

Bianco NXT Engine-driven Fire Pumps

BIA-MYD15HPE - 810826

Installation and Operation Manual





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2. Introduction

Thank you for purchasing a Bianco NXT diesel-engined pump.

The **BIA-MYD15HPE** 'fire-fighting' pump is built for people who need strong, reliable water pressure when it matters. Not only useful for fire suppression, this pump is great for dewatering, dust suppression, washdown, water transfer or tank-filling applications.

Installed inside a sturdy roll frame, the hydraulic components feature a strong aluminium wet end and a choice of outlets. Powered by a Yanmar L70N electric-start diesel engine, the MYD15HP is a versatile all-round performer which is simple to set up and quick to get running in a hurry.

This manual is intended to inform you about your new pump, make suggestion regarding setup and use, recommend safe operating practices, and provide a maintenance schedule and procedures.

3. Warnings

Symbol Meanings

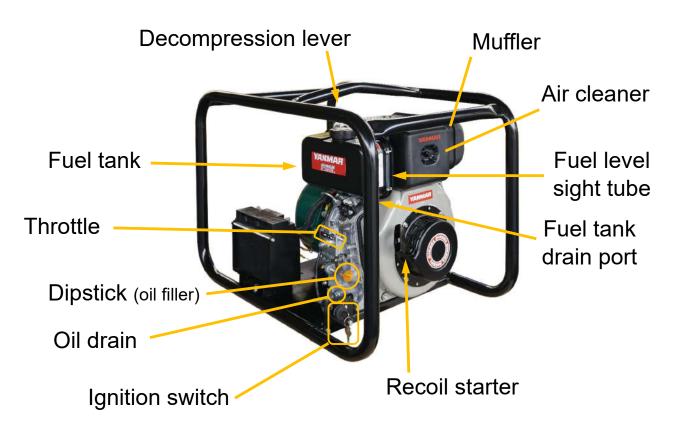
<u>^</u>	Warning – Potential consequences of use outside of intended application(s). Includes environmental condition warnings.
0	Mandatory warning
	Read carefully

Specific Safety Information and Warnings

	Be sure that you are familiar with quick-stop procedures and control operation of this water pump.
	These pumps are designed to transfer clean water. Never attempt using this pump to deliver dirty water or slurry, or any flammable or corrosive liquids.
0	This product 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 product.
	Do not touch the muffler while the machine is working as it is hot. Only move the machine when it is stopped and has cooled down.
	When in operation, the exhaust from this machine contains poisonous carbon monoxide gas. Breathing this poison gas can lead to eventual death. Use this machine only outdoors in well-ventilated areas.
	To prevent fire hazards, keep at least 1 metre of clearance on all sides of this machine during operation.
	Running the pump without water or allowing the pump to run dry will damage the pump, voiding the warranty.

4. Components





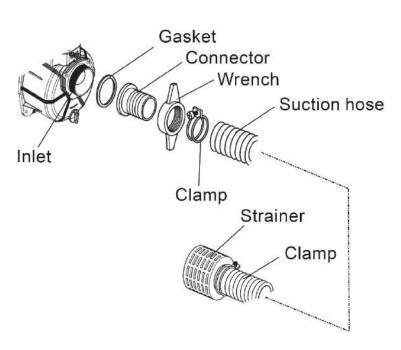
5. Technical Data



PUMP SPECIFICATIONS							
Model	MYD15HPE						
Impeller Type	Single closed (heavy duty)						
Max. Head (H _m)	60 m						
Max. Flow (Q)	640 L/min						
Self-priming	Yes						
Suction Port (Inlet)	1½" BSPM						
Discharge Port (Outlet)	1 x 1½" BSPM and 2 x 1" BSPM						
Liquid Type	Clear, fresh water with minimal solids or sediment						
Water Temperature Range	2 – 35°C						
Pump Body	Aluminium						
Impeller Material	Aluminium						
Mechanical Seal	Carbon / Ceramic / Nitrile						
O-rings	Nitrile						
Maximum ambient temp < 40°C							
Custom-engineered, easy-access roll frame with lifting bar attached to protects the pump and engine							
Dry Weight 70 kg							
Dimensions 760mm (L) x 515mm (W) x 550mm (H)							

ENGINE SPECIFICATIONS								
Engine Type Yanmar L70N single cylinder, air-cooled di								
Horsepower (Gross)	6.7 HP							
Displacement	320 cc							
Air Cleaner	Dual element, paper and foam							
Ignition	Compression ignition system							
Starting	Electric / Recoil (with decompression lever)							
Fuel Tank Capacity	3.3 L							
Oil Capacity	1.1 L							

6. Preparation for use





IMPORTANT: Install the strainer on the end of the suction hose before operation.
The strainer prevents foreign materials and protects the pump from blockages and component damage.

