

The logo for Heatstore, featuring a red square icon with horizontal lines to the left of the word "HEATSTORE" in a bold, sans-serif font.

THE TOTAL ELECTRIC HEATING SOLUTION



Unvented Undersink Thermostatic Water Heater

Installation and Operating Manual

HS10UX, HS15UX, HS25UX

Please read and understand these instructions prior to installing your Heatstore Unvented Undersink Thermostatic Water Heater. Particular attention should be paid to the section headed **IMPORTANT INSTALLATION POINTS**. Following installation and commissioning, the operation of the heater should be explained to the customer and these instructions left with them for future reference.

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 use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

1. Technical Specifications

Technical Specifications

Electrical Rating	1500W @ 220V ~
Capacities	10 or 15 or 25 litres
Weight (full)	10 litre - 8.6 kg 15 litre - 9.8 kg 25 litre - 13.8 kg
Rated pressure	0.7 MPa (7 bar)
Minimum recommended supply pressure	0.02 MPa (0.2 bar)
Temperature/Pressure Relief Valve	75°C/0.7 MPa (7 bar)

1.2 Important installation points

This unvented water heater **MUST** be fitted with a pressure relief valve. The factory fitted temperature/pressure relief valve can fulfil this function.

Failure to provide adequate pressure relief will invalidate any guarantee and lead to a dangerous installation.

1.3 Expansion can take place within the cold water supply provided that both :

- (a) Backflow in the main is not prevented by any stopvalve with loose jumper, check valve, pressure reducing valve or similar, AND
- (b) Hot water expansion does not enter a branch to a cold water outlet (see Figure 1, page 3 for expansion pipe lengths).

N.b. Both the above conditions must be met. Additionally expansion within the cold water supply will not be possible if the static supply pressure exceeds 4.1 bar (Please note, this only applies to HS10UX and HS15UX. Please see Figure 1, page 1).

1.4 If any of the conditions in 1.2 above cannot be met, expansion must be accommodated using an expansion vessel. To ensure all expansion takes place in the vessel, a non-return valve must also be fitted together with a pressure (expansion) relief valve (see Figure 2, page 2). Use accessory pack B.

1.5 For HS25UX, supplied pressure and temperature relief valve, expansion vessel with pressure relief valve and pressure reducing valve **MUST** be installed as per figure 3, Page 2.

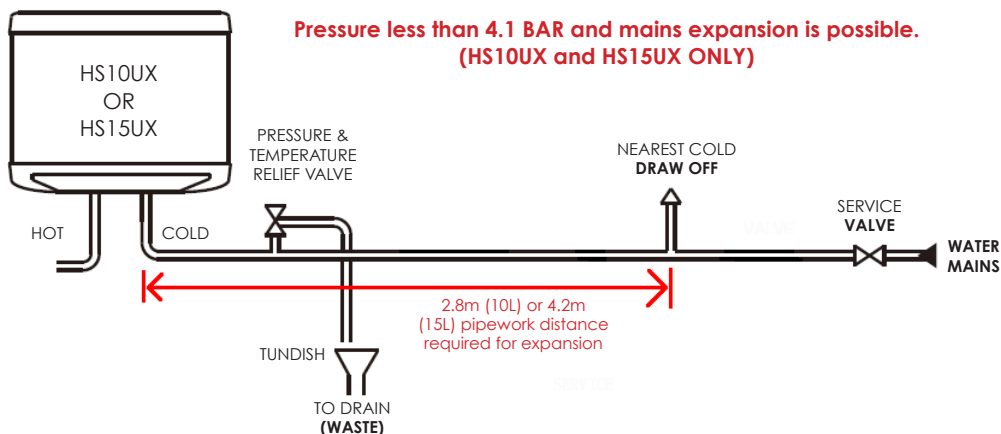
1.6 The installation must be carried out in accordance with the relevant requirements of

- The appropriate Building Regulations either The Building Regulations, The Building Regulations (Scotland) or Building Regulations (Northern Ireland).
- The Water Fittings Regulations or Water Byelaws in Scotland.

