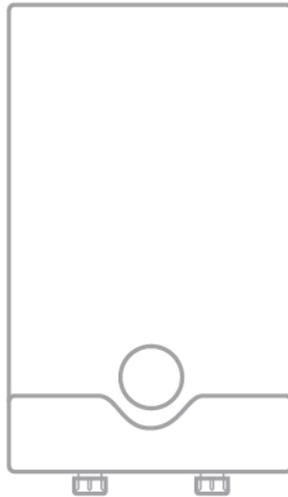




Product Instruction Manual

# Aquila



**IN96T**

Instantaneous Inline Water Heater

## Overview

Thank you for purchasing an Aquila Instantaneous Inline Water Heater. This 9.6 kW appliance is to be used for hand washing at up to 2 basins, or for a single light shower, or light dish washing. Instantaneous water heaters are energy efficient as they only consume energy when in use, so have no standing losses. The IN96T is mains pressure with external electronic temperature control. Bare wire heating systems offer rapid heat up times and a near instant supply of hot water.

Confirm that the flow rate and temperature performance is adequate for your application using the tables provided. This appliance is not suitable for use with thermostatic mixing valves or taps or to supply a single lever mixer tap.

Please read and follow these instructions to ensure that installation and operation are as simple and safe as possible.

## Important Safety Points

-  This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
-  Children shall not play with the appliance.
-  Cleaning and user maintenance shall not be made by children without supervision.
-  The appliance should only be installed and maintained by a competent person in accordance with any local electrical and plumbing regulations.
-  The appliance must be permanently connected to the electrical supply through an appropriately rated isolating switch with a separation in all poles.
-  Only connect the appliance to an electrical supply that meets the specification detailed on the rating label.



The appliance must be earthed.



Only connect this appliance to a water supply that meets the min/ max pressures specified in the specifications section of this manual.



This appliance is intended to be permanently connected to the water mains and should not be connected by a detachable hose-set.



The resistivity of the water supply must not be less than 1300  $\Omega\text{cm}$ .



This appliance should not be installed in a location where freezing can occur.



This appliance is not designed for outdoor use or use in damp environments.



Do not use a supply with incoming water temperatures greater than 60°C.

# 1. Installation

## Wall Mounting

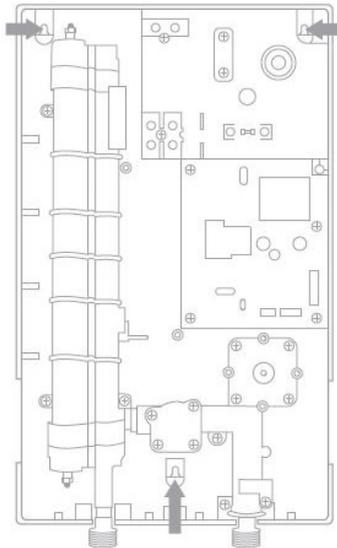
 Do not locate the appliance where the consequences of a water leak could be unusually serious.

 This appliance should not be installed in a location where freezing can occur.

 This appliance is not designed for outdoor use or use in damp environments.

- When choosing a location for the appliance, consider the visibility of any leak that might arise. This is particularly important when locating in a concealed area such as a cupboard.
- The appliance must be mounted horizontally with the inlet and outlet connections at the bottom of the appliance (see diagram 1).

Diagram 1



- Before attaching the appliance to the wall, consider the wiring route to the appliance. The electrical cable can enter through the opening in the back for concealed cabling. Knock out panels in the top right hand corner of the back plate and front cover are available for side entry.

- Remove the front cover from the appliance by means of the single screw located between the inlet and outlet fittings. The cover will lift first from the bottom and then unhook from the top. Carefully release the PCB lead from the main unit to completely uncouple the cover.
- It is advised that the appliance be located as close as practical to the hot water outlet in order to avoid unnecessary heat losses through the pipework.
- Once the preferred location has been decided, offer the appliance to the wall. Ensure the appliance is level and mark the hole locations onto the final mounting surface (see diagram 1).



Ensure there are no hidden cables or pipes before commencement of drilling.

