

Horse Shower Quick Installation Guide – see website for full shower manual (read fully before use) – www.horseshowersuk.co.uk

1. Insert 2 x D Type batteries correct way around and check they have charge, connect gas pipe ensuring supplied rubber seal is fitted between screw adapter and shower.
2. Next is to check you have gas in the bottle and that the gas is turned on. (color gas screw type fitting for regulator supplied. Propane or Butane (red or blue) will both work, although propane (red one) will perform better in cold weather). 15kg bottle recommended, but will work with any size. *Regulator can be cut off and changed to one that fits your current gas bottle should you already have a cylinder.*
3. Connect input hose – (closest to battery compartment) and output hose to shower. Easiest way is to pull back outer, push hose connector on as far as possible and then make sure outer sleeve is pulled up as far as possible to lock connector on.
4. When the input water is turned on, and gun is engaged to allow water flow, you should hear a clicking noise coming from shower unit and the gas will ignite and temperature will increase on display. If no clicking is heard, try turning on switch on base of shower unit. **WARNING** – Water pressure and temperature increases when shower is on and gun is in off position, risk of hose puncturing at high temperature and pressure.

DO NOT USE SPRAY GUN TO STOP WATER FLOW

5. Please ensure the inlet and outlet hoses are the correct way around. The shower will turn on and off when it senses flow of water through it.

For full boiler heating capacity, top knob should be turned to WINTER, water flow and flame level can be controlled using bottom two knobs which will help control temperature and spray gun pressure. SUMMER mode can be selected for economy use (burner half ignited) when ambient temperatures are higher during Summer. **Please ensure shower unit has both hoses disconnected during cold weather to allow unit to fully drain and avoid freeze damage.**

NB – Please check charge of batteries and level of LPG in gas cylinder if shower is failing to ignite, click or cutting out unexpectedly.

Before using, please read carefully the manual, make sure you have known the safety notice and the correct way of installation.

BASIC TECHNICAL DATA

GAS TYPE		Liquid Petroleum Gas		
RATED GAS PRESSURE		2800Pa		
CONTROL METHOD		Water-in & water-out valve control		
IGNITION TYPE		Battery Operated Automatic Ignition		
WATER PRESSURE REQUESTED		0.025 MPa ~ 0.75 MPa		
PIPE	WATER INLET	1/2" steel pipe		
	WATER OUTLET	1/2" steel pipe		
	GAS PIPE	Φ 10mm rubber hose or 1/2" steel pipe	Φ 13mm rubber hose or 1/2" steel pipe	1/2" steel pipe specification of gas meter 2.5 ³ m/h when below 14kW 4m ³ /h when above 14kW

REMARK:

Gas type and rated gas pressure should be the same as the nameplate on the water heater. As to other technical data, please refer to individual model's performance sheet respectively

● CHECK THE WORKING GAS

Gas needs to be the same as stated on the nameplate. e.g.

Gas type	Liquid Petroleum Gas
Rated Gas Pressure	2800Pa

In case to change the gas type, water heater should be refit under the guidance of technical professionals.

● CHECK GAS LEAKAGE

Check regularly with soap water smeared around the gas pipe joints, to make sure there's no gas leakage.

Stop using water heater and check carefully when abnormal phenomena occur during normal using.



In case of gas leakage, please cut gas supply immediately, open doors and windows to ventilate the bathroom naturally. Water heater can only be used after the gas completely dissipates. In order to avoid accidents, all fire sources and electric switches should be shut off.

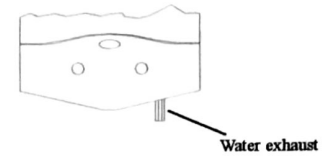
- NO INFLAMMABLE, EXPLOSIVE AND CORROSIVE SUBSTANCES COULD BE PLACED AROUND WATER HEATER.



- DO NOT USE WATER HEATER FOR OTHER PURPOSES EXCEPT FOR PRODUCING HOT WATER.

The water heater is used for intermittently producing hot water. It should not be used for supplying drinking water or drying clothes.

- EMPTY THE TANK'S WATER AFTER USING WHEN AIR TEMPERATURE IS BELOW 0°C OR DISUSE WILL LAST FOR A LONG TIME



● REPAIR

Do not use the water heater during its MALFUNCTION, and do not disassemble it personally. When trouble occurs during use, please contact our customers service center for advice. Water heater should be maintained by professionals regularly (coal gas type, 1year; liquid petroleum gas and natural gas types, 2-3 years).



- INSTALL WATER HEATER OUTSIDE OF THE BATHROOM

The water heater should be installed in an individual room, separate from the bathroom and family living room. Keep the room in good ventilation so as to avoid toxicosis by carbon monoxide.

