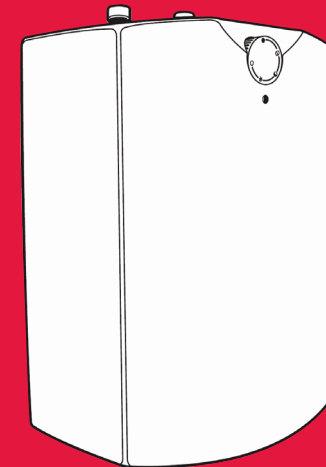


## Installation, Maintenance and User Instructions

# ZIPAquapoint III

Models AP3/05, AP3/10, AP3/15,  
AP3/05/OB, AP3/10/OB, AP3/15/OB  
Direct unvented water heaters

Issued November 2008



Please read these instructions carefully **before** commencing installation  
of Aquapoint unvented water heaters.

Please leave these instructions with the end user after installation.

**Zip**<sup>®</sup>  
Instant Boiling Water

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Zip products described in the brochure are manufactured  
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AU637412, AU635979, GB0422305, GB2065848,  
US4354049, US5103859, US5099825. Other patents are  
in force and patent applications are pending.

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**Installation must only be undertaken by a competent person, familiar with unvented electric water heaters.**

**The Zip Aquapoint must be installed in accordance with these instructions and all current legislation, codes of practice and regulations governing the installation of unvented hot water cylinders in force at the time of installation.**

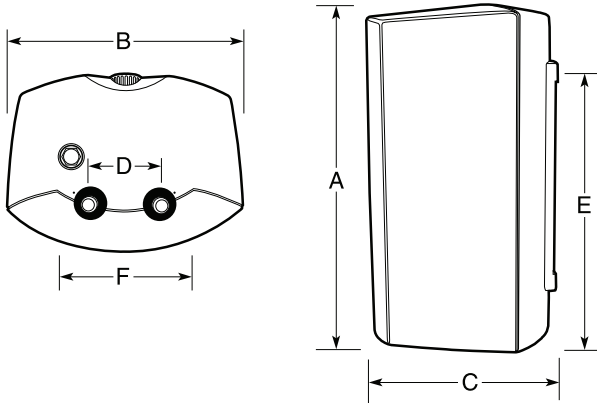
# Specification

- Product:** Zip Aquapoint III
- Type:** Direct unvented multipoint
- Capacity:** 10 litre, 15 litre
- Loading:** 2.0kW
- Thermostat:** Adjustable 7°C to 75°C
- Thermal cut-out:** Manually re-settable set to 85+/-3°C
- Water vessel:** Glass enamelled steel tested to 12 bar. Maximum working pressure 6 bar
- Safety Features:** Expansion relief valve set to 6 bar (supplied)  
Manually re-settable over temperature safety cut-out  
Provision to fit Pressure and Temperature relief valve (available as an optional accessory)  
Sacrificial anode to provide anti-corrosion protection for the vessel and element.
- Approvals:** Zip Aquapoint III complies with LVD and EMC directives and is CE endorsed.
- Zip Aquapoint III has been examined, tested and found, when correctly fitted, to comply with the requirements of the United Kingdom Water Regulations/Byelaws (Scotland). The product, therefore, is listed under the WRAS (Water Regulations Advisory Scheme) Water Fitting and Materials Directory.
- Models:**
- |          | <b>Underbasin</b> | <b>Overbasin</b> |
|----------|-------------------|------------------|
| 5 litre  | AP3/05            | AP3/05/OB        |
| 10 litre | AP3/10            | AP3/10/OB        |
| 15 litre | AP3/15            | AP3/15/OB        |

**Performance:**

Model	Heat up time (15° to 65°C)	Re-heat time (70% vol.)	Heat Loss (kW/24 hrs)
AP3/05 (OB)	11 mins	7 mins	0.25
AP3/10 (OB)	18 mins	12 mins	0.33
AP3/15 (OB)	32 mins	18 mins	0.44

## Dimensions



Model	Capacity (litres)	Dimensions (mm)				Fixing Centres (mm)		Weight (kg)		Water Connections
		A	B	C	D	E	F	Empty	Full	
AP3/05 (OB)	6	376	256	260	100	252	140	6.7	12.7	1/2" BSP
AP3/10 (OB)	10	480	350	265	100	378	140	8.5	18.5	1/2" BSP
AP3/15 (OB)	15	480	350	310	100	378	140	9.8	24.8	1/2" BSP

## Special notices

These instructions should guide you through the installation, maintenance and use of the Zip Aquapoint III, however, if you require any further information please call Zip Customer Service on 0845 602 4533.