- Take the appliance away from the mounting surface and drill the holes marked from the previous step.
- Insert wall plugs and offer the appliance back up to the mounting surface. Locate the screws through the unit and into the wall plugs and screw down securely.

## 2. Plumbing Connection



The resistivity of the water supply must not be less than 1300  $\Omega\text{cm}$ .



Do not use a supply with incoming water temperatures greater than 60°C.



Only connect this appliance to a water supply that meets the min/ max pressures specified in the specifications section of this manual.



This appliance is intended to be permanently connected to the water mains and should not be connected by a detachable hose-set.

- Ensure the following criteria are met for the water supply:
  - Minimum flow = 2.5 l/m
  - Pressure min/ max = 0.1 Mpa / 0.75 Mpa
  - Water resistivity =  $\geq 1300 \Omega\text{cm}$
- Suitable for use with pre-heated water e.g. solar heating systems to a maximum of 60°C.



Flush supply pipes to remove any debris before connecting the appliance to the water supply.



All pipework should be adequately earthed.

- Make the plumbing connections as indicated on the front cover of the appliance:  
Inlet (cold mains)  
Outlet (hot tap/ outlet)
- It is strongly recommended that a service valve be fitted close to the appliance on the cold feed, this will aid future maintenance.
- The inlet is the right hand pipe and the outlet the left, when viewed from the front.
- Turn on the cold mains feed and draw water through the appliance for several minutes by opening the hot outlet. Ensure a smooth flow of water from the outlet to confirm all air is purged from the system before closing the tap and carefully inspecting all connections to ensure water tightness. This step is required every time the appliance has been drained for any reason, such as routine maintenance.

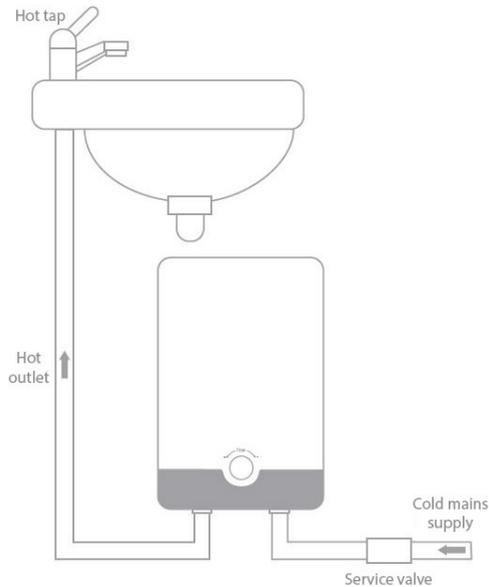
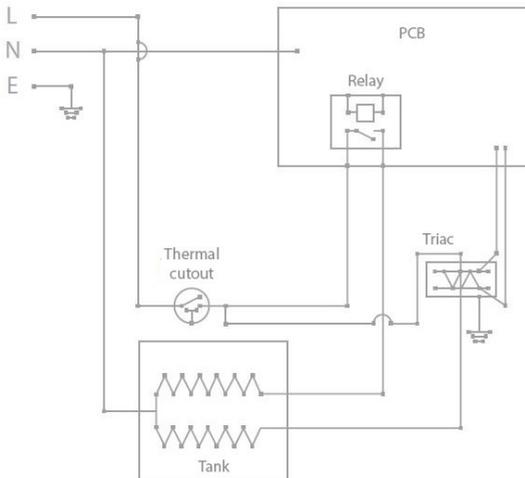


Diagram 2

### 3. Electrical Connection

-  Do not commence electrical installation before connecting the appliance to the water supply and verifying there are no leaks or air gaps.
  -  The appliance must be permanently connected to the electrical supply through an appropriately rated isolating switch with a separation in all poles.
  -  Only connect the appliance to an electrical supply that meets the specification detailed on the rating label.
  -  The appliance must be earthed.
- Connection to the appliance terminal should be made as follows:
    - Earth cable to the terminal marked 'E'
    - Neutral cable to the terminal marked 'N'
    - Live cable to the terminal marked 'L'

#### Wiring Diagram



## 4. Operation

- Once installed and connected to the electrical supply the appliance is ready for use.
- Once turned on the appliance will automatically power up when it detects a flow of water through it (min 2.5 l/m).
- Due to the nature of instantaneous heaters, water is only heated as it passes through the tank. Because the maximum power of the appliance is fixed there is a limit to the rate at which hot water can delivered.

