

SystemLex Central Heating Wiring Control Center

SystemLex is a pre-configured electronic wiring center that connects the controls (clocks and thermostats), pumps and boilers together in a logical and easy to understand way. SystemLex does all the complex cross wiring for the installer - all that is left is to connect the system elements direct to the board.

SystemLex is pre-configured to automatically fire the boiler(s) only when one or more time/temperature zone controls call for heat.

Wiring external to the SystemLex printed circuit board MUST be in accordance with the current regulations and any manufacturer's instructions that apply. The power supply must be 230Vac~50Hz.

Devices attached to SystemLink MUST be properly earthed. A fused double pole switch, with at least 3mm (1/8") contact separation in both poles, serving only the SystemLex panel should be used.

Zones 1-4: 4 sets of terminals, to which external time and temperature controls may be attached, fused at 1 amp. The LED's on the board show which zone elements are operating and help make fault diagnosis easy.

All neutral terminals are cross connected on the board with preinstalled tracks.

Power Supply: 1 set of terminals for electrical mains supply connection fused at 5amps, (57, 58);

A general control power supply to facilitate use of a multi-zone clock, fused at 3amps (51, 52);

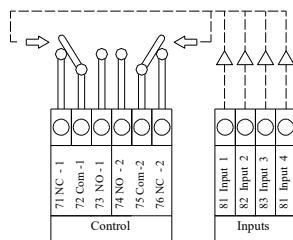
2 sets of terminals for power supply connection to the boilers, fused at 3amps. (53, 54 and 55, 56).

Control: 2 sets terminals to provide either Switched or Voltage Free control to boilers (61, 62 and 63, 64).

Auxiliary Outputs: 2 sets of auxiliary Output Relay terminals to facilitate auxiliary functions (71, 72, 73 and 74, 75, 76).

Auxiliary Input: 4 auxiliary input terminals (81, 82, 83, 84). to receive 230Vac supplies, any one of which will cause the auxiliary double pole relay to switch contacts, without back feeding to any other input.

Operation of Auxiliary Relay

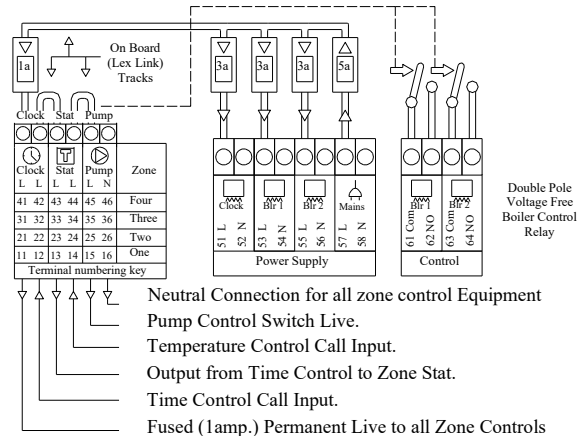


The Auxiliary relay is an optional control opportunity that works independently of the boiler control relay. Applying mains to any auxiliary input (81, 82, 83, or 84) will operate the double pole auxiliary relay contacts but will not back feed to other auxiliary inputs.

