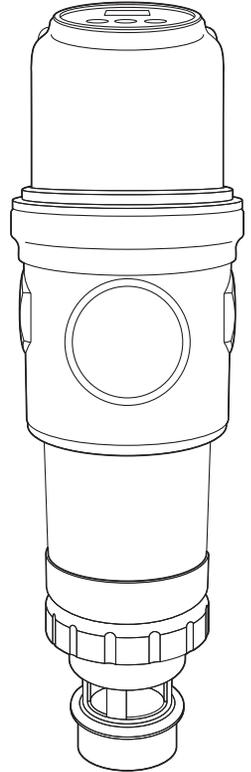




Puretec[®]
PERFECTING WATER



User Guide

IAB Series

Intelligent Auto Backwash Water Filter Systems

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Puretec Customer Service

Thank you for purchasing a Puretec IAB Series Intelligent Auto Backwash Water Filter System. Your system is a proven performer manufactured from only quality materials and components and will give years of filtered water, if maintained properly.

Customer Service Helpline on **1300 140 140** (Australia) **0800 130 140** (New Zealand).

The Puretec IAB Series systems are designed to run economically for many years, dependent on the initial installation and periodical maintenance.

Carefully read through the installation and operating instructions and safety information before installing and putting the unit into service.

Introduction

The IAB Series is a self-cleaning protection filter equipped with an automatic cleaning system and an 89 micron filtering mesh designed for filtering water intended for human consumption.

The IAB System protects hydro-thermo-sanitary systems and pipes against damage caused by small quantities of foreign bodies, such as: pebbles, rust flakes, oxides and metal scraps with a maximum size of 2 mm.

For applications other than the ones expressly described herein, it is necessary to contact Puretec on 1300 140 140 (Australia) 0800 130 140 (New Zealand), before proceeding with the installation.

The IAB is not a purifier and is not a water purification system.

Installation Record	
Purchased From:	
Installer:	
Model No:	
Date Installed:	



WARNING: This operating manual is your guide to installation, use and maintenance of this equipment and should be kept for future reference.

It is considered to be an integral part of the equipment and must follow the equipment in case of sale, transfer, removal, etc. The instructions described here are intended for your safety and should be read carefully before installing and using the equipment. We recommend that you carefully follow all the instructions, since the proper operation and duration of the equipment depends on it.

When in doubt while reading this manual or for any other question regarding installation, use and maintenance of the equipment please contact Puretec at 1300 140 140 (Australia) 0800 130 140

Importance & Limits

The IAB series is suitable for mains water and typical rainwater applications. Water with high sediment loadings such as river water or dam water can possibly cause early failure of the unit and is not warrantable. It is strongly recommended to talk to our water treatment team to check the suitability of this product if a high sediment load is expected.

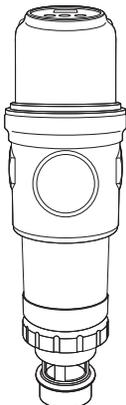
This document contains the instruction manual for use and maintenance as well as assembly and installation information which have been designed to provide general information about use and operation of the equipment. This document contains instructions and requirements which are not supposed to replace any local government requirements and current legislation. For any questions regarding installation, use or maintenance of the equipment please contact Puretec at 1300 140 140 (Australia) 0800 130 140 (New Zealand).

Clause on the Ownership

The contents of this user guide are the exclusive property of Puretec and cannot be reproduced or copied in any form whatsoever. The manual may only be used as a reference tool for the supplied equipment and shall not be submitted to examination by third parties without prior written authorisation by Puretec. Puretec reserves the right to make changes to its products and user guides without notice.

Components

After opening the box, check the integrity of the equipment and the presence of all the items.



IAB Filter System



Power Supply Unit



User Guide



Warranty Card

Before Installation



Before installing the filter, make sure that the system complies with any local laws or regulations.

The IAB System is not equipped, in its standard version, with anti-flooding devices or with devices aimed at verifying, checking and triggering an alarming in the event of uncontrolled water leaks. If necessary, purchase and install a suitable anti-flooding device separately.