- AVOID SCALD

To resume using the water heater after a break, do not touch the hot water immediately. And during the use or just right after finish, except the knobs, do not touch the outer shell to avoid scald.

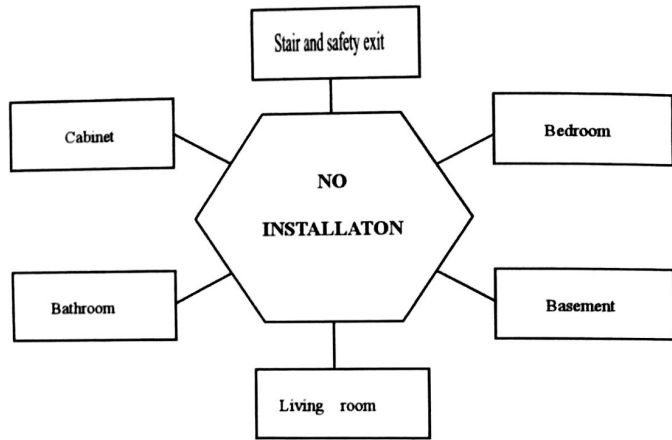
- USE QUALIFIED DECOMPRESSOR TO ENSURE WATER HEATER FUNCTIONS WELL. WHEN WATER HEATER IS WITH THERMAL BURDEN 16KW OR ABOVE AND USE LPG, THE DECOMPRESSION VALVE SHOULD BE WITH 1.2M³/H RATED FLOW VOLUME.

- INSTALLATION

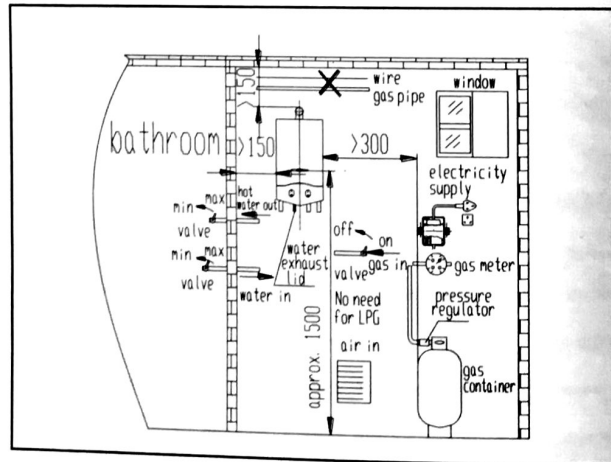
Water heater should be installed by authorized professionals from local gas company or the related administration, carrying out in strict conformity with the illustration so as to avoid troubles caused by negligence.

● POSITION OF INSTALLATION

INSTALL IN A SEPARATE ROOM



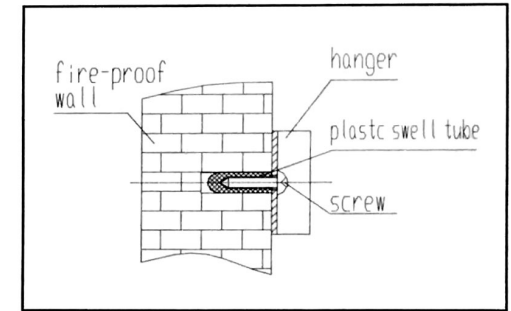
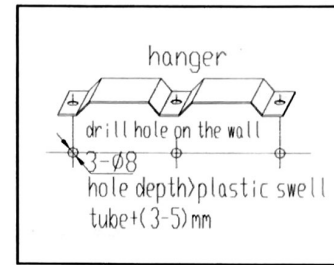
● THE CORRECT POSITION IN THE INSTALLATION ROOM



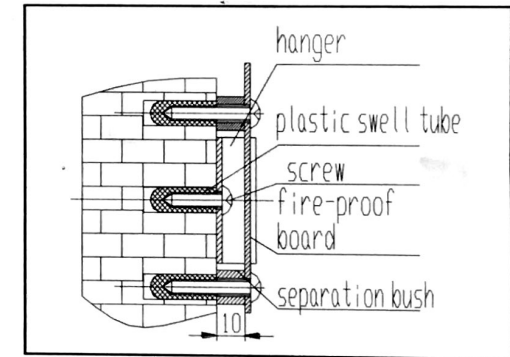
NOTES:

- THE POSITION OF WATER INLET, WATER OUTLET & GAS PIPE SHALL BE SUBJECTING TO THE MARKS ON WATER HEATER BODY.
- CHECK CAREFULLY AFTER INSTALLATION; MAKE SURE NO GAS OR WATER LEAKAGE.
- RUBBER HOSE SHOULD NOT BE LONGER THAN 2M.
- NO WIRE, PIPE OR HOSE SHOULD GO THROUGH BEHIND OR ABOVE WATER HEATER BODY.

