

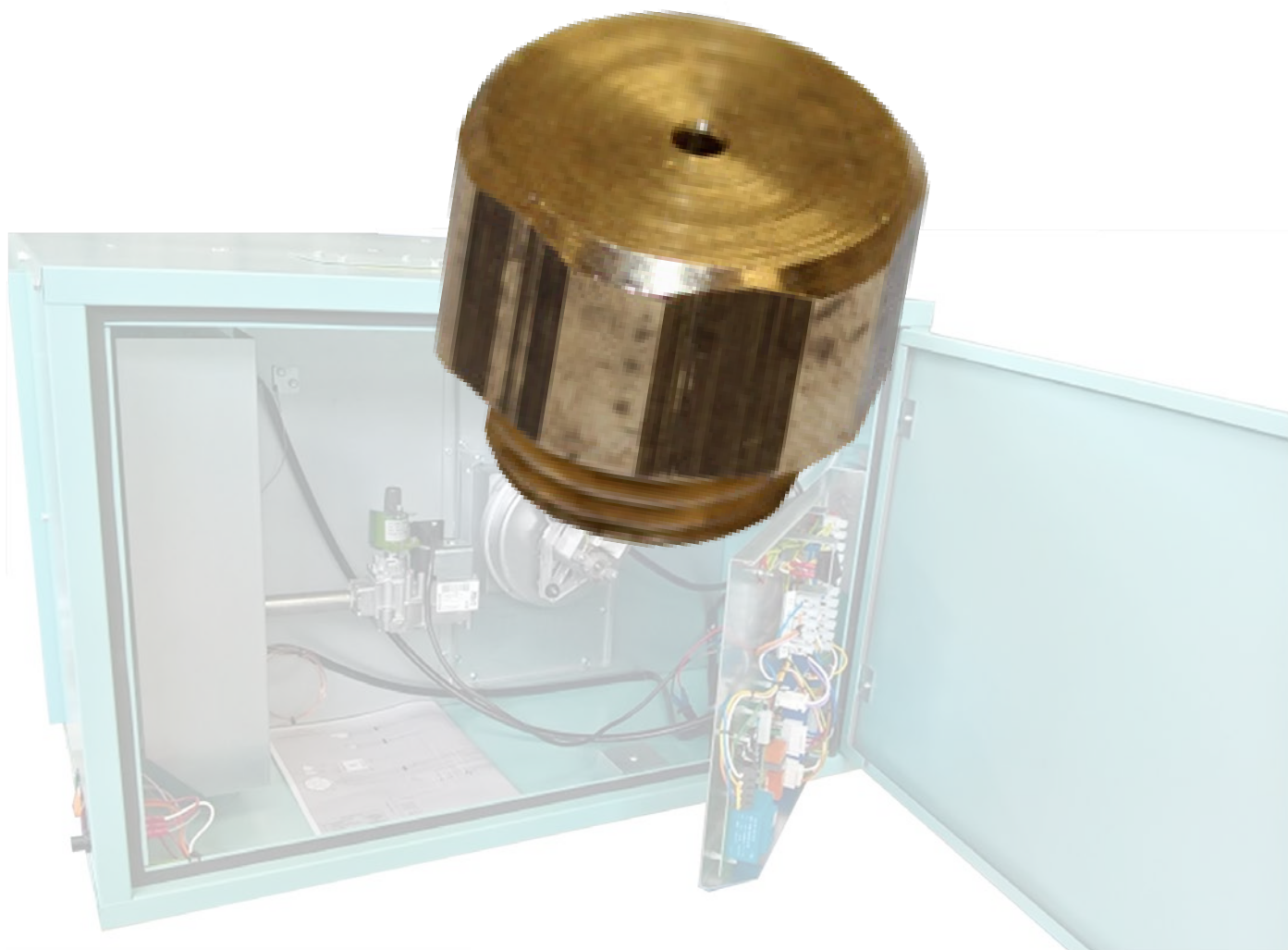
TB131

Applies to models:

NVx & VPC



Gas Conversion Kits for NVx & VPC Heaters



General Information

Heater conversion between gases will require a change of burner injectors, alteration of burner pressure and re-commissioning of the heater.

