

**UCA/B/E & STA/B/E (H.S.I.),
UDSA, UDSBD, UPA & SCA heater
modification for SmartCom
2 stage (Hi/Lo) burner issues.**



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Warnings

All external wiring MUST comply with the current IEE wiring regulations.

General information.

When two stage (Hi/Low) UCA/B/E & STA/B/E with Hot Surface Ignition (H.S.I.), or UPA, UDSA, UDSBD & SCA heaters are being controlled via SmartCom controllers, the controller has the potential to open the valve for the full ignition cycle.

This condition is caused by a closed circuit on the high fire start relay which feeds the main gas valve. To rectify this an additional relay is added in circuit

to put a volt free contact between terminals 7 and 8.

This technical bulletin describes in detail the procedure required to complete this task.


The information contained in this technical bulletin is designed to aid a qualified or competent service technician in the instruction it is intended for.

Tools required.

The following tools and equipment will be required to complete this task:

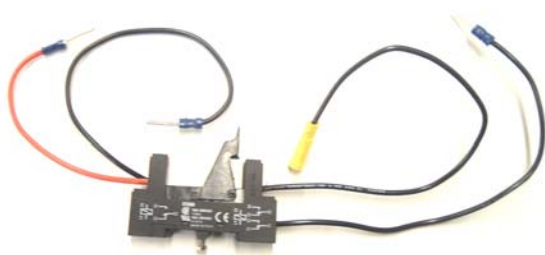
1. Pre-wired relay assembly pt no. 201549
2. Flat head screwdriver
3. Electrical screwdriver
4. Small pozi head screwdriver
5. Wire strippers
6. Crimpers
7. Multi-meter.

Step by step instructions.

 **ISOLATE ALL ELECTRICAL SUPPLY TO THE HEATER AND SMARTCOM CONTROL PANEL BEFORE PROCEEDING.**

1. Open control section side panel by first removing retaining screw(s) or releasing by turning quarter turn screw anticlockwise. Allow door to hang.
2. The contractors terminal rail and internal wiring harness is mounted on a plate on the side of the heat exchanger (UC and ST series) or mounted on a removable bracket plate (UDSA and UPA) which can be removed by loosening a securing pin located at the back into the heater.

fig.1 – pre-wired relay assembly.



3. Locate and position the pre-wired relay assembly (fig.1 above) onto the mounting plate utilising a spare pre-punched hole (see fig.3 for UDSA example).
4. Locate terminal 8. Using an electrical screwdriver, remove ALL the internal **ORANGE** wires (**BLACK** on STE/UCE heaters) from the internal side of the terminal rail.
5. Position this cable in the end of the yellow crimp joint on the **BROWN** wire from the relay. Crimp the wires securely.

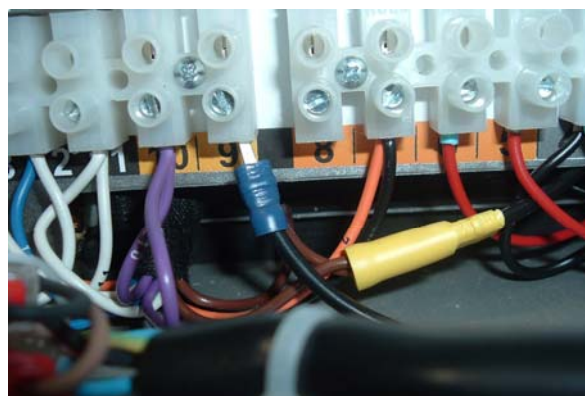


fig.2 – Terminal wiring connections

6. Locate and position the **BLUE** wire from the relay and using an electrical screwdriver, secure into terminal 7 of the terminal rail.
7. Locate and position the **BLACK** wire from the relay and using an electrical screwdriver, secure into terminal 2 of the terminal rail. (see fig.2)

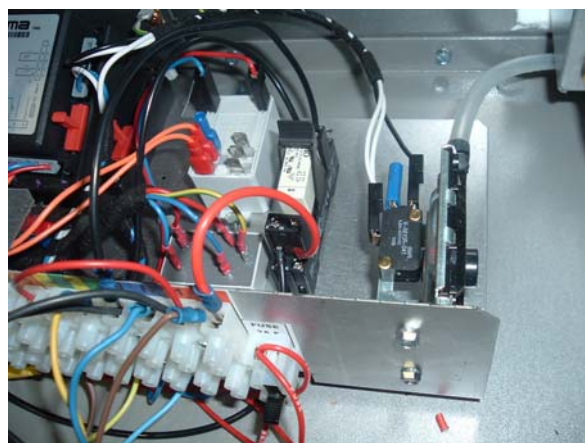


fig.3 – Detail of relay position.

