# Zip Tudor II & Contract II



Point of use water heaters.

#### Model number:

P4/52(UB), P4/102(UB), C2/50, C2/100, C3/50



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- Please read these instructions carefully before commencing installation of the point-of-use water heater
- Please leave these instructions with the end user after installation.
- To ensure you have a copy of the latest instructions visit www.zipwater.co.uk.

# General product description

The Zip Tudor II and Contract II models are SINGLE point-of-use open outlet water heaters. Being displacement type water heaters the hot water flow is controlled by the rate at which cold water enters the vessel. They can be connected either to the cold water main or fed from an overhead cold water cistern (minimum head 3 metres).

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#### General product description

- Being fully automatic the Tudor II and Contract II may be left switched on under the control of the thermostat, however **WARNING**. This means that the unit remains potentially 'LIVE' when the selector is set to '0'. The unit can only be switched off (isolated) by operating the double pole isolating switch to isolate the heater unit from the power supply.
- The stored hot water is delivered from an open outlet spout (supplied with over-basin models)
  or a Zip approved open outlet vented tap. This type of fitting is permanently open to the
  atmosphere which allows the expansion of water, (that occurs during the heating cycle), to be
  safely discharged.
- During the heating cycle, drips will form and fall from the delivery spout or tap and these will
  cease when the cycle has been completed and the stored water temperature has reached the
  level set by the user. The higher the temperature selected the greater the rate of expansion.
  Over-tightening of the inlet water control valve or tap will not prevent the drips that occur, but
  may cause damage to the valve or tap.

#### **Temperature Control**

The temperature control enables an operating temperature up to 75°C to be selected. To protect the water heater against frost the temperature control setting may be positioned at  $\*\*\*$  when a stored water temperature of 9°C will be maintained. **Note** the protection does not extend to connecting pipework or fittings.

The economy setting e will maintain the most economical stored water temperature at approximately 41°C for models P4/52, P4/52UB, C2/50 and C3/50 or 35°C for models P4/102, P4/102UB and C2/100.

Lime-scale formation and heat loss are minimised at the economy e setting, however the
operating temperature may be increased as required where higher temperature hot water or a
greater volume of mixed warm water is required. Setting II = 55°C, III = 75°C.

# Neon Lamp (Tudor II and C3/50 models)

- The Neon lamp will glow while the elements are in operation but will extinguish when the chosen temperature has been reached. **CAUTION** The unit will remain 'LIVE' when the neon lamp does not glow.
- **WARNING** Once installed DO NOT remove the cover under any circumstances without first isolating the electrical supply to the heater.

#### **Approvals**

The Zip Tudor II and Contract II models are approved to the LVD & EMC directives and are CE endorsed.

The Zip Tudor II and Contract II models have been examined, tested and found when correctly fitted to comply with the requirements of the United Kingdom Water Regulations / Byelaws (Scotland).

The products are listed under the WRAS (Water Regulations Advisory Scheme) Water Fittings and Materials Directory.

