

# Owner's Manual

**Thank you for purchasing a Trevoli SPA &  
WHIRLPOOL PUMP.**

**TDA35, TDA100, TDA150, TDA200**













## Section 1 Safety Information

Please read this entire manual before operating this equipment. Pay attention to all danger, warning and caution statements in this manual. Failure to do so could result in serious personal injury or damage to equipment. Make sure that the protection provided by this equipment is not impaired. Do not use or install this equipment in any manner other than that specified in the installation manual.




## 1.1 Labels



Read all labels and tags attached to the system. Personal injury or damage to the system could occur if these are not observed.

	<p>Waste electrical and electronic equipment (WEEE). This symbol indicates that you should not discard WEEE in the trash. For proper disposal, contact your local council or refuse/recycling centre.</p>		<p>This symbol indicates not to store any combustible or flammable material close to the system.</p>
	<p>This is the safety alert symbol. Obey all safety messages that follow this symbol to avoid potential injury. When displayed on the equipment, refer to the Owner's Manual for additional safety information.</p>		<p>This symbol indicates that the contents of the transport package are fragile and the package should be handled with care.</p>
	<p>This symbol indicates that a risk of electrical shock and/or electrocution exists.</p>		<p>This symbol indicates safety glasses with side protection are required for protection against UV exposure.</p>
	<p>This symbol indicates the system is under pressure.</p>		<p>This symbol indicates gloves must be worn.</p>
	<p>This symbol indicates the marked item could be hot and should be handled or touched with care.</p>		<p>This symbol indicates the operator must read all available documentation to perform required procedures.</p>

*Note: Some of the labels shown may not be applicable to this manual and/or system.*

## 1.2 Potential Hazards

 <b>DANGER</b>	
<b>Failure to follow these instructions may result in serious injury or death</b>	
  	<ul style="list-style-type: none"><li>• <b>Electric Shock:</b> To avoid possible electric shock, special care should be taken when water is present near the electrical equipment. Unless a situation is encountered that is explicitly addressed by the provided maintenance and troubleshooting sections, do not attempt the repairs yourself. Refer to an authorised service facility.</li><li>• To reduce the risk of electric shock, replace damaged cord immediately.</li><li>• To reduce the risk of electric shock, do not use an extension cord to connect the unit to an electrical supply; provide a properly located outlet.</li><li>• <b>Grounding:</b> This product must be grounded. Connect only to grounding type receptacle protected by a residual current device (RCD). Contact a qualified electrician if you cannot verify that the receptacle is protected by an RCD.</li><li>• <b>DO NOT</b> use this system for any purpose other than the intended use. The use of attachments that are not recommend by the distributor may cause an unsafe condition and void the manufacturer’s warranty.</li><li>• <b>DO NOT</b> install this system where it will be exposed to the weather or temperatures below freezing.</li><li>• <b>DO NOT</b> store this pump where it will be exposed to the elements.</li><li>• <b>DO NOT</b> store this system in a place where it will be exposed to temperatures below zero unless all the water has been drained from it and the power supply disconnected.</li></ul>

 <b>WARNING</b>	
	<ul style="list-style-type: none"><li>• Changes or modifications made to this system without the consent of the manufacturer could render the system unsafe for operation and may void the manufacturer’s warranty.</li><li>• To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.</li><li>• Do not bury cord. Locate cord in a place that will minimise abuse from lawnmowers, hedge trimmers and other equipment.</li><li>• To reduce the risk of injury, don’t run the pump until it has been connected to the pipework.</li><li>• This pump is to be used for spa pools. It is not suitable for swimming pools.</li><li>• Do not install within an outer enclosure or beneath the skirt of a hot tub unless so marked.</li></ul>



## CAUTION



Failure to follow these instructions could result in minor or moderate injury.

- Carefully examine the system after installation. It should not be plugged in if there is water on parts and components that are not intended to be wet.

## NOTICE



- These instructions are for correct installation, and optimum performance of the spa pumps, so they should be read carefully.
- These are single-stage centrifugal pumps designed to operate with compact hydro-massage equipment. They are equipped with a total emptying system to prevent the discharge of residual liquid in each stopping.
- V/Hz esp: See pump name-plate.
- These units are designed to operate with clean water at a maximum water temperature of 50°C.
- Storage temperature: - 10°C to + 50°C. Relative Air Humidity: 95% Max.
- Made of top-quality materials, they are subjected to strict hydraulic and electrical controls and are carefully verified.
- Correct installation is ensured by following these instructions and those of the wiring diagram; otherwise overloads may be produced in the motor. We decline responsibility for any damage caused by not following these instructions.
- Read and understand the Owner's Manual before operating and performing any maintenance on this equipment.

## Section 2 General Information

### 2.1 Installation

The pump must be installed level. Dimensions and position of the pump for supporting and fixing the pump within this space are shown in the installation diagram in Section 5.

