

TB113

Applies to models:

NV & PGUH



Instruction for replacing a spares High Limit Capillary Stat



General Information

This bulletin describes the parts required and procedures to be carried out when replacing a faulty mains voltage Limit Stat on a NV or PGUH heater.



fig.1 Mains Voltage Limit Thermostat

The bulletin further describes the procedure and re-wiring required when replacing an obsolete low voltage Limit Stat with a interrupter thermocouple (see fig 2) on a PGUH heater with a new mains voltage alternative.



fig.1 Obsolete Low Voltage Limit Thermostat

Tools Required



Flat head screwdriver



Pozi head screwdriver



Electrical screwdriver



Thin nosed pliers



Limit Thermostat # 142403609 & Technical bulletin (TB113)

Limit Settings

Model (kW)	Limit (°C)	Model (btu's)	Limit (°C)	Model (kW)	Limit (°C)
NV10, 25 -140	90	PGUH40	70	PGUH60 & 120	80
NV15 & 20	100	PGUH15-470	80	PGUH12, 45-52, 75-105 & 150	90
NV35	110			PGUH15	100
				PGUH30	110

Procedures



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

Replacing a Limit Stat on a NV Heater

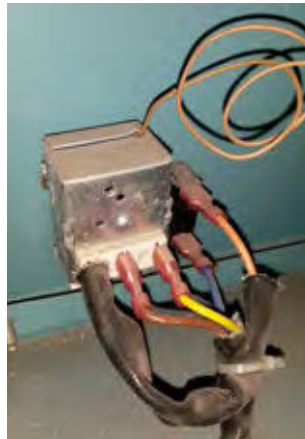
1. Remove heater side panel by undoing two screws.

2. Remove the two screws securing the thermostat phial mounting plate to the inner bulkhead.



3. Withdraw assembly and unclip the phial.

4. Locate existing limit stat located inside the heater on the front panel.



5. Disconnect the electrical leads from the thermostat noting which cables go to which terminals.

6. Unscrew and remove the black cap from the reset button on the front of the heater.



7. Undo the securing nut fixing the stat onto the front panel and withdraw unit.

8. Fit the replacement thermostat in reverse order.



NV Wiring

Brown wire to terminal C
Yellow wire to terminal 2
Orange wire to terminal 1

Replacing a mains voltage Limit Stat on a PGUH series 3 heater

1. Remove the right hand panel on PGUH12 or access panel on PGUH15 - 150.

2. Remove the phial from the bracket at the front of the heat exchanger.



3. Remove the thermostat capillary cover plate from the inside of the side panel and withdraw the capillary and phial.

4. Disconnect the electrical leads from the thermostat by pulling off the connectors. NB. cable colours vary dependent on age.

5. Remove the two screws securing the thermostat to the side panel and withdraw.

6. Fit replacement thermostat in reverse order

Replacing a low voltage Limit Stat for Interrupter Thermocouple on a PGUH series 1 heater

