



TIMÓLEON DATA SHEET – TI7001

Wiring Diagrams

INTRODUCTION

The underfloor heating system is compromised of three components:

1. The heat source (typically a boiler)
2. Distribution of the water into the floor circuit using a manifold
3. The control of these circuits using thermostats.

The heat source produces warm water that is then circulated through the primary circuit to the manifold. Conventional boilers produce water at a temperature much greater than that needed by an underfloor heating system and as a consequence the manifold must use a water mixing valve to reduce the water to a useful temperature, typically 40°C to 55°C. The mixed water is then circulated through the manifold by the secondary circulator and distributed into the underfloor heating circuits.

As each room becomes cold so the thermostats will switch on. Each thermostat is connected via a wiring centre to a zone valve or actuator. As a thermostat “calls for heat” so two volt-free terminals on the wiring centre close, one firing the boiler and one turning on the circulator, the actuator will open allowing warm water to flow into that circuit.

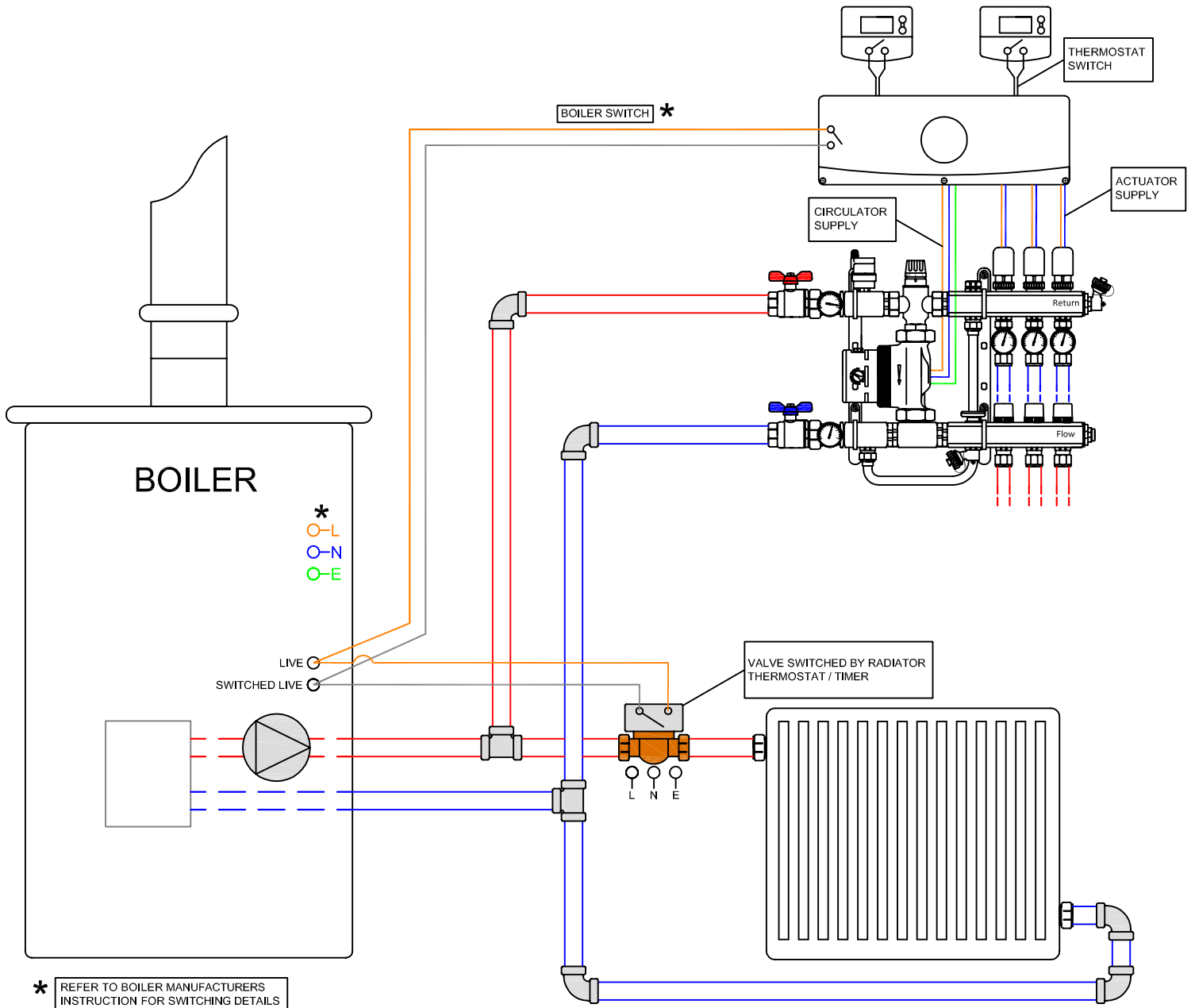
When the room is warmed up to temperature and the set point is reached, say 20°C, the thermostat will switch off, closing the actuator. When all the thermostats have switched off or stopped “calling for heat” the wiring centre switches off the secondary circulator on the manifold and stops firing the boiler.