8. Locate and position the **RED** wire from the relay and using an electrical screwdriver, secure into terminal 8 of the terminal rail.

9. Check wire tightness and continuity.
 10. Re-position the control section side panel and close by turning quarter turn screw clockwise.
 11. Turn the mains isolator back on.
 12. Call for heat.
 13. Check for correct operation.



fig.4 – Honeywell gas valve



fig.5 – SmartCom SC-ADVANCED

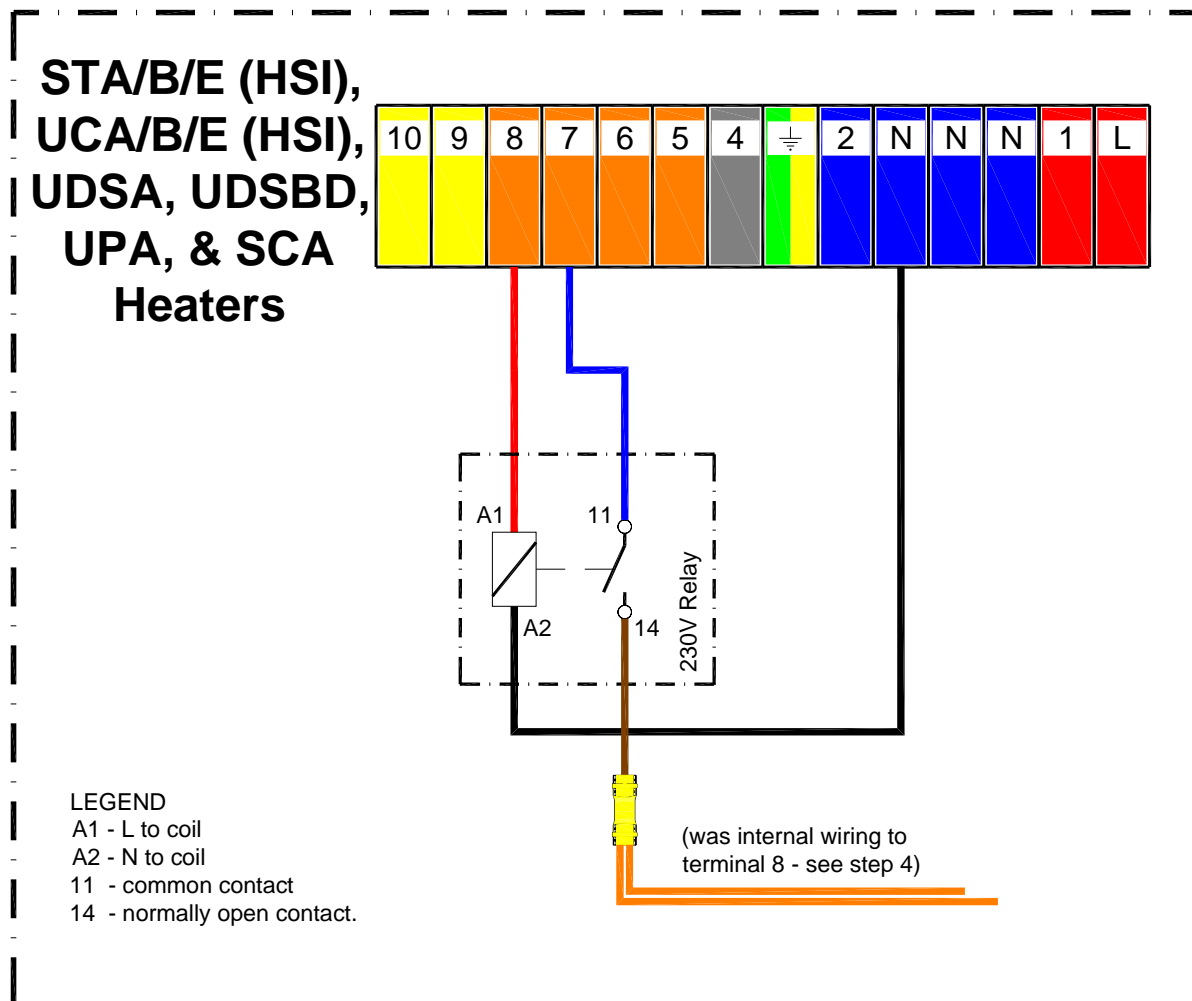


fig.6 – Wiring modification schematic.

