



# BLAZEMASTER

## B & BM SERIES ENGINE DRIVE PUMPS FIRE FIGHTING & WATER TRANSFER

### OWNER'S MANUAL



#### **IMPORTANT:**

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

# PENTAIR ONGA BLAZEMASTER ENGINE DRIVE PUMPS

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## **Relax - You've Bought An Onga ...**

**Congratulations on your decision to purchase an ONGA product. ONGA is one of the best known companies in its field, with a proud local and international reputation.**

In fact, wherever people need to move water from one point to another - whether in leisure industry, horticulture, agriculture or in and around the home - ONGA is a byword for reliability, value for money and technological innovation. So why does ONGA lead its field? Here are a few simple reasons ...

### **1. Continual Product Improvement**

ONGA employ the best engineers both in Australia and around the world to develop new and better ways to pump and handle water.

### **2. Dedication to Quality**

There is only one standard that we at ONGA 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.

### **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**

We believe ONGA's hand picked authorised dealer network throughout Australia and worldwide are second to none. We invest a huge sum training them and supporting them. They are your link to us, and we value their expertise and trust.

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Pentair Australia are proud to receive **Australian Made** certification on the single and twin impeller Onga Blazemaster series. (pump end only).



## WARNINGS

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	These instructions are a guide only. Users not familiar with pumping equipment should seek advice from people with experience in pump equipment and installation.
	The pump operator must be provided with this owner's manual and the engine manufacturer's owner's manual. These must be read before operation and followed during operation.
	No oil is supplied with the engine. Oil must be added in accordance with the engine manufacturer's instructions
	Do not run the pump without liquid in the casing. Always fill the pump casing with liquid and prime the pump before use (see page 5). Do not allow the pump to continue running once the water supply is empty or has been shut off.
	Do not use the pump in an enclosed area – engine exhaust will build up and cause asphyxiation.
	Do not operate the pump in an explosive environment or near combustible matter.
	Ensure the pump is on a stable footing before operating. Please refer to the engine manufacturer's owner's manual.
	After use, the engine will be very hot. Do not touch the engine. During use the engine will become very hot. Make sure that you do not touch the engine before it has completely cooled down.

The life of engine will be greatly shortened when operating with throttle fully opened for extended period time and result in premature failure. For continuous duty applications such as water transfer, irrigation and tank filling, the engine should not be operated at above 3000 rpm, throttle should be positioned at no more than  $\frac{3}{4}$  maximum.

## MODELS & TECHNICAL INFORMATION

Model	Hp Nom.	Engine Model	Suction (BSP) Male	3 Way Dis. (BSP) Male	Drain Plug (BSP) Male	Shaft Thread	Volume Fuel Tank	Fuel Type
B55H	5.5	Honda GX160	1.5"	1",1",1.5"	1/4	5/8" UNF	2.5 Litres	Petrol
B65H	6.5	Honda GX200	2"	1",1",2"	1/4	5/8" UNF	3.6 Litres	Petrol
B65HE	6.5	Honda GX200 (Electric Start)	2"	1",1",2"	1/4	5/8" UNF	3.6 Litres	Petrol
B90H	9.0	Honda GX270	2"	1",1",2"	1/4	1" UNF	6.0 Litres	Petrol
B55BS	5.0	Briggs & Stratton 5.0HP	1.5"	1",1",1.5"	1/4	5/8" UNF	3.8 Litres	Petrol
B65BS	6.0	Briggs & Stratton 6.0HP	2"	1",1",2"	1/4	5/8" UNF	3.8 Litres	Petrol
B48Y	4.8	Yanmar L48E	1.5"	1",1",1.5"	1/4	3/4" UNF	2.5 Litres	Diesel
B48YE	4.8	Yanmar L48E (Electric Start)	1.5"	1",1",1.5"	1/4	1" UNF	2.5 Litres	Diesel
B70YE	7.0	Yanmar L70AE (Electric Start)	2"	1",1",2"	1/4	1" UNF	3.5 Litres	Diesel
B10YE	10.0	Yanmar L100AE (Electric Start)	2"	1",1",2"	1/4	5/8" UNF	5.5 Litres	Diesel
BM55H	5.5	Honda GX160	1.5"	1",1",1.5"	1/4	5/8" UNF	2.5 Litres	Petrol
BM65H	6.5	Honda GX200	2"	1",1",2"	1/4	5/8" UNF	3.6 Litres	Petrol
BM65HE	6.5	Honda GX200 (Electric Start)	2"	1",1",2"	1/4	1" UNF	6.0 Litres	Petrol
BM90H	9.0	Honda GX270	2"	1",1",2"	1/4	1" UNF	6.0 Litres	Petrol
BM90HE	9.0	Honda GX270 (Electric Start)	2"	1",1",2"	1/4	5/8" UNF	3.8 Litres	Petrol
BM55BS	5.0	Briggs & Stratton 5.0HP	1.5"	1",1",1.5"	1/4	5/8" UNF	3.8 Litres	Petrol
BM65BS	6.0	Briggs & Stratton 6.0HP	2"	1",1",2"	1/4	5/8" UNF	3.8 Litres	Petrol
BM65BSE	6.0	Briggs & Stratton 6.0HP (Electric Start)	2"	1",1",2"	1/4	1" UNF	3.8 Litres	Petrol
BM10BSE	10.0	Briggs & Stratton 10.0HP (Electric Start)	2"	1",1",2"	1/4	1" UNF	3.8 Litres	Petrol
BM70YE	7.0	Yanmar L70AE (Electric Start)	2"	1",1",2"	1/4	1" UNF	3.5 Litres	Diesel
BM10YE	10.0	Yanmar L100AE (Electric Start)	2"	1",1",2"	1/4	1" UNF	5.5 Litres	Diesel