● INSTALLATION OF THE HANGER—SHOULD BE INSTALLED HORIZONTALLY



In case of non fire-proof wall, please underlay a fire-proof board, 100mm bigger than the water heater from every side and 10mm away from the wall.

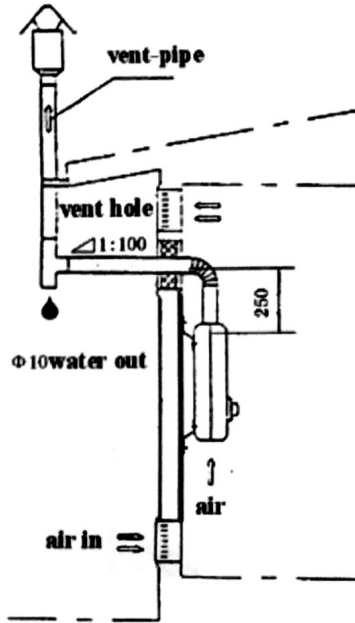


● HANG UP THE WATER HEATER

Hang up the water heater onto the hanger vertically

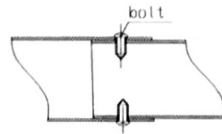


● INSTALLATION OF VENT-PIPE



The water heater must have the vent-pipe. Vent-pipe installation should be as follows:-

- A The height of the vent-pipe should be proper so as to ensure complete exhaust of the smoke outside.
- B The horizontal part of the vent-pipe should be less than 3m, and the vent should be inclined down a little so that the condensed water or rains could not flow backwards.
- C Elbow of the vent-pipe should be 90° and not more than 3pcs.
- D The inner part of the vent-pipe above the wind backwards preventing cover should be more than 250mm.
- E Top of the vent-pipe should be with wind cap to prevent wind, rain and snow. The situation of the wind cap should not be in eolian zone. The distance should not be less than 600mm against the building around and its hatch.
- F Do not install the vent-pipe in the air-exchanging passage or smoke ventilating way.
- G Make sure no air leakage at the joints, fixing tightly with bolt.

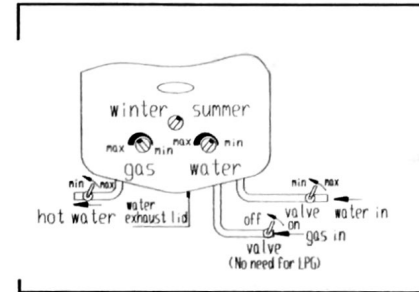


● HOW TO SET UP VENTILATION PASSAGE

- A Air-in hole should be at a well-ventilated position below 1/2 of the room height.
- B The vent hole should be set outside and near top of the room and far from the vent-pipe in a ventilation condition.
- C the air entry and vent area

THERMAL BURDEN (KW)	MIN. AREA OF THE AIR-IN HOLE AND VENT HOLE (CM ²)
≤12	100
12~16	130
16~20	160
20~26	200

- Installation of VALVE: Valves should be installed with the gas-in pipe and water-in pipe prior to their connection to the water heater, and hot water pipe as well should have a valve. After installation, testing should be carried out to ensure no gas and water leakage.



■ OPERATION

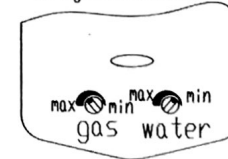
● PREPARATION

- 1, Put inside the battery box 2pcs of the 1# battery
2. Open the valves of gas-in and water-in.

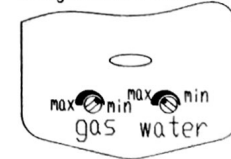
● IGNITION

When water pressure is above 0.025Mpa, the ignition is automatically executed when open the hot water valve. For the newly installed water heater, the gas pipe might be filled with air and cannot be ignited for the first time. Please repeat on&off to exhaust the air until water heater is finally ignited.

For higher temperature, turn more gas and less water



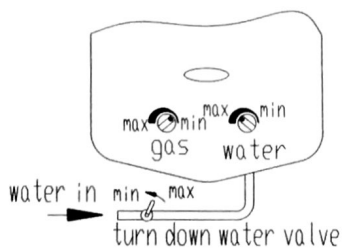
For lower temperature, turn less gas and more water



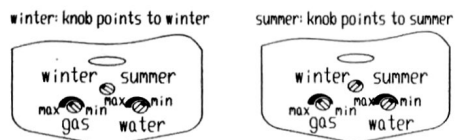
● TEMPERATURE CONTROL

- To adjust the water and gas until it's comfortable.
- In case those who install the water valves themselves, cold water should not be turned up too much, in order to avoid the less pressure by diffuence will affect water heater's normal running.

In some place, the water pressure may be too strong and thus water can not be heated. In this case, please turn down the water-in valve.