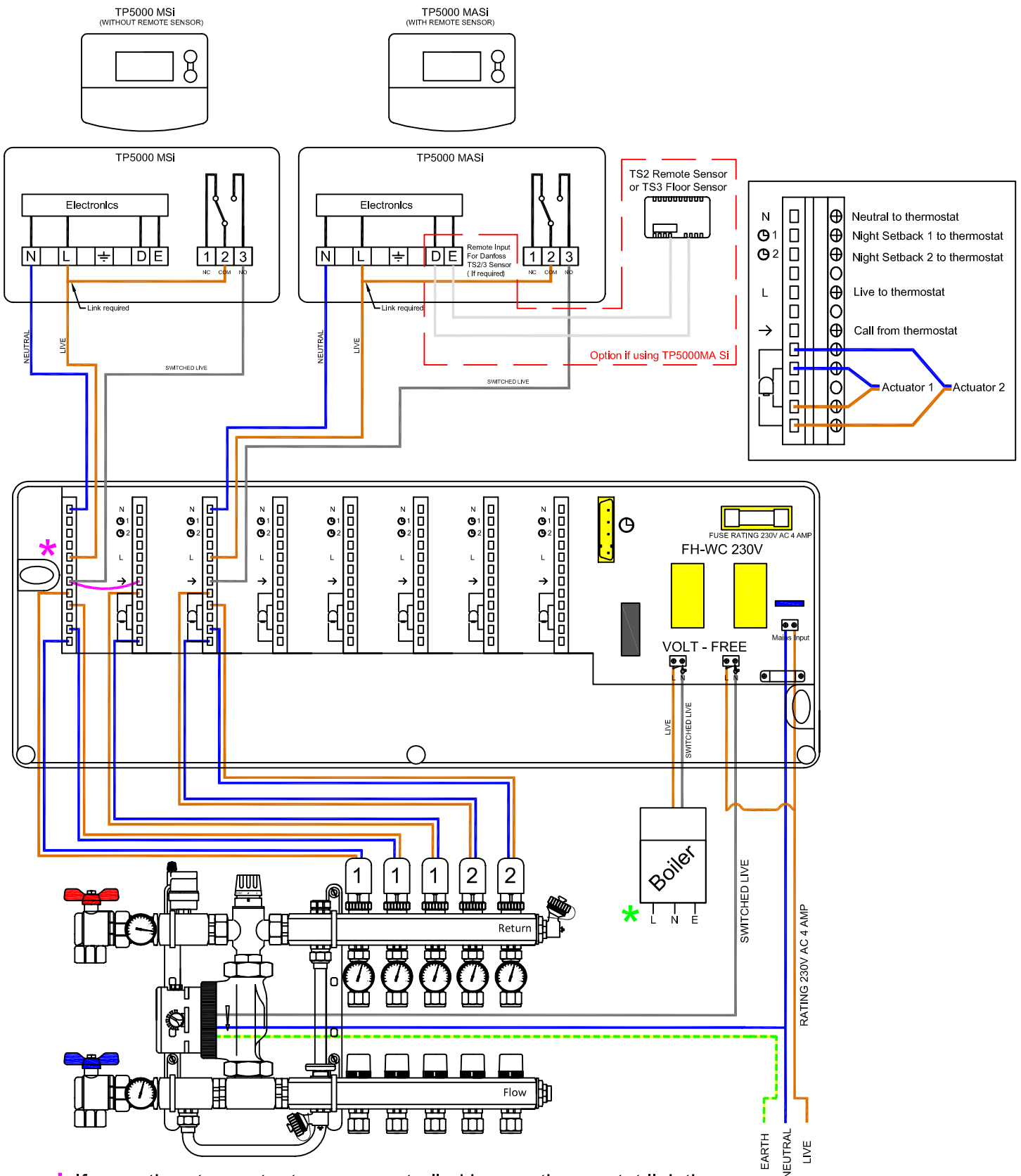
On the following pages we have:

- SD001 - System schematic
- WD001 – TP5000M 230V thermostats with a 230V wiring centre
- WD002 – TP5000 battery powered thermostats with a 24V wiring centre
- WD003 – RET24 24V non-programmable dial thermostat with a 24V wiring centre
- WD004 – RET230 230V non-programmable dial thermostat with a 230V wiring centre
- WD005 – TP5000-RF and RET-RF wireless thermostats with a 230V wiring centre
- WD006 – TP5000 with ZRU single room unit

SD001

General system schematic showing radiator and underfloor heating connection to the primary system



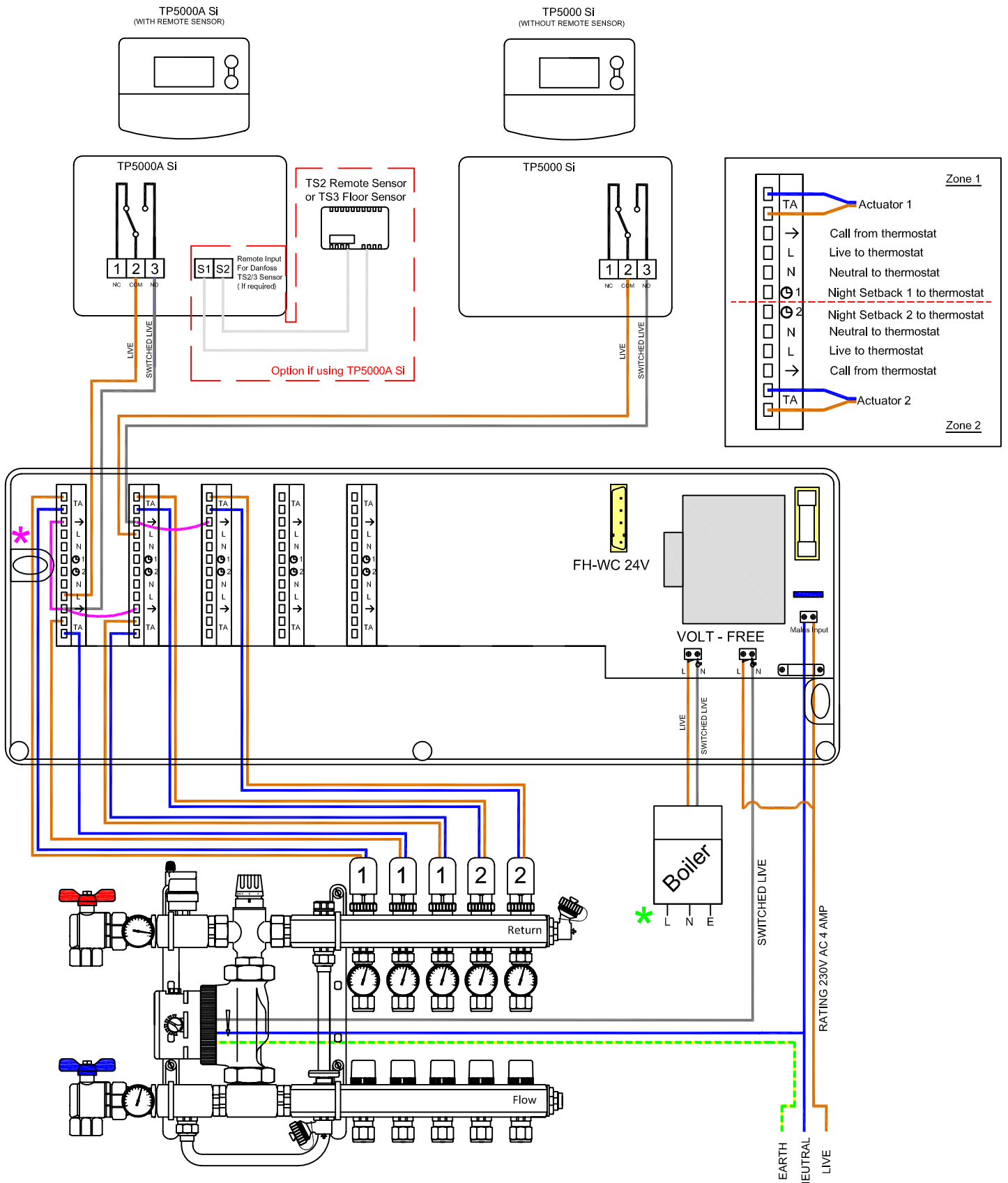


* If more than two actuators are controlled by one thermostat link the switch live into the neighbouring switch live as shown

