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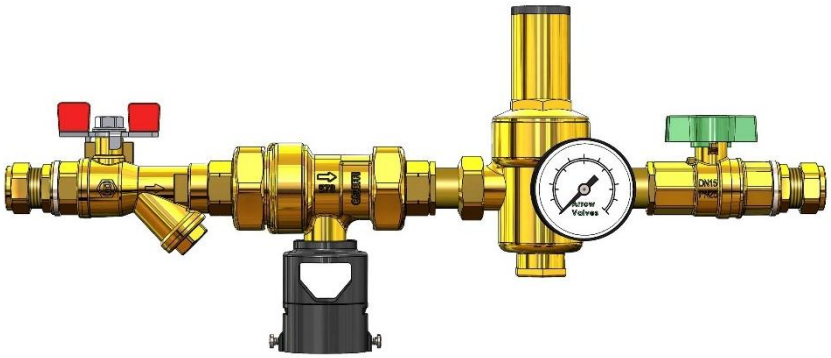
Installation Instructions / Operating & Maintenance Manual Type "CA" Device - Models CAFU573, CA573SV & CA573PRV



Model shown – CA15C573PRV

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FOREWORD

Type “CA” Devices replace filling loops and are mechanical backflow preventers that provide Fluid Category 3 protection against backpressure and back siphonage. They are primarily intended for filling and pressurising sealed house heating systems. The relief port affords better protection than a double check valve (Type ED) and a CA device may be permanently connected – no removable filling loop required

The valve will discharge a tiny quantity of water if the supply pressure falls below about 0.5 bar or 110% of downstream pressure. A continuous discharge could occur if debris becomes lodged in the relief valve or the second check valve during a backpressure condition.

SUPPORTING LITERATURE

- CA Datasheet

INSTALLATION NOTES

1.1 Type CA Devices should be installed by a competent person with regard to the relevant requirements of the Health and Safety Regulations, Building Regulations, IEE Regulations, Water Supply (Water Fitting) Regulations, Water Bye-Laws (Scotland) and other local Bye-laws.
1.2 The CA Device must be installed with the discharge valve pointing downwards.
1.3 The orientation of the valve should be so that the embossed arrow is pointing in the direction of the flow of water.
1.4 The unit should be installed in an area large enough to access it and to prevent it from submerging in the case of flooding.
1.5 Ensure that the unit is protected from frost and high temperatures.
1.6 Before installing, flush the pipe with a high flow rate water jet to ensure optimal performance.
1.7 The Tundish is fixed to the discharge valve by slotting the end over the pipe and rotating it so that the locating arms clip over the lugs on the discharge valves
1.8 The Tundish is then connected to a waste pipe.

OPERATION (CAFU573 & CA573SV)

2.1 The CA Device prevents backflow within a water piping system by closing the entry of water when backflow occurs and draining it through an exit pipe.
2.2 The CA573SV comes with a servicing valve upstream and downstream. This unit has been made specifically to ease servicing of the backflow prevention device (CAFU573).
2.3 Ensure to leave the servicing valves open.

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MAINTENANCE (ALL MODELS)

3.1 A filter has been fitted in the entry of the CA Device to prevent debris from blocking the valve itself. This need to be checked for damage and wear or cleaned on an annual basis –

3.1.1 The water supply must be shut off before disconnecting the CA Device.

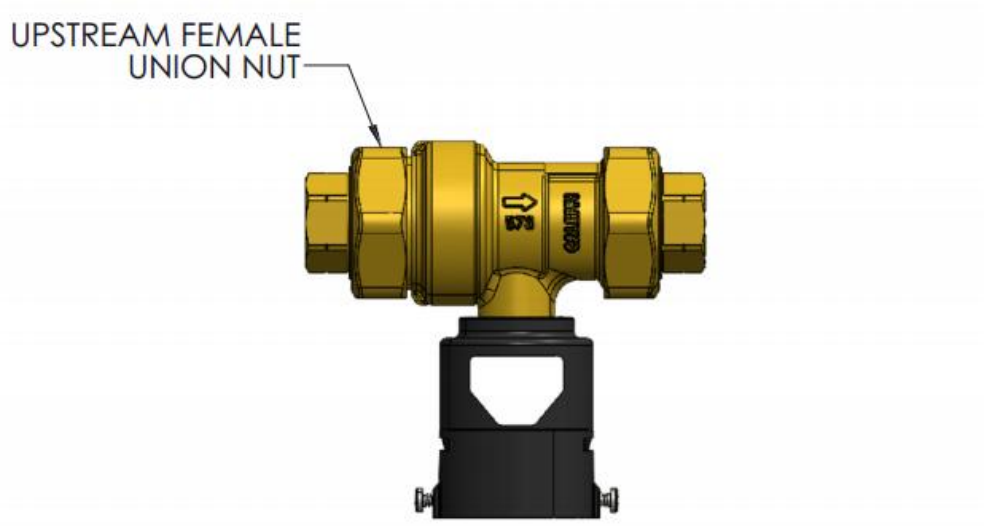
3.1.2 The female union nut on the entry side of the CA Device is then unscrewed to allowing the filter to be removed and cleaned/replaced.