Winter-summer model water heater: with the knob changing to winter or summer. (operation of temperature control like above.)



● SHUT-OFF

To stop using the water heater, please shut off the hot water out valve or water-in valve;

After finish using the water, please shut off the water-in and gas-in valve.

● NOTE: WATER HEATER SHOULD NOT BE USED CONTINUOUSLY FOR A LONG TIME.

● FOLLOWING PHENOMENA ARE NOT REAL TROUBLES.

PROTECTIVE FUNCTION	REACTION	REMARKS
Water pressure too high	If water pressure is over 0.8Mpa, the water-out valve will release water and lower the pressure	Increase the valve pressure limit according to local water supply pressure
20-minute automatically shut off	After 20 minutes' using, water heater will shut off automatically	Restart the water heater
Water pressure too low	If water pressure is below 0.025Mpa, the water heater cannot be ignited	Use the water heater later when pressure becomes higher
Low battery	The power of battery will become less after use for some time, thus the water heater cannot be ignited.	Change battery
Over heat protection	Water heater automatically shuts off when water temperature is above 77° C	Re-start water heater later when water becomes cooler

■ Repair and Maintenance

● Water heater shall be checked by professional personnel for every 6~12 months, contents for check are:

- 1 Sealing of fuel gas route system; sealing of water route system;
- 2 Clean filtration net on water admitting orifice to avoid blockage;
- 3 Functions of all operation parts;
- 4 Flame of combustion;
- 5 Carbon accumulation of heat exchanger;
- 6 Air admitting and release system in room where water heater is installed.
- 7 Gas decompressor

● Items checked and maintained by professional personnel:

- 1 The flexibility of water and gas linkage;
- 2 Clean carbon accumulation on buckling piece of heat exchanger;
- 3 Grease gas valve and its core;
- 4 Carbon accumulation and oxidation coat on ignition and induction needles.

● Maintenance of water heater by user

- 1 Get rid of accumulated dirt and dust on shell of water heater by cloth constantly. Do not use chemical or volatile scour that may change shell's color.
- 2 Clean accumulated dusts and carbon inside vent-pipe and heat exchanger periodically to ensure the smooth passage of smoke.

Note: Removing vent-pipe, clean it and rid up heat exchanger with brush. During the course, do not drop dirt and dusts into fire hole of burner and parts of electric appliance and do not loosen or damage other parts as well. To re-fix the vent-pipe after cleaning, notice to keep tight sealing of joints.

■ Maintenance and repair guide to common malfunctions

Causes		Malfunction	A	B	C	D	E	F	G	H	I	J	Solutions
Improper Operation		Overall fuel gas valve is unopened	●										Open overall valve of gas supply
		Water supply valve is unopened	●										Open valve of water supply
		Improper regulation method of water temperature				●							Enlarge gas volume, reduce water volume
						●							Reduce gas volume, enlarge water supply
		Electrical leakage protective switch is not restored	●										Restoration of electric leakage protective switch
	Improper position of water switch	●										Turn water knob to hot water point	
Surroundings		Air exiting inside fuel gas pipe	●	●									Repeat opening and closing hot water valve for several times
		Inadequate fresh air supply				●							Improve ventilation and ensure air supply
	Fuel gas pressure	Too high	●	●			●			●			Regulate pressure relief valve, reduce overall gas supply
		Too low				●	●				●		Check if gas rubber pipe twists or not
	Water pressure	Too high					●						Reduce water supply
		Too low	●	●	●					●	●		Utilize when water pressure recovers to normal
	Inadequate supply of fuel gas	Gas valve is half opened					●						Open gas valve completely
		Too long pipe					●						Shorten rubber pipe
		Too small through diameter of joints					●						Displace joints of rubber pipe
		Improper choice of specification of pressure relief valve					●						Water heater with a content of over 8 liters shall adopt a pressure relief valve (LPG) of 1.2m ³ /h
		Simultaneous consumption of fuel gas by several users					●						Stop other users' using fuel gas
		Blockage of water route	●					●					Clean filtration net on water admitting orifice
		Blockage of shower	●					●					Clean shower device
		Blockage of vent pipe								●			Clean flue pipe
		Inadequate battery voltage	●	●	●								Displace batteries
	Too low water temperature					●						Reduce water volume	
Safety protection		Exorbitant air pressure protective device	●				●						Utilize when air pressure recovers to normal
		Electrical leakage protective device works	●				●						Ask for professional personnel to repair it
		Heat protective switch works					●						
		20-minute timing protective device works					●						Reopen hot water valve
Other causes												●	Ask for professional personnel to repair it

A Ignition failure B Blasting combustion C Flameout during operation D Too low temperature E Too high temperature F Sparks from fire peep hole G Removed flame and renegade fire H Returned fire I Flameout at point of large water volume J Other malfunctions