Arrow Valves Ltd

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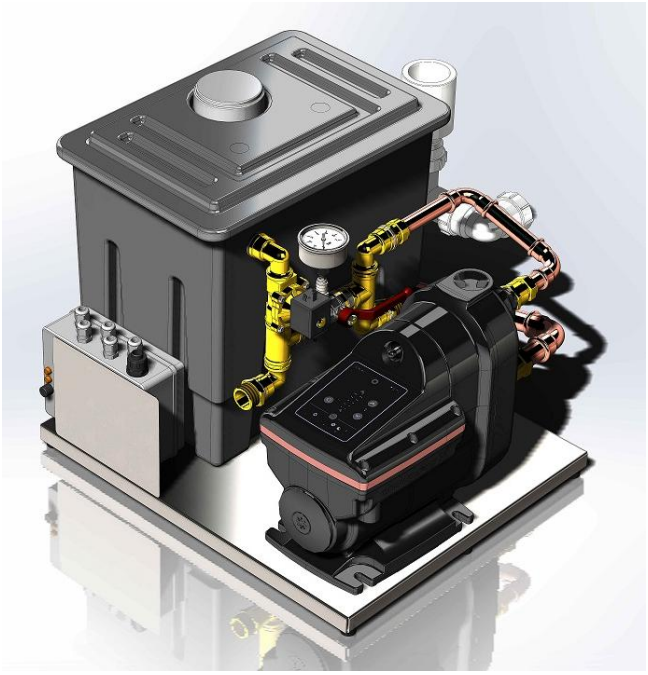
Installation Instructions / Operating & Maintenance Manual

STEALTH BOOSTER

COMPACT DOMESTIC USE BOOSTER SET WITH AUTOMATIC BYPASS VALVE



FOREWORD

The “Stealth Booster” provides a boosted cold water supply for tall domestic buildings, where space is limited and the mains supply is inadequate. The operation is automatic. Dry running pump protection is via a low level float switch in the cistern.

The integral Bypass Valve ensures a continued supply (at mains pressure) in the event of power failure or maintenance.

SUPPORTING LITERATURE

- “Stealth Booster” Datasheet
- Wiring Diagram AM235*

WARNING!

Disconnect electrical power before removing electrical cover or any servicing operation.

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1.0 INSTALLATION

1.1 The “Stealth Booster” 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 and Water Byelaws (Scotland).

1.2 Unpack the unit – the Booster Set weighs 35 kg dry and 60 kg wet, safe lifting practices should be implemented.

1.3 Install in an area not liable to flooding or freezing. The unit is floor mounted and is compact enough to be installed in a standard kitchen cupboard.

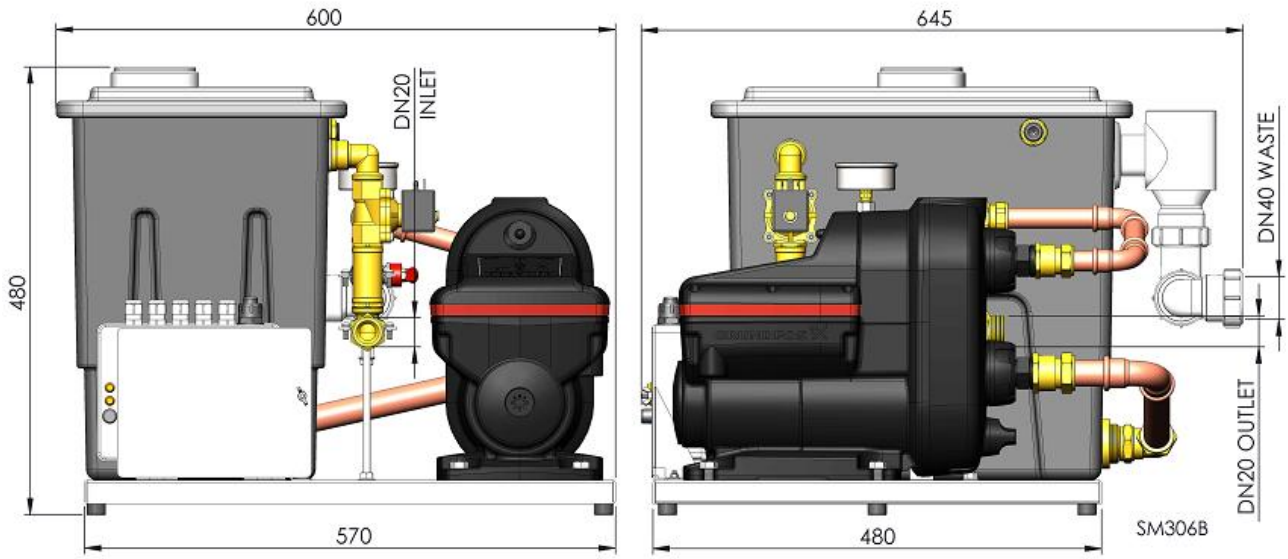
1.4 Thoroughly flush the cold water supply pipe before connecting, as debris can damage the solenoid valve.