WARNING:

IF WATER FLOWS FROM THE PRESSURE RELIEF VALVE OR TEMPERATURE / PRESSURE RELIEF VALVE THE ELECTRICITY SUPPLY MUST BE SWITCHED OFF IMMEDIATELY AND PROFESSIONAL ADVICE SOUGHT.

FIGURE 1



1. Technical Specifications

FIGURE 2

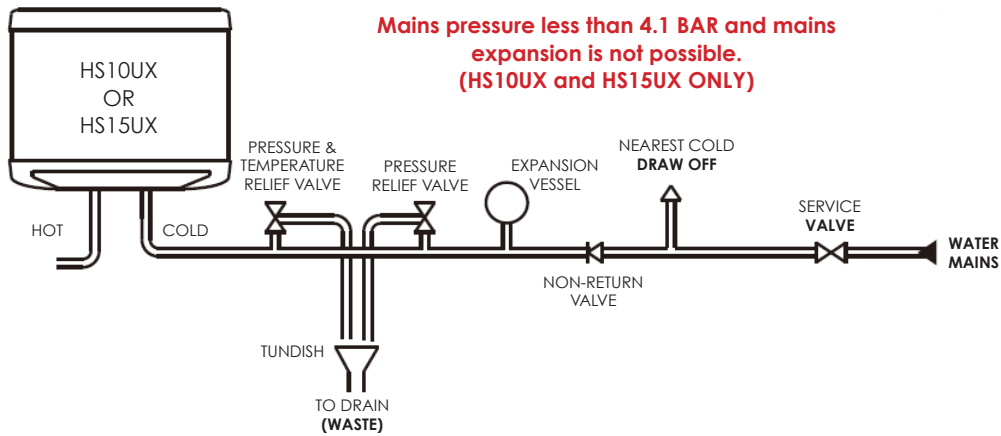
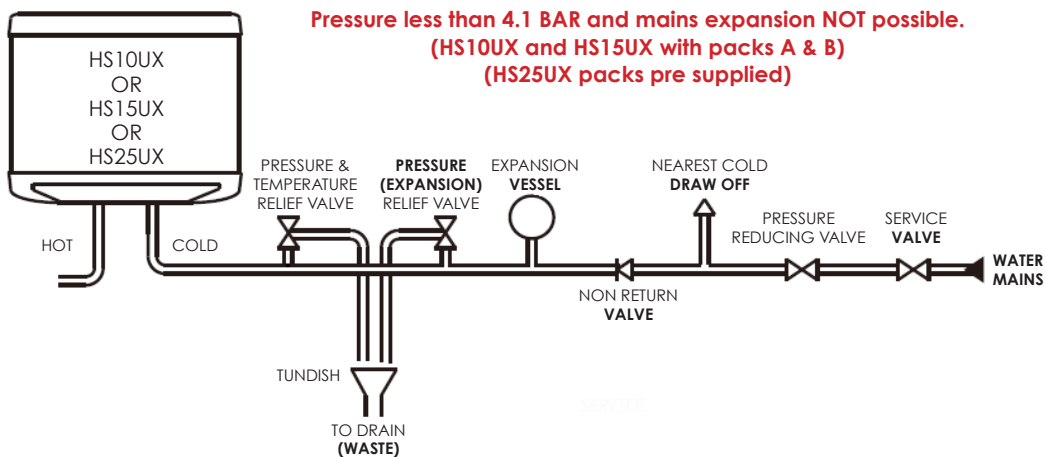


