

# Morco F11E and F11EL to EUP11RS Conversion

## Introduction

Since 1997 Morco have supplied the F11E and F11EL LPG water heaters into the holiday home industry. Sadly, the factory in Northern Spain closed in 2017 and Morco have now sourced replacement water heaters. We have recently launched the EUP11RS water heater and appreciate that many of these will be purchased to replace the longstanding F11E and the more recent F11EL models in holiday homes. Gas engineers and holiday home owners alike will wish to know what the differences are and how easy it is to convert. For those reasons we have created this guide.

## Things that remain the same

- Both heaters provide a heat output of approximately 19kW.
- The temperature of the hot water at a sink tap can be increased for both heaters by reducing the flow rate through the tap.
- The basic operation of the water heater is identical in that it has a water control assembly containing a diaphragm that opens and closes the gas valve.
- Both water heaters are fan flued and room sealed and can therefore be used in a room without any ventilation needed to operate the heater effectively and safely.
- 15mm hot and cold water pipes – Gas pipes must be 15mm for the EUP11RS – please purchase the PKE fitting kit with the water heater.
- Automatic electronic ignition of the main burner.
- The 100mm flue diameter is the same for the F11s and the EUP11RS but the fitting methodology is different so a new flue will need to be purchased. RSF503 for a horizontal and RSF045 for a vertical flue.
- Adjustable water temperature knob
- LCD Display for water temperature and fault codes
- As with the F11s the EUP11RS will suffer frost damage if it is not drained in winter and water is allowed to freeze inside it.
- As with the F11s, there is no need to use gas paste on the washer seal between the Gas isolation valve and water heater
- The EUP11RS and F11s will both function with a water supply operating pressure of 0.2bar measure with a hot outlet open and water running

## Things that are different

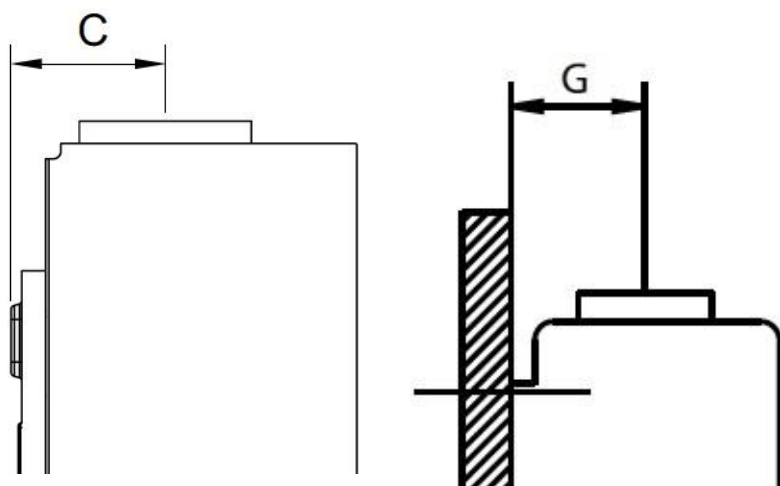
- There are 2 types of EUP11RS. One for use with a vertical flue (code EUP11RSVERT) and one for use with a horizontal flue (EUP11RS). The only difference is the flue spigot height on top of the boiler – in all other respects the 2 models are identical. However, the correct appliance must be purchased for the flue type required
- Compact size – the EUP11RS differs slightly in size to the F11s

Dimension	F11EL	EUP11RS
Depth mm	247	238
Height mm	592	658
Width mm	330	304

- The EUP11RS does not have a control knob that controls the flow of water through the appliance
- Pipe Connections are as follows:

Appliance	Hot outlet	Gas inlet	Cold inlet
F11E	1/2" BSP	3/4" BSP	3/4" BSP
F11EL	1/2" BSP	3/4" BSP	3/8" BSP
EUP11RS	1/2" BSP	3/4" BSP	1/2" BSP

- The mounting bracket is different for the EUP11RS but the position of the mounting screw holes in the plate is very similar.
- The position of the gas and water pipes is different – please see the “Water and Gas Pipe Positions” section at the end of this sheet.
- There is a water temperature limit thermostat as an additional safety feature on the heat exchanger. (Open Circuit at 105 °C).
- There is no drain screw for the EUP11RS water heater. In cold weather we advise disconnecting the cold feed pipe from the water heater to ensure that all the water leaves the heater to avoid frost damage.
- In the F11s the boiler senses water flow via a flow switch. In the EUP11RS the water flow is sensed via a flow turbine and so draining down the appliance with the gas and electric connected may momentarily fire the appliance.
- The distance between the wall and the flue centre line for the F11s is 122mm. The corresponding dimension for the EUP11RS it is 142mm