Ensure there is an appropriately size drain available for the back washing

Do not install the IAB System downstream of boilers or in applications involving the passage inside the filter of water above 30 °C. Install the IAB filter upstream of the equipment to be protected.

Pay attention to the threads of the connections that could cause hand cuts and abrasions.

Installation Note: A water filter system/tap, like any product, has a limited life and may eventually fail. Also sometimes failure happens early due to unforeseen circumstances. To avoid possible property damage, this product should be regularly examined for leakage and/or deterioration and replaced when necessary. A drain pan, plumbed to an appropriate drain or outfitted with a leak detector, should be used in those applications where any leakage could cause property damage, and/or the water supply should be turned off if no one is home/present.

Positioning the IAB System

The IAB System must be installed in a hygienically suitable, dry, clean place, indoors, away from: frost, direct exposure to sunlight, humidity and atmospheric agents (rain, snow, hail).

Do not install the IAB System in wells, near drains or in foul-smelling places.

Do not install it where there may be chemical vapors, gases or fumes of any kind. Avoid installation in confined spaces that restrict performance or maintenance operations.

The permissible limiting values of the environmental parameters for the installation of the IAB System are: Min/Max Ambient Temperature 0 - 40 °C (protect from freezing).

Assembly

The filter is supplied with the water inlet on the left.

Installation

Installation must be carried out by a qualified tradesperson, in compliance with all local laws.

The plumbing system in which the filter is installed and the installation of the filter itself must be carried out in compliance with local laws.

Puretec is not responsible for damages to property or persons resulting from the incorrect installation of the filter and/or the installation of the filter in a system not complying with the local laws.

All materials used for the construction of water distribution systems for human consumption must comply with local laws. The construction and modification of a water distribution system intended for human consumption requires modifications to be carried out in such a way as not to jeopardise the hygiene of the system.

After its construction or modification, a water distribution system intended for human consumption has to be washed and disinfected according to the requirements of local law.

The filter must not be installed between the boiler and the safety devices.

A non-return valve should be installed in conjunction with this product, along with a by-pass valve for untreated water.

Ensure there is an appropriate point for drainage.

Prevent solvents, oils, greases, acidic or caustic substances and detergents from coming into contact with the external plastic and brass parts of the equipment.

In case of damage during transport or assembly, do not install the equipment.

If the system is subject to water hammering, install an appropriate damping system. If the water pressure can exceed the maximum operating pressure of the filter even for short periods, install a pressure limiting device.



Avoid overhead installation in order to prevent damages to property or persons in the event of a fall, a collapse or water leakages.

Electrical Checks After Installation

After connecting the filter to the power supply, the display will automatically turn on; the filter reaches the filtration stage and the display switches off.

After this stage, check the operation of the circuit by manually pressing the up and down arrow buttons simultaneously, until the motor starts; the filter performs a backwashing procedure.



Check the correct functioning of the backwash solenoid valve, if installed (optional). The solenoid valve is in closed position during the backwashing operations performed by the filter and in open position during filter operation.

Hydraulic Checks After Installation

After having opened the water upstream of the equipment, check for any leaks.

- 1) Check that the appliance is correctly positioned so as to ease ordinary maintenance operations.
- 2) Check that the system is equipped with: disconnecter, by-pass, sampling taps
- 3) Verify that there are no leaks from the inlet and outlet fittings and from the filter drain.

Performance Data

	IAB25	IAB32	IAB40	IAB50
Connection	1"	1¼"	1½"	2"
Nominal Flow Rate#	96 Lpm	110 Lpm	150 Lpm	180 Lpm
Micron Rating*	89			
Rated Pressure	1000 kPa			
Min/Max Operating Pressure	150 - 1000 kPa			
Min Pressure for Backwashing	250 kPa			
Water Consumption During Backwashing	14 L			
Min/Max Water Temperature	0 - 30°C (protect from freezing)			
Min/Max Ambient Temperature	0 - 40°C (protect from freezing)			
Power Supply	230 V / 50 Hz			
Operating Voltage	12 V			

*Micron rating is nominal.