- The Zip Aquapoint is an unvented water heater designed for connection directly to the incoming mains water supply and can serve one or more outlets using conventional taps.
- Care should be taken that the capacity of the unit chosen is sufficient to meet the demands of the outlets being supplied.
- The casing is constructed from impact resistant plastic and heat losses are minimised by the high efficiency polyurethane foam insulation.
- The inner vessel is constructed from glass enamelled steel sheet and pressure tested to 12 bar.
- A manually re-settable safety cut-out automatically cuts off the electrical supply to the heating element in the event of a malfunction.

- A sacrificial magnesium anode is fitted to the vessel to provide anti-corrosion protection for the vessel and element. Gradual erosion of the anode will occur depending upon local conditions and, in extreme cases, conditions may cause rapid erosion resulting in particles being deposited as a residue or emitted from the heater. The Aquapoint should not, therefore, be used in critical applications where water quality is paramount. Regular preventive maintenance inspections are vital to achieve optimum performance and durability of the appliance. The condition of the anode should be checked regularly by an authorised Zip service provider as part of the preventive maintenance programme.

**If the hot water system is not used for two weeks or more, it is recommended that a hot tap be turned on for several minutes at a sink, basin or bath, but not at a dishwasher, clothes washer or other appliance before returning to service.**

## ***Installation***

### **Requirements**

1. These instructions must be read and fully understood before commencing the installation. If in doubt, or in need of further guidance, please call Zip Customer Service on 0845 602 4533.
2. Zip Aquapoint unvented water heaters must be installed by a competent installer, familiar with unvented electric water heaters.
3. Installations must comply fully with UK Water Regulations and any Local Authority requirements.
4. The electrical installation including earthing and cross-bonding should comply with the current IEE regulations and any Local Authority requirements.
5. The Zip Aquapoint is designed for connection direct to the incoming mains water supply and accommodation must be made for the expanded water that will occur with each heating cycle. Regulations permit expanded hot water to be accommodated within the supply pipe work provided that no check valve, stop valve with loose jumper or other fitting can prevent reverse flow. (See *diagram 1 on page 8*).

Where the expanded water cannot be accommodated in the pipe work and the static water supply pressure is under 4 bar fit accessory pack AQ2 (expansion vessel and check valve). Where static water pressures are likely to exceed 4 bar fit accessory pack AQ2 and AQ3 (pressure reducing valve and line strainer). (See *diagrams 2 and 3 on page 8*).

6. If required a Temperature and Pressure relief valve (accessory AQ1) can be used with any installation by fitting securely into the locating point provided.
7. The 6 bar expansion relief valve must be fitted on the cold water supply. Under no circumstances should the expansion relief valve be installed in an inverted position as fouling of the seat caused by deposits may prevent it from operating correctly.

Safety relief valve connections should not be used for any other purpose and no valve should be fitted between the expansion relief valve and the storage cylinder.

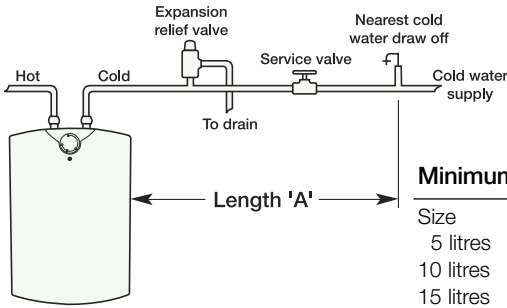
8. The drain connection from the expansion relief valve and the T&P valve, if fitted, must be in accordance with Water Supply Regulations. The point of discharge must be in a safe and visible position. The connection should be made using 15mm pipe having a continuous fall to a maximum length of 3 metres. It shall not have more than 3 right-angled bends. If a waste connection in excess of 3 metres is necessary the pipe diameter should be 22mm with continuous fall and no more than 4 right-angled bends with a maximum resistance to flow equivalent to 9 metres of straight pipe.
9. An isolating valve must be fitted to the cold water supply.
10. Valves and fittings must be of a type required by Water Supply Regulations