All gas valves used on the NVx range have pressure regulators that may be set to operate on

natural gas or propane (LPG).

These assembly instructions describe the parts required and procedures to be carried out when converting this heater

Parts & tools required



Drill plus bits



Flat head screwdriver



PoziDrive screwdriver



Electrical screwdriver



Spanner Set

MODEL	Propane (LPG) Conversion Kit				Natural Gas Conversion Kit			
	Conversion Kit part number	Burner Injector	Washers	Labels	Conversion Kit part number	Burner Injector	Washers	Labels
NVx15	NVx15LPG	4	4	3	NVx15NG	4	4	3
NVx20	NVx20LPG	4	4	3	NVx20NG	4	4	3
NVx25	NVx25LPG	5	5	3	NVx25NG	5	5	3
NVx30	NVx30LPG	6	6	3	NVx30NG	6	6	3
NVx40	NVx40LPG	8	8	3	NVx40NG	8	8	3
NVx50	NVx50LPG	10	10	3	NVx50NG	10	10	3
NVx60	NVx60LPG	8	8	3	NVx60NG	8	8	3
NVx75	NVx75LPG	10	10	3	NVx75NG	10	10	3
NVx90	NVx90SFLPG	8	8	3	NVx90NG	8	8	3
NVx120	NVx120SFLPG	10	10	3	NVx120NG	10	10	3
NVx140	NVx140SFLPG	12	12	3	NVx140NG	12	12	3
VPC30	VPC30LPG	6	6	3	VPC30NG	6	6	3
VPC52	VPC52LPG	12	12	3	VPC52NG	12	12	3
VPC80	VPC80LPG	12	12	3	VPC80NG	12	12	3
VPC110	VPC110LPG	10	10	3	VPC110NG	10	10	3
VPC130	VPC130LPG	12	12	3	VPC130NG	12	12	3

Gas Safety (Installation & Use) (Amendment) Regulations



It is law that all gas appliances are installed, adjusted and, if necessary, converted by qualified persons* in accordance with the current issue of the above regulations. Failure to install appliances correctly can lead to prosecution. It is in your own interests and that of safety to ensure that the law is complied with.

page no. 2 of 8

* An approved class of person listed on the gas safe register.



Ensure that the gas inlet pressure to the heater is correct for the new gas, and that the gas supply has been purged of the old gas. (Refer to tables at the rear of this document for new gas inlet pressures.)

Procedure



WARNING: Always switch off and disconnect electricity supply and close service valve before carrying out any servicing or replacement of failed components.

1. Ensure that the gas service valve is turned OFF.

1.1 Remove rectification probe screw and withdraw.



1.2 Remove spark electrode screw and withdraw.



1.3 Remove the electrical plug connections from the top of the gas valve.



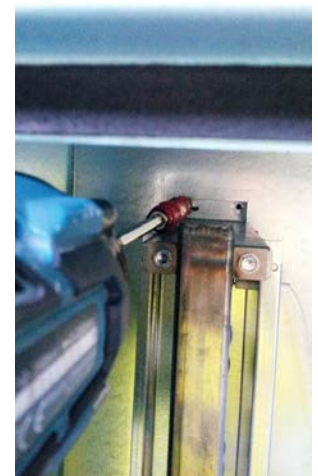
2. Remove the burner heat shield, 3 screws.



3. Release the outlet connection flange from the gas valve by removing the four screws.



4. Remove two fixing screws securing the burner assembly to the bulkhead.



5. Disengage from tab.



8. Remove the main burner injectors and washers.



9. Replace with the new injectors/washers for the new gas ensuring a gas tight seal.

10. Refit all other components in reverse order.

6. Lift out burner assembly



Adjustments

Conversion is carried out by adjusting the burner pressures to the values shown in the tables at the rear of this document.

