



# ONGA<sup>®</sup>

## VF150

### SUBMERSIBLE PUMP



**An earth leakage or residual current protection device must be fitted to all installations.**

Should you the installer or owner be unfamiliar with the correct installation or operation of this type of equipment you should contact the distributor/manufacturer for the correct advice before proceeding with the installation or operation of this product.

## **1. Continual Product Improvement**

We employ the best engineers both in Australia and around the world to develop new and better ways to take water further.

## **2. Operational Excellence**

There is only one standard that we set ourselves for both product quality and the quality of our service. That standard is excellence... to have no-one better than us at what we do... nothing short of that is acceptable. Our commitment to quality is reinforced with our ISO 9001:2000 accreditation.

## **3. A Fair Price**

Pentair products are neither the cheapest nor the most expensive in their field. Our products do, on the other hand, always represent very good value for money they always have and they always will.

## **4. Our Team of Dealers**

The hand picked authorised Pentair dealer network throughout Australia and worldwide are second to none. We invest considerable time and resources training and supporting.

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# Warnings

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These instructions are a guide only. Users not familiar with pumping equipment should seek advice from people experienced in pump equipment and installation.



The pump operator or owner must be provided with this owner's manual. This must be read before operation, and followed during operation.



Freezing conditions will damage the unit, because as water freezes it expands. Ensure that VF150 is located so that it is not prone to freezing, or ensure that the product is disconnected and dried of water during cold conditions.



VF150 is electrically connected. Ensure that it is isolated from electrical supply during installation and any subsequent service work.



VF150 is designed to be used with clean water in a residential application. Do not use it with alternative fluids, specifically abrasive, corrosive or explosive fluids. Do not install or operate your VF150 in an explosive environment or near combustible matter.



Do not run the OTB450A dry, or with the motor exposed (i.e. out of the water) for long periods. This will harm the pumps seal, and overheat the motor.



Do not lift/move/or carry this pump by the electrical or float switch cables.



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.

Children should be supervised to ensure that they do not play with the appliance.

When used in a swimming pool the following applies:

# Warnings

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- the pump must not be used when people are in the water
- the pump must be supplied through a residual current device (RCD) with a rated residual operating current not exceeding 30 mA.

# Technical Information

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Pump discharge connection:	1 ¼" BSPF thread
Supplied fitting:	1", 1¼" & 1½" hose tail
Power supply:	230V - 1Ph - 50Hz
Voltage limits:	207V - 253V (230V ± 10%)
Maximum flow rate:	150lpm
Maximum head:	7m
Water temperature range:	0°C – 40°C
Power consumption P1:	350W
Current:	1.6 A
Maximum submergence:	6m
IP rating:	IP68

# Construction Materials

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Pump casing:	Cast iron
Impeller:	Polycarbonate
Motor shaft:	Stainless - 304
Mechanical seal:	Carbon ceramic
Oil seal:	NBR
Power cable:	H07RN-F
Float cable:	H07RN-F

# Application

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VF150 is designed for clean water or water containing some soft solids. Typical applications include dewatering pits, drainage, water features and grey water.

Do not use your VF150 for liquids other than clean water. Using corrosive, abrasive or explosive fluids will damage the unit, and may cause personal injury or death.

# Installation

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## Fittings and accessories

Ensure that you have all required fittings and accessories prior to installing your VF150:

- threadseal tape (rigid discharge pipe installations)
- hose clamps (flexible discharge pipe installations)
- cable ties

A larger diameter hose or pipe will offer less resistance to flow, and so give better performance.

## Preparation for installation

### Read these instructions first

Inspect your VF150 for shipping damage. Report any damage to your Pentair Water dealer. Read the Owner's Manual that was shipped with the pump to ensure correct pump installation.

Securely connect a stainless steel wire cable or a rope to the handle of the pump ensuring that the wire/cable exceeds the safe working load of 10kg.

If you are using a rigid discharge pipe, thread the fitting / pipework into the outlet of the pump housing.

If you are using a flexible discharge hose, use hose clamps to secure this to the fitting provided.

Lower the pump into the tank using the rope or wire cable. Lower the pump onto a hard level surface that is elevated from the base of the pit. This is to keep the pump inlet above sediments in the bottom of the tank.

Ensure that the float switch can move freely within the tank – incorrect operation and pump failure may occur if the float switch becomes trapped.

The pump must only be connected to a socket that has been correctly installed in accordance with national wiring regulations and is protected with a residual current device (RCD) with a rated residual operating current not exceeding 30mA. The pump will operate when the float is above the cut in level, and stop operating when the float is below the cut out position.

If the pump must be removed from the tank, use the lifting rope or lifting wire cable to lift it. Do not use the power cable or the float switch to lift the pump.

