



## Altherma by Daikin

**Correct Installation Of The ESBE 3 Port Valve  
Supplied By Daikin For Domestic Hot Water**



## Altherma 3 Port Valves

- This has caused a great deal of confusion for installers in the past. This valve always used to be site supplied.
- We recommended a valve in our training course. A Honeywell V044C. This is a spring return valve, not a mid position valve. Mid position valves are not permitted as the system is not capable of parallel operation of space heating and DHW production.
- Despite this some installers have used the mid position valve. If this is the case then some wiring can be altered from the valve to force the correct valve operation. For some Honeywell mid position valves the white and grey can be linked to enable this operation. *If the installer has fitted the wrong valve it is up to them to make enquires with the manufacturer of the valve about re-wiring.*
- From July 2008 Daikin have started supplying there own valve (to eliminate this confusion on site). This valve is manufactured by ESBE & is essentially a mixing valve. It is VERY IMPORTANT that the installer obeys the installation instructions in the installation manual. Failure to do this will result in a mixing of water between the space heating and DHW circuit.
- **Note – This valve is supplied with the NEW B Series DHW Tanks**
- Please refer to the manual attached in the next slides for installation instructions



## ESBE 3 port Valve Installation

### 2 Installation position.

It is advised to connect the 3-way valve as close as possible to the indoor unit. It can be installed according the following four configurations.

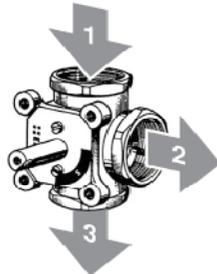


figure A

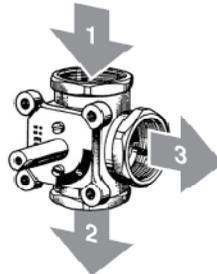


figure B

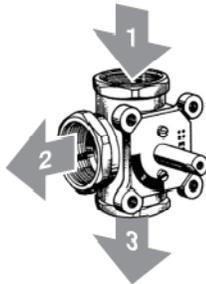


figure C

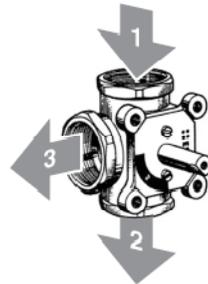
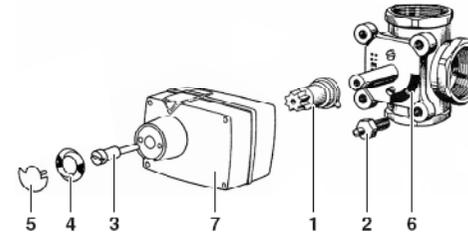


figure D

- 1 From altherma® by **DAIKIN** indoor unit
- 2 To domestic hot water tank
- 3 To room heating

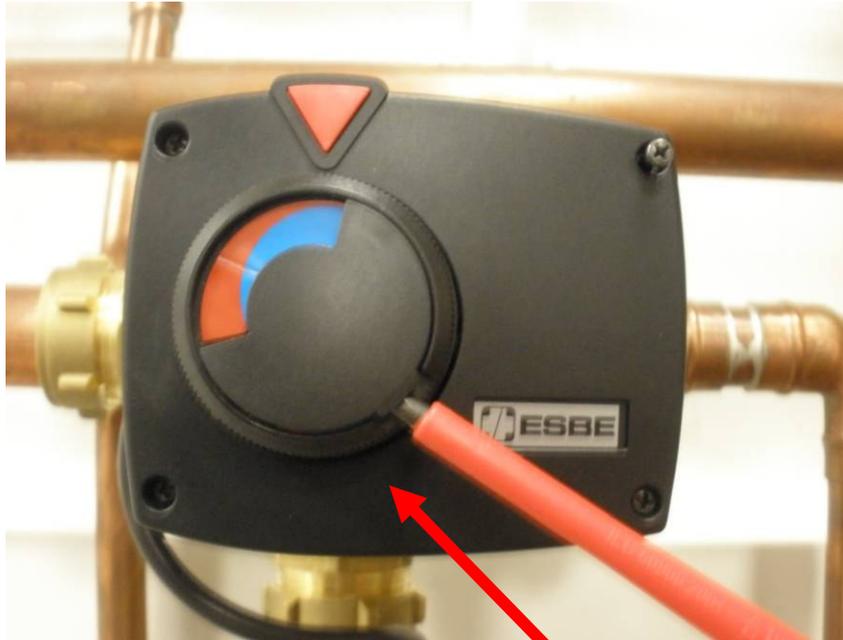
### 3 Unpack the 3-way valve body and 3-way valve motor.

Verify that following accessories are provided with the motor.