Water to be Treated

The IAB System is not designed to filter closed circuit water, water containing large quantities of sand or coarse particles larger than 2 mm, silt or chemicals (oils, solvents, acids, bases, glycols).

Precautions

The IAB is a piece of equipment connected to 220 Volt power supply. The plug has to be inserted into a standard socket, provided with a ground contact and protected by a residual current circuit breaker. Check that the plug is firmly inserted into the socket and located in a protected area, away from accidental contact, water splashes, humidity and heat sources. Before maintenance, disconnect the filter from the power supply.

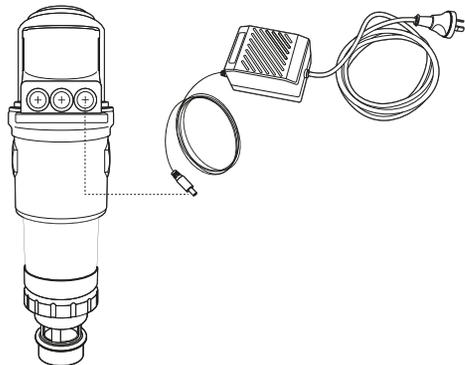
Power Supply Connection

Insert the power connection plug into the hole on the right when looking at the back of the unit (as shown in Fig. 1).

When the filter is switched on, it will automatically re-position itself.

In the event of a power failure, the filter retains the last programmed setting when it is switched on again.

Fig. 1



Operation

Often filters exclusively remove the dirt accumulated in the bowl, without cleaning the cartridge. The Puretec IAB Series guarantees an efficient and thorough cleaning of the filter cartridge too, thanks to its brushing and drainage functionality.

The IAB System is equipped with an electronically controlled automatic cleaning system with timer. This solution ensures optimal cleaning of the filter cartridge everytime.

During the filtration stage the water enters the diverter, goes down through the filtering cartridge, from outside to the inside, and then comes out filtered.

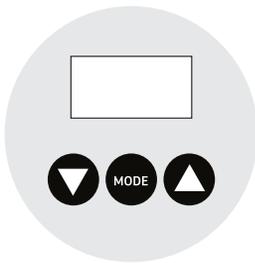
During the backwashing stage, the incoming water is diverted and passes through a backwash filter; then it enters the turbojet that distributes it uniformly, at high speed, on the entire inner surface of the cartridge.

The IAB System is equipped with two voltage-free contacts, which are activated according to an advanced preset by the program that determines the start of the backwash cycle.

In the event of a power failure, the filter retains the last programmed setting when it is switched on again.

The consumption of water when cleaning is approximately 14 litres.

Fig. 2 Upper Panel

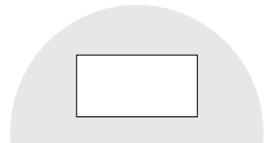


Symbol	Action
	Next Menu / Increase
	Previous Menu / Decrease
	Menu / Editing / Confirming

Use the IAB display to see service settings, and for any messages regarding malfunctions or faults

When the display is blank in stand-by:

- The filter is properly powered.
- The filter is in the filtration position.
- Filter is in backwashing stage (LED back lighting on).



When the display shows "ALARM":

- Filter out of order, see Troubleshooting on page 19.



Manual Backwash of the Filter

Pressing the buttons   simultaneously for 2 seconds, will launch a backwash cycle at any time.

Filter Backwash Setting

The IAB System carries out a backwashing at 00:00 every 4 days.

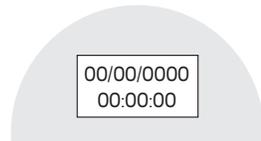
The washing cycle includes 3 rotations (opening - closing of the drain) and internal brushing of the filter cartridge.

Customised Filter Backwash Programming

Programming Steps:

- 1) SOLENOID 1
- 2) SOLENOID 2
- 3) BACKWASH - Cycles Within Backwash
- 4) BACKWASH - Type of Program Time/Interval
- 5) CLOCK - Adjustment.