Interconnection wiring diagram & heater modifications.

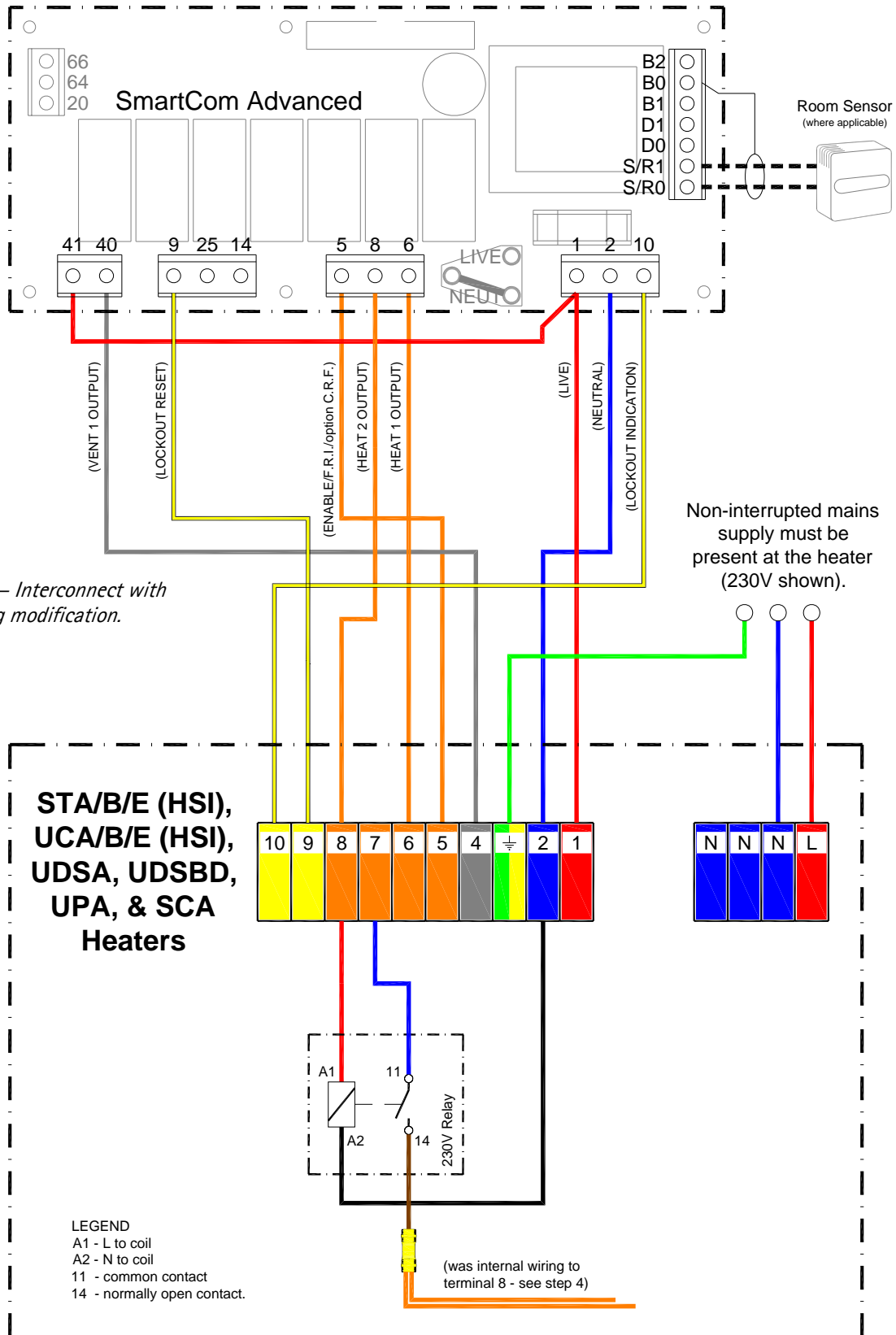


fig.7 – Interconnect with wiring modification.



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