1. Remove the right hand panel on PGUH 40 or access panel on PGUH 50 - 470.

2. Remove the phial from the bracket at the front of the heat exchanger.

3. Remove the thermostat capillary cover plate from the inside of the side panel and withdraw the capillary and phial.

4. Identify gas valve and go to next section.

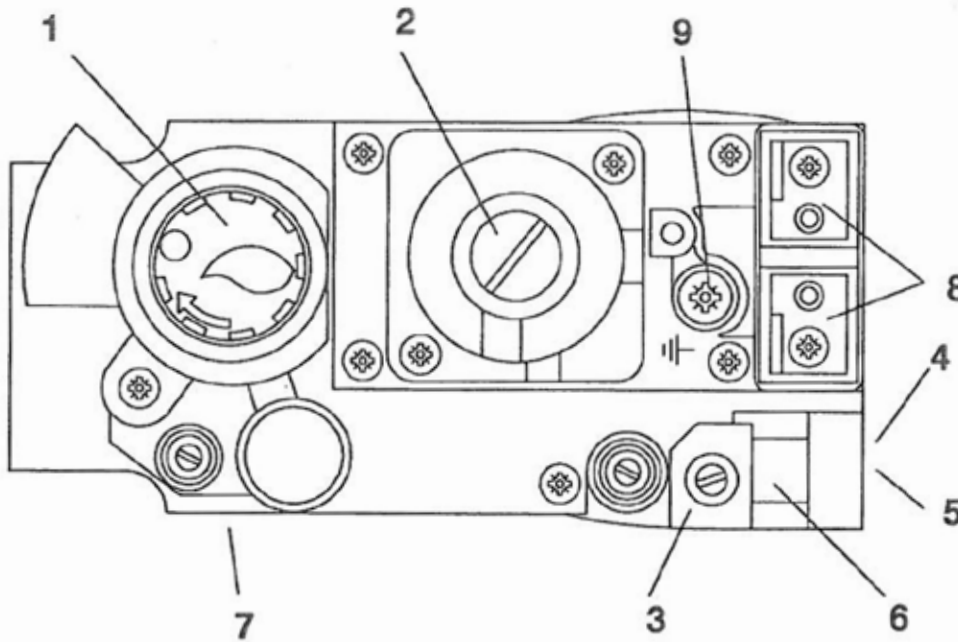


Select the relevant page to match the valve and continue to follow the instructions stated.

.... 6. Fit the replacement thermostat in reverse order

5a PGUH with Honeywell V4600 Gas Valve

Valid from circa 1996 to 1997



1	Single action push button
2	Governor adjustment cover screw
3	Pilot flow adjustment screw
4	Pilot connection point
5	Thermocouple connection point

6	Interrupted thermocouple lead connection to limit stat
7	Interrupted thermocouple lead connection on the underside of body from limit stat
8	Electrical connections for main valve operator
10	Earth connection

5a.1 Disconnect cables (b) and (c) from the old limit stat (a) to the thermocouple connector (e).

5a.2 Remove old limit stat (a) and replace with one supplied.

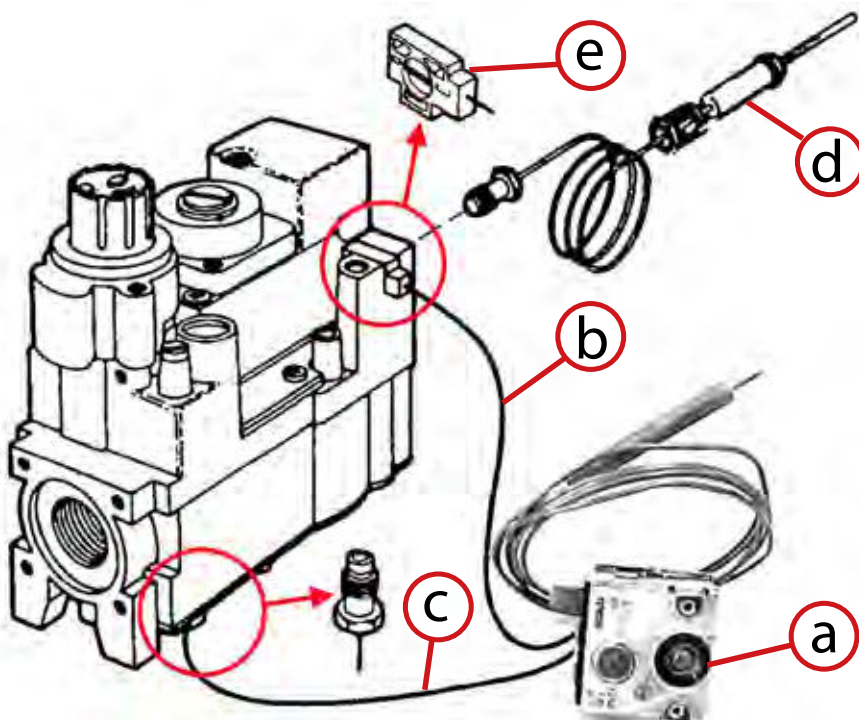
5a.3 Disconnect thermocouple (d) from its housing.