1.5 Connect the supply pipe to the DN20 inlet stainless braided hose, ensuring the hose is not kinked or stressed. The supply pressure should be in excess of 1 bar dynamic. Ensure the union nut is tight and use fibre washers.

1.6 Connect the outlet pipe to the DN20 outlet stainless braided hose. Ensure the union nut is tight and use fibre washers.

1.7 Use 40 mm plastic or 42 mm copper waste pipe and connect to the overflow provided, ensure there is free flow from this pipe to a suitable gully. Ensure the pipe slopes downwards and the discharge is conspicuous. Ensure Water Regulations G16.8, G16.10 & G16.11 are met.

1.8 The electrical connection is 230 V single phase and must be supplied via a circuit breaker. Screw terminals are supplied and colour coded according to standards. Connect a minimum 1.5 mm² three core cable to the control box. Feed through gland and tighten. Strip 10 mm of insulation off each wire and insert into screw terminals fully tighten.



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2.0 COMMISSIONING

2.1 The unit is factory commissioned and there are no adjustments. However the pump needs to be primed via the cap on top of the pump before initial use.

2.2 Turn water supply on.

2.3 Open the tap connected to the outlet system.

2.4 Switch on the electrical power.

2.5 The pump should start and water will flow out of the open tap. Continue to run the tap until all air has been purged from the system. *If the pump does not start, isolate the electrical supply and investigate. Contact Arrow Valves on 01442 823 123 for technical help.*

3.0 BOOSTER SET OPERATION

3.1 When electrically powered and all water points are closed, the pump should be off. When a tap is opened the pump should start automatically.

