Introduction

The CombiSave valve has been designed to work in conjunction with combination boilers. The valve is fitted on the 15mm domestic hot water outlet pipe of a combination boiler to increase the boiler's fuel efficiency; reduce time for hot water supply and save water.

Operation

The operation of the valve is completely automatic. When a hot tap is turned on the water will begin to flow at a reduced rate until the boiler has had time to heat the water to the set temperature. When the set temperature is reached the CombiSave will open and allow the water to flow freely.

Pre Installation Notes

1) The CombiSave must not be subject to excessive temperature either during the installation or during normal working conditions.

2) The CombiSave is supplied with the By-Pass screw closed.

3) If the boiler has a Pre-Heat function make sure it is disabled before fitting the CombiSave in order to maximise savings. (Check the boiler manual for instructions).

4) The CombiSave should be fitted within 750mm of the boiler outlet.

5) The CombiSave will require at least 150mm of exposed pipe to enable fitting.

Installation

1) Unpack and check contents (See Table 1).

2) Isolate the boiler from the mains power and water supply.

3) Drain the water from the hot water system. Turn on the nearest hot tap to confirm that the water supply has been shut off correctly.

4) Identify installation location, refer to pipe cutting template for orientation options (See rear). Cut pipes to size (Fig.1).

5) Loosely assemble the obtuse angled elbows in place with the 15mm cap nuts, olives and ¾" nuts (Fig 2).

[Note: fit the elbow with filter on the inlet side of the valve].

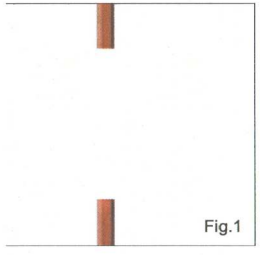
Fig.1

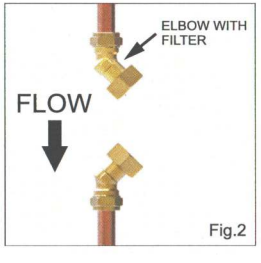

Fig.2

6) Fit the CombiSave valve in place remembering to fit the ¾" fibre washers and tighten all nuts (Fig 3).

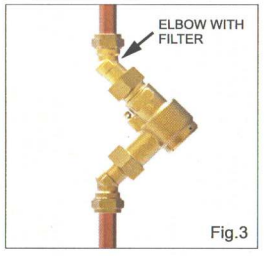

Fig.3

Commissioning

1) Turn on the water supply

2) Bleed the hot water system prior to reinstating the power. You will need to open the bypass adjustment screw on the CombiSave in order to do this. Two turns anti-clockwise should be sufficient.

3) Check the installation for leaks.

4) Close the bypass adjustment screw (turn clock-wise) and switch on the power to the boiler.

5) You now need to adjust the bypass in order for the CombiSave to work. First turn on a cold tap half flow (to introduce a pressure drop in the system) then turn on a hot tap. There should be little or no water flow from the hot tap at this point. Now slowly turn the bypass screw Anti-clockwise until there is sufficient flow through the CombiSave to allow the boiler to operate (Fig.4). Once the boiler has operated give the screw a further 1/4 turn.

6) Check the CombiSave functions at all hot water outlets.

Remember you will have to allow the water in the system cool between each test to reset the CombiSave.

7) Ensure all taps are switched off.

8) Brief householder on the installation.

9) Leave this instruction leaflet with property owner for future reference.

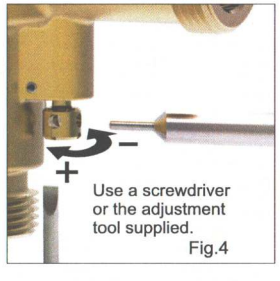

Fig.4

Note:1: You can check the flow rate with a measuring jug and a watch.
Note2: Setting CombiSave by-pass to minimum required flow will achieve optimal water saving. Remember to allow for pressure drop caused by cold water outlets that may be in use at the same time. If you set the '*bypass flow*' too low the boiler may not operate. If set too high optimal savings will not be achieved.

Operating Temperature Adjustment

The operating temperature of the valve is factory set at approximately 45°C. If you find it necessary to adjust the operating temperature this can be done with the following procedure.