## MODELS & TECHNICAL INFORMATION

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### TECHNICAL DATA

<b>Primary Port:</b>	2" BSP
<b>Max Working Pressure:</b>	1300 kpa
<b>Water Temperature Range:</b>	5°C – 40°C
<b>Max amb Temperature:</b>	40°C as per engine manufacturer's data

### OPTIONAL ACCESSORIES

<b>Rollover Frames</b>	Part Number 801372K [up to 9HP Petrol] Part Number 801373K [9HP +, and diesel]
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#### Ball Valves

- 1" BSP Part Number 703033
- 1 1/2" BSP Part Number 801373K [9HP +, and diesel]
- 1 1/2" BSP Part Number 703031
- 2" BSP Part Number 703030
- Fire Fighting Kits Part Number 701124 & 701126 comprising
  - 1 X 6 metre grey PVC Suction Hose 38mm I.D, (701124 kit)
  - 1 x 6 metre grey PVC Suction Hose 50mm I.D, (701126 kit)
  - 2 X 10 metre Yellow PVC Delivery Hose 20mm I.D
  - 2 X Adjustable Fire Nozzles
  - Nuts & Tails
  - Suction Strainer PVC
  - Stainless Steel Hose Clamps

## APPLICATION

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If the pump is to be used for pumping liquids other than water, ask your pump supplier for advice as to which model is best suited to your needs. Special models with viton elastomers are available for pumping aggressive liquids.

## **a. Preparation for Operation**

Read these instructions first. Inspect your pump for shipping damage. Report any damage to your ONGA dealer. Fill the engine crankcase with oil, as per the engine manufacturer's owner's manual.

Fill the fuel tank with **unleaded petrol** (petrol engine models) or **diesel** (diesel engine models), as per the engine owner's manual. Make sure the suction piping is free of air leaks and is laid so that there can be no air locks (see c. Suction). Fit a strainer to the suction line.

## **b. Pump Protection**

Warranty of these pumps is void unless they are operated in accordance with this owner's manual and the enclosed engine manufacturer's owner's manual. The pumps should be protected from the weather, floods, chemicals, dust, vermin, insects etc. If the pump has a fixed location; it should be housed in a weather proof, well-vented enclosure so that engine heat and exhaust can escape. When bolted down flexible mounts should be used. Depending on application they do not have to be bolted down.