# Operation

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Connect the pump to a suitable power outlet.

## Operation Check

1. Ensure that the pump is completely submerged.
2. This may require that the tank has a little water fed into it from another source.
3. The float switch will rise, and the pump will start, and empty the pit. As the pit empties, the float switch will fall, and stop the pump.
4. Check that there is adequate pressure and flow from the discharge point.

If there are any variations to these outcomes, please see the troubleshooting section on the following page.

# Trouble Shooting

Symptom	Cause	Remedy	
Pump doesn't start	Float switch isn't in the 'on' position	Wait until there is more water in the pit to start the pump	
	Not enough water in the pit to get the float above level		
	Float is caught on something, and can't rise above level	Ensure that the float can move freely	
	No power supply		Ensure that the pump is connected to a live outlet
			Check fuses and circuit breakers
	Pump is blocked	Disconnect the pump from the power outlet, and check the pump housing and discharge for foreign matter	
No water from pump	Blockages in the pump or discharge	Disconnect the pump from the power outlet, and check the pump housing and discharge for foreign matter	
	Excessive lift	Ensure that the height that you are trying to lift water is within the pump's capacity. A larger pump may be required.	
	Not enough water in the pit to pump	Wait until there is more water in the pit. Ensure that float switch is operating freely	
Pump will not stop, even though there is little water in the pit.	Float switch is trapped in the "up" position	Ensure that the float switch can operate freely	
	Float switch is fused "on"	Replace the float switch	

Symptom	Cause	Remedy
Pump runs intermittently: Thermal protection inside the pump is tripping and resetting	The pump is not completely submerged	Ensure pump is covered with water
	Water temperature is too high	Ensure that water temperature limits are observed.
Pump runs intermittently	When the pump shuts off, water in the discharge line is running back into the pit, lifting the float switch.	Fit a non-return valve at the pump discharge so that water cannot return to the pit

# Service & Maintenance

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You should regularly inspect your Onga VF150 for any damage or deterioration due to either fair wear and tear or misuse.

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

It is recommended that you periodically check the pump's pressure and current draw. A decrease in pressure is a symptom of pump wear caused by grit or silt in the water. An increase in current draw is a symptom of abnormal mechanical friction in the pump or motor that is caused by solid material being lodged within the pump. In the event either of these symptoms occur the pump must be serviced by the manufacturer, its service agent or similarly qualified person in order to avoid pump failure and/or a hazard.



Pumping water containing solids will reduce the life of the pump, and may affect warranty.



Pumping chemicals or agricultural products voids warranty.



Do not pump hydrocarbons with this pump.



If the pump is not going to be used for a long period of time, it should be completely emptied, rinsed with clean fresh water, and stored in a dry place.



Always use original service parts as supplied and recommended by Pentair. Failure to do so may void warranty.

# Warranty

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Pentair Water warrants that, when this product is correctly used for the purpose it was designed that it will be free of material and manufacturing defects at the time of the original purchase.

**This warranty is limited to the cost of the product and does not cover third party costs or consequential losses including the costs of electricians, plumbers, etc. unless first authorised in writing by Pentair Water.**

## **TERMS AND CONDITIONS APPLICABLE INTERNATIONALLY**

This Pentair Water product is warranted for 12 months for all parts from the date of the first retail purchase. Should any parts fail as a result of such defects within the specified period, the part will be replaced free of charge. (This does not include travel charges, removal and reinstallation charges.)

## **TERMS AND CONDITIONS APPLICABLE IN AUSTRALIA AND NEW ZEALAND**

**1) YOU SHOULD CAREFULLY READ THE INSTRUCTIONS SUPPLIED PRIOR TO USING THIS PENTAIR WATER PRODUCT.**

**This product is to be installed and operated in accordance with the instructions provided. This warranty will not apply if it is used in a manner other than in accordance with the instructions.**

What the warranty covers:

**Where this Pentair Water product is sold for personal, domestic or household use, Pentair Water warrants this product to be free of defects in material and workmanship for 12 months from the date of the first retail purchase. If a product proves to be defective in material or workmanship during the warranty period, then Pentair Water will, at its sole option, repair or replace the product with a like product. Replacement product or parts may include re-manufactured or refurbished parts or components.**

**Where this Pentair Water product is sold for commercial use the warranty shall be for a period of six months from the date of purchase by the end user.**

Who the warranty protects:

**This warranty is valid only for the initial retail purchaser.**

**What the warranty does not cover:**

**1) Damage, deterioration or malfunction resulting from:**

- a) accident, misuse, negligence, fire, water, lightning, or other acts of nature, unauthorised product modification or failure to follow instructions supplied with the product;**
- b) repair or attempted repair by anyone not authorised by Pentair Water;**
- c) any damage to the product due to shipment;**
- d) removal or installation of the product;**
- e) causes external to the product such as electric power fluctuations or failure;**
- f) use of supplies or parts not meeting Pentair Water specifications;**
- g) normal wear and tear;**
- h) water ingress or exposure to abnormal corrosive conditions or “run dry” conditions;**
- i) any other cause which does not relate to a product defect.**

**2) Damage caused to the product as a consequence of use of another manufacturer’s product used in conjunction with Pentair Water and affiliate companies.**

**3) Ingress of insects into the unit causing electrical malfunction is not warranted, care should be taken to avoid this occurrence.**

Spare Parts:

**Spare parts are usually stocked for a reasonable period of time following last production.**

# Warranty (continued)

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Pentair Water does not warrant that spare parts will be made available for the whole of the reasonable period and reserves its right to cease supplying spare parts or providing facilities for repair of spare parts in circumstances which are beyond its control including the requirement to remove spare parts from sale as a consequence of changes in the law or otherwise as it deems fit.

When purchased in Australia as part of a consumer transaction as defined in the Australian Consumer Law the following statement applies:

**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 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.**

How to get service:

In Australia please contact 1800 664 266 In New Zealand please contact 0800 664 269 Claims under this warranty must give evidence of date of purchase, model and serial number of the product and the claimants name, address and telephone number.

**1) To obtain warranted service, you will be required to provide to either Pentair Water state office or recommended service agent:-**

- a) the product;**
- b) confirmation in writing specifying the nature of your claim;**
- c) proof providing date of original purchase;**
- d) full contact details including name and address;**
- e) the serial number of the product if any.**

**2) The product is to be forwarded by the customer freight paid to an Authorised Pentair Water service agent.**

**Infield service by an authorised Pentair Water Service Agent will incur a travel, removal & reinstallation fee to adjudicate on warranty issues.**

**3) Warranty service work will be denied or suspended, on equipment not readily accessible to service personnel, that is products that are behind barriers, tiled or bricked in, installed in roofs or second story external walls including inaccessible power points.**

**4) Any service of any product which is found to be faulty due to abuse, fair wear & tear, misuse or improper installation will be charged to the owner at the service agents current servicing hourly rate.**

Limitation of implied warranties:

To the extent permitted at law, Pentair Water excludes any express or implied warranties other than those contained in this owner's manual.

Exclusion of damages:

Subject to any rights or remedies under any applicable consumer protection laws, PENTAIR WATER'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT.

PENTAIR WATER SHALL NOT BE LIABLE FOR:

- 1) DAMAGE TO OTHER PROPERTY CAUSED BY ANY DEFECTS IN THE PRODUCT, DAMAGES BASED UPON INCONVENIENCE, LOSS OF USE OF THE PRODUCT, LOSS OF TIME, LOSS OF PROFITS, LOSS OF BUSINESS OPPORTUNITY, LOSS OF GOODWILL, INTERFERENCE OF BUSINESS RELATIONSHIPS, OR OTHER COMMERCIAL LOSS, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.**
- 2) ANY OTHER DAMAGES, WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE.**
- 3) ANY CLAIM AGAINST THE CUSTOMER BY ANY OTHER PARTY.**

# Warranty (continued)

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Effective law:

**This warranty gives you specific legal rights, and you may also have other rights under applicable consumer protection laws. Nothing in this warranty limits or restricts, or is intended to derogate from, any right or remedy which the purchaser or ultimate user of the product may have pursuant to the Australian Consumer Law, New Zealand Sale of Goods Act, Consumer Guarantees Act, Fair Trading Act or any other relevant and applicable New Zealand legislation or authority and where necessary shall so be read and construed.**

## IMPORTANT

Please attach your sales invoice/docket here as proof of purchase should warranty service be required.

Please do not return Warranty - Retain for your records.

Purchased From .....

Purchase Date..... Serial No..... Model No.....



### Head Office

#### Pentair AU/NZ:

1-21 Monash Drive,  
Dandenong South, VIC 3175

### Australia

National customer service: Phone :1300 137 344  
Fax :1800 006 688  
National dealer locator: Phone :1800 664 266

Email: [au.sales@pentair.com](mailto:au.sales@pentair.com)  
Web: [www.pentair.com.au](http://www.pentair.com.au)

### New Zealand

National customer service: Phone :0800 654 112  
Fax :0800 806 642  
National dealer locator: Phone :0800 664 269

Email: [nz.sales@pentair.com](mailto:nz.sales@pentair.com)  
Web: [www.pentair.co.nz](http://www.pentair.co.nz)

### International Australia/New Zealand

Phone :+61 3 9709 5800  
Fax :+61 3 9709 5888

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