The pump must be fixed by screws and fixed to a vibration absorbing base to lower the noise and vibration. Gluing the pump is not permitted.

The pump will get hot while operating. To keep the pump cool the minimum distance between the motor of the pump and the surrounding structure should not be less than 20mm.

The suction pipe of the pump should be as short as possible.

The rating label must be visible after installation.

Parts containing live electricity, except parts supplied with the extra low safety voltage of  $\leq 12V$ , must be inaccessible to any person in the spa.

Class 1 appliances must be permanently connected to fixed wiring. Parts including electrical components, with the exception of remote-control devices, must be located or fixed so that they cannot enter the pool.

### 2.2 Pipe Assembly

The maximum inlet water pressure is  $\leq 0.15MPa$ .

The suction pipes should have a diameter equal to or larger than the discharge pipes. It can avoid the loss of the head and improve the efficiency.

The suction and discharge pipes should not rest on the pump at any time.

Seal all the connectors and unions well. Avoid any water dripping on the motor, as this will cause damage to it.

Should a new hose module be used with accessories for the spa, the old hose module cannot be reused.

### 2.3 Electrical Connection

The electrical installation should have a multiple separation system with contacts incorporating gaps of at least 3mm.

For continued protection against possible electric shock this unit is to be mounted to the base in accordance with the installation instructions:

- The protection of the system should be based on a residual current device (RCD) with a rated tripping current not exceeding 30mA. The supply cable should comply with NZ standards.
- Single-phase motors have built in thermal protection.

The electric connection must be carried out by a registered electrician compliant with the relevant NZ standards.

Be sure that the earth cable connection is correctly secured.

Wires serving as equipotential bonding conductors shall have a cross-sectional area between 2.5mm<sup>2</sup> and 6mm<sup>2</sup> and shall be equipped with the suitable terminal receptacles.

## **2.4 Checks Prior to Initial Start Up**

Verify that the pump shaft turns freely.

Check that the mains voltage and frequency are according to the name plate.

The hydro massage assembly should be equipped with a system to prevent the pump from starting up if a minimum water level is not present.

Check the rotating direction of the motor, which should concur with that indicated on the impellor cover.

If the motor does not start up, try to locate and solve the problem according to the table of most common faults.

**THE PUMP SHOULD NEVER OPERATE DRY.**

## **2.5 Start-Up**

Electrically start the pump only when the suction and discharge pipes are connected to the corresponding inlets and outlets.

Apply power to the motor and adjust the jets to obtain the desired flow.

## Section 3 Troubleshooting Guide

All plumbing must be in accordance with local plumbing codes.

### NOTICE

SYMPTOM	POSSIBLE CAUSE	CHECK
PUMP DOES NOT TURN ON	NO POWER TO PUMP	<ul style="list-style-type: none"><li>- Incoming power to the pump</li><li>- Is circuit breaker on?</li><li>- Is RCD operating properly?</li><li>- Is the air switch plugged in?</li></ul>
	AIR SWITCH DISCONNECTED	<ul style="list-style-type: none"><li>- Is the air switch hose connected to the pump?</li><li>- Is the air switch hose connected to the actuator button on the tub deck?</li></ul>
PUMP NOT PUMPING PROPERLY	BLOCKAGE OR LEAK	<ul style="list-style-type: none"><li>- Jets should be pointed away from the suction inlet so air is not forced into pump suction.</li><li>- Is the in-tub suction inlet blocked or covered?</li><li>- Is there any debris in the pump housing?</li><li>- Is there a leak in the piping or the pump?</li></ul>
	LOW VOLTAGE	<ul style="list-style-type: none"><li>- Is the proper voltage applied to the pump?</li><li>- Is there an extension cord being used?</li></ul>

## Section 4 Maintenance

### WARNING

- Always disconnect power before performing any work on the pump.
- Always shut off the water flow and release the water pressure for servicing.
- Our pumps for hydro-massage facilities do not require any special maintenance or programming. If the pump is to be idle for a long period of time, it is recommended to disassemble, clean and store it in a dry, well-ventilated place. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or a similarly qualified person.