Fitting a foot valve (nonreturn valve) directly above the inlet strainer is strongly encouraged.



The pump is supplied without engine oil. Oil must be added before attempting to start the engine.

Before starting

Before each use, **check** the following:

• Check the engine oil level.

Running the engine with insufficient oil can cause serious engine damage.

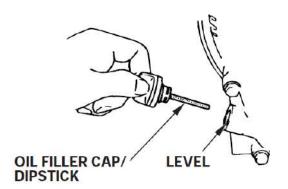
- Check the fuel level.
- Water MUST be added to the pump housing before starting.
 - A minimum of 2 litres is recommended.
 Filling fully with priming water is preferable
 - Filling the suction line will assist the pump in achieving prime.
 - Running dry or without sufficient water will damage the mechanical seal quickly, voiding warranty.



Every time, before use, check the oil level. The oil level can be checked from either side of the engine. If the level is too low, the engine may not operate correctly.

When checking oil level, the pump must not be in operation and be on a level surface.

- Remove the oil dipstick from the oil filler and wipe it dry.
- Insert the dipstick into the oil filler (but don't screw it in) to check the oil level.
- If necessary, add oil until the level comes up to the upper-most position of the refill mark. Take care to not overfill, otherwise engine damage may occur.
- Insert the dipstick into the oil filler again and screw it in.



From empty, the crankcase requires 1.1L of oil



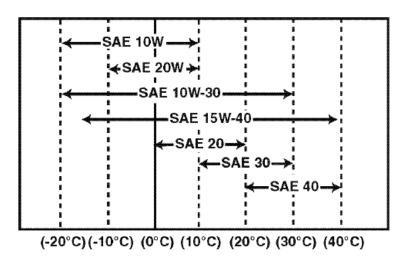
IMPORTANT: The Oil Shortage Alarm System is designed to avoid engine damage due to insufficient lubricating oil. The system automatically shuts down the engine before the oil level drops to the minimum line of safety.



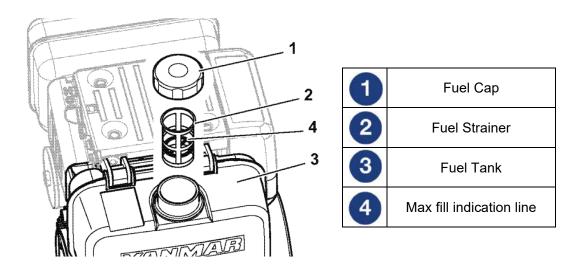
Recommended oil type

Use a high-detergent, premium-quality **SAE 15W-40** motor oil for diesel engines.

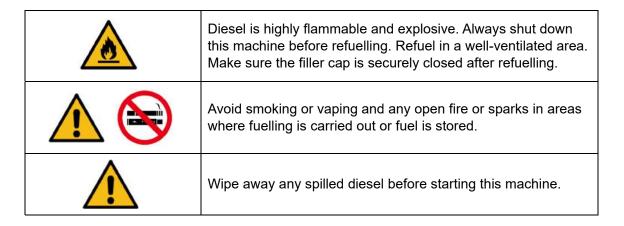
 A different oil viscosity may be necessary according to the ambient temperature in your location.



Checking fuel level



- The fuel tank is fitted with a sight tube. Fill the tank as required.
- Always use fresh, (ISO-8217-DMX) diesel.
- Ensure the fuel strainer [2] is ALWAYS inside the fuel tank when refuelling.
- **Take care** not to overfill the fuel tank above the red maximum level indicator [4] on the fuel strainer. This level provides room for fuel expansion.
- Wipe up any spilled diesel with a dry cloth immediately.



7. Starting

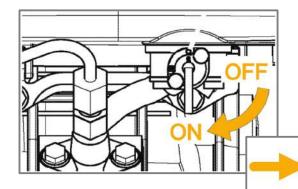
CAUTION:

Confirm the engine oil level is correct.

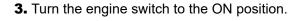


- Check the fuel level.
- Confirm that water has been added in the pump.

