## Installation, Maintenance and User Instructions

Zip Tudor II & Contract II Point of use Water Heaters Models: P4/52, P4/52UB, P4/102, P4/102UB. C2/50, C2/100, C3/50.



Please read these instructions carefully before commencing installation of the water heater.

Please leave these instructions with the end user after installation.

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The term 'Zip' is a registered trademark

Zip Heaters (UK) Ltd 14 Bertie Ward Way Dereham Norfolk NR19 1TE

Telephone: 0845 6 005 005 Fax: 01362 692448 Web: www.zipheaters.co.uk









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Contents	1
Approvals	1
Description	2
WARNINGS A	3
CAUTIONS ①	4
Packed Contents	4
Accessories	4
Technical Data	5
Spare Parts	6
Installation	7
Requirements	7
Wall Mounting	7
Overbasin Installation	8
Underbasin Installation	8
Electrical Installation	9
Cable installation/replacement	9
Safety Cut Out	10
Commissioning & Operation	11
Warranty	12

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.zipheaters.co.uk

## **Approvals**

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

These instructions refer to the following models:

TUDOR II	LOADING	INSTALLATION
5 LITRE MODELS: P4/52, P4/52UB	1.8kW/230V	Overbasin/Underbasin
10 LITRE MODEL : P4/102, P4/102UB	1.8kW/230V	Overbasin/Underbasin
CONTRACT II		
5 LITRE MODELS: C2/50, C3/50	1.8kW/230V	Overbasin
10 LITRE MODEL : C2/100	1.8kW/230V	Overbasin

## **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).

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 overbasin 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. Overtightening 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 operating temperature range is 35-80°C. To protect the water heater against frost the temperature control setting may be positioned at '\* when a stored water temperature of 5°C will be maintained. NOTE -the protection does not extend to connecting pipework or fittings.

The economy setting 'E' will maintain the stored water temperature at approximately 60°C. At the 'E' setting the temperature control locates into a set position and slight resistance will be felt when rotating the temperature control beyond this setting. This is a safety measure to ensure that higher temperatures are deliberately selected.

## **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:** ① The unit will remain 'LIVE' when the neon lamp does not glow.

Once installed DO NOT remove the cover under any circumstances without first isolating the electrical supply to the heater.

#### 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: Situations that could cause injury to yourself or others.		Situations that could cause injury to yourself or others.
CAUTION: Situations that could cause damage to your appliance or other equipment.		Situations that could cause damage to your appliance or other equipment.
NOTE:		Notes, usage tips or additional 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.
- The connecting cable must be adequately secured.
- $\bot$  This appliance must be earthed at all times.
- 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 Zip Heaters (UK) Ltd or an authorised
  Zip service engineer.
- 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.

## **CAUTIONS** ①

- 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 being 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 is intended for connection to mains supply only. In any other case please contact Zip on 0845 6 005 005 for advice.
- Zip Heaters (UK) Ltd 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.

## **Packed Contents:**

Please check that the items below have been supplied in the Heater Unit package.

Outlet Spout	x1(except UB models)	
Wall Bracket	x1	
Control Valve	x1 (except UB models)	
Fixing Screws	x2	
Rawlplugs	x2	

## **Accessories:**

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

HE45004 Water Block (for both overbasin and underbasin models)

Overbasin TS/1 Telescopic Spout 350-600mm.

Underbasin UB/1 Monobloc Mixer Tap.

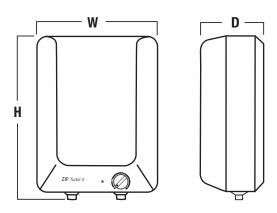
UB/6 Single Lever Basin Tap. UB/7 Single Lever Sink Tap.

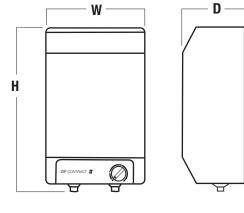
## **Technical data**

Model	Tudor II and Contract II models		
Nominal supply voltage	1/N/PE 230V~		
Power rating (kW)	1.8		
Rated Current (A)	7.8		
Element type	Embedded Rod		
Maximum supply pressure	0.35MPa (3.5 bar)*		
Temp. Adjustment range	35°C~80°C		
Capacity	5 Litre	10 Litre	
Dimensions H x W x D (mm)	390x255x215	440x310x265	
Minimum weight (kg) (Empty)	3.5	4.0	
Maximum weight (kg) (Full))	8.5	14.0	
Rated volume (litres)	5 10		
Water connections (BSP)	1/2"		
Protection class	IP24		

All data quoted at nominal supply voltage.

For higher supply pressures it is recommended that a Zip AQ3 (set at 3.5 bar) pressure reducing valve is used.





Tudor II, C2/50 and C2/100

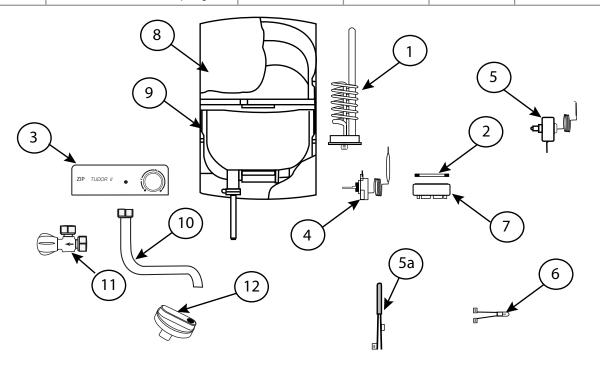
C3/50

## **NOTE:**

Overbasin and underbasin models are NOT interchangeable. For underbasin applications use models designated 'UB' and use only Zip approved vented tap accessories.