High/Low Regulation

1. Set external controls to ensure the main burner is off. Open the side access panel. Connect a pressure gauge to the burner pressure test point on the multifunctional control.

2. Set external controls to turn on the main burner and maintain high fire. Compare the measured burner gas pressure to that stated on the data plate. In addition it is advisable to check the gas rate using the gas meter dial pointer ensuring that no other appliances supplied through the meter are in operation.

3. Repeat 2 above with external controls set to maintain low fire.

4. To adjust either the high fire or low fire pressures proceed as follows after levering off the plastic cover from the High/Low regulator.

7. Remove the manifold by removing the four screws securing it to the burner assembly.





Note: High fire setting must be adjusted first after which the low fire setting can be set. Any adjustment of the high fire setting alters the minimum setting.

Sigma 843 Adjustment

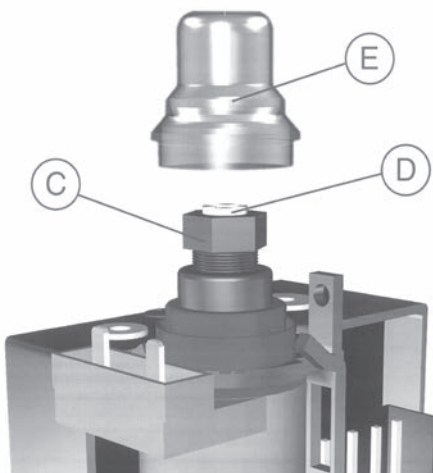
Maximum Setting.

With the controls set to high fire, use an adjustable or 10mm spanner to screw the adjustment nut (C) in to increase and out to decrease, until the required pressure is obtained. Turn the burner On and OFF several times to check the pressure setting and then turn off.

Minimum Setting.

Disconnect electrical connection to the regulator and turn the burner back on and wait until the burner pressure has stabilised. Keeping the nut (C) stationary, use a 6 x 1 screwdriver to turn the slotted adjustment screw (D) clockwise to increase and counter-clockwise to decrease, until the required pressure is obtained. Reconnect high/low regulator and check high fire pressure. Repeat both steps if necessary and then replace cover cap

5. Turn off the main burner, disconnect the pressure gauge and replace the sealing screw. Turn on the main burner and test for gas soundness around pressure test joint using a leak detection fluid. Replace access panel.



Honeywell High/Low Adjustment

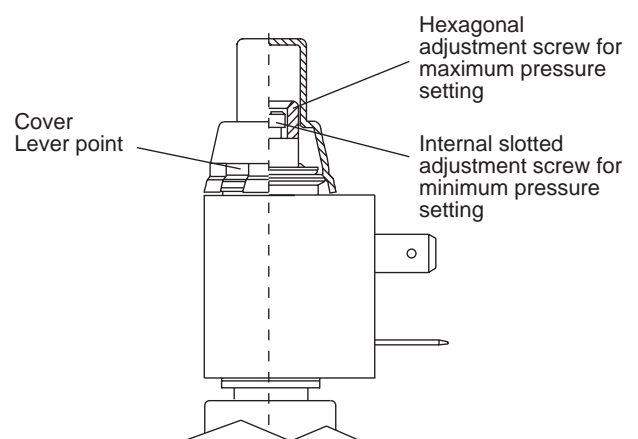
Maximum Setting

With the controls set to high fire, use an adjustable or 8mm spanner to turn the adjustment screw, clockwise to increase and counter-clockwise to decrease, until the required pressure is obtained. Turn the burner On and OFF several times to check the pressure setting and then turn off.

Minimum Setting

Disconnect electrical connection to the regulator and turn the burner back on and wait until the burner pressure has stabilised. Use a screwdriver to turn the slotted adjustment screw clockwise to increase and counter-clockwise to decrease, until the required pressure is obtained. Reconnect high/low regulator and check high fire pressure. Repeat both steps if necessary and then replace cover cap.

5. Turn off the main burner, disconnect the pressure gauge and replace the sealing screw. Turn on the main burner and test for gas soundness around pressure test joint using a leak detection fluid. Replace access panel.

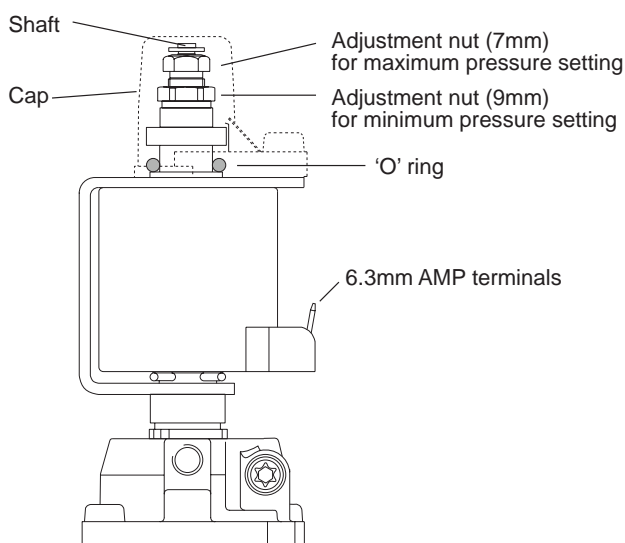


Honeywell Modulating Adjustment

1. Set external controls to ensure that the main burner is off. Open the side access panel. Connect a pressure gauge to the burner pressure test point on the multifunctional control.
2. Set external controls so as to turn on the main burner and maintain high fire. Compare the measured burner gas pressure to that stated on the data plate. In addition it is advisable to check the gas rate using the gas meter dial pointer ensuring that no other appliances supplied through the meter are in operation.
3. Repeat 2 above with external controls set to maintain low fire.
4. To adjust either the high fire or low fire pressures proceed as follows after levering off the plastic cover from the modulating regulator.



Note: Minimum fire setting must be adjusted first after which the high fire setting can be set. Any adjustment of the minimum fire setting alters the maximum setting.



Minimum Setting.

Disconnect electrical connection of modulating regulator and turn burners back on and wait until the burner pressure has stabilized. Turn 9mm adjustment nut for low fire pressure clockwise to increase and counter-clockwise to decrease until the required pressure is obtained. Reconnect modulating regulator and check high fire pressure, readjust if necessary.

Maximum Setting.

Disconnect electrical connection of modulating regulator and turn burners back on and wait until the burner pressure has stabilised. Push shaft gently downwards to the maximum adjustment screw and hold there. Turn 7mm adjustment nut for high fire pressure, clockwise to increase and counter-clockwise to decrease, until the required pressure is obtained. Release shaft. Repeat both settings if necessary and then replace cover cap.

5. Turn off the main burner, disconnect the pressure gauge and replace the sealing screw. Turn on the main burner and test for gas soundness around pressure test joint using a leak detection fluid. Replace access panel.

On/Off Regulation

1. Set external controls to ensure the main burner is off. Open the side access panel. Connect a pressure gauge to the burner pressure test point on the multifunctional control.
2. Set external controls to turn on the main burner. Compare the measured burner gas pressure to that stated on the data plate. In addition it is advisable to check the gas rate using the gas meter dial pointer ensuring that no other appliances supplied through the meter are in operation.
3. To adjust burner pressure simply unscrew the aluminium cover using a flat head screwdriver and turn the adjustment screw clockwise to increase, anti-clockwise to decrease.

Final Checks

In addition to setting the burner pressures, it is advisable to check the gas rate using the gas meter dial pointer. Ensure that no other appliances supplied through the meter are in operation.

After setting the burner pressures, the CO/CO₂ content in the flue gases can be checked by sampling in the first section of flue fitted to the flue outlet of the unit.

Turn off the main burner and disconnect the pressure gauge and replace the sealing screw.