1. Turn the fuel valve ON.



2. Move the throttle lever (right) to the run position.

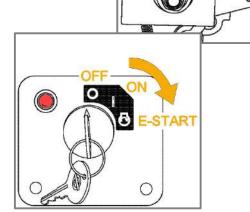


Electric starting

Only hold the key in the START position for 15 seconds or the starter motor will overheat.

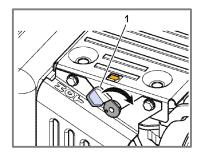


If the starter attempt is not successful within the 15 second period, allow the starter to cool for 2 minutes before trying again.



Recoil starting

- **1.** Pull the start handle out slowly until you feel strong resistance.
- **2.** Return the handle slowly to its rest position.
- **3.** Activate the decompression lever [1] The decompression lever will automatically return to its original position when the engine rotates.
- **4.** Pull the starter handle to its full extent using a strong even motion. Use two hands if necessary.



5. Return the starter handle gently to its rest position. Do not allow it to snap back against the engine.

8. Operation

ACHIEVING PRIME: Bianco NXT engine-driven pumps are designed for efficient self-priming operation.

Note that initial priming may require multiple attempts, especially in challenging installations.





Long suction lines or significant suction lifts mean there's a larger volume of air that must be expelled before the pump can establish flow.

If the pump doesn't prime on the first attempt, stop and allow it to rest briefly before trying again. This process may need to be repeated several times – this is normal, not a fault.

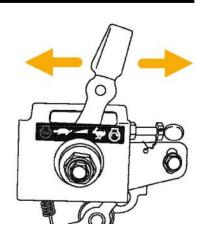
During each attempt, the pump progressively displaces air from the suction line until enough water reaches the impeller to establish continuous flow.

Patience during initial start-up will be rewarded with reliable operation once prime is achieved.

Position the throttle control lever for the desired engine speed.

The pump output will alter with speed.

In a situation where less flow is required but the pressure requirement is still high, a control valve on the pump outlet is a more reliable means manage flow than altering engine speed.

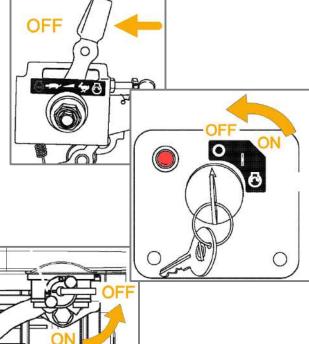


9. Stopping

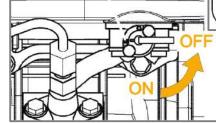


In an emergency, immediately turn the engine switch to the OFF position to shut down the engine.

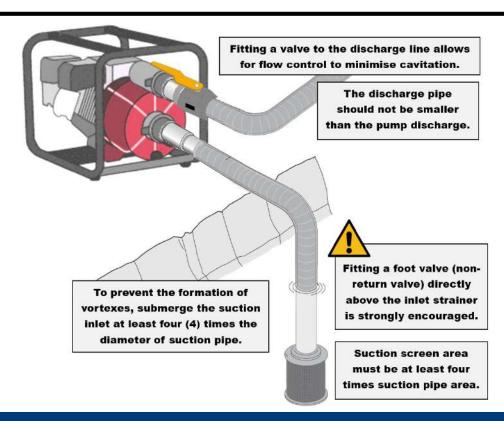
1. Move the throttle control lever fully to the right.



2. Turn the engine switch to the OFF position.



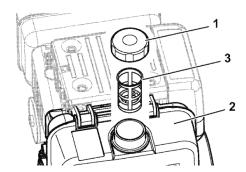
3. Turn the fuel valve OFF.



10. Maintenance

SYSTEM	TO CHECK		Periodic Maintenance Schedule					
OTOTEM	TO OHEOK	Daily	Every 50 hrs	Every 200 hrs	Every 400 hrs			
Fuel	Check fuel level							
	Check for fuel leaks	Ø						
	Drain and clean fuel tank			V				
	Clean inlet fuel screen		V					
	Clean or replace outlet fuel filter			Clean	Replace			
Engine Oil	Check oil level							
	Check for oil leaks	$\overline{\mathbf{A}}$						
	Change engine oil		1 st change	V				
	Clean oil filter		V					
Air intake	Clean or replace air filter		Clean at 100 hrs Replace at 500 hrs					
Cle	Clean and replace the air filter more frequently when used in dusty conditions							
Engine speed control								
Cylinder head	rs							
	Adjust valve clearances		1 st check	Check				
Fuel injector	Inspect, clean and test nozzle		Every 1500 hrs					
Exhaust Verify no blockages		V						
Fuel Hoses Replace fuel hoses every 2 years or 2000 hrs								

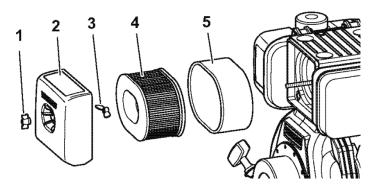
Cleaning the inlet fuel screen (strainer)



The fuel screen inside the tank is intended to reduce the risk of contaminants entering the fuel injection system.

Clean the screen periodically.

Cleaning the air filter



Engine performance is adversely affected when the air filter clogs with dust. Operating in dusty conditions, cleck and clean the air filter more frequently. Never operate the engine without an air cleaner. Internal wear will increase and foreign matter ingested into the engine may cause damage.

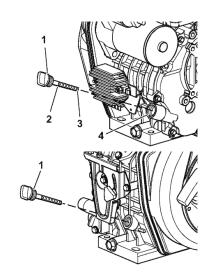
- 1. Remove the wingnut [1] and outer cover [2] Wipe the cover clean.
- **2.** Remove the second wingnut [3] and the filter elements [4,5] Item [5] is a foam outer pre-cleaner. Item [4] is a pleated paper element.
- **3.** Blow low pressure air from inside to outside to dislodge dust particles. If either element is damaged, replace both items.
- **4.** Take care to ensure the filter is seated correctly when reinstalling.

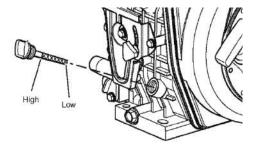
Changing the engine oil

The first oil change and oil filter clean is especially important to remove any fine metal particles generated during the running-in period.

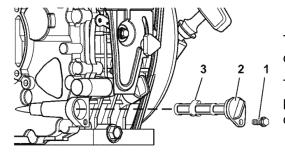
The Yanmar L70N has a dipstick and drain plug on both sides of the motor. To ensure rapid and complete draining, warm up the engine before draining the oil.

- 1). Remove the oil dipstick [1] and the drain screw [2], then drain the oil into a tray or other container.
- 2). Reinstall the drain screw [2] and tighten it. Ensure its sealing washer is in place.
- 3). Remove and clean the oil filter (see next section)
- 4). Place the engine in a level position and refill with the correct oil (max. 1.1 L).
- 5). Reinstall the oil dipstick and tighten it.





Clean / Inspect the engine oil filter



The engine is fitted with a fine screen filter to capture any contaminants in the oil.

This filter should be removed and cleaned as part of each oil change, especially the first oil change after the break in period.

- 1). Remove the oil filter retaining bolt [1]
- 2). Pull the oil filter cap [2] to remove the filter [3].
- 3). Carefully clean the filter or replace if damaged.
- 4). Ensure the oil filter is seater correctly when reinstalling.
- 5). Install and tighten the oil filter retaining bolt.



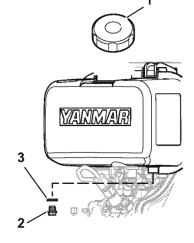
Dispose of used engine oil in accordance with local regulations. Waste oil should be taken to an approved recycling or disposal facility. Never discard oil in household waste, drains, or the environment.

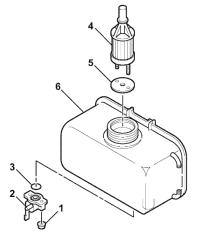
Draining the fuel tank

The fuel tank is equipped with a sight tube and a drain plug [2].

Prior to any period of long-term storage, the recommendation is to drain the fuel tank.

When refitting the drain plug [2], ensure the sealing washer [3] is in place.





Inside the fuel tank is an outlet fuel filter element. The fuel tank must be drained and the fuel tap removed to replace this filter.



Never work on any element of the fuel system until the engine has cooled fully.

11. Storage

Wait at least 30 minutes after the pump stops to ensure it has fully cooled down.

Clean the pump and apply corrosion inhibitor if necessary.

Take care when pressure washing as water may enter the air filter or muffler, or even to migrate into the engine cylinder which will result in corrosion damage.



Storing a pump with fuel in the tank for long periods is NOT recommended. Over time, fuel goes stale which can result in a pump which is hard to start and lead to rough running.