# **Spare Parts**

ITEM	Description	PART No.	P4 MODELS	C2 MODELS	C3 MODEL
1	Heating element	CT0111/4	Х	Х	Х
2	Element gasket	CT0116/4	Х	Х	Х
3	Fascia	CT0130			Х
3	Fascia (OB)	CT0107/3	Х		
3	Fascia (UB)	CT0108/3	Х		
4	Thermostat	CT0119/4	Х	Х	Х
5	Re-settable cut-out	CT0121/4	Х		
5	Re-settable cut-out	CT0122			Х
5a	Thermal fuse	CT0120		Х	
6	Neon light indicator	CT0129/4	Х		Χ
7	Retaining nut	CT0115/4	Х	Х	Х
8	Front cover (5L)	CT0103/3			Х
8	Front cover. OB (5L)	CT0123	Х		
8	Front cover. UB (5L)	CT0124	Х		
8	Front cover (5L)	CT0125		Х	
9	Back cover (5L)	CT0101/3	Х	Х	Х
8	Front cover (10L)	CT0105/4	Х	Х	
9	Back cover (10L)	CT0102/3	Х	Х	
10	Outlet Spout	CT0137	X(OB)	Х	Х
11	Control valve	CT0138	X(OB)	Х	Х
12	Control knob with spring	CT0106/3	Х	Х	Х

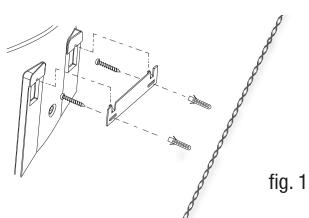


## Installation.

## Requirements.

- Before starting installation the **WARNINGS** (page 3) and **CAUTIONS** (page 4) 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.
- 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 overbasin heater units and above the underbasin units to allow for the removal of the element plate assembly and for servicing purposes.
- When considering the location of 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 fig.1).

Therefore it is important to ensure that the wall is strong and solid enough to fully support the unit when full.

It is important to ensure when drilling the wall, that the selected position avoids any pipework or electrical cabling.

To mount the heater, the bracket 'hooks' locate into the slots provided in the back of the unit, allowing it to hang flat against the wall.

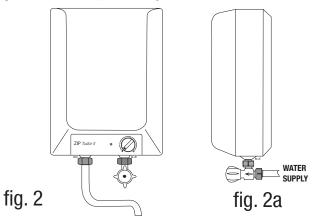
# IT IS NOT NECESSARY TO REMOVE THE CASING TO MOUNT THE WATER HEATER ON THE WALL BRACKET.

#### Overbasin 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.2a).

Do not over tighten the compression joints but ensure that these are leak free.



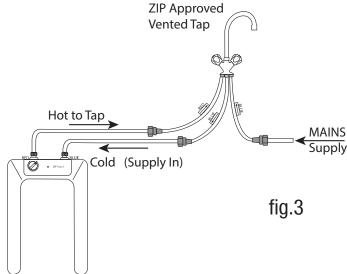
## **Underbasin Installation.**

In all underbasin installations the outlet must be connected to an open outlet type fitting approved by Zip heaters.

The diagram below (fig 3) shows a typical installation of a monobloc mixer tap assembly, product ref. UB1. Alternative Zip approved products are product ref. UB6 and UB7.

#### NOTE:

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



Connect mains supply to the 'blue' tag tail (arrow pointing UPWARD). The inlet 'blue' connection on the heater is connected to the 'blue' tag tail (arrow pointing DOWNWARD). The outlet connection of the heater 'red' is connected to the 'red' tag tail (arrow pointing UPWARD).

## **Electrical Installation.**

WARNING: A 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 3) and **CAUTIONS** (page 4) should be read and fully understood.

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

## **NB. 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.

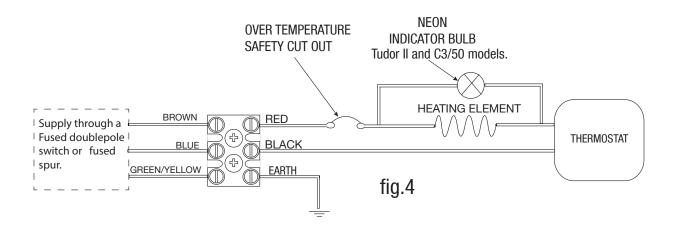
## **Cable installation/replacement** (Tudor II and Contract II ).

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 should 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, a safety cut out will automatically cut off the electrical supply to the element (refer 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

## Models C2/50, C2/100

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

#### Model C3/50

An automatically ressttable 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.

**NB.** 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 9 mins/+50°C for the 5L models, approx. 18 mins/+ 50°C for the 10L model).

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, the outer case can now be lifted off.

#### Maintenance.

Very little maintenance is required, however it is recommended that the replacement of spare parts is carried out by a relevant competent person ie. Plumber or Electrician for any more information please contact the Service Dept. **ZIP HEATERS (UK) LTD** TEL.0845 6 005 005.

Problem	Possible cause	Solution	
NO WATER	MAINS WATER NOT TURNED ON	CHECK SUPPLY AND TURN ON	
NO HOT WATER	OVER TEMPERATURE CUT OUT HAS OPERATED	REFER TO INSTRUCTIONS ON PAGE 10.	
	FAULTY THERMOSTAT	REPLACE THERMOSTAT	
	FAULTY ELEMENT	REPLACE ELEMENT	
WATER IS TOO HOT	THERMOSTAT IS SET TOO HIGH	RESET THERMOSTAT	
	FAULTY THERMOSTAT	REPLACE THERMOSTAT	

## 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.

**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.zipheaters.co.uk to download the latest copy.

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



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 Customer Service for advice on 0845 6 005 005.