FIGURE 3



2.0 Installation - General requirements

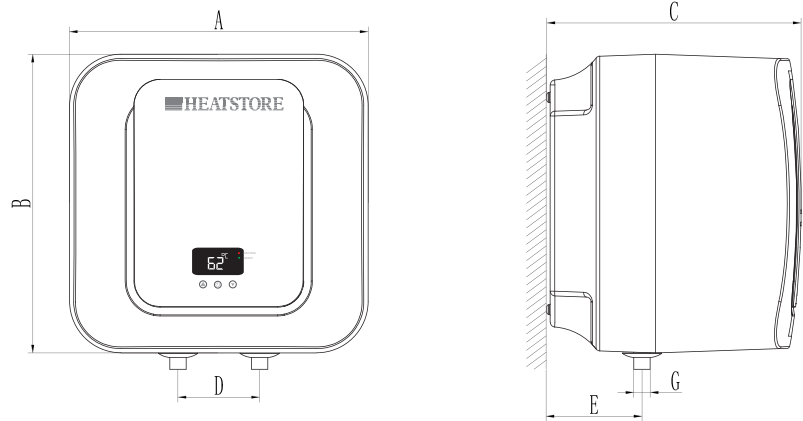
- 2.1 National Wiring rules may contain restrictions concerning the installation of these units in bathrooms.
- 2.2 The unit should be vertically wall mounted. Fixing screws and rawplugs are supplied for this purpose. The water connections must always be at the bottom of the unit.
- 2.3 Enough space should be left underneath the unit for pipe connections and access to the temperature/pressure relief valve. Refer to Figure 4, page 3 and the dimensions table to determine a suitable position for the heater.
- 2.4 NOTE: Ensure that the wall can support the full weight of the unit (see TECHNICAL SPECIFICATIONS) and that there are no hidden services (electricity, gas, or water) behind the surface of the wall.
- 2.5 DO NOT install where the unit may freeze.
- 2.6 Refer to the section IMPORTANT INSTALLATION POINTS to determine which valves and accessories are required. Plumb in the valves in the sequence shown in the relevant diagrams Figures 1 - 3, pages 1 - 2.

2.0 Installation - General requirements

- 2.7** The inlet water connection is a 15mm diameter copper tube suitable for compression fittings. The outlet water connection is made to the 15mm compression fitting located on the factory fitted temperature and pressure relieve valve. A WRAS listed isolating valve (not supplied) must be fitted on the cold water supply to the heater. Several hot outlets can be served.
- 2.8** Do not use solder joints as this will damage the heater and may prevent servicing under warranty.
- 2.9** Plumbers Paste must not be used as it can impair the operation of the valves.

FIGURE 4

DIMENSION	10 LITRE	15 LITRE	25 LITRE
A	341mm	366mm	456mm
B	341mm	366mm	456mm
C	290mm	311mm	376mm
D	100mm	100mm	100mm



3.0 Installation - Electrical requirements

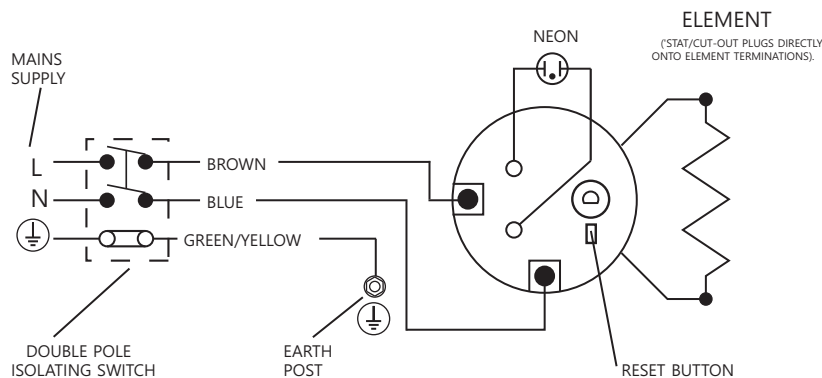
WARNING: This appliance must be earthed. It is suitable for AC supply only. Disconnect the electrical supply before removing the terminal cover. Installation must be in accordance with the current I.E.E. Wiring Regulations.

3.1 The unit is supplied fitted with a 1.5m of 1.0mm², 3 core flexible cable. The electricity supply should be fused with a 13 amp fused spur and be via a double pole isolating switch with a contact separation of at least 3mm in both poles. Refer to the schematic wiring diagram below.

3.2 The wires are colour coded as follows:

Green and Yellow	EARTH	
Brown	LIVE (L)	
Blue	NEUTRAL(N)	

FIGURE 5



4.0 Installation - Discharge pipe requirements

- 4.1 The discharge outlet from the pressure (expansion) relief valve and the temperature/pressure relief valve must be connected to a discharge pipe. It is recommended that a tundish (not supplied) is installed in the discharge pipe to give a visible indication that the valves are operating.
- 4.2 The discharge pipe must fall continuously from the valve outlets and be unobstructed.
- 4.3 The pipe from the valves to the tundish should be 15mm \varnothing /dia minimum. From the tundish to the point of discharge the pipe should be 15mm \varnothing /dia minimum and have a resistance to flow equivalent to 9 metres of straight pipe. Long discharge pipe runs should have an increased internal diameter.
- 4.4 The pipe material should be capable of conveying water/steam at 100°C.
- 4.5 The final discharge point should be in a safe, visible place.