* Please refer to boiler manufacturers instructions for switching

Thermostats connected using 1.0-1.5mm Flexible Wire



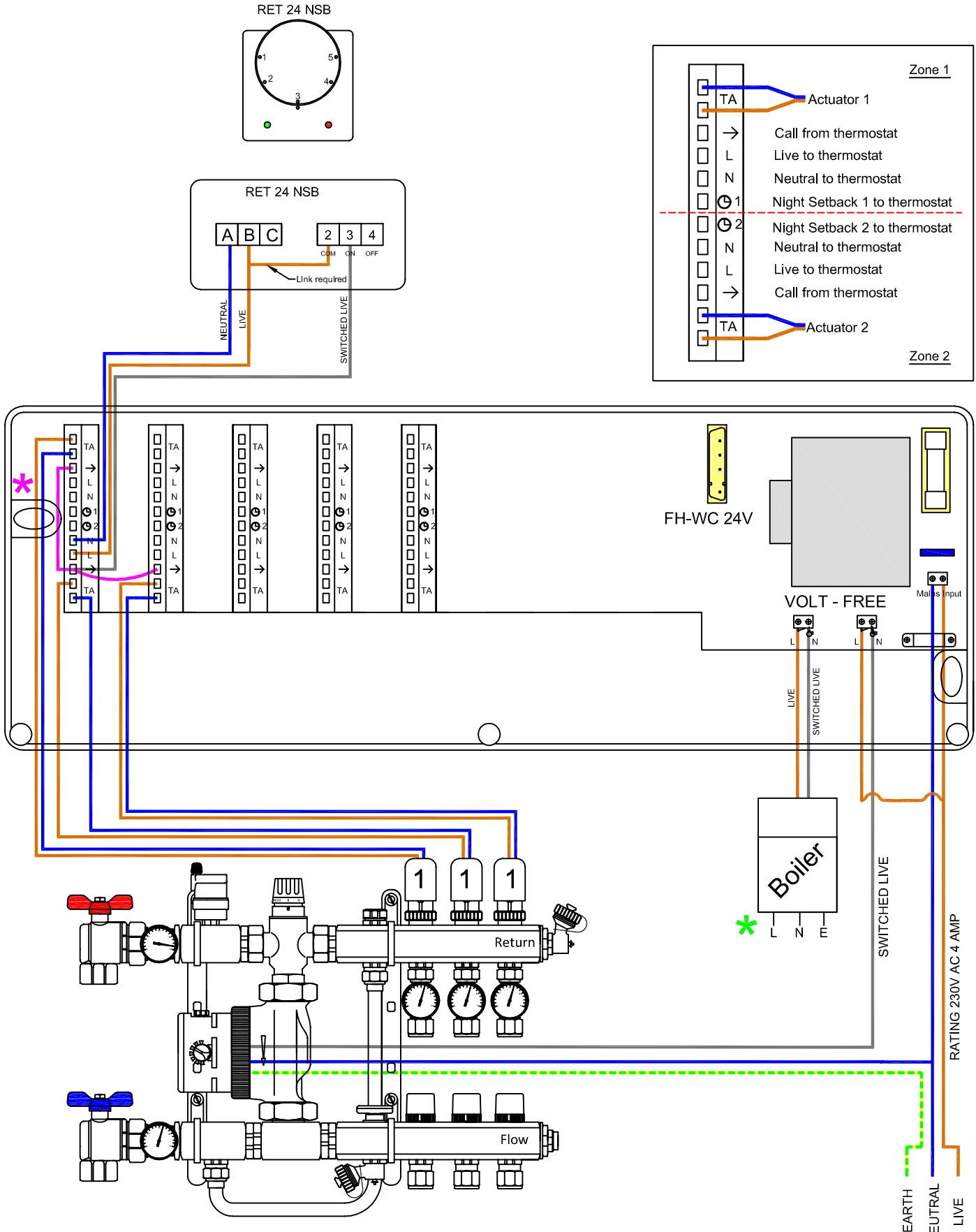


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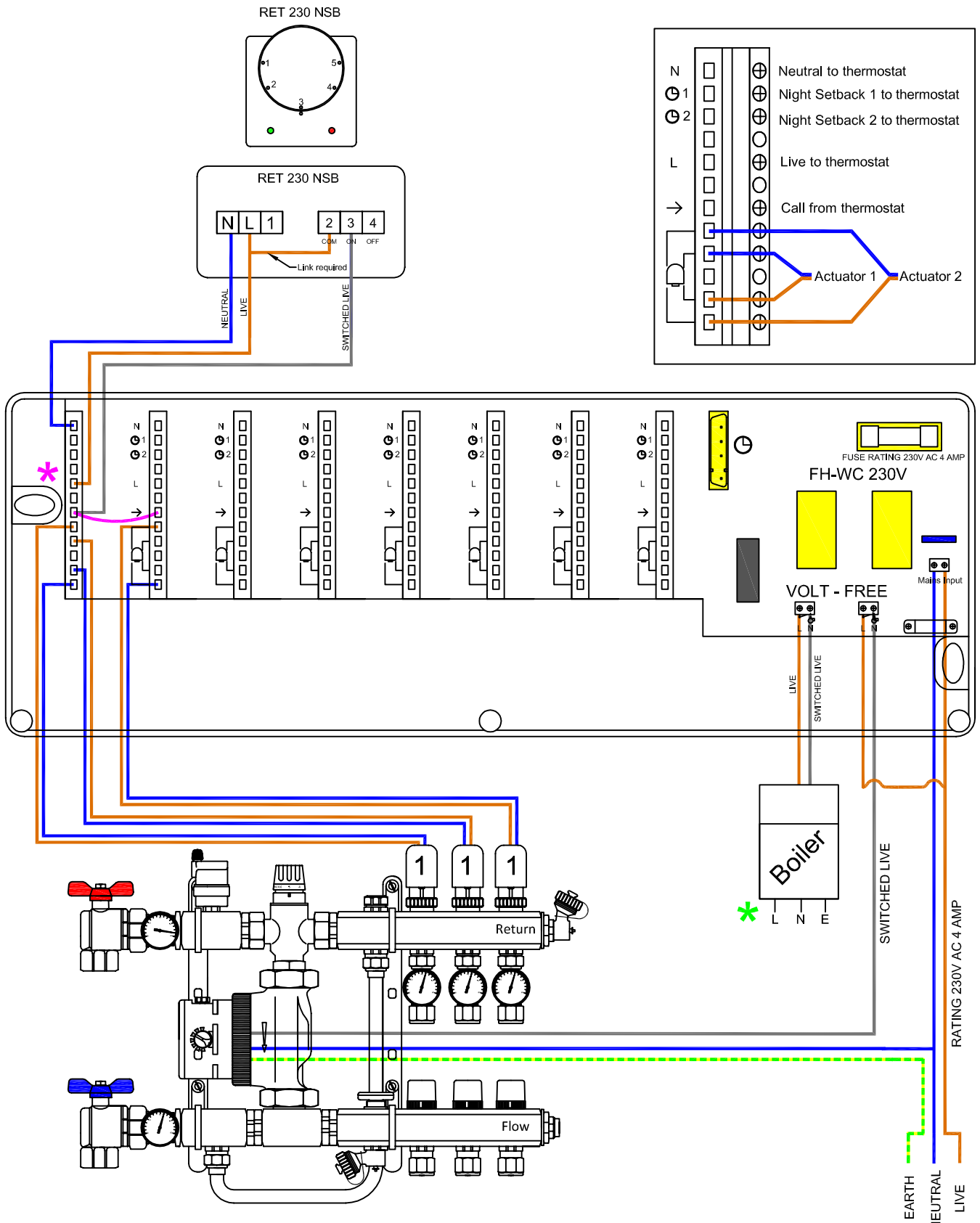


