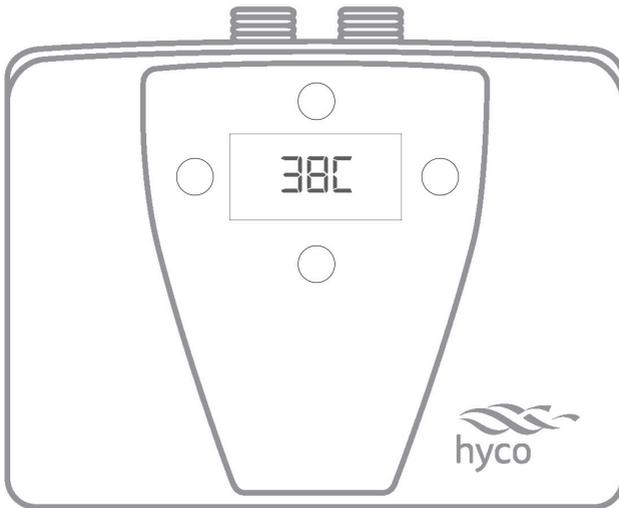




Product Instruction Manual

# Ara



**IN30T**

Instantaneous Inline Water Heater

## Overview

Thank you for purchasing an Ara Instantaneous Water Heater. Instantaneous water heaters are very energy efficient as they only consume energy when they are in use, so have no standing losses. The IN30T is intended for light hand washing at a single basin and must be used with a spray head tap.

## Key Features

- Hot water for light handwashing at a single basin only
- Bare wire heating system gives fast heat up time
- Heats the water instantly as it flows through the unit
- Energy efficient – no standing heat losses
- Compact space saving design
- External electronic thermostatic control accurate to the nearest degree
- LED temperature display
- Energy saving – only uses the power required to deliver the chosen temperature
- Not suitable for use with thermostatic mixing valves or taps or to supply a mixer tap

Please fully read these instructions before commencing installation and follow to ensure that installation and operation are simple and safe.

## 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 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 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 supply cord cannot be replaced by the user. If the supply cord is damaged the appliance should be returned to the manufacturer or an authorised service agent for replacement.

# 1. Installation

## Choosing Heater Location



This heater should not be installed in a location where the risk of freezing cannot be managed.



The heater is not suitable for use with thermostatic mixing valves or taps or to supply a mixer tap.

- Consider the risks and consequences posed by any potential leak from the product or supply pipework in the future. Avoid installation in areas where the consequences of a leak could be unusually severe e.g. above computer equipment
- Consider the potential for the pipework or heater freezing and take preventative action if required e.g. pipe lagging.
- 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 and improve delivery performance.

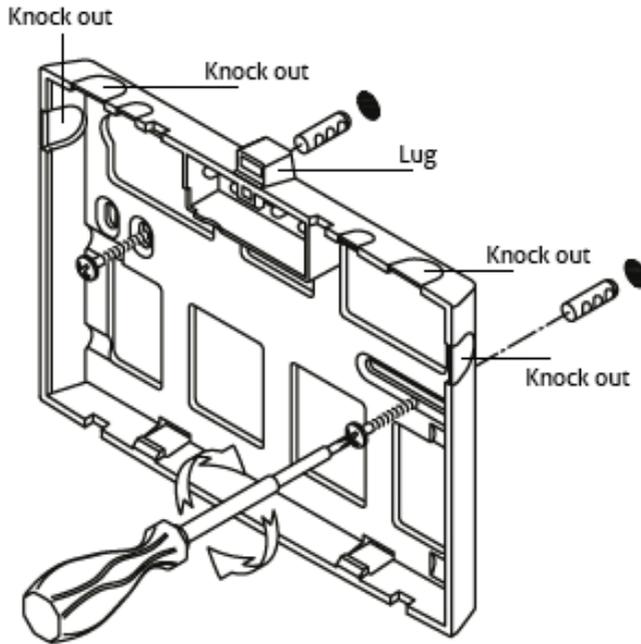
## Removing and Mounting the Bracket



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

- Use a flat headed screwdriver or similar, place it into the lug on the bracket (between the inlet/outlet connections, see diagram 1) and then gently lever the bracket away from the heater.
- To remove the bracket fully from the unit pull down at the bottom of the bracket.
- When refitting the unit to the bracket reverse the process.
- Before attaching the bracket to the wall, consider the wiring route to the heater. The bracket on the heater has an additional knock out section to allow the wire to exit from either the left, right or top of the bracket depending on wiring requirement.

