

HYCO
Manufacturing Ltd

9.6kW Instantaneous Aquila Water Heater

IN96T

Instruction Manual

Version 1.0 May 2014

PLEASE READ THESE INSTRUCTIONS BEFORE COMMENCING INSTALLATION. UPON COMPLETION OF INSTALLATION ENSURE THE INSTRUCTIONS ARE LEFT WITH THE USER/MAINTAINER OF THE PRODUCT.

9.6kW Instantaneous Aquila Water Heater IN96T

I. INTRODUCTION

Thank you for purchasing a Hyco instantaneous water heater. Instantaneous water heaters are very energy efficient since they only consume energy when they are used and so have no standing losses. The IN96T is a mains pressure multipoint instantaneous water heater with electronic temperature control, designed for handwashing at one or two basins, dishwashing at a single sink and can also be used for a single shower. Bare wire heating systems offer rapid heat up times for a near instant supply of hot water.

I. IMPORTANT SAFETY POINTS



THE APPLIANCE MUST ONLY BE CONNECTED TO A SINGLE PHASE SUPPLY.



ISOLATE ELECTRICAL AND WATER SUPPLY BEFORE INSTALLATION.



ELECTRICAL INSTALLATION MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE LATEST EDITION OF THE IEE WIRING REGULATIONS.



ONLY CONNECT THE APPLIANCE TO A POWER SUPPLY THAT CONFORMS TO THE SPECIFICATION STATED ON THE RATING PLATE.



THE APPLIANCE MUST BE EARTHED AT ALL TIMES.



THE APPLIANCE MUST BE PERMANENTLY CONNECTED TO THE ELECTRICAL SUPPLY THROUGH AN ISOLATING SWITCH WITH A CONTACT SEPARATION OF NO LESS THAN 3MM IN ALL POLES.



DO NOT USE THE APPLIANCE IF THERE IS ANY POSSIBILITY OF THE WATER SUPPLY BEING FROZEN.



NEVER REMOVE THE COVER OF THE APPLIANCE WITHOUT FIRST ISOLATING IT FROM THE ELECTRICAL POWER SUPPLY.



THIS APPLIANCE 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 THE SAFE USE OF THE APPLIANCE BY A PERSON RESPONSIBLE FOR THEIR SAFETY.



CHILDREN SHOULD BE SUPERVISED TO ENSURE THEY DO NOT PLAY WITH THE APPLIANCE.







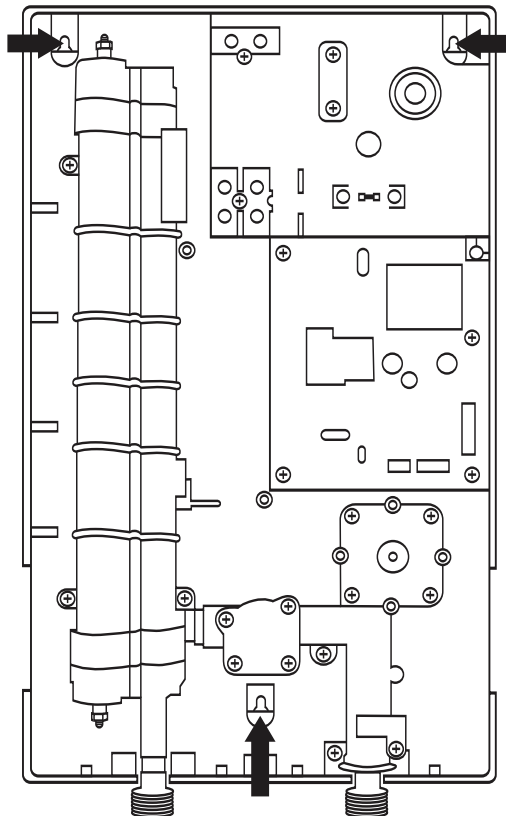
CLEANING AND MAINTENANCE SHALL NOT BE MADE BY CHILDREN.



DO NOT USE A SUPPLY WITH INCOMING WATER TEMPERATURES GREATER THAN 60°C.

3. WALL MOUNTING

-  DO NOT INSTALL IN AREAS WHERE THERE IS A RISK OF WATER FREEZING IN THE HEATER.
-  DO NOT INSTALL THE HEATER WHERE THE CONSEQUENCES OF A LEAK COULD BE UNUSUALLY SEVERE. (EG ABOVE COMPUTER EQUIPMENT)
-  WHEN CHOOSING A LOCATION FOR THE HEATER, CONSIDER THE VISIBILITY OF ANY LEAK THAT MIGHT ARISE. THIS IS PARTICULARLY IMPORTANT WHEN LOCATING IN A CONCEALED AREA SUCH AS A CUPBOARD.
-  THE HEATER MUST BE MOUNTED HORIZONTALLY WITH THE INLET AND OUTLET CONNECTIONS AT THE BOTTOM OF THE HEATER. (see diagram below).