5a.4 Remove ECO connector (e) and discard.

5a.5 Re-screw thermocouple (d) into thread in its original position.

5a.6 Identify live feed to gas valve - brown wire - and remove wire from terminal block (see fig 1 - page 7).

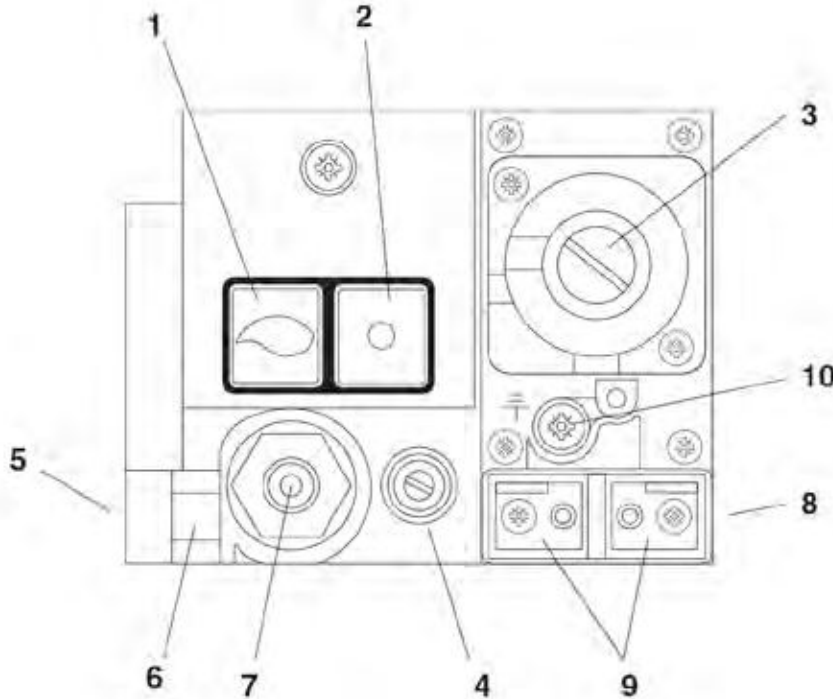
5a.7 Attach this wire to connection 2 of new limit stat. Add another cable from connection C of new limit stat back to terminal block where the brown wire was removed from (see fig 2 - page 8).



Continue with section 6 - page 3

5b PGUH with Honeywell V4400 Gas Valve

Valid from circa 1996 to 1997



1	START Button (white)	6	Interrupted thermocouple lead connection to limit stat
2	OFF Button (red)	7	Interrupted thermocouple lead connection from limit stat
3	Governor adjustment cover screw	8	Pilot tube connection point
4	Pilot flow adjustment screw	9	Electrical connections for main valve operator
5	Thermocouple connection point	10	Earth connection

5b.1 Disconnect cables (b) and (c) from the old limit stat (a) to the thermocouple connector (e).

5b.2 Remove old limit stat (a) and replace with one supplied.