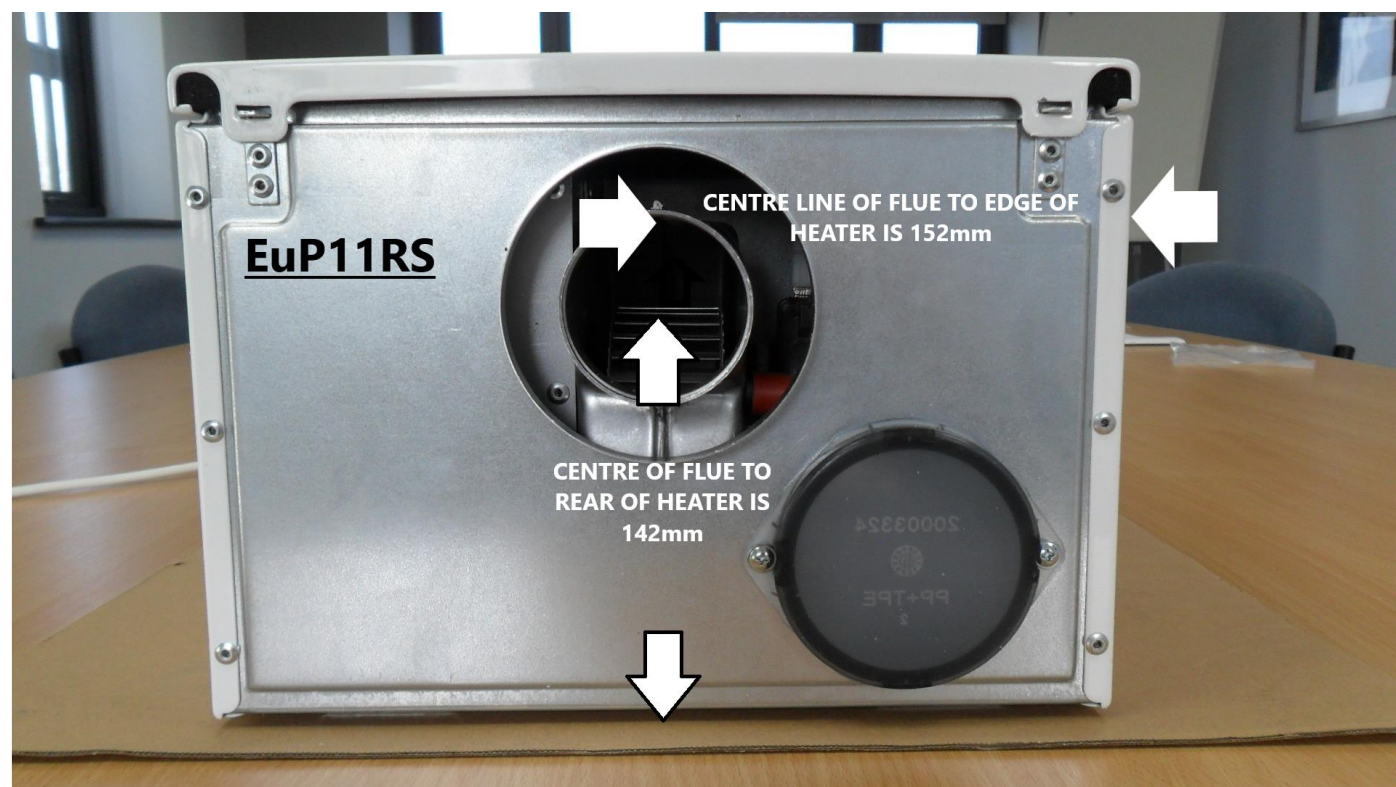