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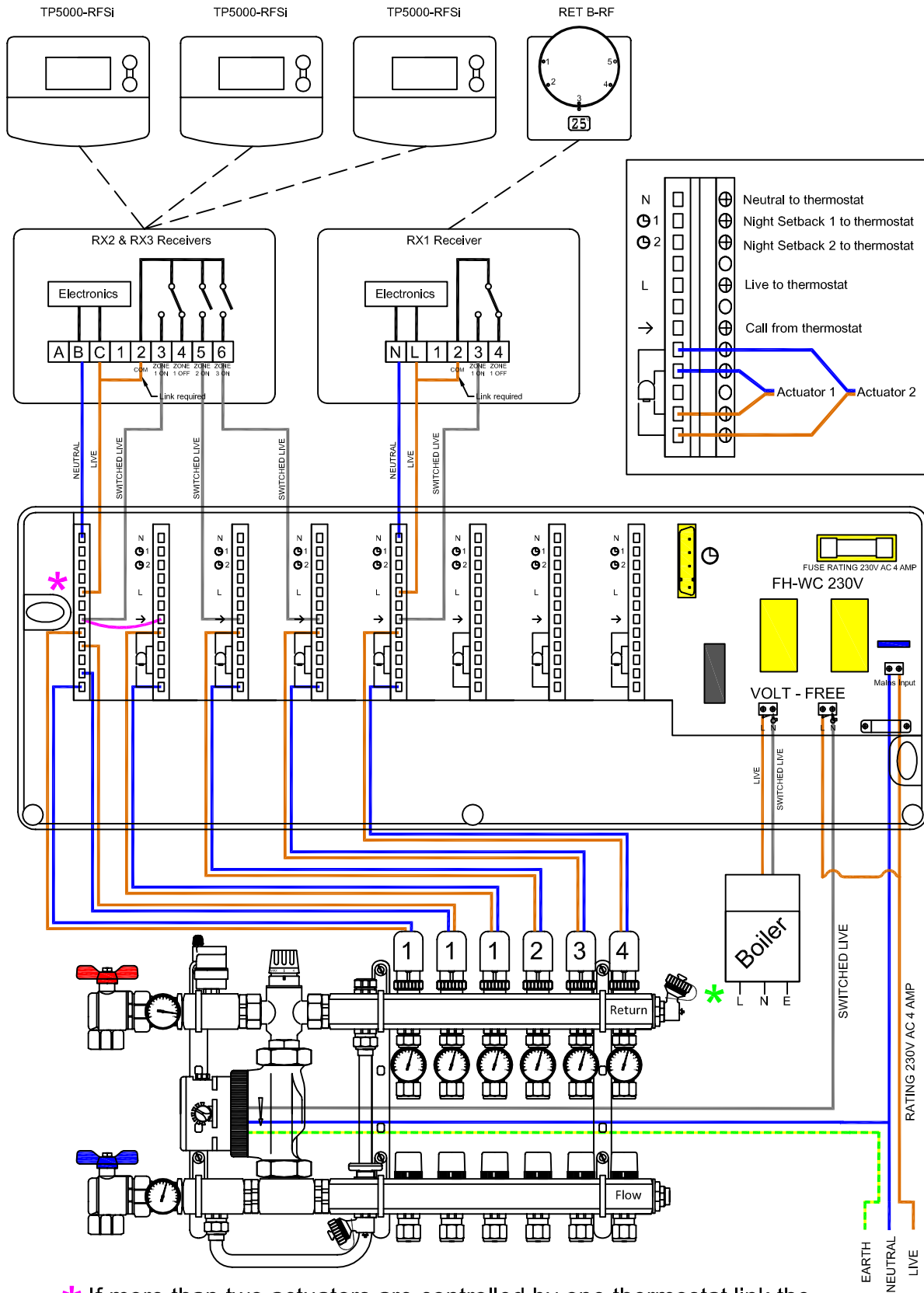