## **c. Suction**

To maintain optimum performance from your pump, the suction pipe should be:

- **Kept to the shortest length possible – place the pump as close to the water as possible.**
- Reinforced crush resistant (non-collapsible) hose or pipe.
- All fittings should be air tight.
- Flexible pipes should rise gently from the water source to the suction / inlet port without excessive dips and sharp angles, to avoid air locks.
- Pipes should be equal to or larger than the diameter of the suction / inlet port.
- Suction strainers should be fitted to prevent foreign matter entering the pump.
- Where practicable, the installation and use of a suction float will aid in the performance of your pump, by keeping suction away from the debris on the bottom of the dam or river.
- **Ensure that the suction is completely submersed.**

## INSTALLATION

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### d. Discharge

The length and diameter of the discharge hoses will affect the pressure and flow rate at which your pump operates. Care should be taken when selecting discharge pipe/hoses and fittings. Pressure ratings of all components must exceed the maximum pressure of the pump by an appropriate safety factor. We recommend the use of the Onga's own hose kit

- Suitable for either flexible or rigid piping.
- Models include 1" BSP or NPT side outlets.
- Models include 1½" or 2" BSP or NPT front outlets. All have 2" priming inlets.

## OPERATION

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### IMPORTANT

Ensure that your pump is filled with water before operating.

Connect suction piping, and ensure that the suction is completely submerged. Remove the priming plug and fill the pump with water. Your pump is equipped with a suction flap valve and is capable of drawing air out of normal size suction pipes or hoses. Replace the priming plug – screw it down tightly to seal.

### ***Follow Engine Manufacturer's Instructions for starting the engine.***

If only a small amount of water is pumped, and then flow stops, switch off the engine and check the suction pipe/hose assembly for possible air leaks. Repair leaks before starting priming procedure again.

Blazemaster single stage pumps, when filled with water, will gradually draw air out of the suction line to a maximum prime depth of 6m. The Blazemaster Twin models will prime to a maximum depth of 3.5m. If priming a long or larger diameter pipe, additional water may have to be added to the pump at 3-minute intervals. Switch off the engine each time.



### IMPORTANT

Do not remove any caps while the pump is operating.



## SERVICE & MAINTENANCE

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



Pumping chemicals or agricultural products may affect the warranty. Please ask your ONGA dealer about viton seals.



Do not pump hydrocarbons with this pump.



The pump should be drained after use and flushed out with clean, fresh water. Flushing will extend the pump's life.



Store your pump in a dry location.



Service the engine as recommended in the engine manufacturer's owner's manual.



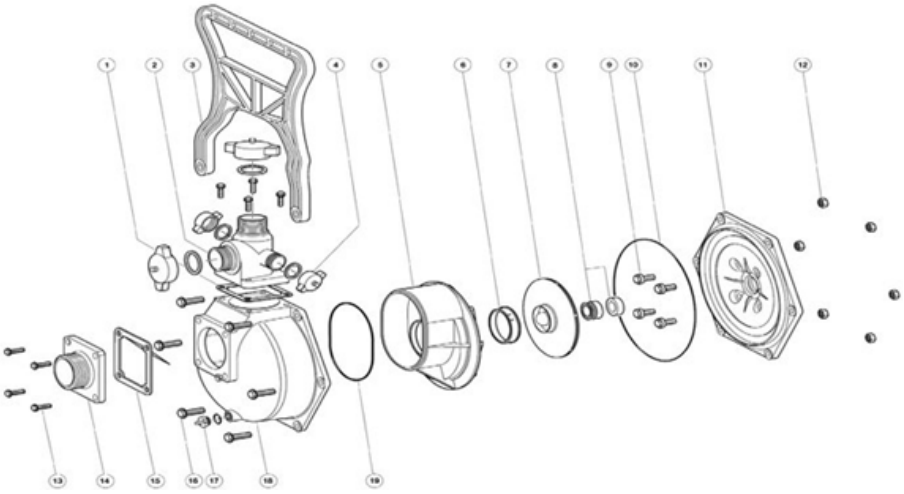
Drain the fuel if the pump will not be used for some time (more than two months). The engine will be difficult or impossible to start if the fuel is stale.



Do not refuel the engine while the pump is operating.