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

Remove the front cover from the heater 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 heater 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 heater to the wall. Ensure the unit is level and mark the hole locations onto the final mounting surface (see diagram on previous page).



ENSURE THERE ARE NO HIDDEN CABLES OR PIPES BEFORE COMMENCEMENT OF DRILLING.

Take the heater away from the mounting surface and drill the holes marked from the previous step.

Insert wall plugs and offer the heater back up to the mounting surface. Locate the screws through the unit and into the wall plugs and screw down securely.

4. PLUMBING CONNECTIONS

Ensure the following criteria are met for the water supply:

- Minimum flow = 2.5L/min
- Pressure Min/Max = 0.1Mpa/0.75Mpa
- 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 HEATER TO THE WATER SUPPLY.

Make the plumbing connections as indicated on the front cover of the heater:

- Inlet (cold mains)
- Outlet (hot tap/outlet)

The inlet is the right hand pipe and the outlet the left, when viewed from the front. The supplied gauze should be installed into the cold inlet side of the plumbing.

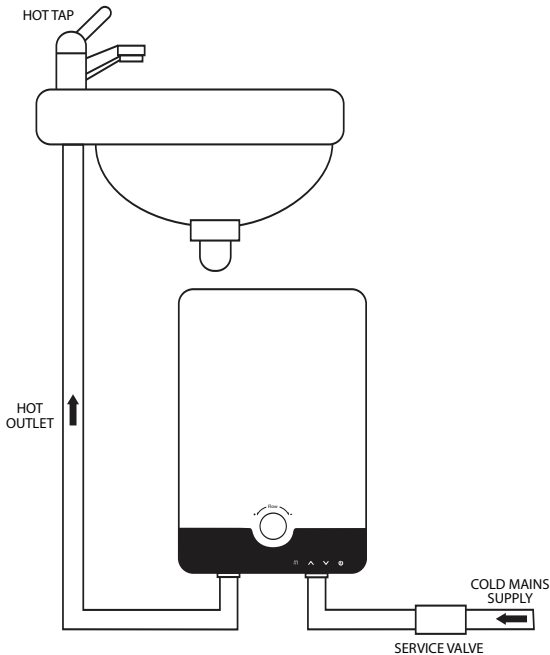


ALL PIPEWORK SHOULD BE ADEQUATELY EARTHED.



IT IS RECOMMENDED A SERVICE VALVE BE FITTED ON THE COLD FEED TO FACILITATE FUTURE MAINTENANCE.

Turn on the cold mains feed and draw water through the heater 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 and check for leaks on all connections. This step is required every time the heater has been drained for any reason, such as routine maintenance.



(Typical install example).

5.ELECTRICAL CONNECTION



DO NOT COMMENCE ELECTRICAL INSTALLATION BEFORE CONNECTING THE HEATER TO THE WATER SUPPLY AND VERIFYING THERE ARE NO LEAKS OR AIR GAPS.



ELECTRICAL INSTALLATION MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN IN ACCORDANCE WITH THE LATEST EDITION OF THE IEE WIRING REGULATIONS.



ELECTRICAL SUPPLY SHOULD BE CAPABLE OF ISOLATION VIA A DOUBLE POLED SWITCH.



THE HEATER MUST BE EARTHED.




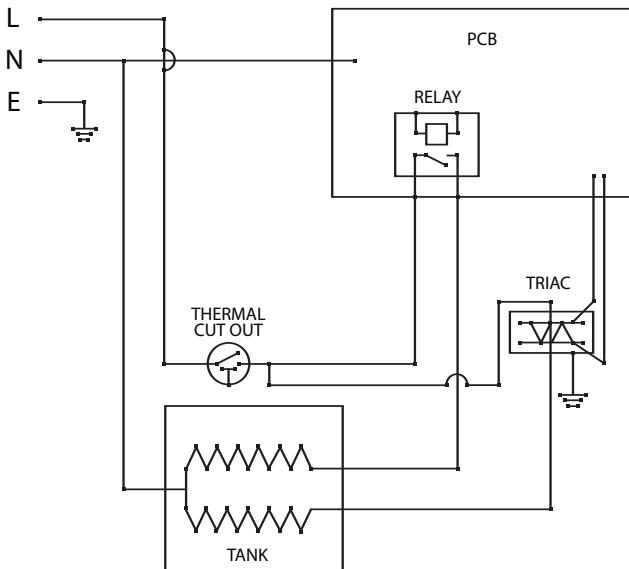
ISOLATE ELECTRIC AND WATER SUPPLY BEFORE ELECTRICAL INSTALLATION.