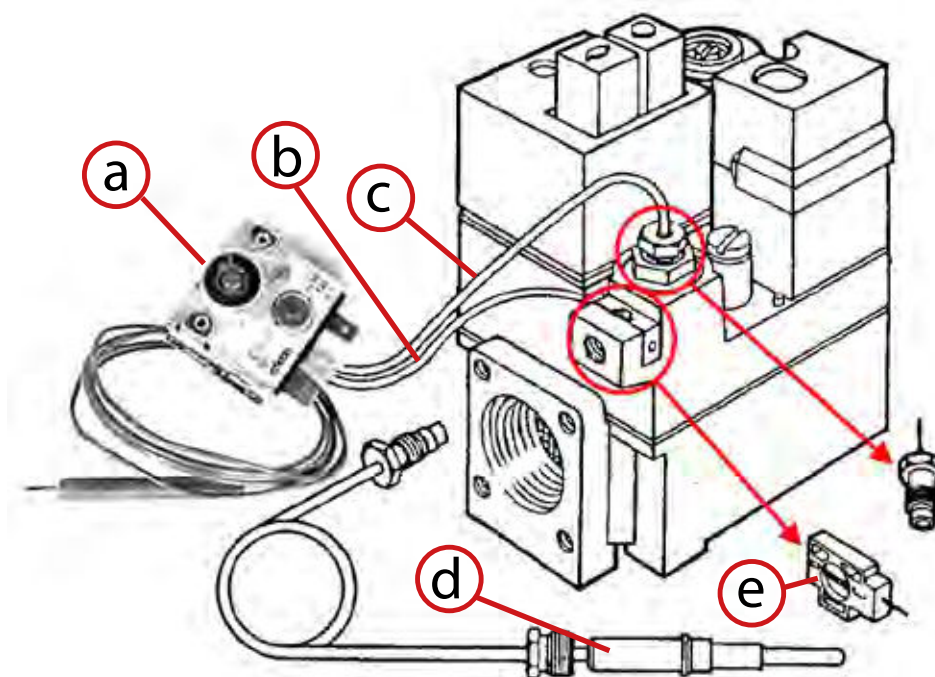
5b.3 Disconnect thermocouple (d) from its housing.

5b.4 Remove ECO connector (e) and discard.

5b.5 Re-screw thermocouple (d) into thread in its original position.

5b.6 Identify live feed to gas valve - brown wire - and remove wire from terminal block (see fig 1 - page 7).

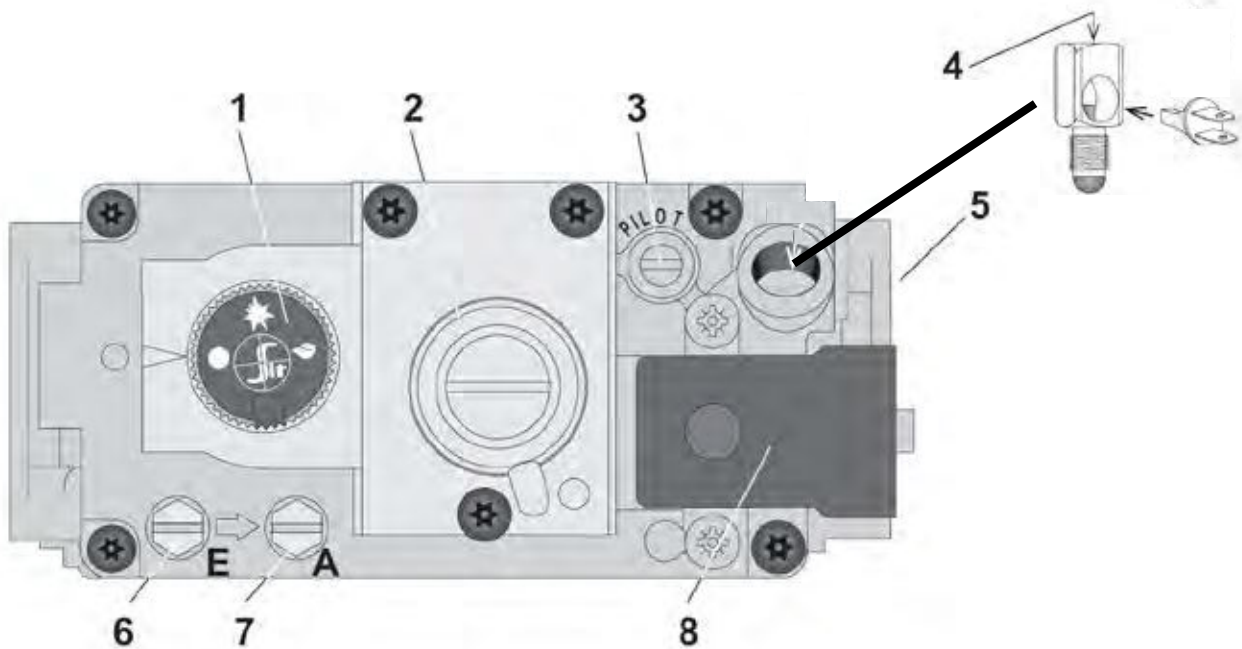
5b.7 Attach this wire to connection 2 of new limit stat. Add another cable from connection C of new limit stat back to terminal block where the brown wire was removed from (see fig 2 - page 8).



