



Residential



Agricultural



Process



onga®

Pentair Water

Owner's Manual



VF150

Should 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 the product.

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



Rainbow Pool Products

PO Box 2388, Mansfield Qld 4122

Telephone STD 61-7-3849 5385

Facsimile STD 61-7-3849 5384

Email: info@rainbowpoolproducts.com.au

Web: www.rainbowpoolproducts.com.au

Relax - you've bought an Onga ...

Congratulations on your decision to purchase an Onga product. Onga is one of the best known brands in its field, with a proud local and International reputation.

Onga is a brand for reliability, value for money and technological innovation. You will find Onga product wherever people need to move water in 3 broad markets covering:



Residential

Technologically advanced solutions for moving and treating water in the Home, Garden, Pool and Spa.



Innovative Stock and Crop water management solutions for Primary Industries.

Agricultural



Process

Water movement products for Building services, Emergency services and Original Equipment manufacturers.

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*
Onga 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 Onga dealer network throughout Australia and worldwide are second to none. We invest considerable time and resources training and supporting them through the Onga Training Academy.



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These instructions are a guide only. Users not familiar with pump-ing 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, as ice expands as it freezes. 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 rain water in a residential application. Do not use it with alternative fluids, specifically abra-sive, corrosive or explosive fluids. Do not install or operate your VF150 in an explosive enviroment or near combustibile matter.



Do not run the VF150 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.

Technical Information

Pump Discharge connection:
Supplied fitting:
Power Supply:
Voltage limits:
10%)

1 1/4" BSPF thread
1 1/4" Hose Barb
230V - 1Ph - 50Hz
209V - 253V (230V ±

Construction

Impeller:
Pump housing:
Shaft:
Mechanical seal:

Polycarbonate
Cast Iron
Stainless - 304
Carbon ceramic
(dual seal)
NBR
H07RN-F
H07RN-F

Oil seal:
Power Cable:
Float cable



Maximum flow rate:
Maximum head:
Water temperature range:
Power consumption
FLA (Full load amps):
Start current:
Maximum submergence:

150 lpm
7m
0°C – 40°C
180W
1.75A
9.5A
6m

Application

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

Preparation for installation

Read these instructions first

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

Connect a stainless steel wire cable or a rope to the handle of the pump.

If you are using a hard discharge pipe, thread this 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 pit 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 pit.

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

Connect the power plug to a suitable outlet. The pump will operate when the float is higher than level, and stop operating when the pump float is in the low position.

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

Fittings and accessories

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

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

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

Operation

Connect the pump to a suitable power outlet.

Operation Check

Put a small amount of water in the pit (if feasible) to cover the pump. 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.

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.

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
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
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

Under normal conditions, your VF150 submersible pump does not require any maintenance.

In order to avoid possible failures, it is advisable to check periodically the 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, caused by solid material being lodged within the pump.



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 Onga. Failure to do so may void warranty.

Pentair Water Product Warranty

Pentair Water warrants that, when this product is used for the purpose it was designed, is correctly housed and vented against weather, vermin, dust etc., 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 including the costs of electricians, plumbers, etc. unless authorised by Pentair Water.

TERMS AND CONDITIONS APPLICABLE INTERNATIONALLY

How long the warranty is effective internationally

1) This Pentair Water product is warranted for 24 months for all parts from the date of the first consumer 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:

Pentair Water warrants its products to be free of defects in material and workmanship during the warranty period. 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. How long the warranty is effective:

- 1) This Pentair Water product is warranted for 24 months for all parts from the date of the first consumer purchase.**
- 2) Where this Pentair Water product is sold for commercial application as defined in the relevant Trade Practices and Consumer Protection legislation 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 consumer 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.

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.

Pentair Water Product Warranty (Continued)

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. Warranty service by an authorised Pentair Water Service Agent will incur a travel, removal & reinstallation fee to adjudicate on warranty issues. Authorised warranty will be free of charge for the first 24 month period from date of the first consumer purchase.**
- 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:

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION CONTAINED HEREIN INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Exclusion of damages:

PENTAIR WATER'S LIABILITY IS LIMITED TO THE COST OF REPAIR OR REPLACEMENT OF THE PRODUCT. ONGA 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.**

Effective law:

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. 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 Australian state and/or Australian federal consumer protection legislation, 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.



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