REFER TO THE RATING LABEL ON THE HEATER TO ENSURE CORRECT SPECIFICATION OF INSTALLATION.

Connection to the heaters 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'



6. OPERATING THE HEATER

Once installed and connected to the electrical supply the heater is ready for use.

Once turned on the heater will automatically power up when it detects a flow of water through it (min 2.5L/m).

Due to the nature of instantaneous heaters, water is only heated as it passes through the tank. Because the maximum power of the heater is fixed there is a limit to the rate at which hot water can delivered.

6.1 SELECTING A TEMPERATURE

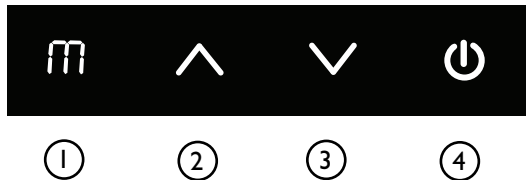
Turn on the heater using the Power On/Off.

On first installation the temperature setting will default to 38°C. To adjust this 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.

Controls:

1. Memory (record/recall temp setting)
2. Increase temp setting
3. Decrease temp setting
4. Power On/Off



6.2 SETTING THE MAXIMUM FLOW RATE

The flow rate is shown on the front display of the heater 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 heater until the temperature display stops flashing.



Once a desired temperature is selected, the heater will manage the power in order to ensure the temperature is met. The current power usage is displayed by the lines at the bottom of the display.



INCOMING WATER TEMPERATURES CAN VARY DEPENDING UPON THE TIME OF YEAR. FOR THIS REASON THE MAXIMUM FLOW RATE MAY NEED ADJUSTING DOWN IN ORDER TO MAINTAIN A SUITABLE TEMPERATURE DURING COLD PERIODS.

6.3 OVERHEAT PROTECTION

In the unlikely event of a heater malfunction, the unit is fitted with a manual reset thermal cut-out. 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.



NEVER REMOVE THE COVER OF THE APPLIANCE WITHOUT FIRST ISOLATING IT FROM THE ELECTRICAL POWER SUPPLY.



ONLY RESET THE UNIT ONCE THE CAUSE OF THE OVERHEAT IS UNDERSTOOD AND ELIMINATED.

7. TECHNICAL SPECIFICATION

IN96T	
Power supply	230V ~ 50Hz
Dimensions	H370 x W230 x D70mm
Power	9600W
Protection class	IPX4
Rated Current	42A
Min/Max temperature setting	30/60°C
Over heat protection temperature	75°C +/-5
Minimum operating flow rate	2.5L/Min
Minimum operating pressure	0.1MPa
Maximum rated pressure	0.75MPa
Required Water resistivity	≥ 1300 Ω cm
Maximum incoming water supply temperature	60°C
Water fittings	1/2" BSP

8. MAINTENANCE



ALWAYS DISCONNECT THE POWER BEFORE COMMENCING ANY CLEANING OR MAINTENANCE.



NEVER OPEN THE COVER OF THE HEATER WITHOUT FIRST ISOLATING THE MAINS POWER SUPPLY.

To clean the heater only use a clean damp cloth, do not use abrasive compounds.

Electrical and plumbing components should be inspected on a regular basis by a suitably qualified/competent person.

9. TROUBLE SHOOTING

Defect	Possible cause	Action
Water is too hot	Temperature set too high on the heater	Turn down the temperature on the heater (see section 6.1).
Water is too cold	Water flow rate is too high	Decrease flow rate (see section 6.2).
	Temperature setting is too low	Turn up temperature setting (see section 6.1).
No display on the heater	Unit in standby	Turn On the heater (see section 6.1).
	Power supply problem	Check that power is supplied to heater and is correct specification as per the rating label.
	Thermal cut-out has operated	Establish the cause of the of the over-heat before resetting the cut-out (see section 6.2).

For technical faults that cannot be resolved using the trouble shooting table contact the technical department on 01924 225200 for further assistance and advice.

10. GUARANTEE AND SERVICE POLICY

This product is guaranteed against faulty materials and manufacture for a period of one year from the date of purchase. Hyco will in its sole discretion replace, repair or refund any faulty unit. Incorrect installation, frost and lime scale damage are excluded. Consequential costs such as labour charges or damage to fittings and surroundings are expressly excluded.



INFORMATION FOR CORRECT DISPOSAL OF THE PRODUCT IN ACCORDANCE WITH THE EUROPEAN DIRECTIVE 2002/96/E.

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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