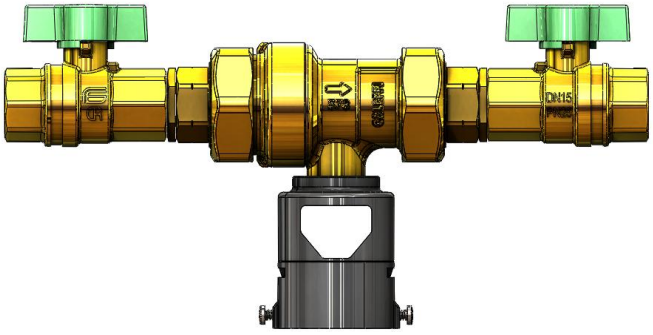
3.2 **DISCHARGE CHECKING OPERATION (DISCONNECTION)**

A pressure drop in the mains upstream of the valve must cause the drain valve to open, followed by emptying of water contained in the valve body:

3.2.1 Close the shut-off valves upstream and downstream of the unit.

3.2.2 Lower the upstream pressure which should lead to the unit intervening by opening the drain to empty the water inside the valve body.





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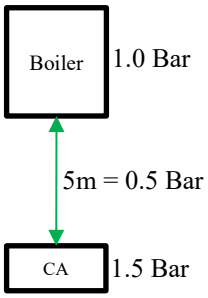
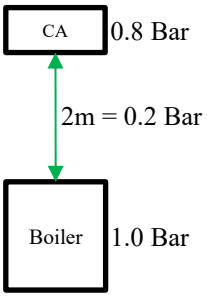
OPERATION (CA573PRV)

4.1 The CA Device prevents backflow within a water piping system by closing the entry of water when backflow occurs and draining it through an exit pipe.
4.2 The PRV model includes an upstream servicing valve with a serviceable 100 micron strainer to protect the PRV from damage.
4.3 The system pressure is indicated by the “system” gauge on the PRV .
4.4 Model CA573PRV has a PRV factory set to 1 bar (that should be adjusted to meet the boiler requirements).
4.5 The pressure can be changed through a nut located under the top cover of the PRV- turn **CLOCKWISE** with a 10 mm hexagonal Allen key to **INCREASE** and **COUNTERCLOCKWISE** to **DECREASE**.
NOTE: When setting the pressure, make note of the height difference between the CA device and the boiler in terms of pressure (1m = 0.1 Bar).



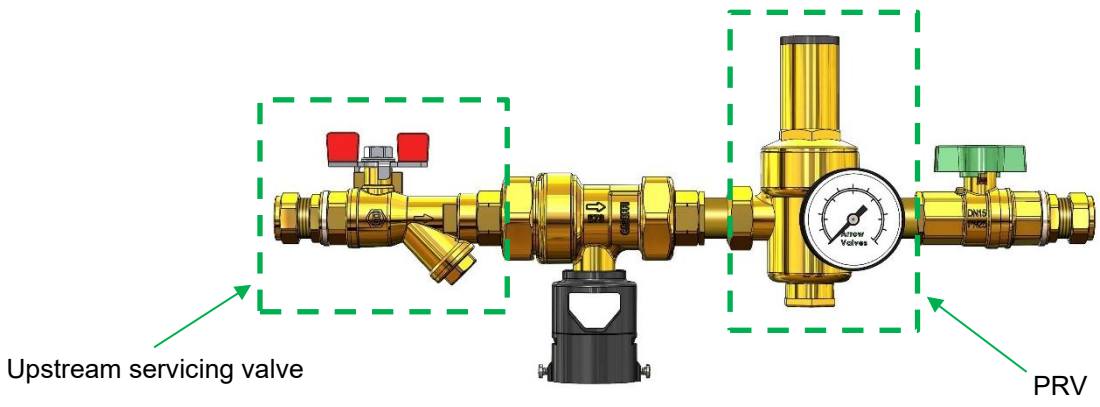
Two examples are shown. The most common one is where the CA device is installed below the boiler. In this case, to achieve the desired pressure in the boiler, the height difference is **added** to the pressure setting on the CA device. If, however, the CA device is installed above the boiler, then the height difference is **deducted** as can be seen in the diagram on the right side.



4.6 Ensure to open both servicing valves.

MAINTENANCE (CA573PRV)

5.1 The upstream servicing valve has a 100 micron strainer which should be cleaned annually.
5.2 Close valve.
5.3 Unscrew hexagonal cap.
5.4 Remove strainer cartridge with long nose pliers.
5.5 Insert strainer into valve – push to limit.
5.6 Replace hexagonal cap.
5.7 Turn valve on**.**



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