- The unit can be installed with the inlet and outlet at the top or at the bottom. Ensure the bracket orientation corresponds with the unit. When installed with the inlet and outlet at the bottom of the heater the electronic temperature display will rotate automatically.
- Mark and drill two holes using the bracket as a template. Use the supplied wall plugs and screws to attach the bracket to the wall (see Diagram 1).
- Refit the unit to the bracket to complete mounting.



**Diagram 1**

Cable defaults out of the right hand side when viewed from the front and installed with the inlet/outlet at the top of the unit. Supplied pre knocked out but can be changed if desired.

## 2. Plumbing Connection



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



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



The water resistivity must not be less than 1300  $\Omega\text{cm}$  @15 °C.

- The maximum water supply temperature for this heater should not exceed 30°C.
- Using the supplied washer with gauze, make a connection from the incoming cold-water supply to the inlet side of the heater (blue collar). It is recommended a service valve (not supplied) is fitted on the incoming supply to facilitate any future maintenance.
- Make a connection from the outlet side of the heater (red collar) to the hot water tap.
- The supplied 1.6 l/min (litres per minute) flow restrictor must be fitted to the hot water tap (compatible hot water tap required).
- Turn on the cold water supply and open the hot water tap. Allow the water to flow for several minutes to purge all air from the heater. This step is required every time the heater has been drained for any reason, such as routine maintenance.
- Close the hot water tap and check all connections are watertight under pressure.

### 3. Electrical Connection

-  Before switching on power to the unit the system must be full of water and tested for leaks.
  -  Electrical installation must be carried out by a qualified electrician in accordance with the latest edition of the IEE wiring regulations.
  -  The heater must be earthed.
  -  Isolate electric and water supply before electrical installation.
  -  Ensure all wiring provisions meet the specifications of the heater as stated on the rating label and 'Specification' section of this manual.
- Make connection to the electrical supply from the heater via an appropriately rated fused spur using the cable supplied.
  - Connection should be made as follows:
    - Green/Yellow earth wire to the terminal marked "E" or 
    - Brown/Red live wire to the terminal marked "L"
    - Blue/Black neutral wire to the terminal marked "N"