#### Technical data

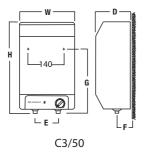
| Zip Tudor II and Contract II           |      |   |                  |               |                 |               |                |               |
|--|------|---|------------------|---------------|-----------------|---------------|----------------|---------------|
| MODEL                                  |      | P4/52                                       | P4/52UB          | C2/50         | C3/50           | P4/102        | P4/102UB       | C2/100        |
| Installation                           |      | Over<br>basin                               | Under<br>basin   | Over<br>basin | Over<br>basin   | Over<br>basin | Under<br>basin | Over<br>basin |
| Declared load profile                  |      | XXS   |                  |               |                 |               |                |               |
| Energy efficiency class <sup>(1)</sup> |      |   |                  |               | А               |               |                |               |
| Energy efficiency (ηwh) <sup>(1)</sup> | %    | 35.2  | 35.0             | 35.2          | 35.2            | 35.3          | 35.1           | 35.3          |
| Annual electricity consumption (1)     | kWh  | 525   | 527              | 525           | 525             | 523           | 525            | 523           |
| Thermostat temperature setting         |      |   | e <sup>(2)</sup> |               |                 |               |                |               |
| Specific precautions                   |      | See installation and operating instructions |                  |               |                 |               |                |               |
| "Smart" value                          |      |   | 0                |               |                 |               |                |               |
| Rated volume                           | ı    | 5.5   | 5.7              | 5.5           | 5.5             | 9.8           | 9.9            | 9.8           |
| Weight empty / full                    | kg   | 3.5 / 8.5                                   |                  |               | 4.0 / 14.0      |               |                |               |
| Power rating                           | W    | 2,000                                       |                  |               |                 |               |                |               |
| Nominal supply voltage                 | VAC  | 230   |                  |               |                 |               |                |               |
| Protection class                       |      | IP24  |                  |               |                 |               |                |               |
| Heat up time (10°C to 65°C)            | mins | 10  |                  |               | 20              |               |                |               |
| Packing dimensions                     | mm   | 270 x 315 x 455                             |                  |               | 325 x 370 x 520 |               |                |               |
| Maximum supply pressure                | MPa  | 0.35(3)                                     |                  |               |                 |               |                |               |
| Water connections                      |      | 1/2" BSP                                    |                  |               |                 |               |                |               |

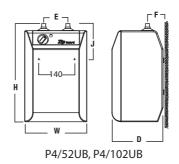
<sup>(1)</sup> EU Regulation 812/2013; EN 50440

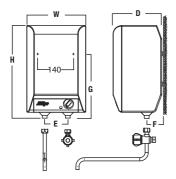
<sup>(2)</sup> Temperature control 'e' setting corresponds to approx 41°C for models P4/52, P4/52UB, C2/50, C3/50 or 35 °C for models P4/102, P4/102UB, C2/100

<sup>(3)</sup> For higher supply pressures a Zip AQ3 pressure reducing valve is recommended.

#### Dimensions







P4/52, P4/102, C2/50, C2/100

#### **Dimension table**

| MODEL          | W   | D   | Н   | E   | F  | G   | J   |
|----------------|-----|-----|-----|-----|----|-----|-----|
| P4/102, C2/100 | 310 | 265 | 440 | 100 | 70 | 365 | n/a |
| P4/102UB       | 310 | 265 | 440 | 100 | 70 | n/a | 190 |
| P4/52, C2/50   | 255 | 215 | 390 | 100 | 70 | 285 | n/a |
| P4/52UB        | 255 | 215 | 390 | 100 | 70 | n/a | 150 |
| C3/50          | 255 | 215 | 390 | 100 | 70 | 285 | n/a |

All dimensions in mm

#### Note

Over-basin and under-basin models are NOT interchangeable. For under-basin applications use models designated 'UB' and use only Zip approved vented tap accessories.

#### SAFETY INFORMATION

IMPORTANT:



PLEASE READ THESE INSTRUCTIONS CAREFULLY.

NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY, AND WILL INVALIDATE THE WARRANTY. RETAIN THESE INSTRUCTIONS FOR FUTURE USE.

WARNING:



Indicates a potentially hazardous situation, which, if not avoided, could result in death and/or serious injury and/or property damage.

CAUTION:



Indicates a potentially hazardous situation, which, if not avoided, may result in property damage.

# Safety Information

#### WARNINGS



- Installation, commissioning and maintenance of this appliance must only be carried out by a competent installer who will then be responsible for adhering to all relevant standards and regulations.
- The appliance must be disconnected from mains power supply before carrying out any work involving live circuits.
- The appliance must be permanently connected to the supply through an isolating switch with a contact separation of at least 3mm in all poles and be protected by a suitably rated RCD.
- To protect the appliance, an MCB (miniature circuit breaker) or cartridge fuse must be fitted with a rating suitable for the nominal current of the appliance.
- The cross sectional area of the connection cable must be appropriate for the power rating and location of the appliance. See Technical data, page 4.
- The connecting cable must be adequately secured.
- Check that the power supply is switched off prior to electrical connection.
- The appliance, its wiring and piping must not be modified in any way.
- In case of malfunction isolate the power supply immediately. In case of leaks also isolate the water supply. Repairs must only be carried out by a competent person.
- Temperatures in excess of approximately 43°C are perceived as hot, especially by children, and may cause a feeling of burning.
- This appliance must not be used by any person (including children) with limited physical, sensorial or mental abilities or failing experience and/or knowledge unless they are supervised by a person responsible for their safety or have received instructions about how to use the appliance.