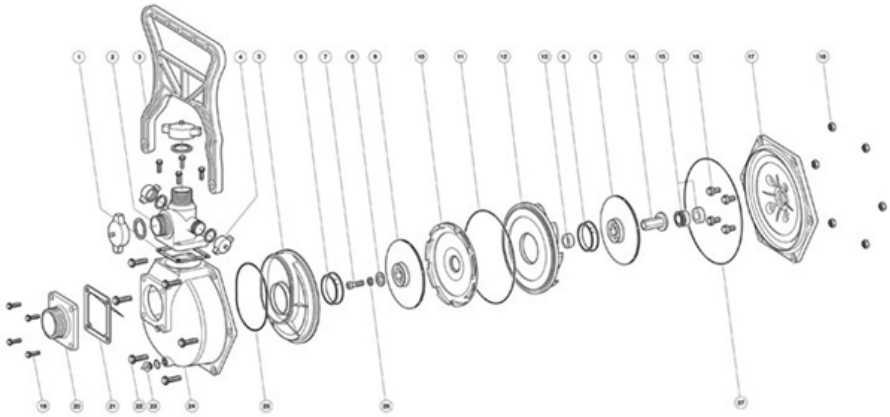
Always use original service parts as supplied and recommended by ONGA and the engine manufacturer. Failure to do so may void warranty.

# EXPLODED DIAGRAM - BLAZEMASTER INTERNAL PARTS



Item	Description	Qty.	Item	Description	Qty.
1	Gasket - Discharge	1	10	O'ring - Casing	1
2	Flange - Discharge 1½" BSP	1	11	Yoke ¾" Blazemaster	1
	Flange - Discharge 2" BSP	1		Yoke 1" Blazemaster	1
3	Handle	1	12	Nuts - Casing (Set/12)	6
4	Cap & Washer 2" BSP	As Required		Nut - Bush 3/8" (Handle)	2
	Cap & Washer 1.5" BSP	As Required	13	Screw (Set/8) M8	8
	Cap & Washer 1" BSP	2	14	Flange - Suction 1 1/2" BSP	1
5	Diffuser	1		Flange - Suction 2" BSP	1
6	Wear Ring	1	15	Gasket - Clacker Assy	1
7	Impeller - ¾" Shaft	1	16	Bolts Casing	6 (4 if handle)
	Impeller - 5/8" Shaft	1		Bolts Casing	2
	Impeller - 1" Shaft	1	17	Plug ¼" Drain (Including Oring)	1
8	Seal - Mechanical ¾"	1	18	Casing	1
	Seal - Mechanical 1 1/2"	1	19	O'ring Difuser	1
	Spacer - Yoke Bolt (Not Shown)	4	NS	Strap - Cap (Triple)	1
9	Bolt & Seal Kit (Set/12)	4	NS	Anti Vibration Feet (Set/2)	1
	Bolt & Seal Kit (Set/12) B48Y Only	4	NS	Bracket Support	1

# EXPLODED DIAGRAM - BLAZEMASTER TWIN INTERNAL PARTS



Item	Description	Qty.	Item	Description	Qty.
1	Gasket - Discharge	1		Stub Shaft 1"	1
2	Flange - Discharge 1½" BSP	1	15	Seal - Mechanical ¾"	1
	Flange - Discharge 2" BSP	1		Seal - Mechanical 1"	1
3	Handle	1		Spacer - Yoke Bolt (Not Shown)	4
	Nut - Bush ¾" (Handle) Not shown	2	16	Bolt & Seal Kit (Set/12)	4
4	Cap & Washer 2" BSP	As Required	17	Yoke ¾" Blazemaster	1
	Cap & Washer 1½" BSP	As Required		Yoke 1" Blazemaster	1
	Cap & Washer 1" BSP	2	18	Nuts Casing (Set/12)	6
5	Suction Cover	1	19	Screw (Set/8) M8	8
6	Wear Ring	2	20	Flange - Suction 1½" BSP	1
7	Screw - Impeller	1		Flange - Suction 2" BSP	1
8	Washer Impeller M10 x 30	1	21	Gasket - Clacker Assy	1
	Washer Impeller M10 x 40 (Not Shown)	1	22	Bolts - Casing	6 (4 if handle)
9	Impeller - 5/8" Shaft	2		Bolts - Casing	2
	Impeller - 1" Shaft	2	23	Plug ¼" Drain (Including Oring)	1
10	Diffuser - Interstage	1	24	Casing	1
11	O'ring - Diffuser Interstage	1	25	O'ring Suction Cover	1
12	Diffuser - 2nd Stage	1	26	Washer (Spring) - Impeller	1
13	Spacer Sleeve 5/8" & ¾" Shaft	1	27	O'ring - Casing	1
	Spacer Sleeve 1" Shaft	1	NS	Strap - Cap (Triple)	1
14	Stub Shaft 5/8"	1	NS	Anti Vibration Feet (Set/2)	1
NS	Bracket Support	1			