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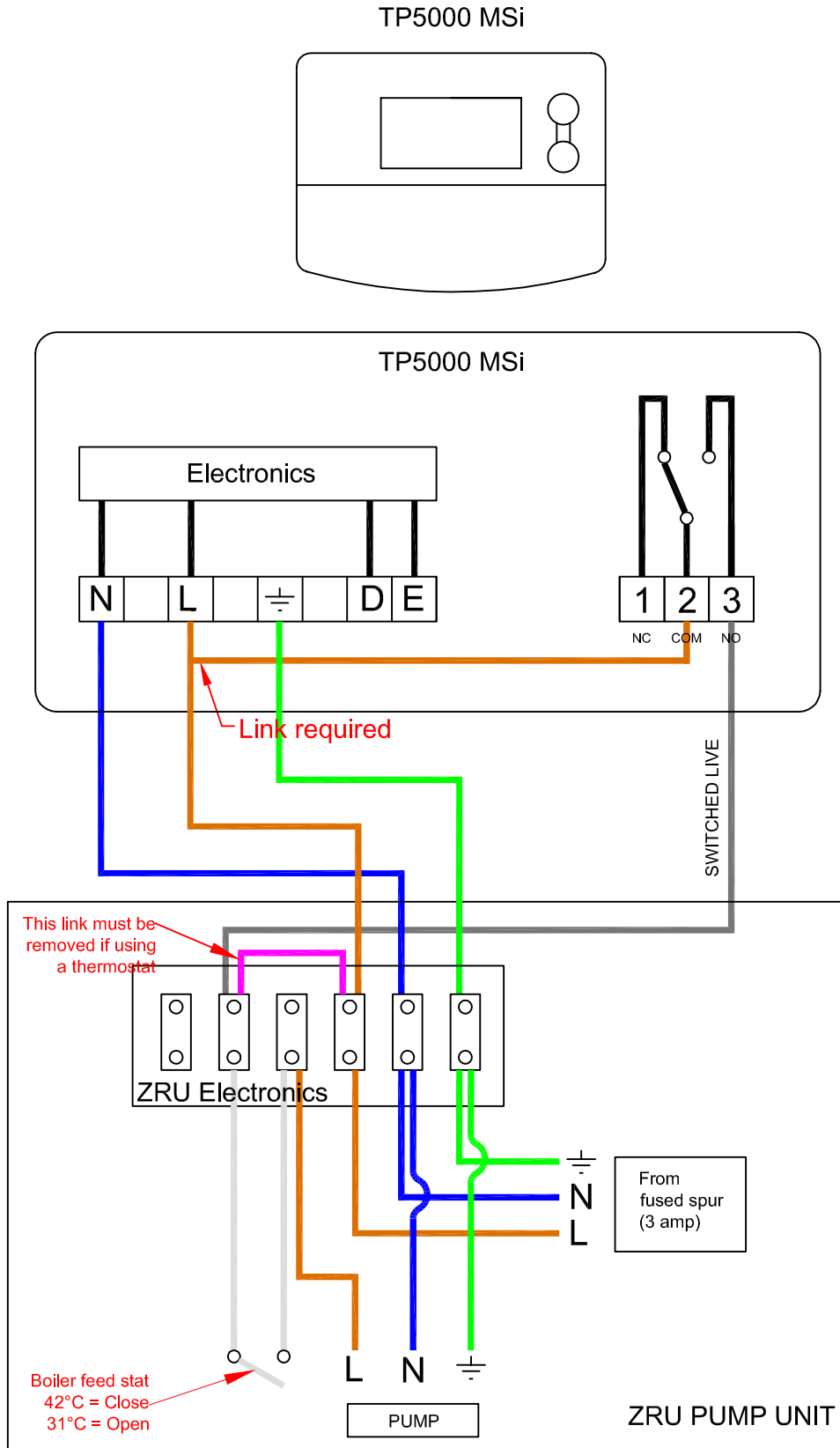


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