## Positioning

1. The Zip Aquapoint must be installed vertically. The connections should be at the rear of the unit. When facing the heater the hot supply (red) is to the left, and the cold feed (blue) to the right.
2. The heater may be mounted above or below the intended outlets providing the water connections for the undersink models are at the top and for the oversink models underneath. **N.B. Undersink and oversink models are not interchangeable.** The fixings must be capable of supporting the heater when full of water.
3. The undersink unit can be placed unsupported on the floor or cupboard base, but if additional support is required, securing screws are supplied that locate to the rear of the casing.
4. Position the Zip Aquapoint to allow for its removal for future inspection and maintenance.
5. The Zip Aquapoint is not recommended for installation above false ceilings.
6. Do not install in a location where the unit or connecting pipe work can freeze.

When deciding the final location of the heater consideration should be given to the safe and visible disposal of any water resulting from leaks or seepage. This is particularly relevant when the heater is located in a roof space, cupboard or any concealed location. For guidance please call Zip Customer Service on 0845 602 4533.

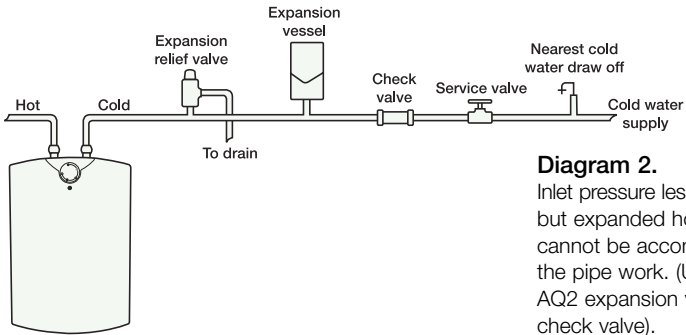
### Underbasin model shown



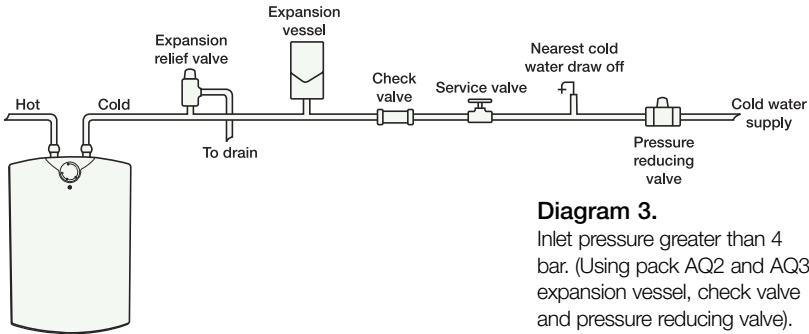
**Diagram 1.**  
Inlet pressure less than 4 bar and expanded hot water can be accommodated in the pipe work.

#### Minimum length of pipe – Length 'A'

Size	15mm pipe	22mm pipe
5 litres	1.2m (4ft)	0.6m (2ft)
10 litres	2.7m (9ft)	1.2m (4ft)
15 litres	4.2m (14ft)	1.8m (6ft)



**Diagram 2.**  
Inlet pressure less than 4 bar but expanded hot water cannot be accommodated in the pipe work. (Using pack AQ2 expansion vessel and check valve).



**Diagram 3.**  
Inlet pressure greater than 4 bar. (Using pack AQ2 and AQ3 expansion vessel, check valve and pressure reducing valve).

## Plumbing

1. Check the incoming water supply pressure as this will determine the layout and safety controls required. Remember that the mains water pressure can increase considerably at night.
2. Refer to diagrams 1 to 3 to determine accessories required and layout.
3. Position the heater and controls to allow for future maintenance.
4. All control and safety valves are marked to show the direction of water flow and will not function if incorrectly orientated. Do not break any seals or attempt to adjust any safety valve; to do so may impair the safety of the installation and will invalidate the warranty.
5. To ensure a watertight seal use fibre washers for connecting the inlet and outlet pipes to the heater. Complete the seal by applying PTFE tape to the threads but do not over-apply or extend beyond the limits of the thread as this will lessen the effectiveness of the joint. Do not use plumbers paste to secure joints as this can impair the operation of any valves connected to the heater.
6. An isolating service valve (not supplied) should be fitted in the cold water supply pipe-work as shown in diagrams 1 to 3.
7. Flush all pipe work thoroughly before making the final connections to the valves, accessories and cold feed to the heater to ensure that any debris is removed. Failure to do this may result in irreparable damage to the controls and will invalidate the warranty.