# WARRANTY

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Pentair Australia Pty Ltd ACN 004 856 204 and its related entities ("Pentair") warrants that, subject to the terms and conditions below, when its products are used for the purpose for which they were designed, they will be free of material and manufacturing defects at the time of the original purchase. Any defects found in the products should be reported as soon as the fault is discovered.

In Australia:

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.

## **TERMS AND CONDITIONS APPLICABLE IN AUSTRALIA AND NEW ZEALAND YOU MUST CAREFULLY READ THE INSTRUCTIONS SUPPLIED PRIOR TO USING ANY PENTAIR PRODUCT.**

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

### **1. What does the warranty cover**

Pentair 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 will, at its sole discretion repair or replace the product with a like product. Replacement products or parts may include re-manufactured or refurbished parts or components.

### **2. How long the warranty is effective internationally**

This Pentair 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 a defect in material or workmanship within the specified period, the part will be replaced free of charge. (This does not include travel charges, removal and reinstallation charges).

### **3. How long the warranty is effective locally**

i) Please refer to the Warranty Schedule detailing the warranty period and coverage.

ii) All Pentair products warranties commence from the date of first consumer purchase.

iii) Where this Pentair product is sold for business purposes as defined in the relevant consumer protection law the warranty shall be for a period of six months from the date of purchase by the consumer.

### **4. Who the warranty protects**

This warranty is valid only for the consumer purchaser.

### **5. How to claim the warranty**

To claim under this warranty the consumer should immediately cease using the goods when an alleged product issue arises. For infield service, the consumer should promptly notify a Pentair local dealer, within thirty (30) days after discovery of an alleged product issue. Detailed warranty claim information will be requested at this time and must be supplied by the consumer. For a workshop warranty, the consumer should promptly return the product to a Pentair local dealer, within thirty (30) days after discovery of an alleged product issue. Detailed warranty claim information will be requested at this time and must be supplied by the consumer. Your Pentair Service Agent may be found here: <http://www.onga.com.au/dealerlocator>

### **6. What the warranty does not cover**

- i. Damage, deterioration or malfunction resulting from:
  - a. Accident, misuse, negligence, fire, water, lightning, or other acts of nature, modification or failure to follow instructions supplied with the product;
  - b. Repair or attempted repair by anyone not authorized by Pentair;
  - 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 specifications;
  - g. Normal wear and tear,
  - h. Product consumables. i.e. mechanical seals, impellers, bearings, rings gaskets and electrical cables.
- ii. Any unauthorized changes or tampering or partial disassembly of the product;
- iii. Water ingress or exposure to abnormal corrosive conditions, abrasive chemicals or "run dry" condition
- iv. Any other cause which does not relate to a product defect.
- v. Damage caused to the products arising from the use of another manufacturer's product.
- vi. Ingress of insects or invertebrates into the unit causing electrical malfunction. Care should be taken to avoid this occurrence.
- vii. Products other than products supplied by Pentair.
- viii. Products that are not installed in accordance with the owner's manual.
- ix. Products that are not installed by a suitably qualified person trained in the installation and operation of such products.
- x. General Service and Maintenance

### **7. Limitation of Liability**

To the extent permitted by law, Pentair's liability for breach of a guarantee implied by any law in relation to goods Pentair supplies that are not of a kind ordinarily acquired for personal, domestic or household use or consumption, except for implied guarantees as to title to goods supplied, a purchaser's right to undisturbed possession of goods supplied and undisclosed securities over goods supplied, is limited to the replacement of the goods, the payment of the cost of replacing the goods or the payment of the cost of acquiring equivalent goods.