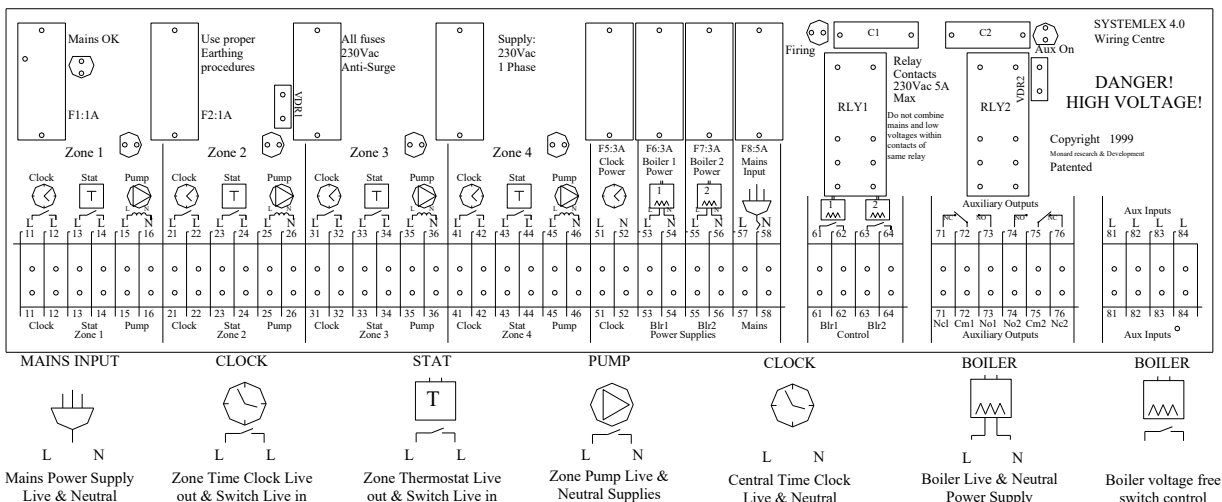
Technical Data

Supply	230Vac 5A 50Hz 1 Phase
Zones	4
Main Relay Rating	DPNO 5A
Boilers	2
Boiler Supply	2
Clock Supply	1
Auxiliary Inputs	4
Auxiliary Outputs	DPCO 5A
Operating Temperatures	0 - 50°C
Enclosure Rating	IP20
Main Fuse	230Vac 5A T Anti-surge
Boiler/Clock Fusing	230Vac 3A T Anti-surge
Zone Fuses	4 of 230Vac 1A T Anti-surge
Zone Call Indicators	4
Mains Supply Indicators	1
Boiler Call Indicators	1
Auxiliary Call Indicators	1
Transient Suppression	Yes
Terminals	2.5mm-Sq.
Coil/Contact Creepage / Clearance	8mm / 8mm*

The Boiler Control Relay works independently of the Auxiliary Relay. When any zone control call provides mains to it's zone 'Stat' input (14, 24, 34, or 44) the boiler control will operate the double pole relay contacts to switch on the boiler but will not back feed to other zone's controls or pumps.