Press  to view DATE and TIME.



- 1) SOLENOID 1

Press  for 5 seconds, to view 'Solenoid 1' - filter backwashing time in seconds.

Press  to change the time value in seconds.

Press and hold  or  to change time data in seconds.

Press  to confirm the data.



2) SOLENOID 2

Press  to view 'Solenoid 2' - filter backwashing time in seconds.

Press  to change the time value in seconds.

Press  or  to change time data in seconds.

Press  to confirm the data.



Solenoid 2
000 sec

3) BACKWASH - Cycles Within Backwash

Press  to view 'Backwash' - number of filter backwashing cycles.

Press  to change the cycle number.

Press  or  to change cycle number.

Press  to confirm the data.



Backwash
00 cyc.

4) BACKWASH - Type of Program: Time/Interval

Press  to view 'Backwash' - type of filter backwashing programming.

Press  to change the mode type.

Press  or  until the desired program is displayed.



Backwash
Time

TIME: The time of day and the interval between backwashes in days.

INTERVAL: The interval between backwashes in 1 hour increments.

Press  to confirm data.

5) BACKWASH - Change Program Details

If 'TIME' was selected in Step 4:

Press  to view 'Backwash' - filter backwashing time and interval in days.

Press  to go to 'Hour'.

Press  or  to change the hour.

Press  to go to "Minutes".

Press  or  to change the minutes.

Press  to go to "Days".

Press  or  to change the number of days.

Press  to confirm the data.



If "INTERVAL" was selected in Step 4:

Press  to view 'Backwash' - filter backwashing in hours.

Press  to go to 'Hour'.



Press  or  to change the hour.

Press  to confirm the data.

6) CLOCK - Adjustment

Press  to display 'Date-Time' internal clock setting.

Press  to go to the day.

Press  or  to change the day.

Press  to go to the month.

Press  or  to change the month.

Press  to go to the year.

Press  or  to change the year.

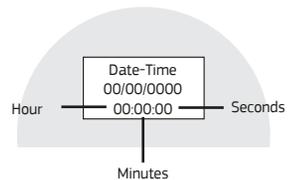
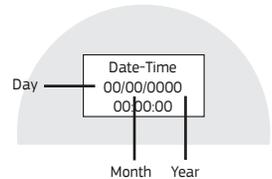
Press  to go to hour.

Press  or  to change the hour.

Press  to go to the minutes.

Press  or  to change the minutes.

Press  to go to the seconds.



Press  or  to change the seconds.

Press  for at least 3 seconds, then release, to exit the settings and return to the current time. After 1 minute the display will switch off.

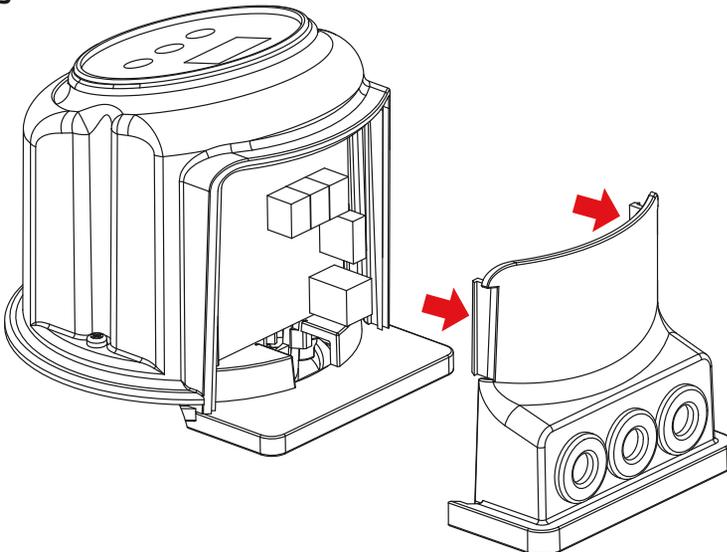
Optional Connections (purchased separately)



The IAB has 2 outputs for the solenoid valves and an input for the pressure differential switch to be connected as follows:

Remove the rear cover by using a screwdriver, inserting it in the 2 slots, and proceed as shown in Fig. 3.