Installation Steps:

1. Drill 2 holes on a solid wall horizontally according to the mounting size 78mm apart with the impact drill the hole be with a diameter of 14mm and a depth 80mm. Thread the screw through the hanger hole and insert it into the wall whole, secure the exposed wiring ring on the fuselage with steel expansion bolts.
2. Fasten it firmly into position and check the wall plugs are not loose to ensure that the electric heater is firmly mounted.
3. Connect the water heater intake and outlet with pipes or accessories that are able to withstand temperatures over 100°C at a pressure that exceeds working pressure (8 bar). Therefore, we strongly recommend that no materials should be used that cannot withstand high temperatures.
4. When fitting the water pipes follow the basic rules to prevent corrosion: " Do not use copper before iron steel in the direction of the water flow". To prevent galvanic pairs and their destructive effect, use Teflon tape to thread the insulating hoses supplied with the heater to its own two pipes.

5.0 Commissioning

- 5.1 Do not switch on the electrical supply until the unit has been filled with water and checked for leaks.
- 5.2 Check that all installation, electrical and discharge pipe requirements have been met.
- 5.3 Check that all water and electrical connections are tight.
- 5.4 Open a hot water tap, turn on mains water supply to the heater.
- 5.5 Allow unit to fill and leave hot tap running for a short while to purge any air and flush out the pipework. Close the hot tap and check the system for leaks.
- 5.6 Allow unit to fill and leave hot tap running for a short while to purge any air and flush out the pipework. Close the hot tap and check the system for leaks.
- 5.7 Manually test the operation of the temperature/pressure relief valve and, if fitted, the pressure (expansion) relief valve. Ensure water flows freely from the valve(s) and through the discharge pipes.

6.0 Maintenance

1. Before cleaning the surface of the electric water heater, make sure that the water heater is disconnected from the power supply. When cleaning, use a damp towel dipped in a little neutral detergent to gently wipe the surface of the product, and then dry it with a dry towel. Do not spray directly with water, and do not use gasoline, polishing powder and other volatile substances or strong acid and strong alkaline cleaners for cleaning.
2. When the electric heater is not used for a long time, please disconnect the power supply, unplug the power plug, and drain the water in the inner tank.
3. Regularly (about once a year) clean the scale on the electric heating tube and the sediment in the inner tank. In areas with hard water, users can install an anti-scaling device at the front end of the water inlet pipe. Regular replacement of magnesium rods according to local water quality conditions. Please contact the local dealer or after-sales department for the assistance of professional technicians.

7.0 Maintenance - Safety valves

The temperature/pressure relief valve and if fitted, the pressure (expansion) relief valve should be regularly checked. Manually operate the valves by either twisting the cap or lifting the lever. Ensure water flows freely from the valve(s) and through the discharge pipes.

NOTE: The water discharged may be very hot. Ensure the valve(s) reseat correctly when released.

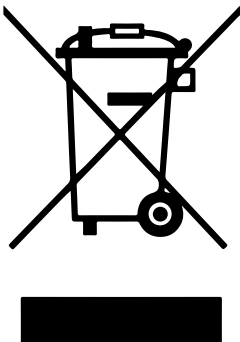
8.0 Maintenance -Expansion vessel precharge pressure

The expansion vessel, if fitted, should have a precharge pressure of 4.1 bar (60 p.s.i.). This can reduce over time and eventually require re-charging. To do this:

- 8.1 Turn off water supply to the unit; open a hot tap to relieve system pressure.
- 8.2 Remove dust cap from top of expansion vessel.
- 8.3 Check pre-charge pressure using a tyre pressure gauge. If the pressure is lower than 4.1 bar (60 p.s.i.) it should be recharged using a tyre pump (Schraeder valve type).
DO NOT OVER CHARGE.
- 8.4 Re-check pressure and when correct, replace dust cap.
- 8.5 Turn on mains water supply and close hot tap.