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5c PGUH with SIT 820 Nova Gas Valve

Valid from circa 1997 onwards



1	Control knob
2	Pressure regulator cap screw
3	Pilot gas rate adjuster
4	Thermocouple connection

5	Pilot connection
6	Inlet pressure test point
7	Burner pressure test point
8	Electrical connections for main valve operator

5c.1 Disconnect cables (b) and (c) from the old limit stat (a) to the thermocouple connector (e).

5c.2 Remove old limit stat (a) and replace with one supplied.

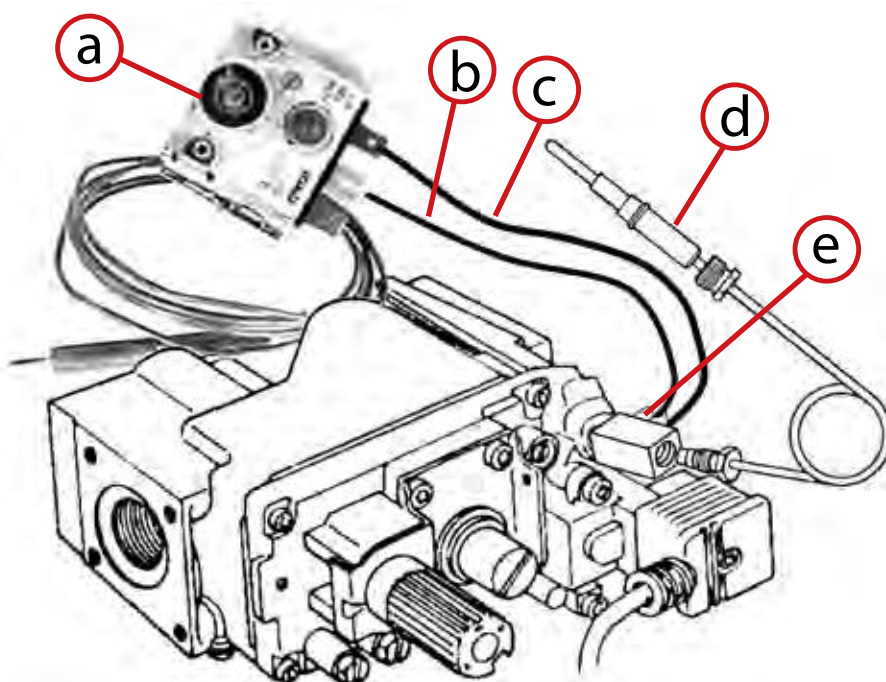
5c.3 Disconnect thermocouple (d) from thermocouple connector (e).

5c.4 Unscrew thermocouple connector (e) and discard.

5c.5 Screw thermocouple (d) into thread where the thermocouple connector (e) was removed from.

5c.6 Identify live feed to gas valve - brown wire - and remove wire from terminal block (see fig 1 - page 7).

5c.7 Attach this wire to connection 2 of new limit stat. Add another cable from connection C of new limit stat back to terminal block where the brown wire was removed from (see fig 2 - page 8).
Continue with section 6 - page 3



Wiring Diagrams

Figure 1

Original wiring with low voltage Limit Stat wired with interrupter thermocouple and Gas Valve live direct from the 'heat on' terminal.