## Electrical

1. Switch off the mains electrical supply before carrying out any work involving a live circuit or access to components that may be live.
2. The Zip Aquapoint is pre-wired with a length of 3 core cable suitable for connection to a mains 240v supply. Connection must be made in accordance with current IEE wiring regulations to a double pole isolating switch on a dedicated circuit or a double pole switched spur.
3. If the cable length is insufficient it is recommended that the entire length is replaced and no joins made to the original. To replace the cable:
  - a. Prise the temperature control knob off the spindle and remove the fixing screw located beneath
  - b. Release the two fixing screws at the top of the cover assembly
  - c. Remove the cover by lifting forwards and upwards
  - d. Release the locknut on the cable grommet assembly



- e. Remove the existing cable and pass the new cable through the grommet assembly
  - f. Remake the cable connections and tighten the grommet locknut to ensure the cable is securely clamped
  - g. Refasten the cover.
4. All internal wiring is factory mounted and should not be altered or modified.
- This appliance must be earthed.**
- Do not switch on the electrical supply until the water heater is full of water.**

## Commissioning

1. Check that all the requirements under "Installation Requirements" have been met.
  2. Check that all water and electrical connections are correct and tight.
  3. Open a hot water tap.
  4. Open the isolating valve and permit the heater to fill.
  5. Close the hot tap when water starts to flow from it.
  6. Check for leaks and rectify as necessary.
  7. Check the operation of the expansion relief valve and the T&P valve, if fitted.
  8. Manually operate Expansion Relief Valve to ensure free water flow through the discharge pipe by turning the knob to the left and holding in the open position.
  9. Set the temperature control knob to the desired position. The 'E' position with a water temperature of approx. 55°C is recommended for economical operation while minimising lime-scale deposits and thermal losses.
- Note:
- Rotating the temperature control knob varies the water temperature over the range 7°C to 75°C.
  - The maximum temperature can be limited by prizing the front cover off the temperature control knob and re-positioning the limit pin from position 'O' to position 'A' max 55°C, 'B' max 45°C or 'C' max 35°C.
  - Hot water at 55°C or more can scald.
  - The "\*" position provides frost protection while the heater is connected to power.
10. Switch on the electrical supply to the unit. The red neon light will glow during the heating cycle and will extinguish when the selected temperature is reached until the next heating cycle.
  11. During the heating cycle no water should escape to waste from either the expansion relief or T&P relief valves.

12. Allow the heater to reach the selected temperature when the pilot light will extinguish. Check the water temperature and re-check water connections adjusting as necessary
13. Pass these instructions to the person responsible for the building management

## ***Maintenance***

### **Precautions**

1. The Zip Aquapoint is an unvented electric water heater and a competent person, familiar with unvented systems, should carry out all servicing and maintenance
2. Do not remove the cover whilst the unit is connected to the electrical supply
3. The over temperature safety cut-out is located inside the cover. Do not reset the over temperature cut-out until the cause of its operation has been diagnosed and necessary repairs have been undertaken
4. Do not use the water heater if it is suspected of being frozen. Switch off the electrical supply if water ceases to flow and do not switch on again until a competent person has checked that it is safe to do so
5. The heater should be visually inspected regularly. This is particularly important if the heater is located in a cupboard, roof space or any other concealed location. If there is any sign of leaks or seepage the heater should be isolated from the water supply and switched off from the electrical supply until a competent person has investigated the cause.
6. Do not block or restrict the discharge from any safety valve
7. Do not tamper with any safety valve
8. If water discharges from any safety valve switch off the electrical supply to the unit, isolate the water supply and contact a competent person familiar with unvented systems
9. Please note that lime-scale deposits form more readily at higher temperatures. Damage or failures caused by the formation of lime-scale are specifically excluded under the terms of the warranty. To reduce lime-scale formation to a minimum the unit should always be operated at the lowest convenient temperature. The 'E' temperature setting is recommended.
10. If the unit has been commissioned and is to be unused for more than two weeks with the power supply still connected the thermostat should be set to '\*' to maintain a temperature of approx. 7°C and protect the unit from freezing. NB this protection does not extend to connecting pipework.

