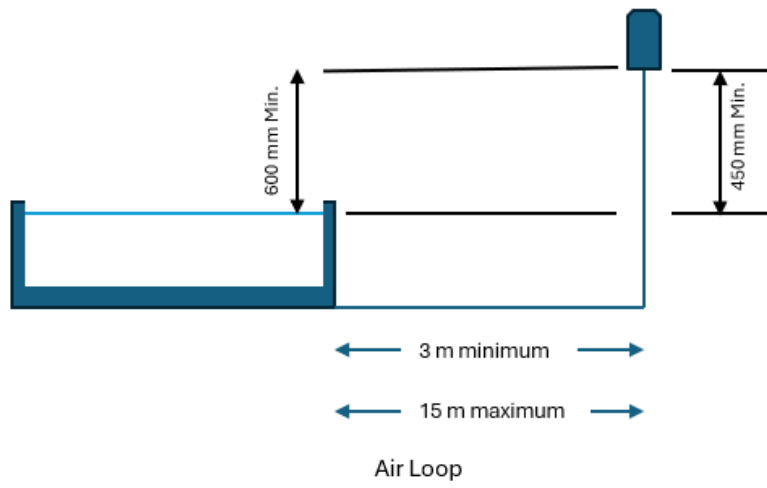


Disconnect power to all pool equipment before installation.

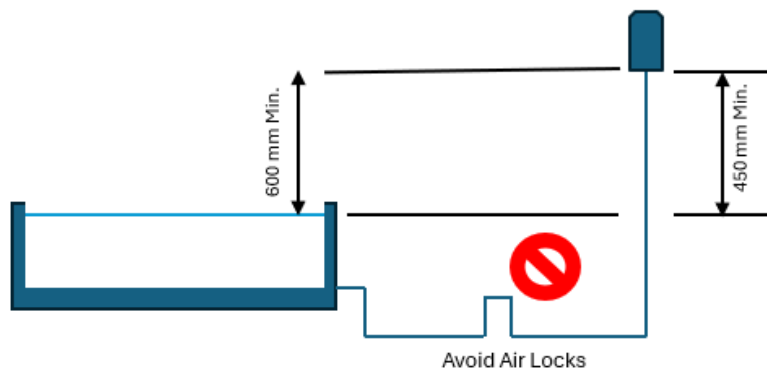
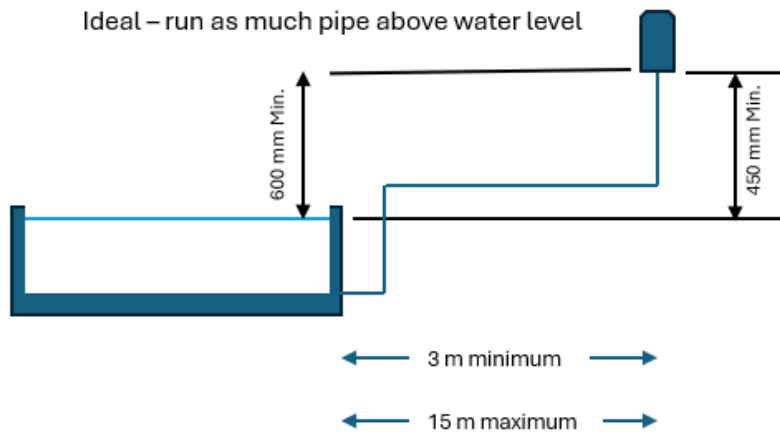
### Location Considerations

- Install Blower in a location where the sound will not annoy residents or neighbours.
- If installed in a plant room or pool shed ensure there is sufficient ventilation to allow air to be drawn into blower
- Mount the blower at least 600 mm above the top of the water level in the pool or spa. Alternatively, install an air loop at least 600 mm higher than the highest water level point of your pool or spa within 15 meters of the pool or spa.
- If blower stand pipe is elevated more than 600mm brace the blower or standpipe to a wall or post.
- Install at least 450mm above ground level to prevent splash back from rain.
- Blower **MUST NOT** be installed within 3 metres from the edge of the pool or spa.
- **DO NOT** install within 1.5 metres of any gas appliance flue terminal.
- **DO NOT** install in a plant room with a gas appliance if the vacuum of the blower can starve the gas heater of air.





Ideal – run as much pipe above water level



## MINIMUM AIR SUPPLY REQUIREMENTS

- Air holes: 36 x 6mm diameter air holes or 20 x 8mm diameter air holes
- Supply Pipe Size: Minimum 40mm high pressure PVC
- Spa Jet Manifold: Minimum 25mm air circuit on 50mm PVC supply piping

Where a non return valve has been installed in the air supply line, or an excessive length of pipe filled with spa water is present, the blower may cut out due to lack of air flow on start up. Try dripping a 4mm to 5mm hole through the PVC air supply pipe directly under the glued union connection to pass a minimal amount of air and allow the blower to operate.

## NOW TO HAVE SOME FUN

### Operating Instructions

Your Spa Blower has an adjustable Purge Time and 6 operating speeds to allow for the ideal massage action in your spa.



## PURGE TIME

During purge time, the blower will operate at maximum speed to blow water out of the supply pipe to your spa. You can set the purge time for 1, 2 or 3 minutes.

Purge LEDs: 1 LED represents a one-minute purge time, 2 LED's represents a two-minute purge time and 3 LED's represents a three-minute purge time. Your individual purge time will depend on how far your supply pipe runs, number of changes of direction and the number of air holes in your spa.