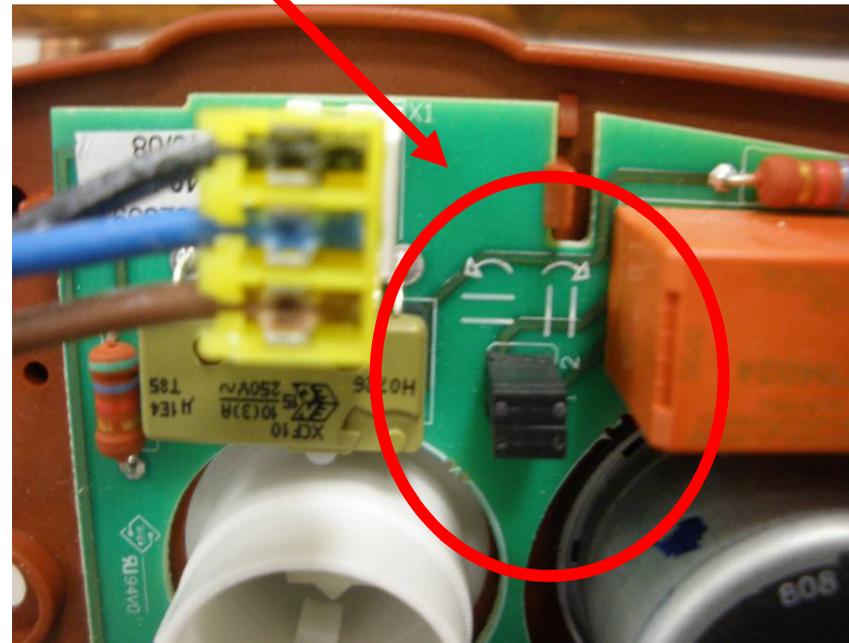
- 1 Sleeve
- 2 Screw
- 3 Central screw
- 4 Red/blue scale
- 5 Cover
- 6 Indication plate
- 7 Valve motor cover

- Make sure the shaft will be positioned in such a way that the motor can be mounted and replaced.
- When installing the valve according to [figure C](#) or [figure D](#), remove the indication plate and turn it upside down, making sure the scale "0 to 10" is located on the lower left bottom of the valve.
- Put the sleeve on the valve and turn the valve to the middle position (marked as "5") of the scale plate. Check that the valve is positioned as in the figure below. It should be blocking the outlet connection to the domestic hot water for 50% and the outlet connection to the room heating also for 50%.



Lift tab on front of valve to expose the main fixing screw to remove ESBE motor

Remove the casing from the valve motor and ensure that the jumper connections are installed as per mechanical configuration that the valve body is installed in.





Once you have the valve body installed, turn the red plate on the valve body so that the indicators 0 – 10 are between the sanitary hot water and the space heating loads.

Install the white plastic blocking pointer to the shaft and turn to mid position which is number 5 as shown in the picture.

Then fit the motor holding pin at position 5 if installed this way.

After this fit the motor to the valve body and secure with the centre pin.

Finally set the jumper pins as shown on the previous page, when the motor is powered up for the first time you need to ensure that you change the jumper pins so that the white blocking pointer motors towards the sanitary hot water.

Once the wiring is correct turn the power on.



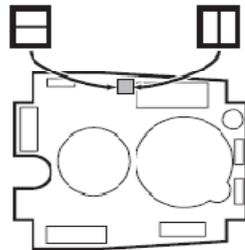


## ESBE 3 port Valve Installation

- 5 When installing according to [figure B](#) or [figure C](#), open the valve motor cover by loosening the 4 screws and change the jumper as to change the rotation direction of the valve.  
By default the jumper is factory set to apply for installation according to [figure A](#) and [figure D](#).

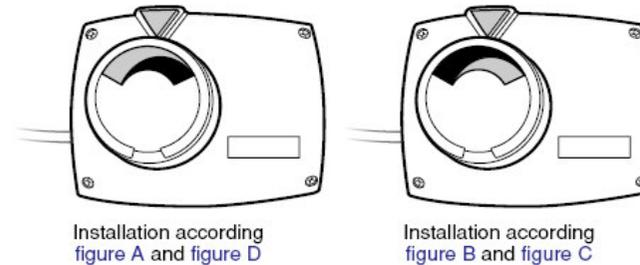
Installation according  
[figure A](#) and [figure D](#)

Installation according  
[figure B](#) and [figure C](#)



- 6 Fit screw 2 (see step 3) in the lower right hand corner of the valve cover plate.
- 7 Push the motor on the motor sleeve.  
Make sure not to rotate the sleeve during this action, as to maintain the valve position as set during step 4.

- 8 Put the red/blue scale on the valve as shown below.



The red arrow will point to the red zone when the valve is in domestic water heating mode and will point to the blue zone when the valve is in room heating mode.

- 9 Make the wiring in the indoor unit according to following figure:

