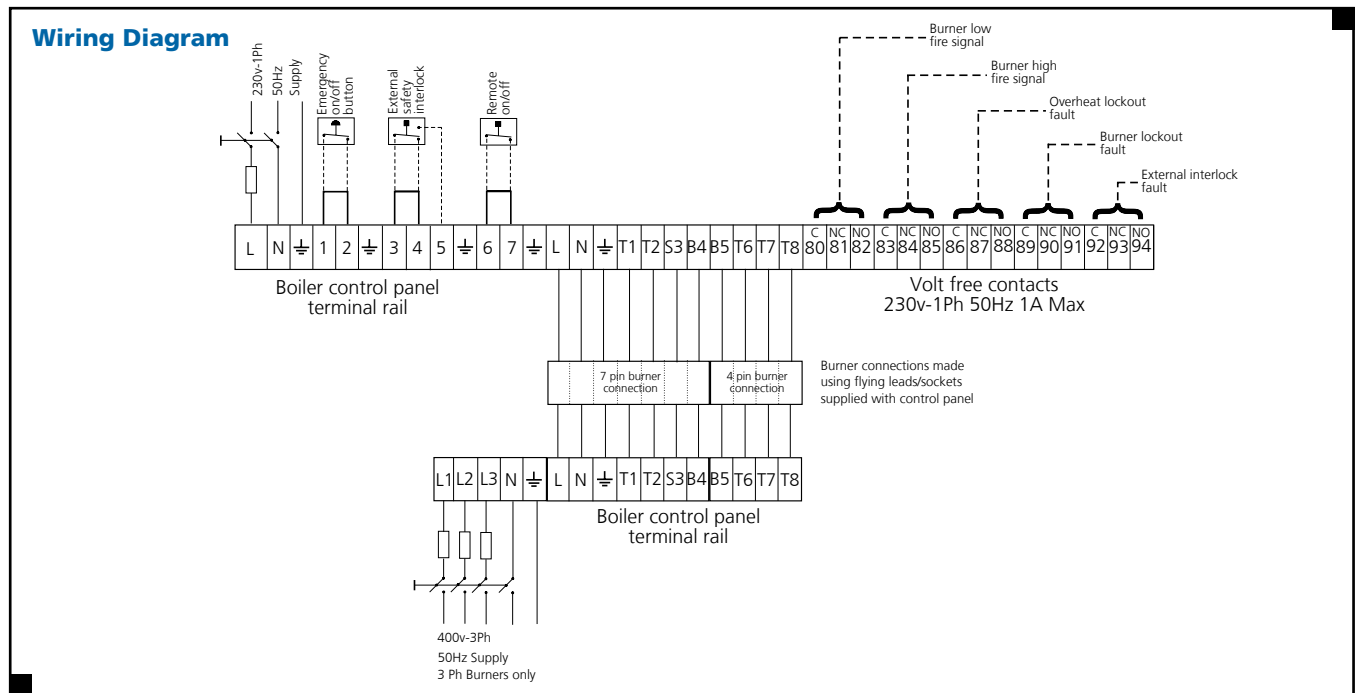


Electrical Wiring & Controls

Ensbury LT Boilers



Electrical Supply

The boiler control panel requires a 230 volts, 50 Hz, single phase electrical supply, via a fused isolator close to the boiler.

Single phase burners derive their power supply from the boiler control panel via the 7 pin burner connection.

Three phase burners require an additional 400 volts, 50 Hz, three phase electrical supply directly to the burner, wired in accordance with the manufacturer's instructions, and via a fused isolator close to the burner.

External Controls Interface – terminals 1 to 7

Each boiler control panel is supplied with controls interfaces that can be connected to external controls solutions for:

- Emergency on/off circuit
- Safety interlock circuit
- Remote on/off circuit (remote enable)

Emergency on off circuit immediately cuts the electrical supply to the boiler control panel stopping burner operation and heat generation.

Where external controls are used, the hard wired links must be removed. All external wiring carries 230 volts and requires volt free external switches. External switches are not provided with the boiler.

Burner Wiring

Connections between the boiler control panel and the burner are made using flying leads with plugs and sockets supplied with the boiler and burner.

High Low burners use both the 7 pin and 4 pin burner connections.

Fully Modulating burners only use the 7 pin burner connection.

0-10 volt control of fully modulating burners requires additional wiring dependent on burner selection.

For further details please contact our technical department: Tel: 01202 662500.

Remote Signalling

Remote signalling is achieved via a set of volt free contacts which indicate the following:

- Burner low fire operation
- Burner high fire operation
- Overheat lockout
- Burner lockout
- External interlock fault

Volt Free Contacts – terminals 80 to 94

External wiring for volt free contacts is typically connected to the common and normally open contacts. Alternatively wiring may be connected to the common and normally closed contacts.

For the external interlock fault volt free contact to operate, an external interlock fault condition power supply is required to terminal 5, 230 volts.

External Wiring

Wiring external to the boiler must be installed in accordance with I.E.E regulations. Wiring to the boiler control panel must be completed in heat resistant 3 core cable, (size 1.0mm² c.s.a.). An isolator correctly fused at 5 amps should be sited close to each boiler for the control panel.