### **8. Exclusion of damages**

To the extent permitted by law, Pentair liability is limited to the cost of the repair or replacement of the product.

## **Pentair will not be liable for:**

- i. 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.
- ii. Any other damage arising as a result of weather or natural disaster.
- iii. Any claim against the customer by any other party.

## **9. Proof of purchase**

Pentair reserves the right to reject any warranty if no proof of purchase is provided. A valid proof of purchase will be requested by the Service Agent prior to any works being carried out by the Pentair Service Agent.

### **A valid proof of purchase includes the following:**

- i. Tax Invoice from place of purchase.
- ii. Tax Receipt from place of purchase.
- iii. Certificate of Occupancy.

## **10. Service Calls**

- i. All infield service calls will require the consumer to provide the service agent with either a deposit which is fully refundable upon acceptance of the warranty claim or credit card details as a form of security.
- ii. The consumer will only be charged for services where the Pentair Service Agent determines the product failure is a result of, or directly relating to, any of the items listed in section 5 of these terms & conditions.
- iii. Refusal to provide either a deposit that is fully refundable upon assessment or Credit Card details for security may result in the Pentair Service Agent refusing to attend the Service Call.
- iv. Any warranty application submitted that does not contain the consumers details may result in the Pentair Service Agent refusing to attend the Service Call.
- v. Any product warranty application that involves mains or gas lines the Service Agent will require a Certificate of Compliance for the original installation.
- vi. In-field service will not be provided to consumers who purchased their product via the internet. The consumer shall return the product to the place of purchase, a Pentair Service Agent or shall accept the charges related to in-field service in order to receive warranty service on the product.

## **11. Spare Parts**

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

Pentair 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 sales as a consequence of changes in the law or otherwise at its absolute discretion.

## **12. General Maintenance**

It is the responsibility of the consumer to ensure the product is free: from general debris; any foreign matter; and weather exposure. For general service & maintenance please refer to your nearest Dealer and or Service Agent.

## **13. Definitions**

### **13.1 Infield warranty**

- i. As per the attached warranty schedule any Pentair product that carries an infield warranty means that the service agent is required to attend the site of the faulty product, subject to clause 13.1(ii).
- ii. Any infield issues determined not to be covered by this warranty will result in all associated costs for the infield service provided to be invoiced to the consumer and those costs will not be covered by the Pentair product warranty.
- iii. Any travel associated to the Pentair Warranty Claim will be covered up to 100km round-trip from place of purchase. Any kilometres outside this range will be payable by the consumer.

### **13.2 Workshop warranty**

As per the attached warranty schedule any Pentair product that carries a workshop only warranty means; the faulty product must be taken or freighted at consumer cost; to the nearest Pentair Service Agent. The consumer is able to request an infield service / repair; however this would be at the consumer's own cost.

Any workshop issues determined to be no fault / cause of the Pentair product; will result in all associated costs to the service provided; being invoiced to the consumer and will not be covered under the Pentair product warranty.

### **13.3 Replacement warranty**

As per the attached warranty schedule any Pentair product that carries a replacement warranty means; that the service agent will fully replace the faulty Pentair product at no cost to the consumer if determined warrantable.

The faulty product must be taken to the closest Pentair Service Agent for replacement warranty otherwise all costs associated will be at the consumers cost and is not covered under the Pentair product warranty.

## **14. Effective law**

This warranty gives you specific legal rights, and you may also have other rights which vary depending on where the product was purchased and the consumer protection or other law that applies in that place. 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 federal or 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 in light of the applicable legislation.

The terms of this warranty policy maybe inconsistent with the warranty statement in the products owner's manual. To the extent of any inconsistency the terms of this warranty shall prevail.

**These terms and conditions must be read in conjunction with the relevant product identified in the Warranty Schedule.**

**A copy of the warranty schedule is available online at: <http://www.onga.com.au/terms-of-use/>**



**IMPORTANT**

Please attach your sales invoice/docket here as proof of purchase should warranty service be required. Please do not return warranty form to Pentair Australia. Retain for your records.

<b>PURCHASED FROM:</b>
<b>PURCHASE DATE:</b>
<b>SERIAL NO:</b>
<b>MODEL NO:</b>



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