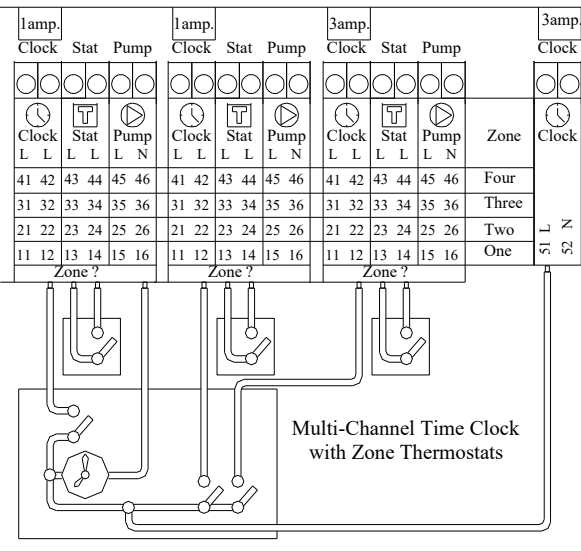
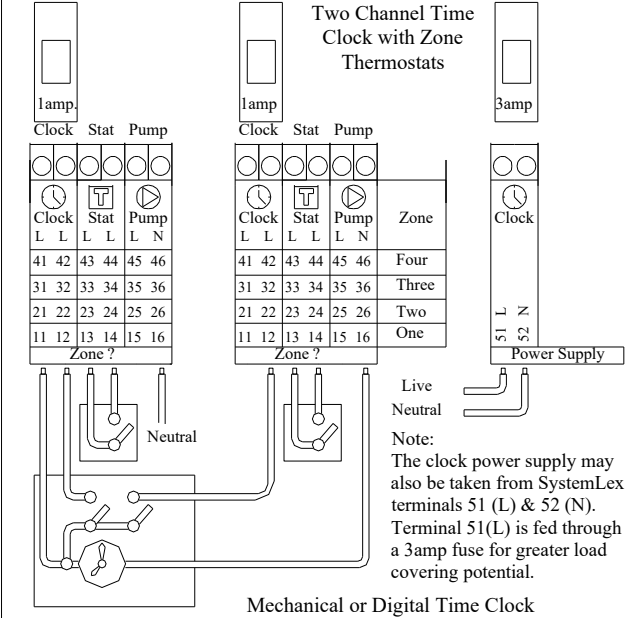
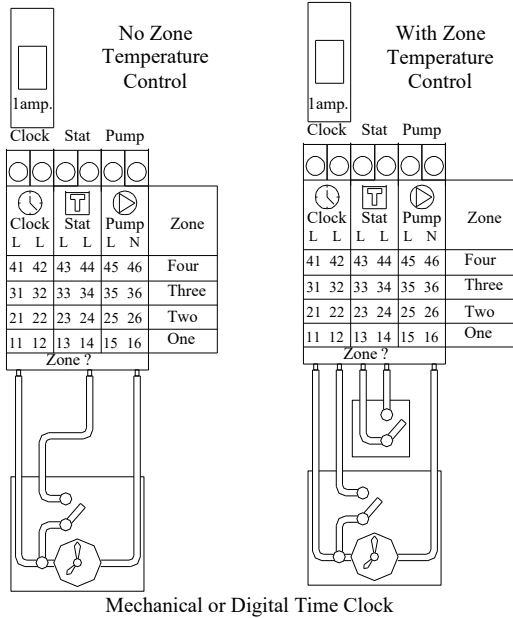
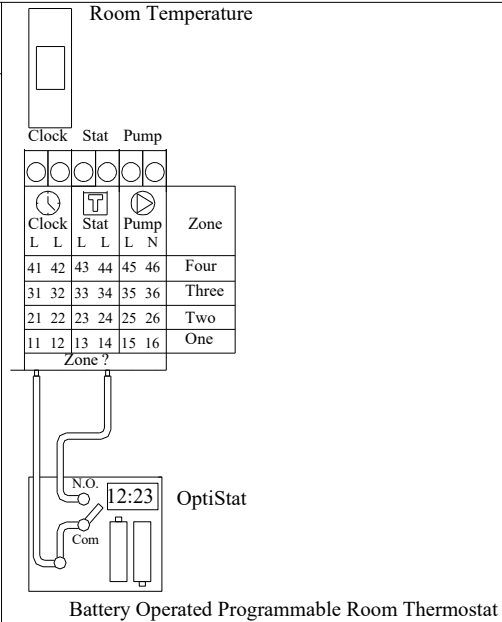
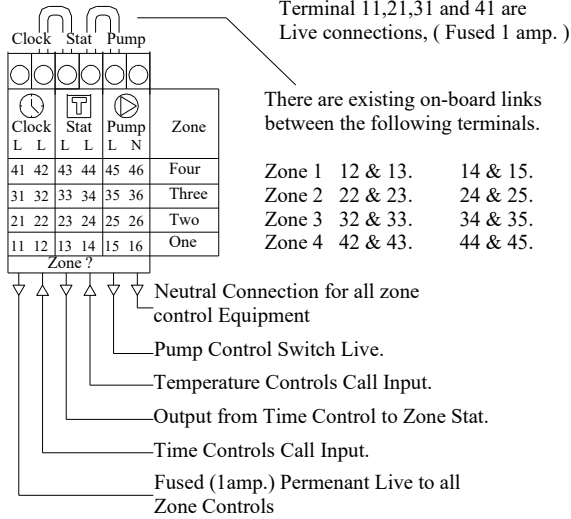


* Note:
Under no circumstances should high and low voltage circuits be conducted through contacts on the same relay, as this would not comply with the clearances (minimum distance between switching contacts) specified by I.E and international wiring regulations. If a control is required on a circuit of different voltage to the primary circuit, the auxiliary relay or a separate external relay should be used.