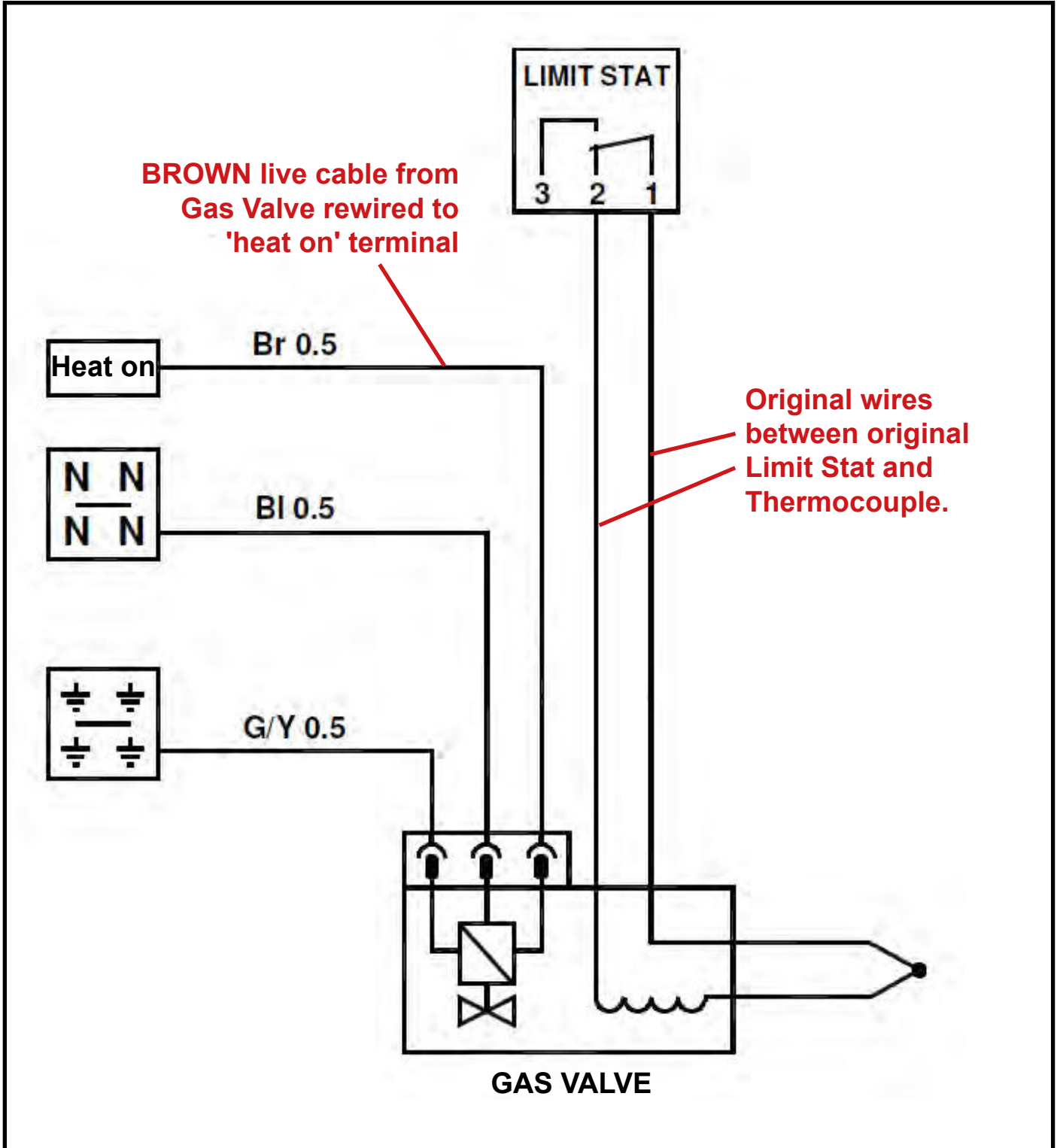
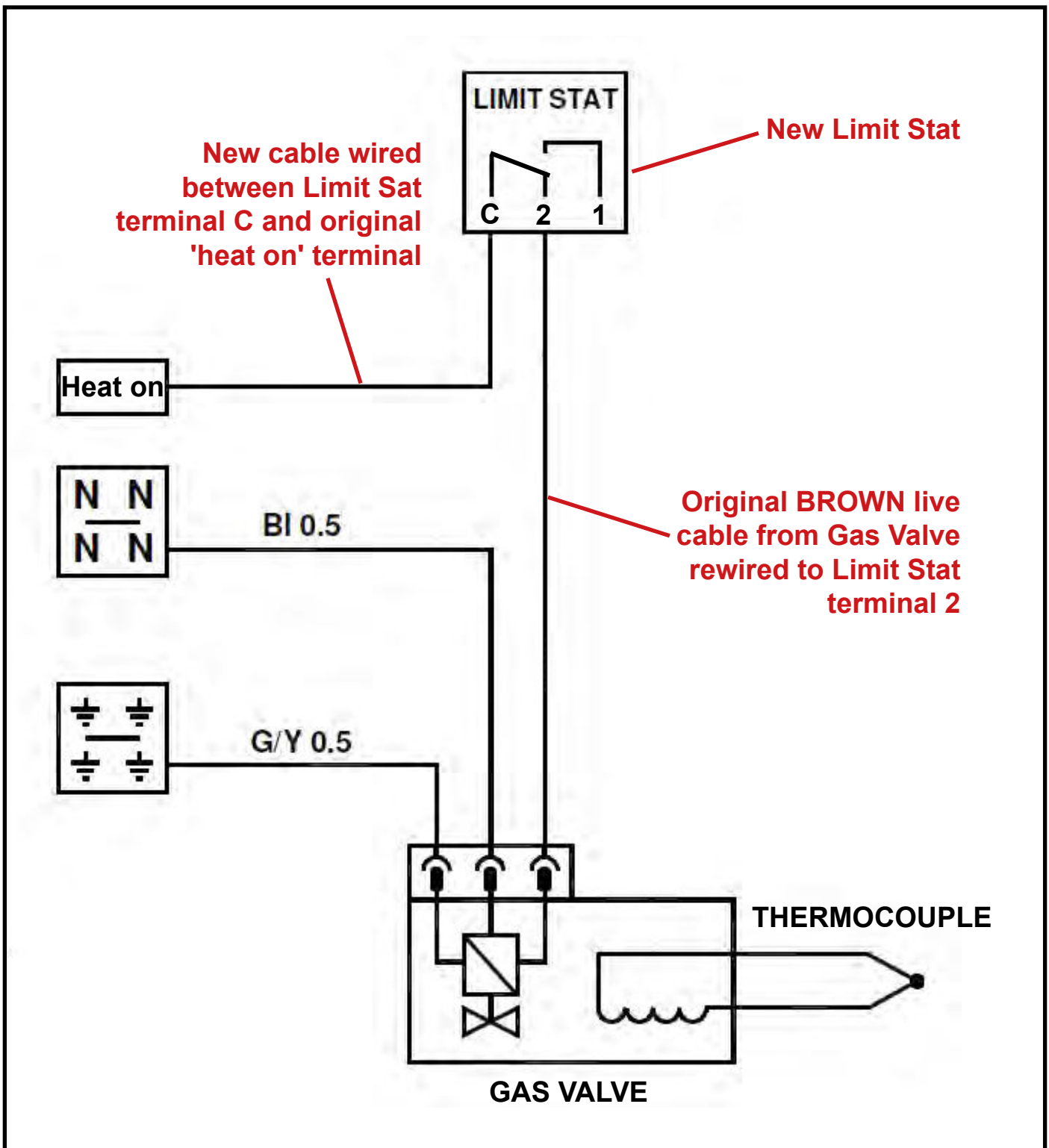


Figure 2

Revised wiring with Gas Valve wired through new Limit Stat from 'heat on' terminal.



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