Turn on the main burner as above and test for gas soundness around pressure test joint using a leak detection fluid e.g. soap solution.

Remove the original data plate on the heater and replaced with new data badge supplied in the kit.

Two "change of gas" stickers are also supplied in the kit. Place one on the side of the gas valve and one on the outside of the heater adjacent to the gas pipe entry point.

Natural Gas to Propane (LPG) Conversion Data

Nominal Inlet Pressure = 37mbar, Minimum Inlet Pressure = 37mbar						High Fire	Low Fire
MODEL	Conversion Kit part number	Injectors			Injector part number	Burner Pressure	Burner Pressure
		No.	Size (mm)	Marked		mbar	mbar
NVx15	NVx15LPG	4	1.2	120	142401679	21.6	5.8
NVx20	NVx20LPG	4	1.36	240	142401661	21.2	6.1
NVx25	NVx25LPG	5	1.36	240	142401661	21.4	7.9
NVx30	NVx30LPG	6	1.36	240	142401661	20.6	6.0
NVx40	NVx40LPG	8	1.36	240	142401661	19.8	6.2
NVx50	NVx50LPG	10	1.36	240	142401661	21.2	5.7
NVx60	NVx60LPG	8	1.6	160	142401678	25.4	6.4
NVx75	NVx75LPG	10	1.6	160	142401678	25.1	7.2
NVx90	NVx90SFLPG	8	2.26	580	142401667	14.4	5.2
NVx120	NVx120SFLPG	10	2.26	580	142401667	15.9	7.4
NVx140	NVx140SFLPG	12	2.26	580	142401667	16.0	6.3
VPC30	VPC30LPG	6	1.36	136	142401661	21.7	7.0
VPC52	VPC52LPG	12	1.25	125	142401675	27.0	8.0
VPC80	VPC80LPG	12	1.55	155	142401675	24.1	6.0
VPC110	VPC110LPG	10	1.94	194	142401664	26.5	7.0
VPC130	VPC130LPG	12	1.94	194	142401664	25.0	7.9

Propane (LPG) to Natural Gas Conversion Data

Nominal Inlet Pressure = 20mbar, Minimum Inlet Pressure = 17.5mbar

						High Fire	Low Fire
						Burner Pressure	Burner Pressure
		Injectors					
MODEL	Conversion Kit part number	No.	Size (mm)	Marked	Injector part number	mbar	mbar
NVx15	NVx15NG	4	1.67	380	142401662	12.7	3.9
NVx20	NVx20NG	4	1.94	500	142401664	12.7	3.4
NVx25	NVx25NG	5	1.94	500	142401664	12.5	4.7
NVx30	NVx30NG	6	1.94	500	142401664	13.9	4.0
NVx40	NVx40NG	8	1.94	500	142401664	13.5	5.2
NVx50	NVx50NG	10	1.94	500	142401664	13.2	4.0
NVx60	NVx60NG	8	2.54	750	142401665	9.5	2.5
NVx75	NVx75NG	10	2.54	750	142401665	10.0	4.0
NVx90	NVx90NG	8	3.5	1500	142401666	5.9	2.5
NVx120	NVx120NG	10	3.5	1500	142401666	7.2	3.1
NVx140	NVx140NG	12	3.5	1500	142401666	6.9	3.2
VPC30	VPC30NG	6	1.94	194	142401664	13.8	4.6
VPC52	VPC52NG	12	1.94	194	142401664	10.4	3.0
VPC80	VPC80NG	12	2.54	254	142401665	8.1	2.1
VPC110	VPC110NG	10	3.00	300	142401670	10.2	3.2
VPC130	VPC130NG	12	3.00	300	142401670	10.0	3.6



HEATING DIVISION
Hort Bridge
Ilminster, Somerset TA19 9PS
Tel: 01460 53535
Fax: 01460 52341



Every effort is made to ensure accuracy at time of going to press. However as part of continued product improvement, we reserve the right to alter specification without prior notice.