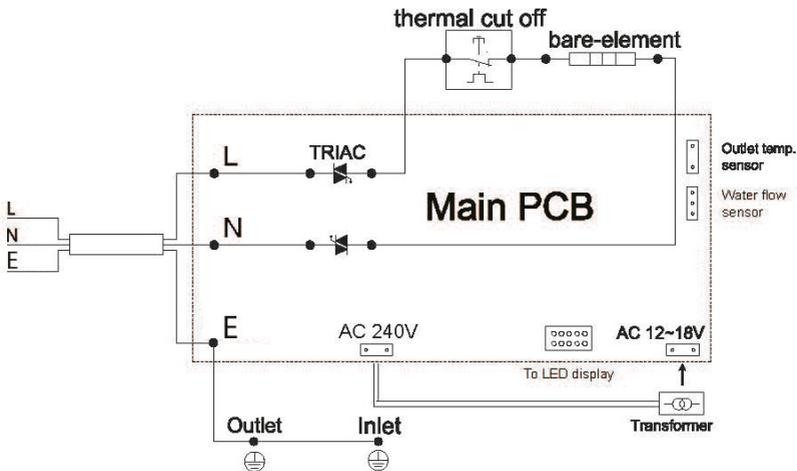


Diagram 2

## 4. Operation



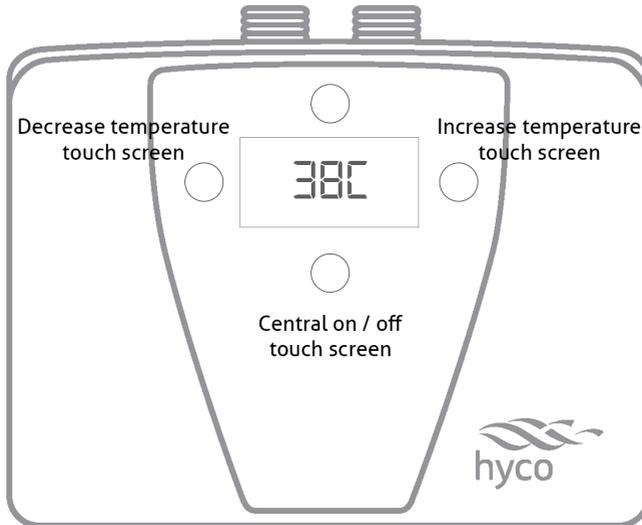
Before switching on power to the unit the system must be full of water and tested for leaks.



This water heater is for low flow hand washing at a single basin only.



Instantaneous heaters only heat water 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 be delivered.



**Diagram 3**

- Turn on the heater using the on/ off touch screen (see diagram 3). It will automatically begin heating when it detects a flow of water through it.
- On first installation the heater requires an initial 12 seconds (approx) of continuous water flow through the unit to start heating.
- When the water flow is turned on using the outlet/ tap, the heater will display the current water temperature. The electronic temperature display will only operate whilst water is flowing through the heater.
- Whilst water is flowing through the heater, the target temperature can be adjusted using the left / right hand touch screen adjustments. After a second or two the heater will go back to displaying the current water temperature and the new setting is stored.

- Once the target temperature is set the heater will aim to reach it and will never exceed it.
- The heating performance of the heater is based on flow rates, the slower the flow the higher the temperature uplift. The delivered temperature is the incoming water temperature plus the temperature uplift (flow dependent).
- A flow restrictor is supplied with this heater which, when fitted into the nozzle of a tap will ensure a steady flow rate of 1.6 l/min is maintained. With this a temperature uplift of 27°C is achieved.
- The incoming water temperature can fluctuate dependent on time of year in the UK. Winter may result in incoming temperatures below 10°C, whereas summer water temperatures can be upwards of 15°C. It is imperative this is taken into account.
- For example the heater could deliver 42°C water in the summer (with an incoming water supply temperature of 15°C). The same product with the same flow rate would only be able to deliver 37°C in winter (due to a lower incoming water temperature of 10°C). The delivered temperature will be even lower if the incoming water supply temperature is less than 10°C.
- If there is a power interruption the heater will recall the last selected temperature. When power is restored the heater must be turned back on using the bottom on/off touch screen. Following this, it will again require 12 seconds (approximately) of continuous water flow through the unit to start heating.

# Adjusting Water Flow Rate

A flow restrictor is supplied and must be fitted to the outlet/tap attached to this heater. This is the best way to control the performance of this product and so adjustment of the flow rate should not be necessary except in areas with notably high incoming water pressures.

- Press down on the ribbed area of the cover and move towards the wall.
- Apply pressure to the rear of the cover until the front lifts.
- Remove the cover by pulling it forwards.
- Adjust the screw to the desired setting. Turn anticlockwise for maximum water flow. Turn clockwise to reduce the water flow.