### Controls

- 1 - Memory (record/ recall temp setting)
- 2 - Increase temperature setting
- 3 - Decrease temperature setting
- 4 - Power on/ off



### Selecting a temperature

- Turn on the appliance using the power on/ off. On first installation the temperature setting will default to 38°C. To adjust the temperature press the up/ down buttons until the desired target temperature is displayed.
- To store a frequently used temperature setting, press and hold the “M” button. This stores the current temperature and allows it to be recalled at any time by pressing the “M” button.

### Setting the maximum flow rate

- The flow rate is shown on the front display of the appliance in L/ MIN. If the desired temperature cannot be met at the current flow rate the temperature display will flash to indicate this. Adjust the flow down using the dial on the front of the appliance until the temperature display stops flashing.

- Once the desired temperature is selected the appliance will manage the power in order to ensure the temperature is not exceeded. The current power usage is displayed by the lines at the bottom of the display.



- Incoming water temperatures can vary depending on the time of year. For this reason the maximum flow rate may need adjusting down in order to maintain a suitable temperature during colder periods.
- The appliance has memory recall, it will revert to its previous operational state following a power interruption.

## 5. Cleaning and Maintenance



Never remove the cover of the appliance without first isolating from the electrical power supply.



The appliance should only be installed and maintained by a competent person in accordance with any local electrical and plumbing regulations.



Do not use abrasive chemicals or cloths to clean this appliance.



Isolate the appliance from the electrical and plumbing supply before performing any maintenance task.



The appliance should be drained if it will be switched off or unattended for any length of time, particularly during the colder months of the year where the possibility of freezing temperatures exists.



Ensure any future maintenance or modifications to the plumbing system also complies with the guidelines in these instructions.



Keep records of maintenance and ensure any future occupier of the building is fully aware of the content of these instructions.

- Visually inspect the appliance and its immediate surroundings regularly for any signs of water escape that might indicate the product may be nearing the end of its natural life.
- Use a soft damp cloth when cleaning, avoid excessive use of liquids.
- Check outlet of any tap connected to the heater at regular intervals and remove any build up of scale that might obstruct the flow rate of water through the appliance.

### Overheat Protection

- In the unlikely event of a malfunction, the appliance is fitted with a manual reset thermal cutout. This is located under the cover near the top of the heating chamber. To reset press the push button located in the centre of the device.
- Once reset, operate the appliance and ensure there is no underlying fault which is causing the water to overheat.

## 6. Temperature Performance

### Temperature/ Flow Rate

Maximum temperature increase from ambient incoming water supply temperature at a flow rate of:

Flow rate (l/m)	IN96T
2.5	55°C
3.0	45°C
4.0	34°C
5.0	27°C

Table 1

### Examples

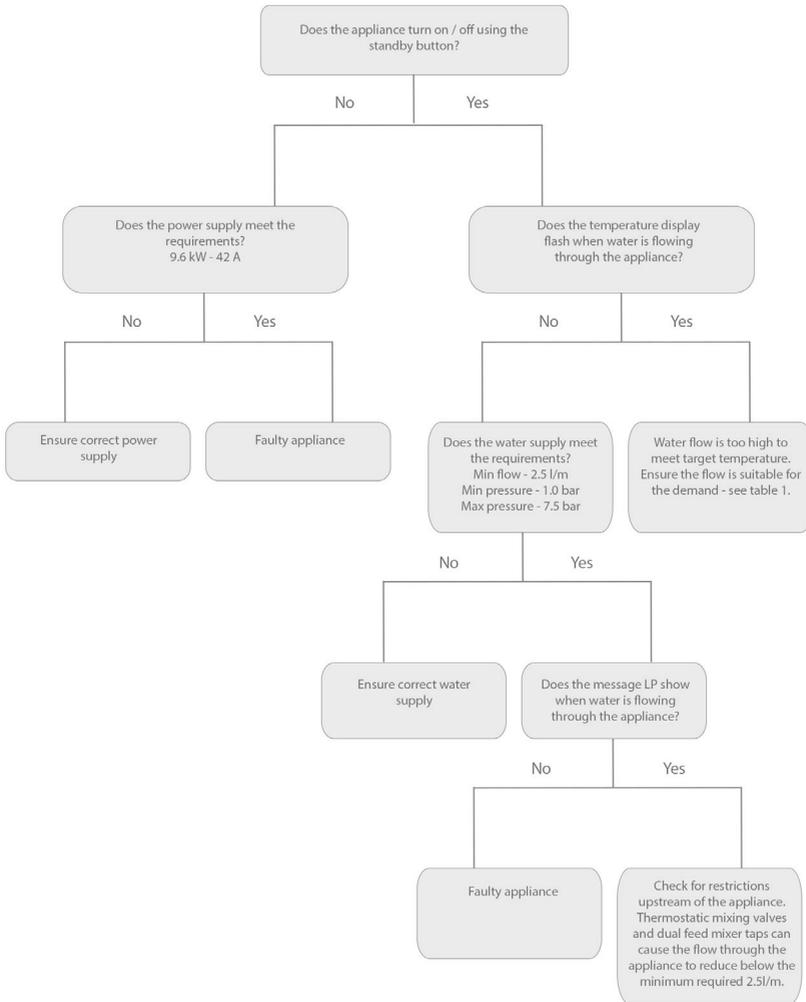
Maximum water temperature

Incoming water temperature	Flow rate	IN96T
13 °C - Winter	4.0 l/m	47°C
17 °C - Summer	4.0 l/m	51°C

## 7. Specification

<b>Model</b>	<b>IN96T</b>
<b>Power</b>	<b>9.6 kW</b>
<b>Voltage</b>	<b>230 V</b>
<b>Rated current</b>	<b>42 A</b>
<b>Frequency</b>	<b>50 Hz</b>
<b>Min operating flow rate</b>	<b>2.5 l/m</b>
<b>Min working pressure</b>	<b>0.1 MPa (1 bar)</b>
<b>Max working pressure</b>	<b>0.75 MPa (7.5 bar)</b>
<b>Max incoming water supply temperature</b>	<b>60 °C</b>
<b>Required water resistivity</b>	<b>≥1300 Ωcm</b>
<b>Water connection inlet/ outlet</b>	<b>1/2" BSP</b>
<b>IP rating</b>	<b>IPX4</b>
<b>Thermal cutout temperature</b>	<b>75 °C +/- 5</b>
<b>Dimensions (h x w x d)</b>	<b>140 x 190 x 80 mm</b>
<b>Weight empty</b>	<b>2.0 kg</b>
<b>Approvals</b>	<b>CE, UKCA, WRAS</b>

# 8. Troubleshooting



If problems persist contact Hyco Technical Department on 01924 225200.

## 9. Guarantee and Service Policy

This product is covered by a standard parts or replacement warranty for a period of 1 year from the date of purchase.

If there is a manufacturing defect within the warranty period we will send spare parts, repair and return the unit or, at our discretion, supply a replacement product. Incorrect installation, frost damage, the consequences of limescale deposits or failure to follow correct operating and maintenance instructions are excluded. Consequential costs such as labour charges or damage to fittings and surroundings are expressly excluded.

## 10. Contact Us

If you experience a problem with this product you should first contact our customer service department on 01924 225 200 before taking any further action. Experience has shown that issues can often be resolved without the need to return or uninstall the product.



### INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH THE EUROPEAN DIRECTIVE 2012/19/EU.

At the end of its working life this equipment must not be disposed of as household waste. It must be taken to a local authority waste collection centre or to a dealer providing this service. Disposing of electrical and electronic equipment separately enables its components to be recovered and recycled to obtain significant savings in energy and resources. In order to underline the duty to dispose of this equipment separately, the product is marked with a crossed out dustbin.

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