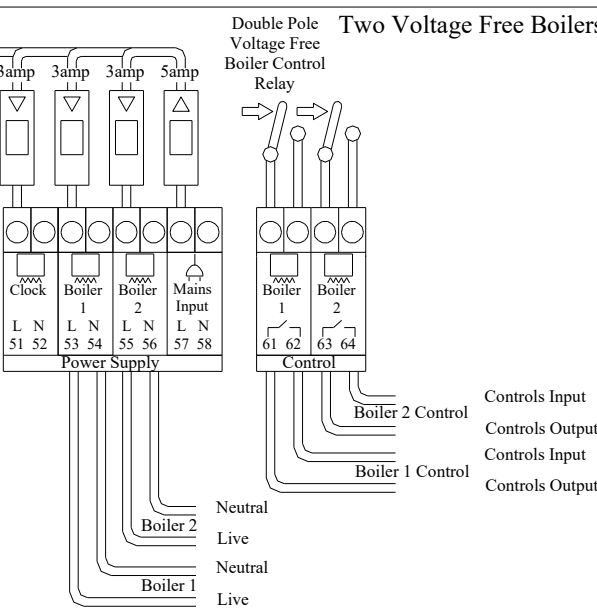
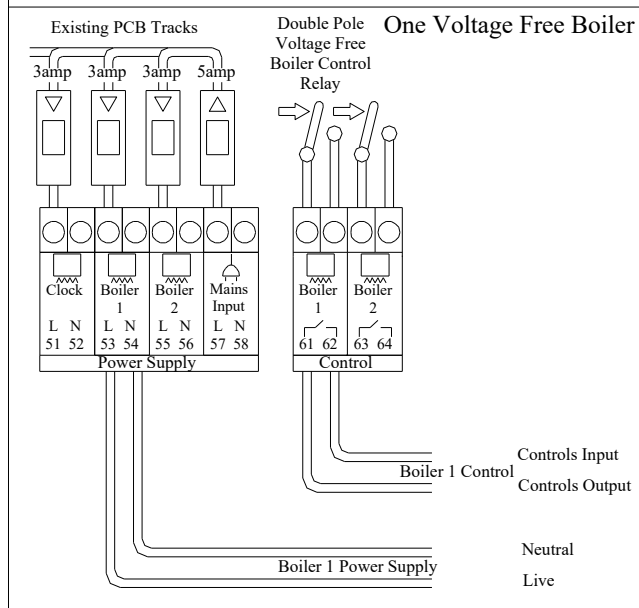
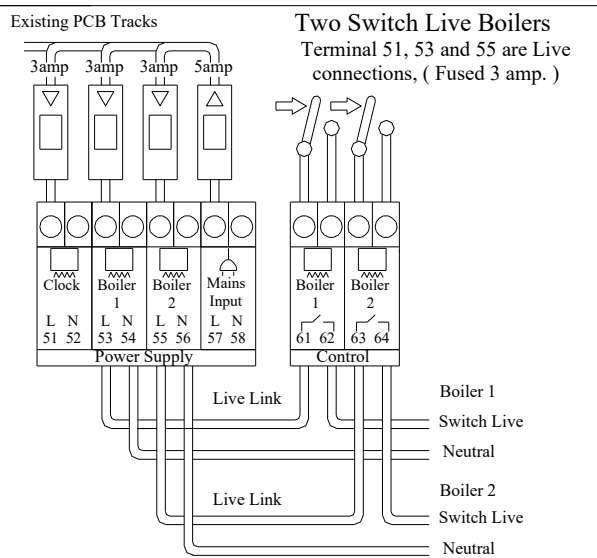