# Section 5 Installation Diagram

## 9. INSTALLATION DIAGRAM

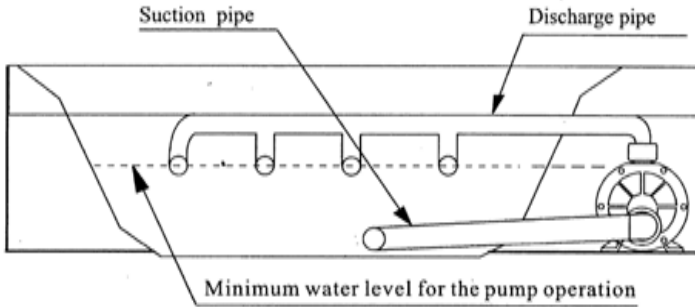


Fig.1

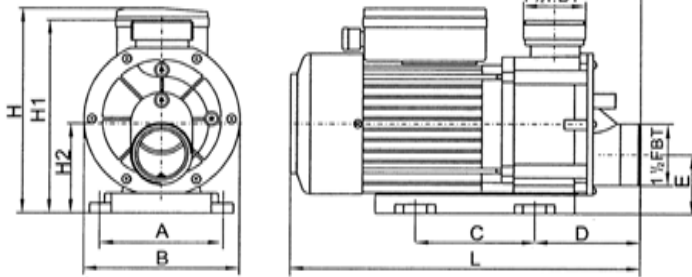
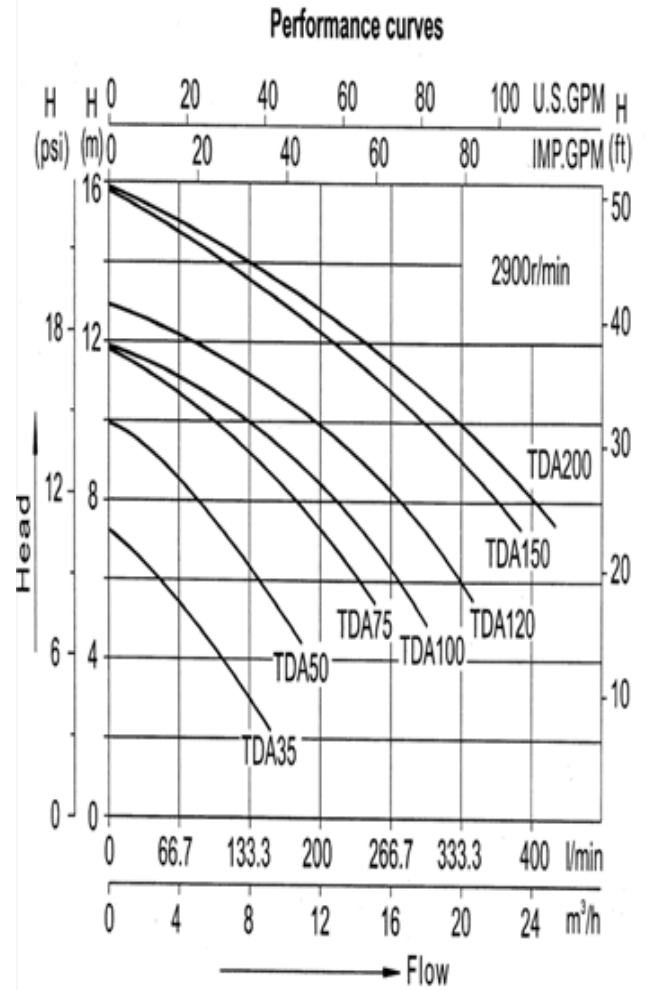


Fig.2

Model	Power (P1)		Shape size(mm)									
	kW	HP	A	B	C	D	E	F	L	H	H1	H2
TDA35	0.25	0.35	100	153	88	100	53	89	317	195	187	83
TDA50	0.37	0.50										
TDA75	0.55	0.75	114	156	120	106	60	86	347	205	194	90
TDA100	0.75	1.0										
TDA120	0.90	1.2										
TDA150	1.10	1.5	124	186	120	127	43	120	402	218	216	95
TDA200	1.50	2.0										







## WARRANTY TERMS & CONDITIONS

**(Subject to the provisions of the Consumers Guarantee Act)**

Vortex Distributors Ltd warrants that the Trevoli Pumps that we distribute are free from defects in workmanship and materials for a period two (2) years from the date of purchase. Subject to the conditions of the warranty, Vortex Distributors Ltd will repair any defective products that are installed / used in New Zealand free of charge at the premises of Vortex Distributors Ltd, or our authorised service agents throughout New Zealand.

1) This warranty excludes transportation costs to and from Vortex Distributors Ltd or its appointed service agents.

2) The warranty does not cover normal wear and tear, replacement of product consumables (mechanical seals, bearing and capacitors) and excludes defects due to non-compliance with installation instructions, neglect or misuse, inadequate protection against freezing, low voltage or use or operation for purposes other than those for which they were designed. Failure to carry out maintenance, using corrosive or abrasive water or other liquids, voltage spikes (including lightning) or having unauthorised persons attempting repairs will render the warranty null and void. For further information regarding the suitability of your intended application please contact us.

3) The warranty only applies to the original owner, purchaser or end user, and is subject to the Consumers Guarantee Act.

4) Our warranty commences from the date of purchase of the above-mentioned pumps. Proof of purchase is required before consideration under warranty is given.

Record your date of purchase in the space below and retain this copy for records.

**Date of Purchase:**

**Model Purchased:**

**Invoice #:**



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