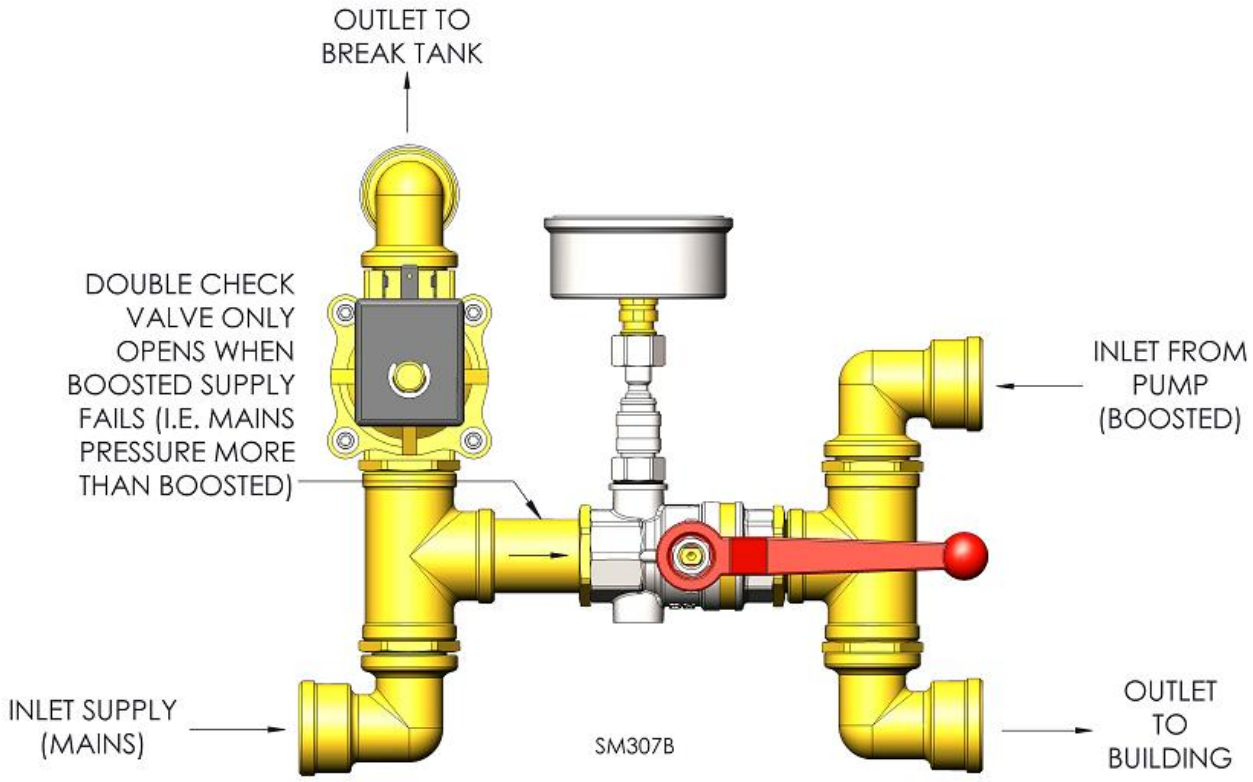
3.2 When all taps are closed, the pump should automatically stop.

4.0 BYPASS VALVE OPERATION

4.1 Under normal operation, the mains water entering the “Stealth Booster” will go straight to the break tank, exiting into the outlet once it has passed through the pump.

4.2 The ‘boosted’ cold water will be of a higher pressure than the entering water thus forcing the Bypass Valve to remain closed.

4.3 If the pump fails and the mains water is of a higher pressure than the boosted water, the water flows through the Check Valve straight into the outlet valve.



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5.0 MAINTENANCE

5.1 The electrodes should be annually checked and cleaned if necessary with a scourer pad.

5.2 The vessel pressure should be annually checked. This must be done with zero water pressure indicated on the pressure gauge. The vessel pre-charge pressure should be 2.1 ± 0.3 bar (0.7 x set point pressure).

6.0 ANNUAL TANK INSPECTION & DISINFECTION

6.1 Tank inspection, cleaning and chlorination of the tank is recommended on an annual basis and when there is visible evidence of any of the following:

- Sediment
- Stagnant water
- Biofilm
- Corrosion
- Flora growth
- Animal Contamination

6.2 It is also recommended:

6.2.1 If the system or part of it has been substantially altered or entered for maintenance or remedial purposes in a manner that may lead to contamination.

6.2.2 During or following an outbreak or suspected outbreak of Legionellosis.

7.0 SPARE PARTS

7.1 The table below shows part numbers, codes and descriptions for spares, which may be required for the “Stealth Booster”. *Contact Arrow Valves on 01442 823 123 or online at www.arrowvalves.co.uk.*

7.2 Arrow Valves Ltd reserves the right to change specifications at any time without notice.

DESCRIPTION	CODE
Level Controller HNM 2 Pole DIN 230 V	ELLCMDCRZ
Solenoid Valve NC 230v 50Hz	SOLSCE095
Gauge Ø63 Direct Glycerine SS CB 7 bar	GACB0-7GSS
Expansion Vessel SS 10 bar Ø116X155 High Vertical	EVIP1
Transducer MBS1900 0-10 bar 4-20ma	ELPT4-20
Inlet / Outlet Hose DN20	A232

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