Recommendations before longer term storage

- 1). The storage area should be secure and dry, free of moisture and dust.
- 2). Perform any pending maintenance.
- 3). Drain all the fuel.
 - a. Turn off the fuel valve and remove the fuel tank drain screw.
 - b. Drain the fuel into a suitable container.
 - c. Reinstall the drain screw.
- **4).** Drain the engine oil and replace with fresh oil.
- 5). The following procedure will ensure the valve train components are coated with oil
 - a). Ensure the ignition is OFF.
 - b). Leave the throttle in the closed (fully slow) position.
 - c). Set the decompression lever to the start position.
 - d). Pull the starter cord 3 or 4 times. You're only aiming to rotate the engine to pump oil to the top end. Do not attempt or allow the engine to start.
 - e). Ensure the decompression lever is closed.
 - f). Pull the starter handle slowly until a resistance is felt. In that case, both the inlet valve and outlet valve are closed.
- **6).** Ensure the pump body is fully drained.
- **7).** Disconnect the negative battery terminal to prevent the battery from discharging. For prolonged storage periods, a periodic top up charge is recommended.
- **8).** Cover the pump to prevent dust buildup.

12. Troubleshooting

	PROBABLE CAUSE															
SYMPTOM		ENGINE			PUMP					SYSTEM						
	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N	0	Р
No water delivered																
Not enough water delivered																
Not enough pressure																
Engine heats excessively																
Abnormal noise and/or vibration																
Pump works, then stops																

CAUSE	CORRECTIVE ACTION
ENGINE	
A. Speed too low.	Adjust throttle
B. Rotating and/or reciprocating parts drag.	Have the pump inspected by a qualified mechanic
C. Speed too high.	Maximum rpm not to exceed engine manufacturer's recommendation.
D. Loose or broken parts.	Have the pump inspected by a qualified mechanic
PUMP	
E. Not primed.	Reprime, inspect suction system for air leaks, and/or 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. Ensure strainer is clear.
H. Internal leakage.	Check pump internals for damage or wear
I. Rotating parts drag.	Inspect. Repair.
J. Loose or broken parts.	Inspect. Repair.
SYSTEM	
K. Pressure required by system at the design flow rate is greater than the output of the 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.	Ensure suction inlet is more than 150mm beneath the water
P. Suction line or connection admitting air.	Repair or replace suction line. Tighten connections.

Starter motor operates but the engine will not start:

- 1. Is there fuel in the tank?
- 2. Is the fuel valve ON?
- 3. The fuel filter may be blocked
- 4. Poor fuel injection.
- 5. Is the engine switch ON?
- 6. Is there enough engine oil?

Starter motor does not operate or rotates too slowly:

- Battery may be flat. Try the recoil starter.
- 2. Faulty or loose battery terminal.
- 3. Faulty starter switch.
- 4. Faulty starter motor.
- 5. Motor seized internally.

Exhaust smoke colour

Black smoke

- 1. Engine overloaded.
- 2. Clogged air cleaner element.
- 3. Incorrect fuel.
- 4. Fuel injection issues (rich).
- 5. Incorrect valve clearances.

White smoke

- 1. Incorrect fuel.
- 2. Fuel injection issues (lean).
- 3. Fuel injection timing wrong.
- 4. Engine burning oil.

Oil needs topped up more frequently and becomes excessively black between changes.

This pump is a 'self-priming' type capable of drawing water from the source up to the inlet but only if there is water already in the pump.

To maximise the pump output:

- · Place the pump as close to the water source as possible.
- · Use hoses which are no longer than necessary.
- The suction line should be equal in diameter (or one size large) than the pump inlet.
- · Suction lines should be as short and straight as possible.
- Use 'suction-rated', preferably smooth-bore intake piping.

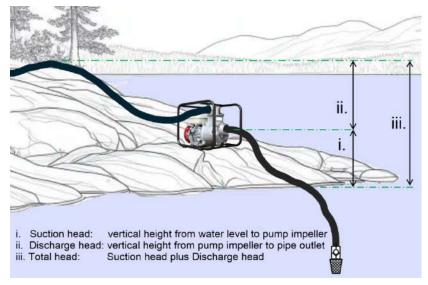
Minimizing suction head (placing the pump near the water level) is very important for reducing self-priming time (the time it takes the pump draw water during initial operation)

Excessive suction requirements, i.e.:

- Suction line too small
- Suction line too long
- · Vertical distance to pump inlet too great

All these reduce the amount of flow the pump can deliver before the onset of cavitation.

Cavitation makes a very distinctive sound (gravel in the wet end) and is highly destructive. If cavitation occurs, restrict the outlet of the pump or reduce the suction requirement.



General guideline:

A pump generating 3m of suction can only deliver approx. 80% of its full rated flow.