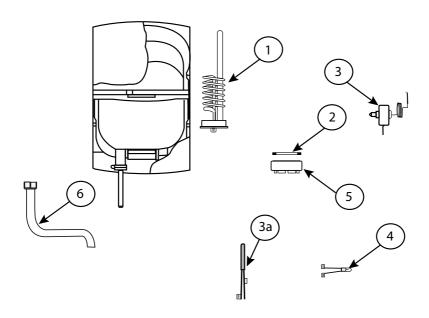
#### SAFETY INFORMATION

# CAUTIONS !

- Children should be supervised in order to make sure that they do not play with the appliance.
- The water vessel is intended for an open outlet and should never be subject to greater than atmospheric pressure.
- The inlet control valve should not be subject to pressure exceeding 0.35 MPa (3.5bar).
- The appliance must only be used when correctly installed and in perfect working order.
- The appliance must be installed in a frost-free room and must never be exposed to frost.
- The appliance must be completely filled with water before the electrical supply is switched on.
- THE HOT WATER SHOULD BE DELIVERED FROM THE OPEN OUTLET SPOUT SUPPLIED
  OR A ZIP APPROVED OPEN OUTLET TAP FITTING THAT REMAINS PERMANENTLY OPEN
  TO ALLOW FOR EXPANSION THAT OCCURS DURING THE HEATING CYCLE. UNDER NO
  CIRCUMSTANCES SHOULD THE SPOUT OR OUTLET BE CONNECTED TO A TAP WHICH IS
  CAPABLE OF BEING CLOSED.
- The Zip Tudor II and Contract II are intended for connection to mains supply only. In any other case please contact Zip on 0345 6 005 005 for advice.
- Zip Water UK cannot be held liable for any damages caused by failure to observe these instructions.
- It is recommended that an HE45004 Water Block is fitted in the water supply line to minimise the potential damage in the event of any leakage.

# Spare parts

| ITEM | DESCRIPTION                   | PART No. |
|------|-------------------------------|----------|
| 1    | Heating element               | CTO111/4 |
| 1    | Element - 5 Litre 2kW         | CT0112/3 |
| 1    | Element - 10 Litre 2kW        | CT0113/3 |
| 2    | Element gasket                | CTO116/4 |
| 2    | Element 'O' ring              | CT0116/3 |
| 3    | Re-settable cut-out for Tudor | CT0121/4 |
| 3a   | Thermal fuse for Contract     | CT0120   |
| 4    | Neon light indicator          | CT0129/4 |
| 5    | Retaining nut                 | CT0115/4 |
| 6    | Outlet Spout                  | CT0137   |
| •    | Lens blank for Contract       | CT0131   |



#### Pack contents

Please check that the items listed below have been supplied in the product pack.

| ITEM          | QTY |
|---------------|-----|
| Wall Bracket  | 1   |
| Fixing Screws | 2   |
| Rawl plugs    | 2   |
| Control Valve | 1*  |
| Outlet spout  | 1*  |

<sup>\*(</sup>except UB models)

#### Accessories

Only Zip approved open outlet accessories should be used, the following are available.

HE45004 Water Block (for both over-basin and under-basin models)

#### Over-basin

TS1 Telescopic Spout 350-600mm.

#### **Under-basin**

UB1 Monobloc Mixer Tap
UB6 Single Lever Basin Tap
UB7 Single Lever Sink Tap.

Call Zip on 0345 6 005 005.