Fig. 3



Solenoid 1

Voltage-free contact for managing auxiliary equipment served by the filter (e.g. solenoid valves, pumps, alarms, etc.). **Caution!** Since this is a voltage-free contact, this cable cannot be directly connected to electrical loads. **Caution!** In the event of an alarm, this contact is enabled.

Solenoid 2

Voltage-free contact for managing auxiliary equipment served by the filter (e.g. solenoid valves, pumps, alarms, etc.). **Caution!** Since this is a voltage-free contact, this cable cannot be directly connected to electrical loads. **Caution!** In the event of an alarm, this contact is enabled.

Differential Switch

Input for managing the pressure differential switch. **Caution!** Since this is a voltage-free contact, this cable cannot be directly connected to electrical loads. **Note:** The filter backwash will start 5 seconds after the signal from the pressure differential switch is received.

Jack

Standard input for the standard power cord supplied with the IAB system.

Fig. 4 - Connections

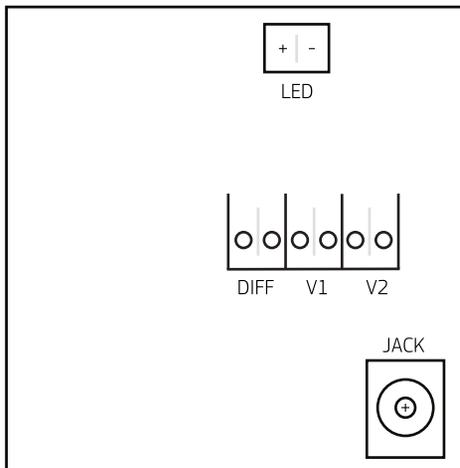
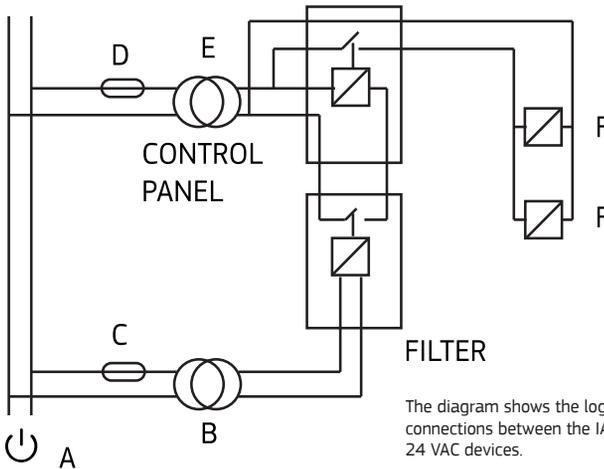


Fig. 5 - Solenoid 1



The diagram shows the logical functioning of the connections between the IAB filter, the control panel and 24 VAC devices.

- A: 230 VAC/50 Hz Power Supply
- B: Power Transformer
- C, D: Fuse
- E: Control Panel Transformer
- F: 24 VAC Devices - Served by the control panel.

Maintenance



Before carrying out any maintenance/work on the filter other than the automatic backwashing operation, disconnect the filter from the power supply and place the filter in the by-pass position.

Routine Maintenance

The IAB can be effectively cleaned in two different ways.

- **Fixed Interval:** The time interval is set for performing backwashing operation.
- **Time/Date:** The time and the interval in days are set for performing the backwashing operation.

Cleaning

The cleaning of plastic parts can only be performed with a soft damp cloth, without using any solvents, soaps or acid detergents.

Periods of Non-Use

For periods of non-use less than 30 days, perform the filter cleaning operation repeatedly (4-5 times). For non-use periods longer than 30 days, perform filter sanitisation.

Non-use means the that the plumbing system remains still without any water being drawn from the taps (e.g. holiday period).