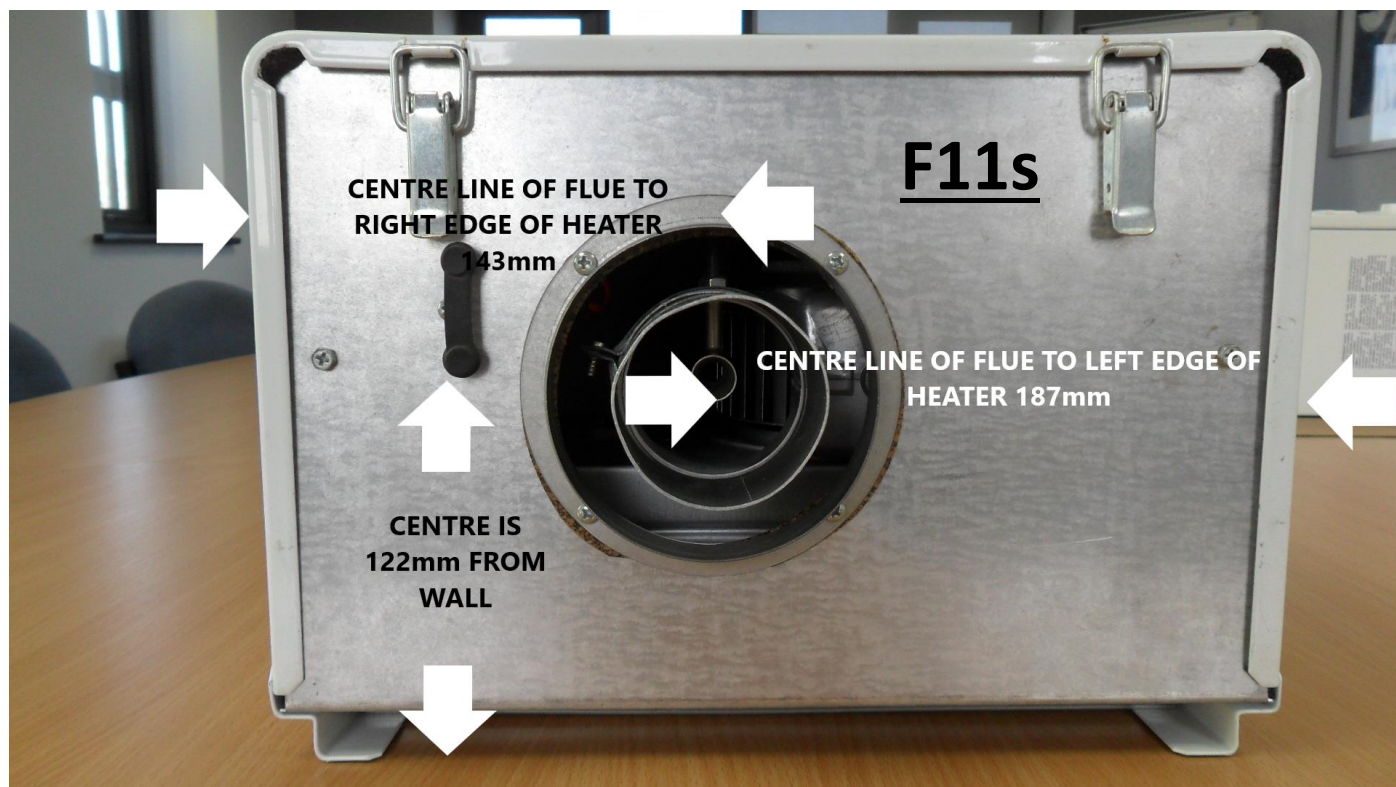