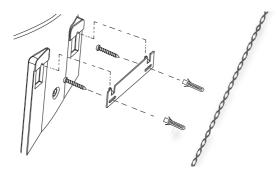
#### Installation

#### Requirements

- Before starting installation the WARNINGS page 6 and CAUTIONS page 7 should be read and fully understood.
- It is recommended that the piping and water connection is carried out by a qualified plumber.
- Thoroughly flush the water supply pipes before installation to remove any water borne debris.
- The electrical installation including earthing and cross bonding should comply with current IEE regulations and any Local Authority requirements.
- Zip Contract and Tudor water heaters must be installed according to the specification on the rating plate and the technical specifications (see page 4).
- Take care to protect the wiring from damage during installation and ensure that any uninsulated wiring is not directly accessible after installation.
- For maintenance work an isolating valve should be installed in the water supply line to the heater.
- A minimum clearance of 270mm is required underneath the over-basin heater units and above the under-basin units to allow for the removal of the element plate assembly and for servicing purposes.
- When locating the heater, consideration should be given to the safe and visible disposal of any
  water resulting from leaks and seepage.

#### **Wall Mounting**





- The unit will be supported by being hung on a bracket fixed to a support wall, using the fixings
  provided, as shown in Fig.1 above. Therefore it is important to ensure that the wall is strong
  and solid enough to fully support the unit when the tank is full.
- It is important to ensure when drilling the wall, that the selected position avoids any pipe work
  or electrical cabling. To mount the heater, the bracket 'hooks' locate into the slots provided in
  the back of the unit, allowing the unit to hang flat against the wall.

**Note** It is not necessary to remove the casing to mount the water heater on the wall bracket.

#### Installation

#### **Over-basin Installation**

- The inlet control valve supplied incorporates compression fittings suitable for fitting between 15mm copper piping (water supply) and the inlet connection (coloured blue) situated on the water heater.
- Fit the control valve to the cold water supply ensuring that the water will flow in the direction of the arrow indicated on the side of the control valve (Fig.2).
- Do not over tighten the compression joints but ensure that they are leak free.



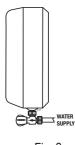
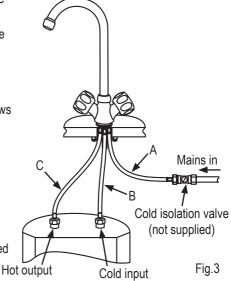


Fig. 2

#### Under-basin Installation

- Connect the hose from (A) on the tap body to the mains cold water supply.
- Connect the hose from (B) on the tap body to the cold water supply to the heater.
- Connect the hose from (C) on the tap body to the hot water output on the heater.
- Fill the heater tank before turning the power on.
- Turn on the water supply and check for leaks.
- Open both hot & cold taps until water freely flows from the tap spout.
- Turn on the heater and allow it to heat up.



#### Note

When installing under-basin models it is recommended that fibre washers are used on both inlet and outlet connections to ensure a watertight seal.

#### Electrical installation

WARNING Switch off the mains electrical supply before carrying out any work involving a live circuit, 230V AC supply only, this appliance must be earthed.

Before starting installation the **WARNINGS** page 6, and **CAUTIONS** page 7, should be read and fully understood.

It is recommended that the electrical installation is carried out by a qualified electrician.

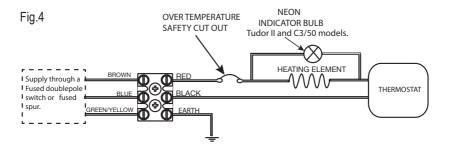
#### Tudor II

The Tudor models all come pre-wired with a 1 metre length of cable.

If in the lifetime of the unit the cable is damaged or a greater length of cable is required then to replace the supply cable, refer to the following 'Cable installation/replacement' instructions.

#### Cable installation / replacement ( Tudor II and Contract II )

- First remove the temperature adjustment selector switch and release the screw located beneath.
- Unscrew the four cover screws, two on the top and two on the bottom of the unit, this will then allow the outer cover to be removed.
- The supply cable conductors must have a nominal cross section of not less than 1.5mm<sup>2</sup>.
- The supply cable enters the casing through a cable clamp located in the rear casing cover.
- Make the connections in the terminal block provided as indicated in (Fig.4), then after ensuring that the cable is firmly clamped, replace the front casing, cover and selector switch.



# Safety Cut Out

- In the event of a malfunction that leads to an over temperature situation, the safety cut out will automatically cut off the electrical supply to the element (see Fig.4).
- The cut out and reset operations for the various models are described below.

### Models P4/52,P4/52UB, P4/102, P4/102UB

A manually resettable cut out that may be reset by a qualified electrician once the fault has been corrected

#### Electrical installation

#### Models C2/50, C2/100

A thermal fuse which should be replaced by a qualified electrician.

#### Model C3/50

- An automatically resettable cut out, reset by simply switching off the electrical supply to the unit for at least 2 minutes.
- When power is restored the cut out will have reset. However if the fault persists then the unit should be isolated from the power supply and fault finding be carried out by a qualified engineer.

#### Commissioning & operation



#### Do not switch on the heater until it is filled with water

- Open the inlet control valve or tap to allow the tank to fill with water, the tank will be full when water begins to run continuously from the spout or tap.
- Close the inlet control valve or tap and switch on the electrical supply, adjusting the temperature control to the required level.
- The contents of the water vessel will be heated to the selected temperature.
- During the heating cycle expansion will take place and water will drip from the spout or tap. This will cease when the operating temperature has been reached, (approx 10 mins. for the 5L models, approx. 20 mins. for the 10 litre models).
- Therefore always ensure that the spout outlet is positioned over the basin.
- Hot water is drawn off by opening the inlet control valve or tap, this allows cold water to enter the storage vessel as the heated water is displaced and is flowing out.



# Safety Warning

- Under no circumstances is the water heater to be used if suspected of being frozen.
- If water ceases to flow, switch off the electrical supply immediately at the isolating switch.
- It is then recommended that a qualified Plumber/Electrician checks the unit.
- Any water can be drained via the cold inlet connection whilst in the original location.
- To remove the outer case, prise off the temperature selector switch and release the screw located beneath it.
- Remove the four front cover securing screws at the top and bottom of the unit, then the outer case can be lifted off.

#### Maintenance

# Maintenance and cleaning

#### General cleaning

Plastic surfaces and fittings should only be wiped with a damp cloth. Do not use abrasive or chlorine-based cleaning agents or solvents.

The outlet fittings should be unscrewed and cleaned at regular intervals.

The electrical and plumbing components should be inspected at least every 3 years by a competent person familiar with point of use water heaters, to ensure proper functioning and operational safety. Water quality should be considered when determining the frequency of inspection.

**Note** Maintenance work must only be carried out by a competent person familiar with point of use water heaters.

The electrical and plumbing components should be inspected regularly by a competent person to ensure proper functioning and operational safety.

#### Repairs

All service work should be performed by an authorized Zip service engineer – for details of the full range of services available call Zip Service on 0345 6 005 005.

#### Fault finding

| FAULT            | POSSIBLE CAUSE                        | SOLUTION                         |  |
|------------------|---------------------------------------|----------------------------------|--|
| No water         | Mains water not turned on             | Check supply and turn on         |  |
|                  | Over temperature cut out has operated | Refer to instructions on page 12 |  |
| No hot water     | Faulty thermostat                     | Replace thermostat               |  |
|                  | Faulty element                        | Replace element                  |  |
| Water is too hot | Thermostat is set too high            | Reset thermostat                 |  |
|                  | Faulty thermostat                     | Replace thermostat               |  |

#### End of life disposal



The use of this crossed out wheeled bin logo indicates that this product needs to be disposed of separately to any other household waste.

Within each of the European Union member countries, provisions have been made for the collection and recycling of unwanted electrical and electronic equipment.

In order to preserve our environment we ask that you dispose of this product correctly. Please contact Zip for advice on 0345 6 005 005.

#### 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 Water UK 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.

**Note** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

To ensure you have the latest revision of this instruction manual, please visit www.zipwater.co.uk.

**IMPORTANT** No liability is accepted for incorrect use of this product.





# Zip Water UK

14 Bertie Ward Way, Dereham, Norfolk NR19 1TE 0345 6 005 005 sales@zipindustries.co.uk

www.zipwater.co.uk