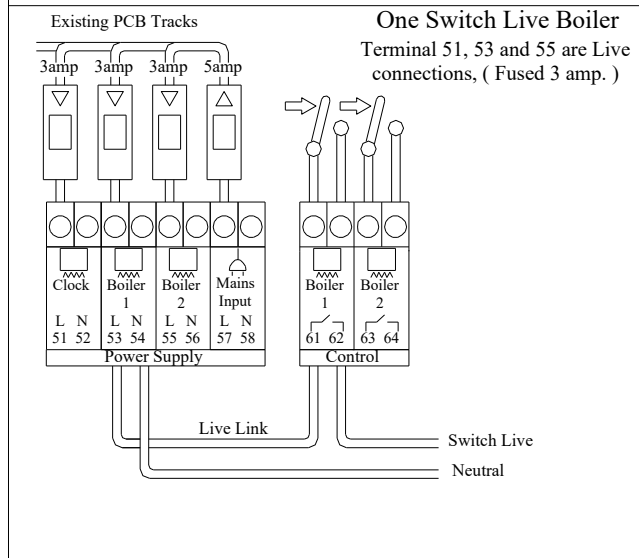
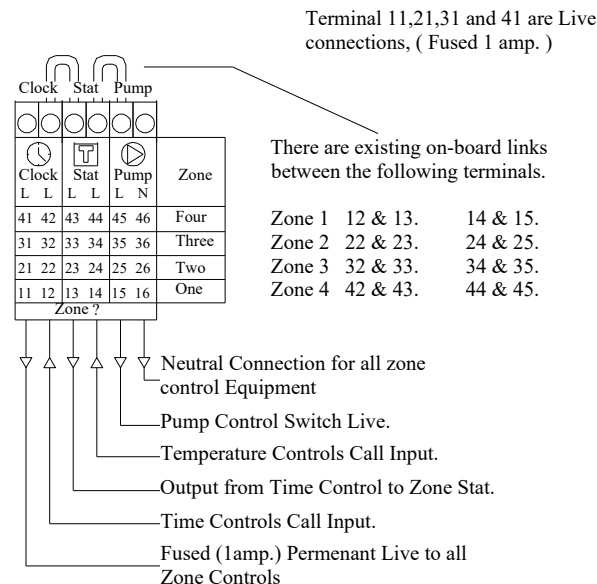
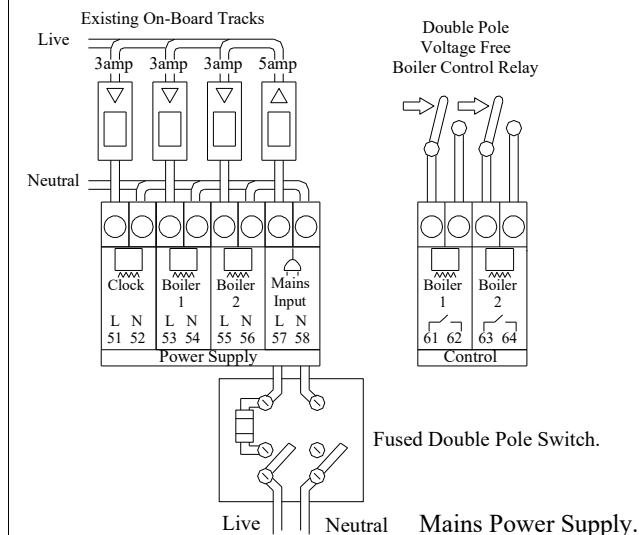