A pump generating 5m of suction can only deliver approx. 68% of its full rated flow.

CRITICAL IMPORTANCE OF AIRTIGHT SUCTION LINES



Any air leaks in the suction line will severely compromise (or completely prevent) the pump's ability to prime and maintain flow.

Even small leaks that seem insignificant under positive pressure become critical problems under the vacuum conditions created on the suction side.

Check all connections, gaskets, and seals in the suction line carefully before installation. Pay particular attention to threaded joints, flanges, and the foot valve connection. A suction line that isn't completely airtight will allow air to be continuously drawn in, making it impossible for the pump to develop the necessary vacuum to lift water.

If priming difficulties persist after multiple attempts, inspect the entire suction line for air leaks before assuming a pump fault.

13. Warranty – General Understanding

Warranty applies to manufacturing or material defects.

The unit must always be handled correctly according to instruction manual. The unit must not have been modified or have been repaired by any person other than authorized service agents.

Warranty no longer applies in the following cases:

- Non-compliance with the instructions especially non-protection against freezing, pumping sand or dry running
- After attempting to repair the unit
- Changes in the technical elements of the pump
- Use of replacement parts other than original.
- Damage / malicious (dropping or external damage
- Inappropriate use (e.g., industrial, continuous operation), and in particular passage of hard and heavy particles (stones, or sticks), passage of an excessive amount of sand, salt water, water with high lime content, liquid with a high vegetable matter content, i.e. grass or leaves
- Lack of maintenance or cleaning

A repair or exchange with a new product during the warranty period does not extend the original warranty period.

Any claim against warranty is on a 'return to base' basis and must be accompanied by all accessories. Proof of purchase and proof of sale will be required along with a full and clear explanation of the issue or observed symptoms/behaviours.

14. Warranties – Terms and Conditions

This warranty is given in addition to the consumer guarantees found within the Australian Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 NZ for goods purchased in New Zealand:



- 1) White International Pty Ltd / White International NZ Ltd (White International) warrant that all products distributed are free from defects in workmanship and materials, for their provided warranty period as indicated on the top or opposite side of this document. Subject to the conditions of the warranty, White International will repair any defective products free of charge at the premises of our authorised service agents throughout Australia and New Zealand if a defect in the product appears during the warranty period. If you believe that you have purchased a defective product and wish to make a claim under this warranty, contact us on our Sales Hotline on 1300 783 601, or send your claim to our postal address or fax line below and we will advise you as to how next to proceed. You will be required to supply a copy of your proof of purchase to make a claim under this warranty.
- **2)** This warranty excludes transportation costs to and from White International or its appointed service agents and excludes defects due to non-compliance with installation instructions, neglect or misuse, inadequate protection against the elements, low voltage or use or operation for purposes other than those for which they were designed. For further information regarding the suitability of your intended application contact us on our Sales Hotline on 1300 783 601. If you make an invalid claim under this warranty, the original product will be sent back to you unrepaired.
- **3)** This warranty refers only to products sold after the 1st January 2012, and is not transferable to another product type and only applies to the original owner, purchaser or end user, and is in addition to the consumer guarantees found within the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand.
- **4)** 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
- **5)** To the fullest extent permitted by law, White International excludes its liability for all other conditions or warranties which would or might otherwise be implied at law. To the fullest extent permitted by law, White International's liability under this warranty and any other conditions, guarantees or warranties at law that cannot be excluded, including those in the Competition and Consumer Act 2010 (Cth), is expressly limited to: (a) in the case of products, the replacement of the product or the supply of equivalent product, the payment of the cost of replacing the product or of acquiring an equivalent product or the repair of the product or payment of the cost of having the product repaired, is at the discretion of White International or a 3rd party tribunal elected under the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand; and
- **6)** To the fullest extent permitted by law, this warranty supersedes all other warranties attached to the product or its packaging.
- **7)** In the case of services, supplying the services again or the payment of the cost of having the services supplied again, is at the discretion of White International or a 3rd party tribunal elected under the Competition and Consumer Act 2010 (Cth) for goods purchased in Australia and the Consumer Guarantees Act 1993 (NZ) for goods purchased in New Zealand.
- **8)** Our warranty commences from the date of purchase of the above-mentioned products. Proof of purchase is required before consideration under warranty is given.

Date of Purchase Model Purchased	
Retain the printed copy along with your purchase receipt for your records.	



www.whiteint.com.au www.whiteint.co.nz

Please always refer to our website for further technical information & new product innovations

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