

Grant Vortex

Low Pressure Switch Kit (retrofit)

Installation Instructions

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1 INTRODUCTION

1.1 GENERAL

This low pressure switch is intended for use on the following Grant UK boilers:

- Internal Combi models (yellow flame):
 - VTXCOMBI21
 - VTXCOMBI26
 - VTXCOMBI36
 - VTXCOMBI26
- External Combi modules (yellow flame):
 - VTXOMCOMBI21
 - VTXOMCOMBI26
 - VTXOMCOMBI36
- Internal Combi models (blue flame):
 - VTXBFCOMBI21
 - VTXBFCOMBI26
 - VTXBFCOMBI36
- External Combi modules (blue flame):
 - VTXBFOMCOM21
 - VTXBFOMCOM26
 - VTXBFOMCOM36

If the low pressure switch is correctly installed, it will shut off the boiler and burner if the system pressure drops below 0.2 bar.

Grant UK recommends the use of a low pressure switch on all heating systems using plastic pipe or where the boiler is the highest point of the system.

! NOTE !

All work is to be carried out by a trained and competent person.

1.2 KIT CONTENTS

- 1 x Low pressure switch including 1.5 metre long flying lead
- 1 x 1/4" x 1/2" BSP 90° elbow (internal models only)

2 REMOVAL OF CURRENT SWITCH

The procedure for removing the current low pressure switch is as follows:

Firstly, set the boiler on/off switch to OFF and ensure the boiler is isolated from the electrical supply at the fused spur/isolator.

INTERNAL BOILERS

1. Remove the front and top front casing panels.
2. Remove the two screws securing the terminal block cover and lift off the cover.
3. Loosen (do not remove) the four screws securing the control panel to the side panels, hinge the panel forward and allow it to drop down to gain access to the top of the panel.
4. Remove the screws securing the cable clamp and the p-clip.
5. Disconnect the low pressure switch cable connections from terminals 15 and 16 (blue and brown wires).
6. To prevent excessive water entering the boiler, remove the initial system pressure by ensuring that the filling loop has been isolated. Then open up the drain valve at the front of the boiler and contain any fluid in a suitable receptacle.

! CAUTION !

Allow the boiler to cool before releasing water pressure from the heating system.

7. Isolate the low pressure switch pipework by closing the pump valve on the flow and the isolation valves on the return.
8. Disconnect the low pressure switch by undoing the threaded connection and remove from the boiler.

EXTERNAL BOILERS

1. Remove the boiler door, top casing panel and insulation from the boiler.
2. Remove the two screws at the top of the control panel (in cross member) and allow the panel to hinge forward.
3. Remove the two screws securing the cable clamp.
4. Disconnect the low pressure switch cable connections from terminals 15 and 16 (blue and brown wires).
5. To prevent excessive water entering the boiler, remove the initial system pressure by ensuring that the filling loop has been isolated. Then open up the drain valve at the front of the boiler and contain any fluid in a suitable receptacle.

! CAUTION !

Allow the boiler to cool before releasing water pressure from the heating system.

6. Isolate the low pressure switch pipework by closing the pump valve on the flow and the isolation valves on the return.
7. Disconnect the low pressure switch by undoing the threaded connection and remove from the boiler.

3 FITTING OF NEW SWITCH

The procedure for fitting the new low pressure switch is as follows:

INTERNAL BOILERS

1. Remove the spring clip and the low pressure switch from the brass connector.
2. Fit the ¼" BSP 90° elbow into the female connection using a suitable sealant or PTFE tape ensuring it is positioned facing the right-hand side.
3. Fit the brass connector into the elbow using a suitable sealant or PTFE tape and tighten (refer to Figure 1).

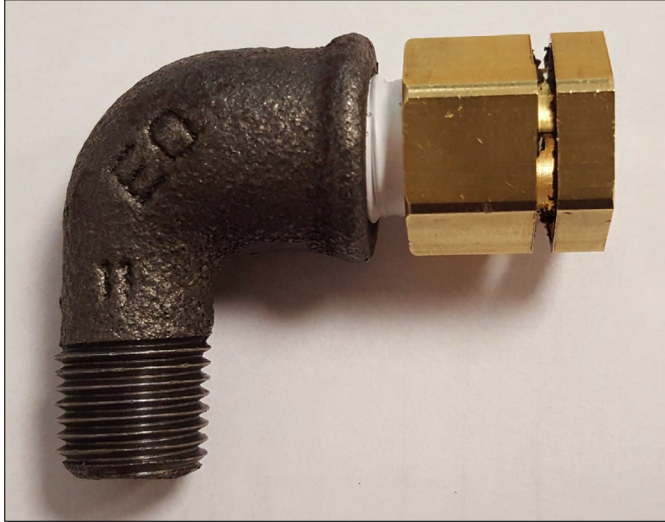


Figure 1: Fitting the brass connector into the 90° elbow

4. Fit the low pressure switch by fully pushing into the brass connector.
5. Fit the spring clip to secure the low pressure switch into place.
6. Route the cable from the low pressure switch through the cable clamp and p-clip and refit the screws previously removed.
7. Connect the cable to terminals 15 (brown wire) and 16 (blue wire).
8. Refit the terminal block cover using the two screws previously removed.
9. Hinge the control panel back into position and tighten the retaining screws.
10. Open the pump valve on the flow and the isolation valve on the return.
11. Refill, vent and re-pressurise the system as necessary.
12. Thoroughly check the low pressure switch brass connector and elbow for leaks.
13. Set the boiler on/off switch to ON and ensure the boiler is connected to the electrical supply at the fused spur.
14. Check the operation of the boiler and low pressure switch.
15. Refit the casing panels.

EXTERNAL BOILERS

! NOTE !

The 90° elbow does not need to be fitted on the external modules and can be discarded.

1. Remove the spring clip and the low pressure switch from the brass connector.
2. Fit the brass connector into the female connection using a suitable sealant or PTFE tape and tighten.
3. Fit the low pressure switch by fully pushing into the brass connector.
4. Fit the spring clip to secure the low pressure switch into place.
5. Route the cable from the low pressure switch through the cable gland and cable clamp and refit the two screws previously removed.
6. Connect the cable to terminals 15 (brown wire) and 16 (blue wire).
7. Hinge the control panel back into position and refit the two screws previously removed.
8. Open the pump valve on the flow and the isolation valve on the return.
9. Refill, vent and re-pressurise the system as necessary.
10. Thoroughly check the low pressure switch brass connector for leaks.
11. Set the boiler on/off switch to ON and ensure the boiler is connected to the electrical supply at the isolator.
12. Check the operation of the boiler and low pressure switch.
13. Refit the insulation.
14. Refit the casing panels.
15. The top panel of the casing has been designed so that it may be fitted to create a slight slope away from the side positioned against the wall.
To tilt the top panel, loosen the four top panel casing screws, one at each corner and push down on the side furthest from the wall. Tighten the screws.



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