Due to product development, certain design elements and specifications may change on an ongoing basis

SystemLex External Controls Wiring



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SystemLex Fault Finding Guide

Important

Procedure:

On completion of installation or any service or fault finding task which has required the breaking and remaking of electrical connections, the following checks must be completed:

If external controls are fitted (e.g. Time clock or Room Thermostat), ensure these are switched 'OFF' and not calling for heat. Then using a multi-meter confirm the following ;

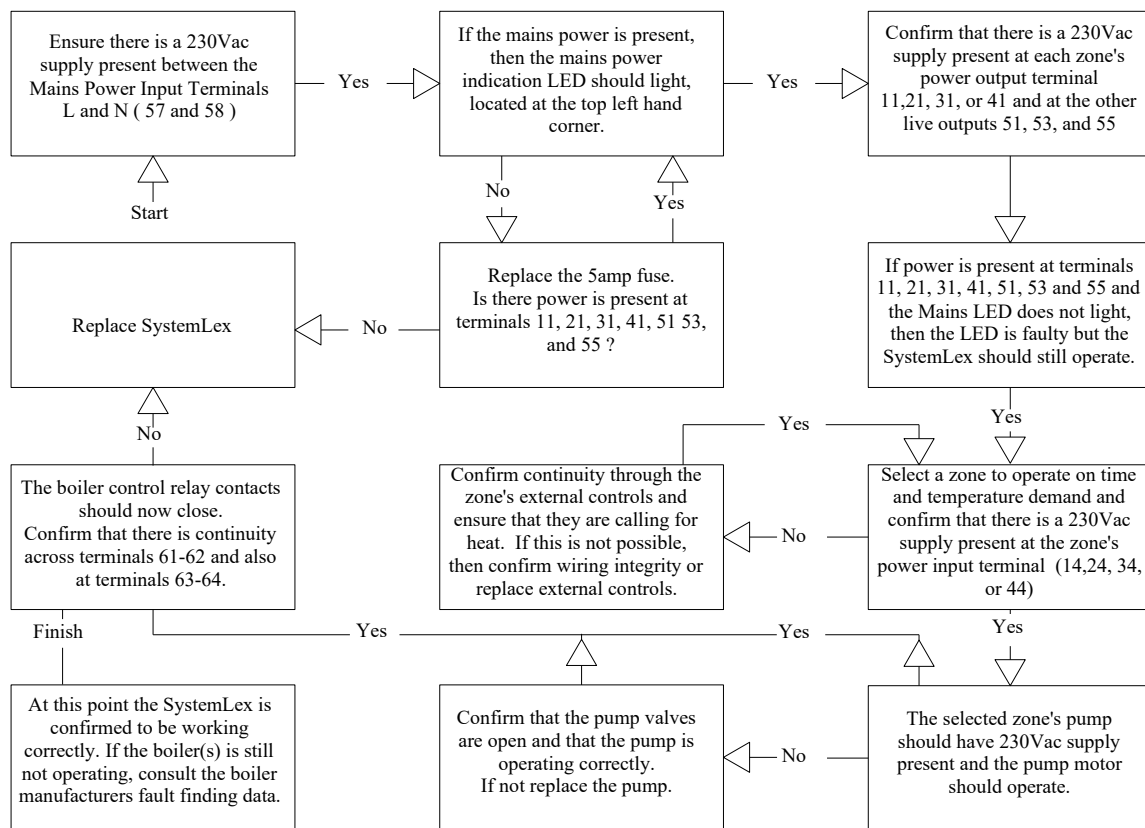
1. Earth Continuity. 2. Polarity.

Electrical Fault Finding on SystemLex wiring control center

Procedure:

1. Turn on the main isolation switch
2. Confirm 230Vac power at terminals 57 live, and 58 neutral. Mains LED only should light at the top left hand corner.
3. Select a zone and call for heat. The selected zone's LED should now light.
An audible 'click' may be heard from the SystemLex control relay and the boiler should fire.
4. Turn off the first selected zone call and repeat step 3 with the next zone to be tested.
5. Repeat step 3 with final zone.

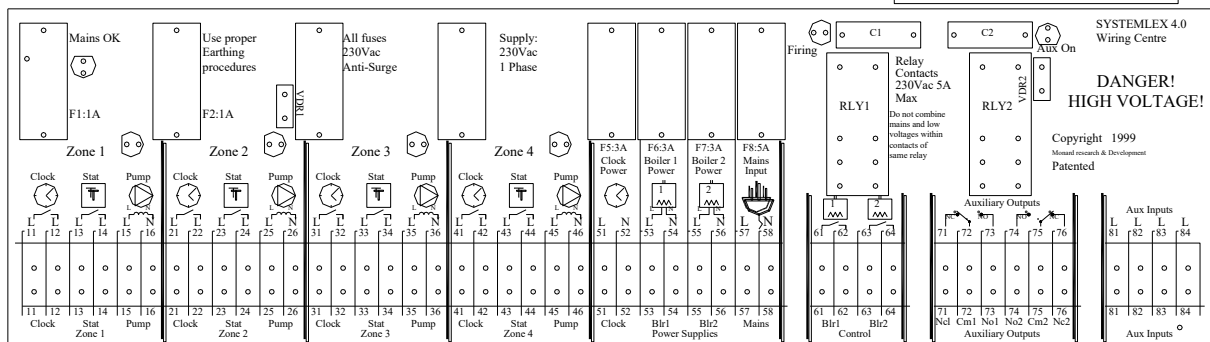
If the system does not work correctly then follow the fault finding guide below.



The Auxiliary control relay is provided as an additional support during the electrical installation of SystemLex. It has no effect on the other SystemLex control or boiler firing functions.

If 230Vac power is presented to any auxiliary input (81, 82, 83, or 84) then the relay's LED should light and it's contacts should switch. eg.; From 72 -71 to 72-73 and 75-76 to 75-74

The Auxiliary relay is operating correctly.
If an auxiliary function is required then replace the SystemLex.



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