WEEE Declaration

Disposal of Waste Equipment by Users in Private Households in the European Union.



This symbol on the product indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the company where this product was purchased.

9.0 Troubleshooting Guide

Fault	Cause	Solution
Light is not illuminated	1. Internal circuit failure	Please notify the after-sales department for maintenance
	2. The power is not turned on	Check electrical supply
Low water temperature (The heating indicator does not light up)	1. The set temperature is too low	Increase the set temperature value
	2. Internal circuit failure	Check and confirm that there is power supply
	3. Thermostat failure	Please notify the after-sales department for maintenance
Low water temperature (The heating indicator light is on)	1. Short heating time	Use after keeping warm
	2. Malfunction of mixing valve	Replace the mixing valve
	3. Electric heating tube failure	Please notify the after-sales department for maintenance
	4. Internal circuit failure	
Water Leakage	1. The inner tank is not well sealed	Please notify the after-sales department for maintenance
	2. The inner tank leaks	

NOTE: If your electric water heater is faulty and cannot be used normally, please check it according to "Troubleshooting". If the above fault is the problem of the electric water heater itself, please contact Heatstore: enquiries@heatstore.co.uk

10.0 User Instructions

10.1 This Heatstore unvented water heater stores water at the temperature set on the adjustable thermostat. This can be set to give temperatures in the range of 10 to 70°C. To avoid any risk of freezing when the heater is not in use for long periods during the winter months, do not switch off the electrical supply and set the thermostat to its minimum position.

N.B. This will not protect other system pipework.

10.2 The indicator light will be illuminated when the unit is heating.

10.3 To ensure the heater continues to operate at its optimum performance, it should be periodically maintained in accordance with the instructions given under the section headed MAINTENANCE.

10.4 IMPORTANT NOTES TO USER

Do not block or restrict the discharge from any safety valve fitted. Do not tamper with any safety valve fitted. If water discharges from any safety valve fitted, switch off the electrical supply to the unit immediately. Contact a qualified installer. Do not turn the electrical supply on again until the unit has been checked and approved by a qualified installer.

11.0 Unit Specification

Supplier's name and trade mark	Heatstore		
Supplier's model identifier	HS10UX	HS15UX	HS25UX
Storage volume V in Litres	10	15	25
Mixed water at 40°C V40 in Litres	17.3	24.5	36.4
The declared load profile	XXS	XXS	XXS
The water heating energy efficiency class of the model	B	B	B
The water heating energy efficiency in %	32.8	33.8	33.9
The annual electricity consumption in kWh	562	545	553
Daily fuel consumption Q fuel in kWh	2.69	2.60	2.70
The thermostat temperature settings of the water heater, as placed on the market by the supplier	65°C		
Specific precautions that shall be taken when the water heater is assembled, installed or maintained and disposed of at the end of life	See Section 1 to 8		

Table: Technical parameters in accordance with European Commission regulations 814/2013 and 812/2013

12.0 Guarantee

This water heater is guaranteed for a period of two years provided that:

1. It has been installed in accordance with these instructions and all the necessary inlet controls and safety valves have been fitted correctly.
2. Any valves or controls are of Heatstore recommended type.
3. The unit has not been tampered with and has been regularly maintained as detailed in these instructions.
4. The unit has been used only for heating potable water.

The unit is **NOT** guaranteed against damage by frost or due to the build up of scale.

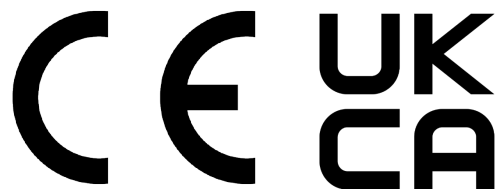
This guarantee does not affect the statutory rights of the consumer.

The policy of Heatstore is that of continuous improvement and development, therefore the right is reserved to change specification without notice.





THE TOTAL ELECTRIC HEATING SOLUTION



Contact details

Heatstore

Unit 12, Access 18, Bristol, BS11 8HT

Telephone: 0117 923 5375 Email: enquiries@heatstore.co.uk

<http://www.heatstore.co.uk>