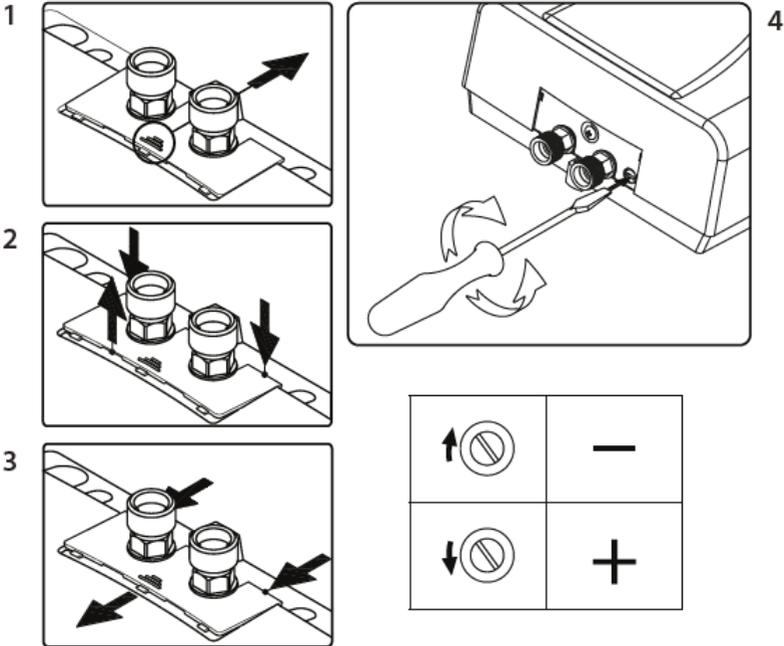


Diagram 4

## 5. Cleaning and Maintenance



To clean the heater cover 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.

- Always disconnect the power before commencing any cleaning or maintenance.
- Never open the cover of the heater without first isolating the mains power supply.
- If the flow rate drops on the heater, check the spray head and inlet gauze (fitted to the inlet plumbing connection) and clear any debris/ descale as required.
- The spray head of any tap connected to the heater should be routinely checked for scale build up and any scale removed as necessary.

## 6. Specification

<b>Supply</b>	230V ~ 50Hz
<b>Dimensions</b>	H130 x W186 x D90 mm
<b>Power</b>	3.0 kW
<b>Protection class</b>	IP24
<b>Rated current</b>	13A
<b>Overheat protection temperature</b>	85 °C
<b>Min operating flow rate</b>	1.2 l/min
<b>Min operating pressure</b>	0.05 MPa (0.5 bar)
<b>Max rated pressure</b>	0.8 MPa (8 bar)
<b>Required water resistivity @ 15 °C</b>	≥1300 Ωcm
<b>Max incoming water supply temperature</b>	30 °C
<b>Water fittings</b>	1/2" BSP
<b>Min temperature setting</b>	35 °C
<b>Max temperature setting</b>	50 °C

## 7. Troubleshooting

Problem	Likely Fault(s)	Solution
The heater will not reach the target temperature (water is too cold)	Flow rate is too high	Ensure an appropriate flow restrictor is fitted to the outlet (1.6 l/min restrictor supplied with unit)
The heater will not reach the target temperature (water is too cold)	A target temperature has been set which is outside the performance parameters of the unit	Review the temperature performance information in the operation section and select an achievable target temperature or if left the unit will get as close as possible to the target
The control lights illuminate but the heater does not display any temperature when water is flowing	Flow rate is too low	Ensure a minimum flow of 1.2 l/min
The control lights illuminate but the heater does not display any temperature when water is flowing	Pressure is too low	Ensure a minimum of 0.05 Mpa
No lights on the heater	No electrical supply	Check electrical supply
No lights on the heater	Heater not switched on	Switch on using the bottom on/off touch screen
No lights on the heater	No water flowing through the heater	Turn on/ open the tap
No lights on the heater	Unidentified issue	Contact Hyco for further support
Can't adjust the temperature setting	Water is not flowing through the heater	Turn on/ open the tap
Water is too hot	Temperature selection is too high	Reduce the target temperature setting to the desired temperature



#### 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.

## 8. Guarantee

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.

## 9. Contact Us

If you experience a problem with this product you should first contact our 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.



Hyco Manufacturing Ltd  
Normandy Court  
Express Way  
Castleford, WF10 5NR

[hyco.co.uk](http://hyco.co.uk)



T 01924 225 200  
F 01924 225 210  
E [sales@hyco.co.uk](mailto:sales@hyco.co.uk)