

OWNER'S MANUAL



ONGA®

For the installation, operation and service of

LCT65VR

ENGINE DRIVE TRANSFER PUMP



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



ONGA®

Congratulations on your decision to purchase an Onga product. Onga is one of the best know 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 and pool.

AGRICULTURAL



Innovative stock and crop water management solutions for primary industries.

PROCESS



Water movement products for building services, emergency services and original equipment manufacturers.



ONGA®

STANDS FOR:

CONTINUAL PRODUCT IMPROVEMENT

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

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 and Australian Standards accreditations.

EXCEPTIONAL VALUE

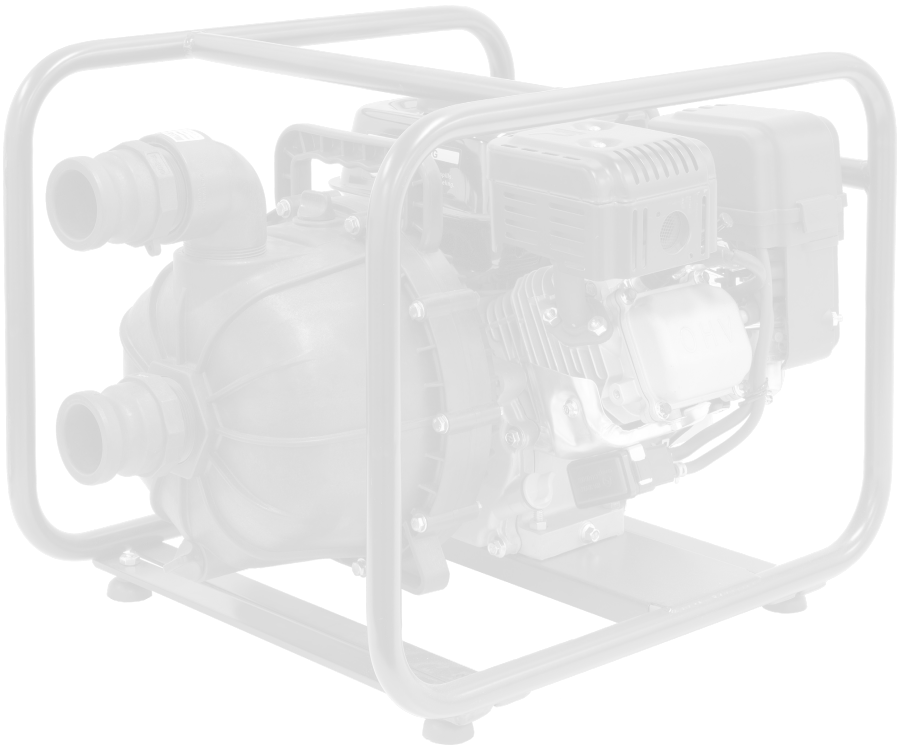
Through our modern, highly optimised manufacturing, assembly and distribution methods we are able to provide the market with products of the highest quality while keeping prices fair.

OUR DEALER NETWORK

The hand picked authorised Onga dealer network throughout Australia and worldwide is second to none. We invest considerable time and resources training and supporting our dealers, making sure that in turn they deliver exceptional service to consumers.

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TECHNICAL INFORMATION

MODEL	LCT65VR
INLET CONNECTION	2" NPT FEMALE
OUTLET CONNECTION	2" NPT FEMALE
ENGINE SIZE	6.5 HP EPA III LONCIN
IMPELLER	NYLON
PUMP CASE	POLYPROPYLENE
MECHANICAL SEAL	VITON
MAX. WATER TEMP.	50°C
AMBIENT TEMP. RANGE	0 - 50°C
MAX. FLOW RATE	750 L/MIN
MAX. HEAD PRESSURE	40 M
MAX. SUCTION LIFT	6 M

APPLICATION

The onga LCT65VR is an engine driven self-priming polypropylene centrifugal pump that can handle big, high capacity, liquid transfer jobs with ease. Use the LCT65VR for transferring water, liquid fertilizers and other chemicals compatible with pump materials.



INSTALLATION

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



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



Do not install or operate your pump in an explosive environment or near combustible matter. Incorrectly installed or tested equipment may fail, causing severe injury or property damage.