Start up: The blower purge time is factory set to 3 minutes. On start up, clock the time it takes for the air to clear the supply pipe and a vigorous action in your spa takes place. If less than 2 minutes, press the purge button so only 2 LED's light up on starting to reduce the purge time. If the water in the supply pipe is cleared in less than one minute, press the purge button so that only one LED is lit to reduce your purge time to one minute.

## RUN SPEED

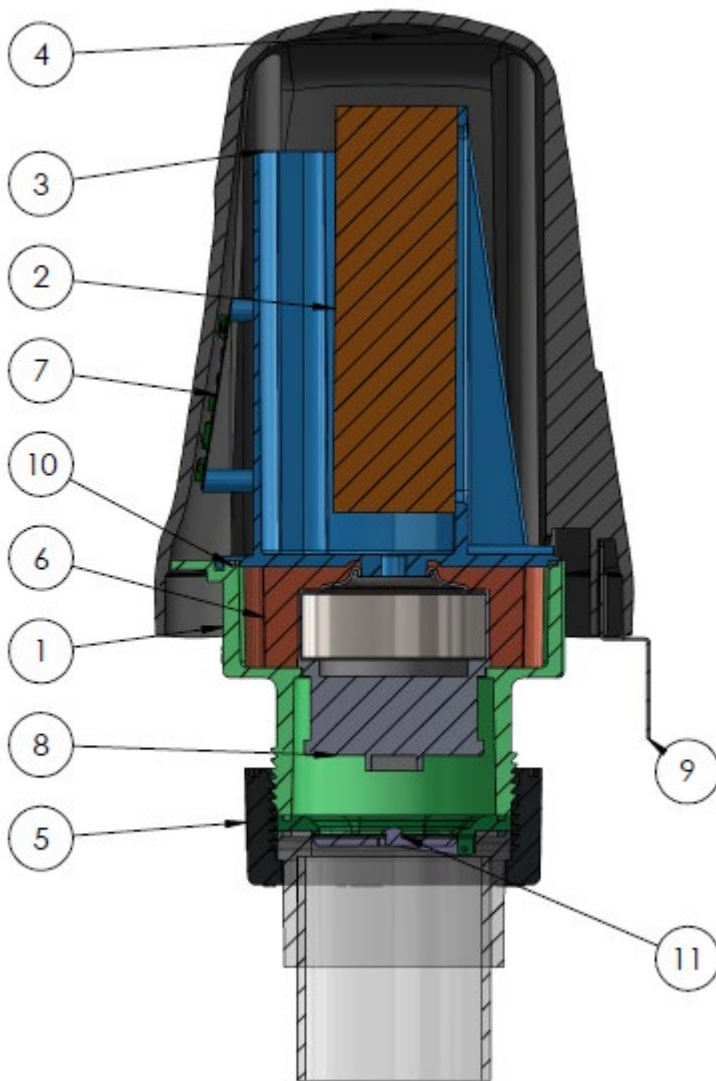
Once the air has purged from the supply line, press the POWER rpm button and experiment with the volume of air you need in the spa. Generally, a much lower volume of air is required for comfortable spa action than the high speed purge.

Once you have set your purge time and run speed, the blower will save its settings and start/operate the same way next time it is turned on.

## MAINTENANCE

Like many moving mechanical machines, your Blower will last longer if regularly used. If the blower is not in regular use, turn on for 5 minutes each month to eliminate condensate and keep motor freely moving.

# PARTS LIST



ITEM NO.	DESCRIPTION	QTY.
1	Blower Adaptor Body	1
2	ACDC converter	1
3	Converter Air Flow Mount	1
4	Outer Body	1
5	50mm Union Nut	1
6	Vibration Motor Gasket	1
7	BlowerControl PCB	1
8	EC motor	1
9	Wall Mount Bracket	1
10	o-ring	1
11	Check Valve Assembly	1

Specifications							
Power Supply	Length "A"	Height "B"	Width "C"	Max Power Consumption	Conns	Max Vacuum	Max Airflow
110 - 240 VAC 50/60 hz	155 mm	299 mm	155 mm	320W	50mm/2"	24 kPa	26 L/s

## OOPS? SOMETHING NOT RIGHT?

Check Blower power supply.

Ensure remote controls are operating correctly and power is provided to the blower. Check plug and lead for damage or wear and isolate power if damage is detected.

## MAINTENANCE PLAN

Your Insnrg Zephr Spa Blower is low maintenance however, following a regular maintenance plan will extend its life and increase reliability.

WHEN	WHAT ARE YOU LOOKING FOR?	HOW CAN YOU FIX IT?
Monthly	Visual confirmation the blower is free from leaves, insects and spider webs	Cut back plants and trees from around pool equipment, clear debris, use insect surface spray (while blower is off).
Annual	Check surrounds for water leaks or water run off from gutters, roofs and overhangs	Repair overhangs or gutters that may flood the blower.

## WARRANTY

Insnrg 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:

Insnrg Techne Pty Ltd (herein after “the Company”)

is pleased to warrant to the original retail purchaser that this product shall be free of manufacturing defects for a period of one year from the original invoice date subject to the following conditions:

1. The product is purchased new from an authorised Insnrng dealership in Australia.
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 required 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 6 months.



Thanks again for purchasing some of our unique Australian  
Designed and Manufactured Pool and Spa Equipment

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

Insnrng loves to design and manufacture  
unique, energy-efficient appliances for  
filtration, treatment and making the  
swimming and bathing experience a joy.  
Our hard working pool and spa appliances  
do require service and maintenance from  
time to time so please contact us to  
schedule a service. If you have ideas of  
how you would like to see your pool or spa  
operate, please feel free to contact us.

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