1) Remove the centre section of the label to reveal the Setting Screw (Fig.5).
2) Using a screwdriver carefully turn the adjust screw in the desired direction. Anti-clockwise to increase the operating temperature and clockwise to decrease (Fig.6).

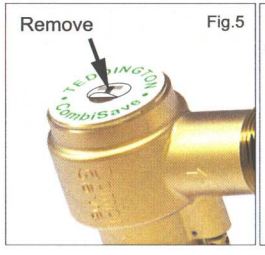

Fig.5

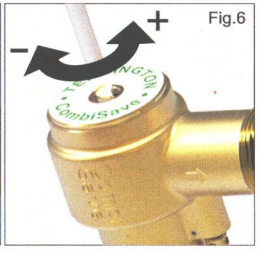

Fig.6

Note:

If your boiler has a Pre-Heat option it is recommended that where possible you switch this function off in order to maximise your savings.

Problem Solving

i. No full flow	- check boiler operates - check boiler hot water temperature is set high enough
ii. Hunting	- CombiSave temperature calibration set too high.
iii. Intermittent hot water	- Increase by-pass flow
iv. No flow/reduced flow	- blocked filter - check boiler operates - insufficient supply pressure

Technical Support Helpline

Should you require any further assistance, please contact our technical support helpline on:

Tel: 01726 222 530 and quote reference: CSA0003

or visit - www.combisave.com

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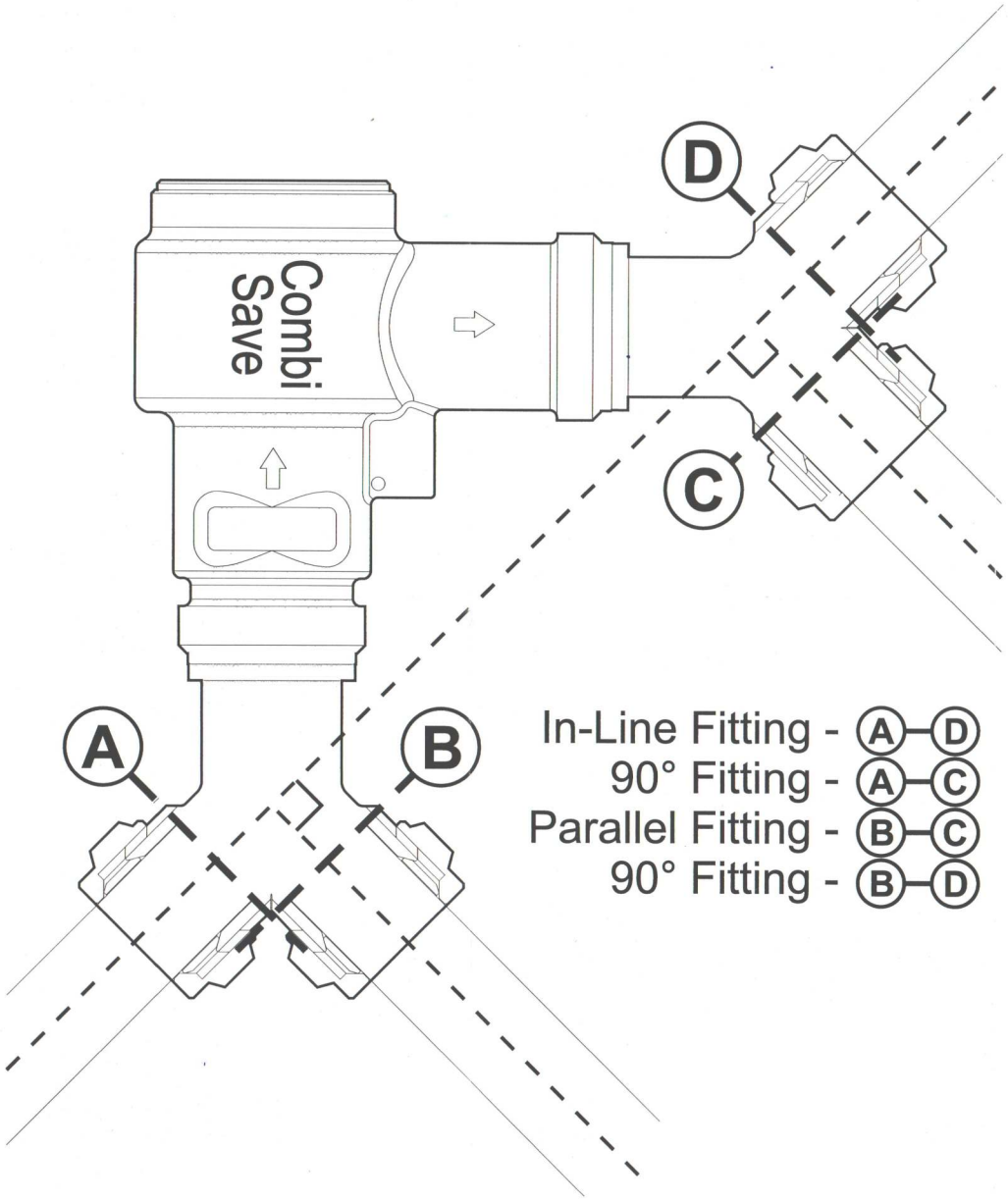
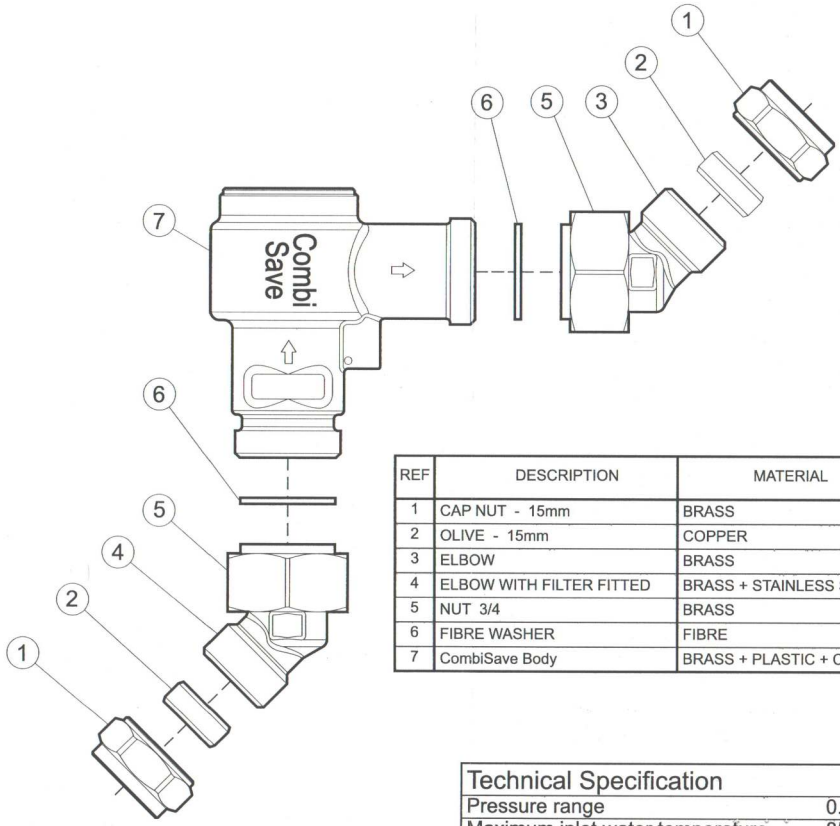
CS0043/B - ISS5

CombiSave
Installation Instructions

Pipe Cutting Template



In-Line Fitting - A—D
90° Fitting - A—C
Parallel Fitting - B—C
90° Fitting - B—D



REF	DESCRIPTION	MATERIAL	QTY
1	CAP NUT - 15mm	BRASS	2
2	OLIVE - 15mm	COPPER	2
3	ELBOW	BRASS	1
4	ELBOW WITH FILTER FITTED	BRASS + STAINLESS STEEL	1
5	NUT 3/4	BRASS	2
6	FIBRE WASHER	FIBRE	2
7	CombiSave Body	BRASS + PLASTIC + COPPER	1

Table 1

Technical Specification	
Pressure range	0.2~10 bar
Maximum inlet water temperature	85°C
Temperature calibration range	40~50°C
Maximum outlet flow (@ 6 bar)	25 l/min
By-pass flow adjustment (@ 6 bar)	0.5~4 l/min
Pipe size (inlet and outlet)	15mm
Boiler type	Combination

Possible Orientations