Fire and explosion hazard. Gasoline can explode. Store gasoline away from engine. Add gasoline to the engine only when engine is off and has cooled down.



Burn hazard. Hot surface. The engine gets very hot during operation. Do not touch the engine surfaces. Keep children away. Allow engine to cool before moving.



Deadly fumes. Carbon monoxide. Never run the engine in an enclosed space. Only use outdoors with plenty of ventilation.



Site conditions. Only place and run the engine on stable flat ground. Never run the engine on an incline, as this may cause the engine oil to pool to one end of the sump and cause the low oil sensor to stop the engine.



Priming the pump. Before starting the engine ensure the pump has been filled with water. This can be achieved by removing the priming plug from the pump casing and pouring water into the pump from a container. Failure to prime the pump may result in damage to the mechanical seal.

INSTALLATION



IMPORTANT

Read the following instructions in this owner's manual when installing and operating equipment.

1. Preparation for installation

Inspect your pump for shipping damage. Report any damage to your Onga Dealer.

Place the pump as close as possible to the water source to minimise suction lift, obtain best performance from the pump and aid in priming. A typical installation is shown in figure 1 (page 8).

For permanent installation, mount the unit on a foundation that will support the weight of the pump and engine and also provide stability while the pump is running. For most permanent installations it is advisable to bolt the pump directly to the foundation.

2. Suction connection

Connect either rigid pipe or flexible suction hose to pump suction as shown in figure 1 (page 8). If hose is selected, hose must be rated to hold the suction pressure and prevent collapse while the pump is running. Ensure the suction line has a continuous rise from the water source to the pump. High spots can trap air and also make priming difficult. Make sure all connections are tight and free of air leaks.

Note 1: Settling and/or shifting during operation can cause piping to place excessive strain on the pump and may damage pump case. Set pump on hard level surface.

Note 2: Suction pipe or hose must be at least as large as the pump suction inlet in order for the pump to operate properly. Minimum depth for the suction inlet is determined by the diameter of the suction line. See figure 1 (page 8).

Note 3: Use a suction screen to keep debris out of pump.

3. Discharge connection

Your pump is equipped with a single port discharge. Select the appropriate size for the application. Install a "T" as shown in figure 1 (page 8), to allow priming of the pump without disconnecting the piping.

INSTALLATION

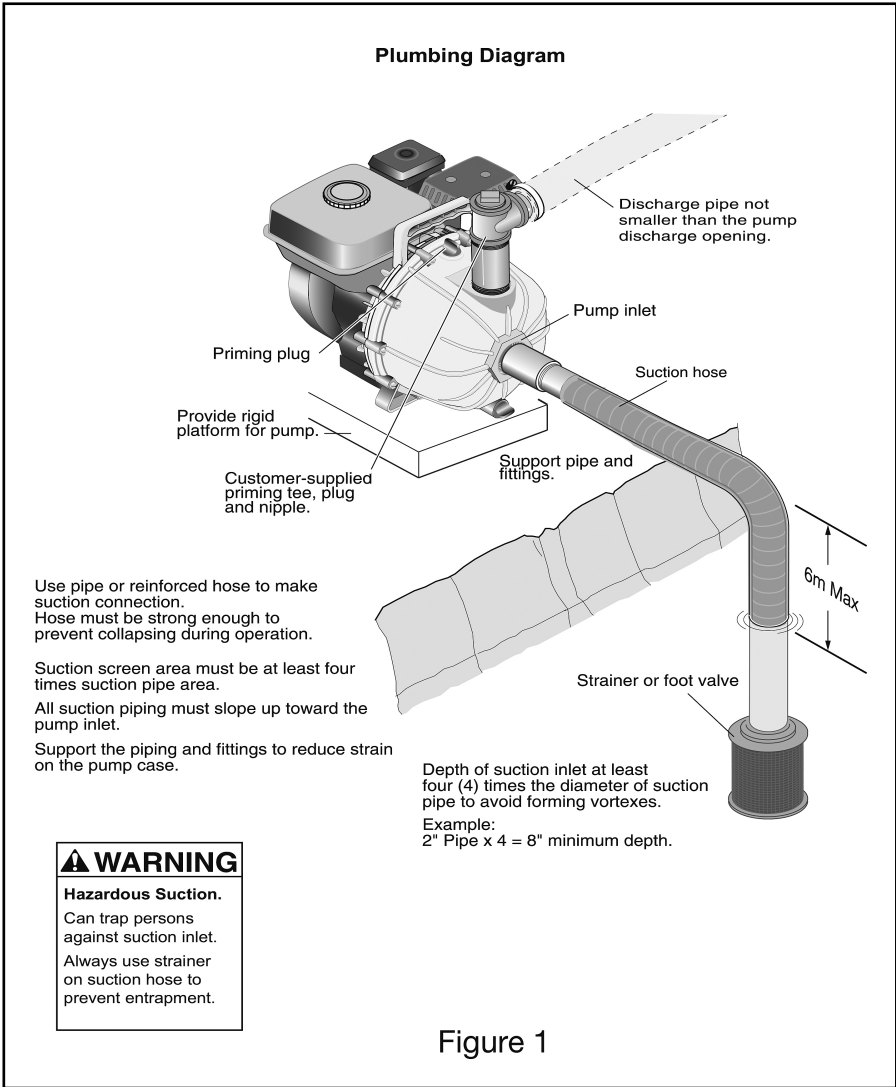


Figure 1

OPERATION

A self priming pump only needs to be manually primed at the first start up. Once primed, under normal conditions the pump will reprime automatically at each subsequent start up. If the pump is used in portable applications and the water has been drained from the pump case, repriming will be required before start up.

To prime, remove plug from top discharge outlet and fill pump with water. Replace plug and start pump. The pump will require a few minutes to evacuate air from the suction line. After several minutes of operation, pump will be fully primed and pumping water. Priming time will vary depending on length and diameter of suction line.

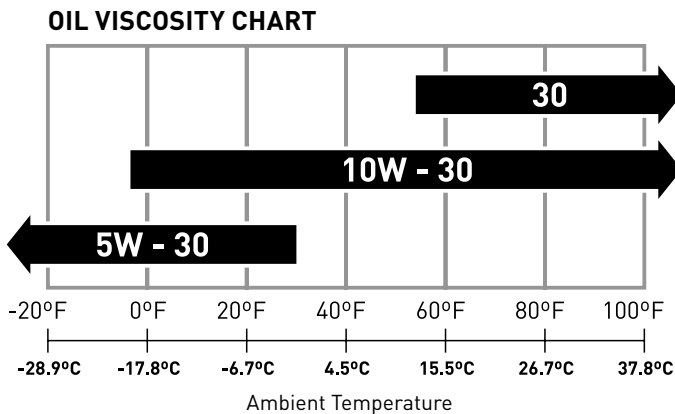
Note 1: Do not start or run pump dry or damage to the mechanical seal will result.

Note 2: **Add engine oil before start up.** Refer to the engine operation manual before start up.

Preparation before starting the pump

Fuel: Check fuel level in tank and do not over fill. Use fresh clean unleaded fuel. Do not fill fuel tank when engine is running.

Oil: Before checking or refilling with engine oil, make sure the engine is stopped and on a stable, level surface. Use oil recommended for ambient air temperatures that the engine will be running at. See chart below. Change engine oil after initial 5 hours running and at least every 20 hours thereafter.



OPERATION



IMPORTANT

Pump must not run dry.

Priming the pump

On self priming pumps, only the chamber needs to be filled with liquid. The pump must not be run unless the chamber is completely filled with liquid because there is a danger of damaging the mechanical seal, which depends on the liquid for its lubrication.

Self priming pumps can be primed by removing the filler cap located on the top of the pump where the discharge line is mounted to the pump and filling the priming chamber with liquid. After use, the priming chamber should be flushed and drained to avoid chemical corrosion and damage from freezing. Drain by removing the lower drain plug located at the bottom of the casing.



IMPORTANT

Before starting the engine, ensure the priming chamber is filled with liquid and the discharge hose is secure.

Starting the pump

- A. Turn engine switch located by recoil starter to ON position.
- B. Turn the fuel cock to ON.
- C. Push the throttle lever to a slightly open position.
- D. Operation of the choke lever:
 - When engine is cold:**
 - In cold weather, start engine with choke in fully closed position.
 - In warm weather, start engine with choke in half-closed position.
 - When engine is warm:**
 - Start engine with the choke in the fully open position

Start engine by pulling the recoil starter out quickly and forcefully.
Repeat pulling until engine starts.

Operation of the pump

- A. Idle the engine for 3 to 5 minutes to warm it up.
- B. Open the throttle lever to the upper zone after the engine has warmed up.
- C. Once the engine has primed, you will note a load on the engine; adjust RPM to proper speed for your pumping application.

OPERATION

Stopping the pump

A. Stop pump for a short time:

1. Run engine throttle all the way down (fully to the right).
2. Turn engine switch to OFF position.

B. Stopping pump for storage:

1. Turn fuel cock to OFF position instead of turning the engine switch off.
2. Let the engine idle for 2 to 3 minutes until fuel in the carburetor is depleted and engine stops. If a valve is installed on the discharge hose, you may run the pump with valve closed during this procedure.

Storage

A. Drain pump. Flush pump after use.

One of the most common causes for faulty pump performance is gumming or corrosion inside the pump. Flush the pump and entire system with a solution that will chemically neutralise the liquid pumped. Mix according to manufacturer's directions. This will dissolve most residues remaining in the pump, leaving the inside of the pump clean and ready for use.

B. Drain all fuel from the fuel tank, fuel lines and filter.

C. Store pump in a clean, dry environment.

TROUBLESHOOTING GUIDE

Use the table below to find which letter (A to P) best describes the pump problem and then refer to the table on page13 for corresponding causes and corrective actions.

SYMPTOM	PROBABLE CAUSE																
	ENGINE				PUMP						SYSTEM						
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	
No water delivered.					x	x	x					x	x	x			x
Not enough water delivered.	x						x	x				x	x	x			x
Not enough pressure.	x						x	x				x	x	x			
Engine heats excessively.		x	x					x	x	x		x			x		
Abnormal noise and/or vibration.				x	x		x			x		x	x	x			
Pump works for a while, then stops.				x			x			x				x		x	x

TROUBLESHOOTING GUIDE

		CAUSE	CORRECTIVE ACTION
ENGINE	A	Speed too low.	Refer to engine section.
	B	Rotating and/or reciprocating parts drag.	Refer to engine section.
	C	Speed too high.	Maximum engine speed not to exceed engine manufacturer's recommendation.
	D	Loose or broken parts.	Refer to engine section.
PUMP	E	Not primed.	Reprime, inspect suction system for air leaks, check assembly.
	F	Pump takes too long to prime.	Check for air leaks or defective check valve.
	G	Flow through pump completely or partially blocked.	Locate and remove obstruction. Attach strainer.
	H	Internal leakage.	Check clearances between face of vanes and case. Should not exceed 1/32".
	I	Rotating parts drag.	Inspect. Repair.
	J	Loose or broken parts.	Inspect. Repair.
SYSTEM	K	Pressure required by system at design flow rate exceeds pressure rating of pump.	Compare pump pressure and flow rate against pump performance chart. Reduce system pressure requirement. Increase pressure capability of pump.
	L	Obstruction in suction piping.	Locate and remove obstruction. Attach strainer.
	M	Suction lift too high.	Check with gauge or measure vertical distance between water surface and center line of pump, allowing for friction loss in suction pipe. Reduce rate of flow to obtain desired lift.
	N	Discharge head too low.	Decrease rate of flow.
	O	Suction inlet not immersed deep enough.	Refer to "Installation".
	P	Leaky suction line or connection admitting air.	Repair or replace suction line. Tighten connections.

WARRANTY

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.
 - i. Any unauthorized changes or tampering or partial disassembly of the product;
 - j. Water ingress or exposure to abnormal corrosive conditions, abrasive chemicals or "run dry" condition
 - k. Any other cause which does not relate to a product defect.
- ii. Damage caused to the products arising from the use of another manufacturer's product.
- iii. Ingress of insects or invertebrates into the unit causing electrical malfunction. Care should be taken to avoid this occurrence.
- iv. Products other than products supplied by Pentair.
- v. Products that are not installed in accordance with the owner's manual.
- vi. Products that are not installed by a suitably qualified person trained in the installation and operation of such products.
- vii. 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.

WARRANTY

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 in-field 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(iii).
- 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

This warranty as per the attached warranty schedule any Pentair product that carries a work shop 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/>

LCT65VR

ENGINE DRIVE TRANSFER PUMP

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.

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
Web: www.pentair.com.au

New Zealand

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

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