If the plumbing system is subject to cleaning and sanitising maintenance, the IAB system should also be included in the maintenance plan.



The sanitising maintenance and must be carried out exclusively by a qualified plumber.

Periodic Checks



It is advisable to have a check performed every six months by an qualified plumber in order to ensure the system continues to perform.

Preventative Maintenance



Preventative maintenance or repair, if not correctly performed, can compromise the functional and/or safety features: these operations are deliberately omitted in this user guide.

Therefore, all preventative maintenance and repair not mentioned in this user guide must be carried out exclusively by Puretec or their agents.

In case of doubt, contact Puretec on 1300 140 140 (Australia) 0800 130 140 (New Zealand).

Diagnostic Page



The diagnostic page is used to display the correct operation of the filter and to carry out the filter disinfection procedure.

Access the diagnostic page by pressing    simultaneously and hold for 7 seconds.

Press  repeatedly to manually operate the selected continuous mode of the gear motor.

Press  and hold to manually operate the continuous gear motor in continuous mode.

Press  to activate the two solenoid relays (ON = enable or OFF = disable).

Press  to confirm and exit the diagnostic page.

If the filter is not in the correct position when exiting the diagnostic page, the gear motor will start to rotate until the system reaches the original filtration position.

Fig. 6 - Diagnostics Page

Hall Sensor:	ON
Pressure Sensor:	OFF
Motor:	OFF
Solenoid 1:	OFF
Solenoid 2:	OFF
Mot	Ext Rly

Troubleshooting

Problem	Cause	Solution
Low pressure.	Filtering element dirty.	Perform a manual backwashing.
The filter does not react when buttons are pressed.	Voltage interrupted. Electric circuit not working.	Check the power supply.
	Power supply unit defective.	Replace the power supply unit.
	Electric circuit not working.	Replace the electrical circuit.
ALARM flashing message on the display.	The filter is out of order.	Set the equipment to the by-pass mode. Disconnect and reconnect the filter power supply in order to reset the alarms. If necessary, contact Puretec.
The filter keeps performing backwashing procedures.	Differential switch blocked (if installed).	Contact Puretec on 1300 140 140 (AU) 0800 130 140 (NZ).
Leakage of water from the filter drain.	The drain valve is out of place.	

Warranty

Any claim under this warranty must be made within 1 year of the date of purchase of the product. This product is warranted to be free of defect of material and workmanship for 1 year from date of purchase. 1 year warranty is parts and labour only. Excludes consumables. To make a claim under the warranty, take the product and proof of purchase to place where you purchased the product, and they will lodge a Warranty Request with Puretec.

Puretec will pay your reasonable, direct expenses of claiming under this warranty. You may submit details and proof of your expense claim to place of purchase for consideration.

The warranty only applies if the product was used and/or installed in accordance with the user guide and/or installation instructions. This warranty is given in lieu of all other express or implied warranties and manufacturer shall in no circumstance be held liable for damages consequential or otherwise or delays caused or faulty manufacturing except as excluded by law.

Applicable to all above, is that the warranties need to be approved by Puretec to ensure product was not incorrectly used, installed or claimed. False and incorrect claims will be pursued at Puretec's discretion, including chargeable inspection and labour costs incurred.

Warranty/Australia

This warranty is given by Puretec Pty Ltd, ABN 44 164 806 688, 37-43 Brodie Road Lonsdale SA 5160, telephone no. 1300 140 140 and email at sales@puretec.com.au.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Australian Consumer Law. You are entitled to replacement or refund for a major failure and to compensation for 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.

Warranty/New Zealand

This warranty is given by Puretec Ltd, Reg. No 4464398, PO Box 875 Cambridge 3450, NZ, telephone no. 0800 130 140 and email at sales@puretec.co.nz.

This warranty is provided in addition to other rights and remedies you have under law: Our goods come with guarantees which cannot be excluded under the Consumer Guarantees Act. You are entitled to replacement or refund for a major failure and to compensation for 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.

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