**Dimension C is for the new EUP11RS water Heater which is 142mm**

**Dimension G is for the old F11 water heaters which is 122mm**

**C and G measure the distance from the mounting wall and the flue centre line**

## Water heater flue spigot position

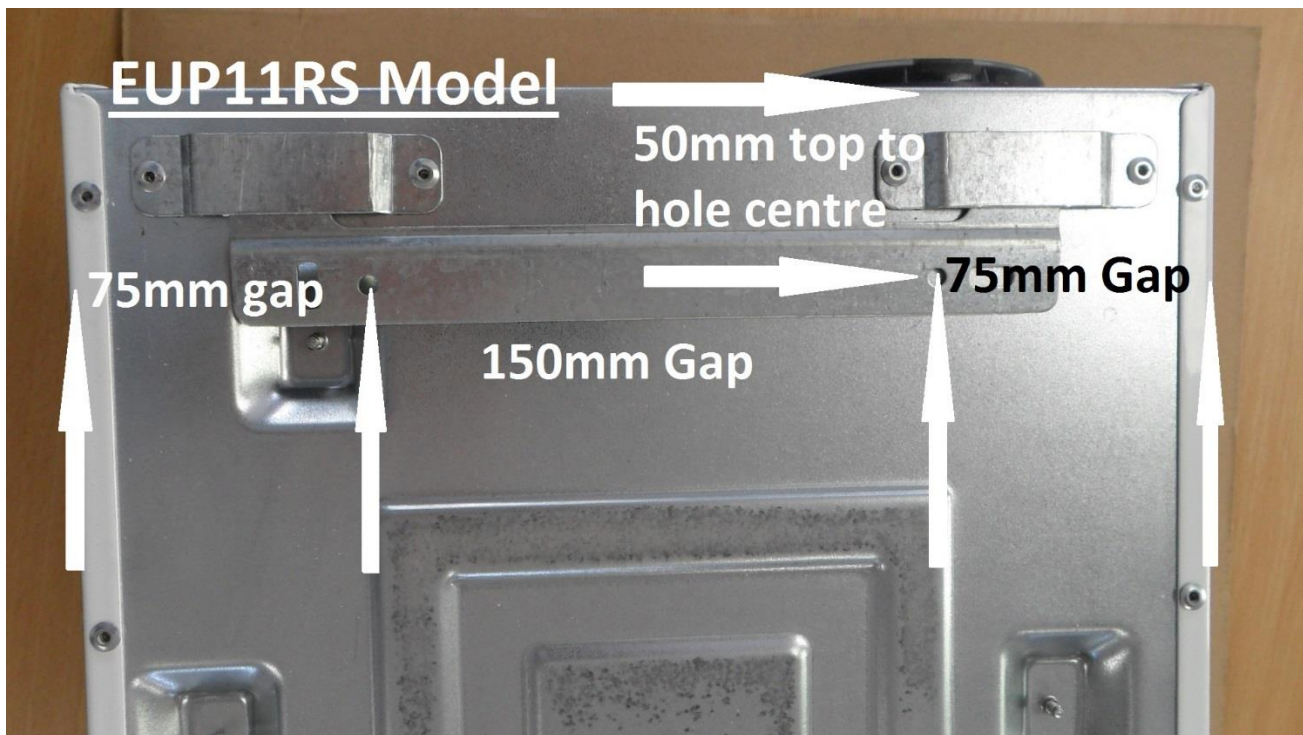
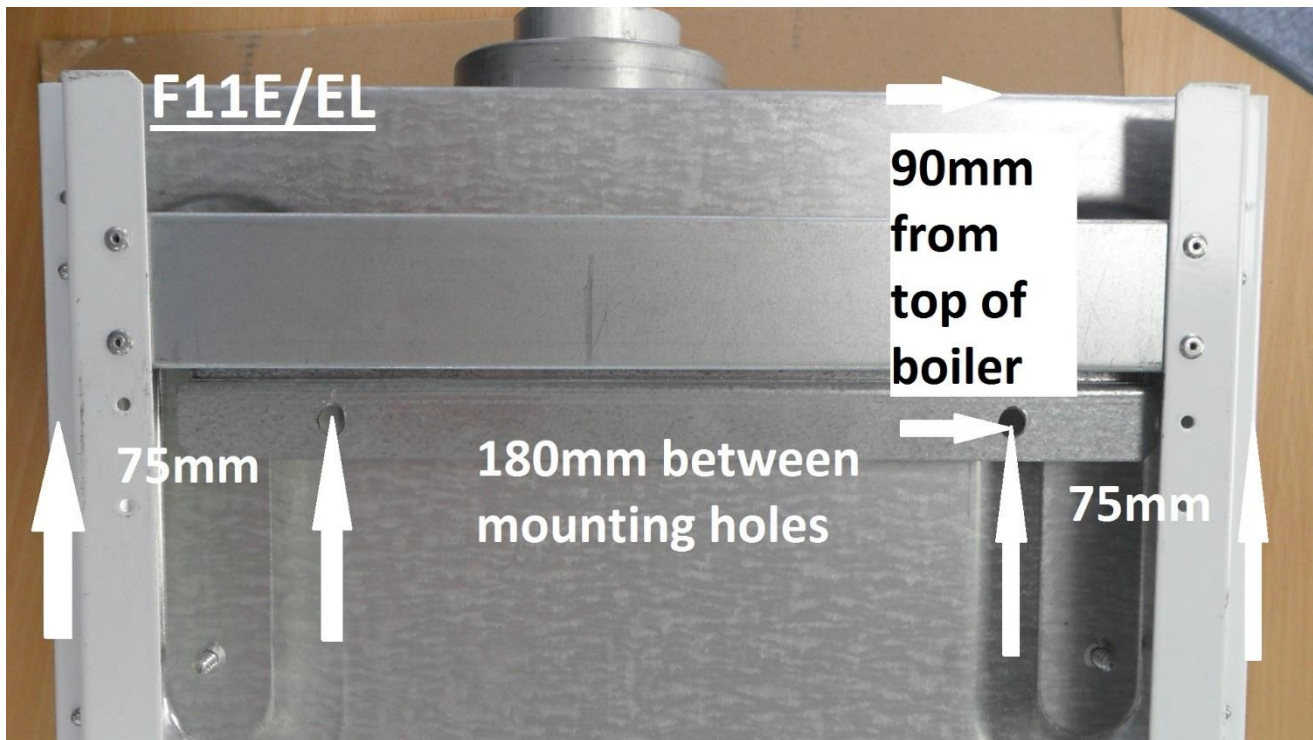