## Schedule

It is recommended that all key components of the heater should be inspected on a regular basis, no greater than twelve monthly intervals, for continued safe and efficient operation. The inspection should be carried out by a competent person familiar with unvented systems and the components to be inspected should include the following:

1. Sacrificial anode. The condition of the anode should be checked regularly by an authorised Zip service provider as part of the preventive maintenance programme and to ensure its effectiveness in protecting the vessel and element from corrosion.

To check the condition of the anode visually through the flange opening first remove the thermostat temperature probe and disconnect the electrical wires to the element before unscrewing the element assembly and removing it.

If the anode is badly corroded it should be replaced after removing it by grasping with long tongs or other suitable tool through the flange opening while unscrewing the securing nut on top of the vessel.

2. Expansion relief valve. Check correct operation.
3. T&P relief valve, if fitted. Check for correct operation.
4. Expansion vessel, if fitted. Check pressure – refer to label on vessel for correct pressure.
5. Integral line strainer, if pressure reducing valve fitted. Inspect and clean as necessary.
6. Check that the discharge pipe-work is free of any obstructions.
7. Check that all electrical connections are tight.

## De-Installation

To de-install the heater

1. Switch off and disconnect the electrical supply.
2. Close the mains water supply isolating valve.
3. Disconnect the inlet and outlet water connections at the top of the heater.
4. Remove the heater.
5. Drain the unit through the hot water supply connection.

## Fault Finding

**NB All servicing and repairs must be undertaken by a competent person, familiar with unvented systems.**

Fault	Possible Cause	Solution
Over temperature cut-out operates	The thermostat has failed The thermostat is set at too high a temperature	Reset. If the cut-out operates again isolate the unit and contact the installer. <b>NB Isolate the electrical supply before removing the electrical cover panel and ensure that the panel is correctly replaced and secured before reconnecting</b>
Regular, intermittent water discharge from tundish	Loss of pressure from the expansion vessel  Thermostat failure	Isolate the heating system and the mains cold water supply. Partly drain the unit. Recharge the expansion vessel to the specified pressure and re-commission.  Isolate the heating system and check thermal controls when discharge ceases. Replace thermostat if faulty.
Continuous water discharge from the tundish	Pressure reducing valve not operating correctly T&P relief valve not operating correctly Expansion relief valve not operating correctly	Check with pressure gauge and replace as necessary Check and replace if faulty Check and replace if faulty
No water flow from hot taps	Cold water mains supply isolated Integral line strainer in pressure reducing valve has become blocked Pressure reducing valve incorrectly fitted	Restore mains supply to the heater Check and clean as necessary  Refit correctly with arrows in direction of flow
Water from hot taps is cold	Power supply not switched on Over temperature cut-out has operated Faulty element Thermostat failure	Check and switch on See fault "Over temperature cut-out operates" above Check and replace as necessary Check and replace as necessary

## ***Warranty***

The Zip appliance you have chosen is precision-built from the finest materials available and should give many years of trouble free service.

Certain warranties may be implied by law into your contract with Zip. The warranty provided below is additional to these implied warranties and nothing set out below shall limit your statutory rights or rights at law.

Zip Heaters (UK) Ltd warrants that, should any part fail within 12 calendar months of installation, that part will be repaired or replaced free of charge by Zip or its Distributor or Service Provider, except as set out below, provided the appliance is installed and used strictly in accordance with the instructions supplied, and that failure is not due to accident, misuse, abuse, unsuitable water conditions, or to any alteration, modification or repair by any party not expressly nominated by Zip.

No costs are payable by the customer other than any mileage or travelling-time charges incurred by a Zip Service Provider or the cost of removal, cartage and re-installation of any component of the appliance if it needs to be returned for repair to Zip or its Distributor.

This warranty does not cover damage resulting from non-operation of the appliance or consequential damage to any other goods, furnishings or property.

Zip does not exclude, restrict or modify any liability that cannot be excluded, restricted or modified or which cannot, except to a limited extent, be excluded, restricted or modified as between the owner or user and Zip under the laws applicable.

Furthermore, this warranty does not displace any statutory warranty, but, to the extent to which Zip is entitled to do so, the liability of Zip under any statutory warranty will be limited at Zip's option to the replacement of the appliance or supply of equivalent appliance, the payment of the cost of replacing the appliance or acquiring an equivalent appliance, or the payment of the cost of having the appliance repaired or the repair of the appliance.

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