### Water heater bracket positions

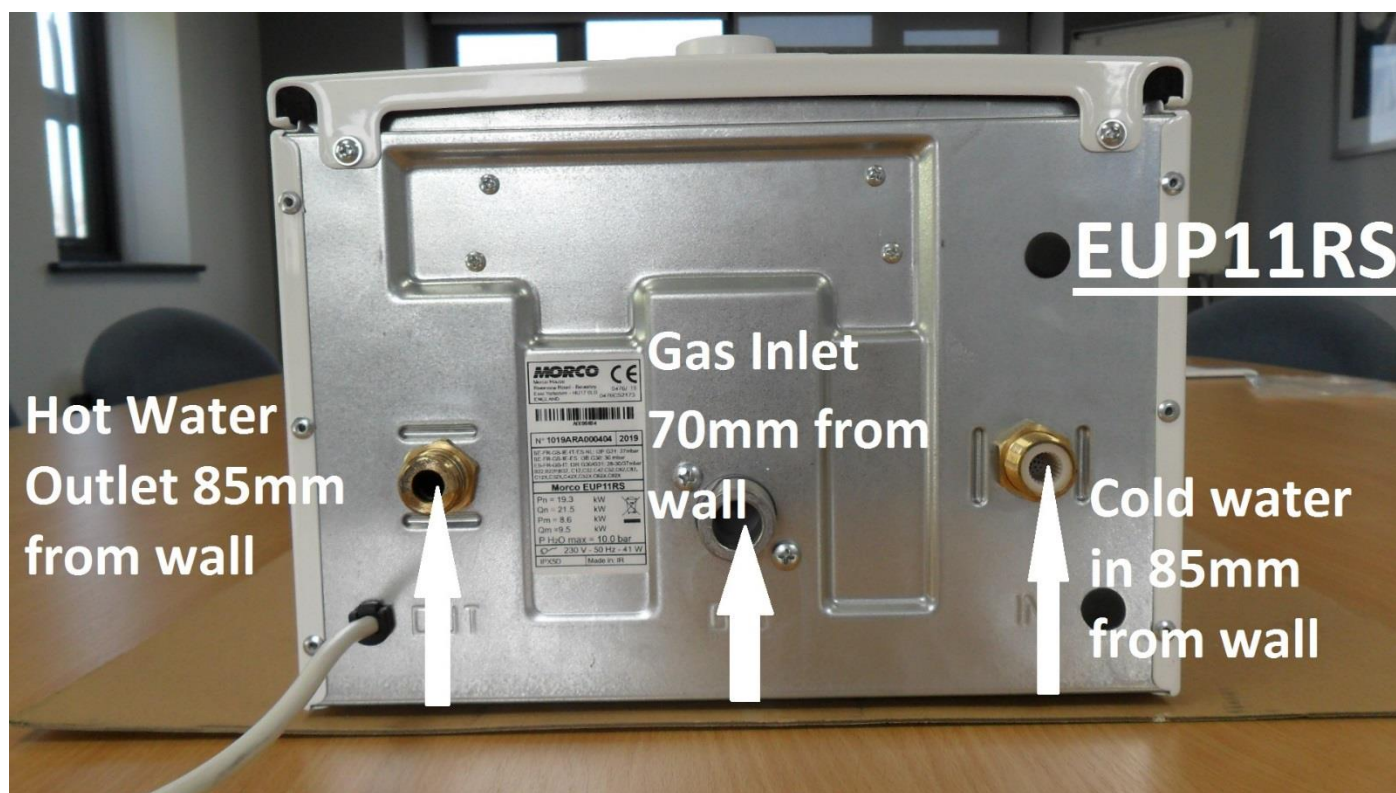
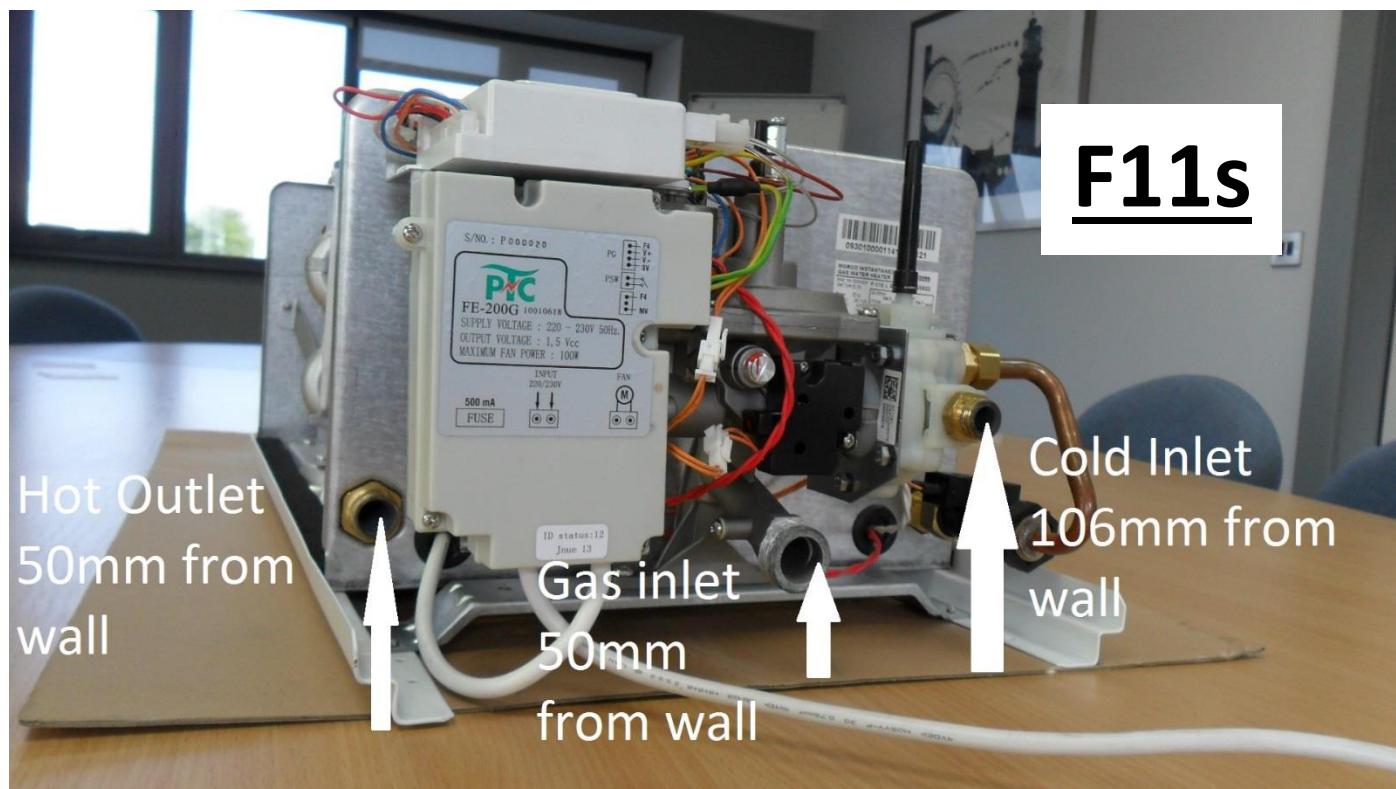
The two bracket mounting holes for the F11s are 180mm apart and 90mm from the top of the water heater

The holes for the EUP11RS are 150mm apart and 75mm from the top of the water heater



## Water and gas pipe positions

The pipe installations for the F11s are many and varied and it will be up to the engineer to adapt the PKE fitting kit for the EUP11RS to suit the hot and cold water and gas pipes. The orientation of the pipes for both water heaters remains the same with the hot on the left, the gas in the middle and the cold on the right as viewed from the front of the water heater.





### Loose wires inside the EUP11RS

There will be two loose grey wires within the EUP11RS appliance. These are for the connection of diagnostic equipment and should be left loose. They will not cause any operational problems. The diagnostic equipment is not available for purchase.

