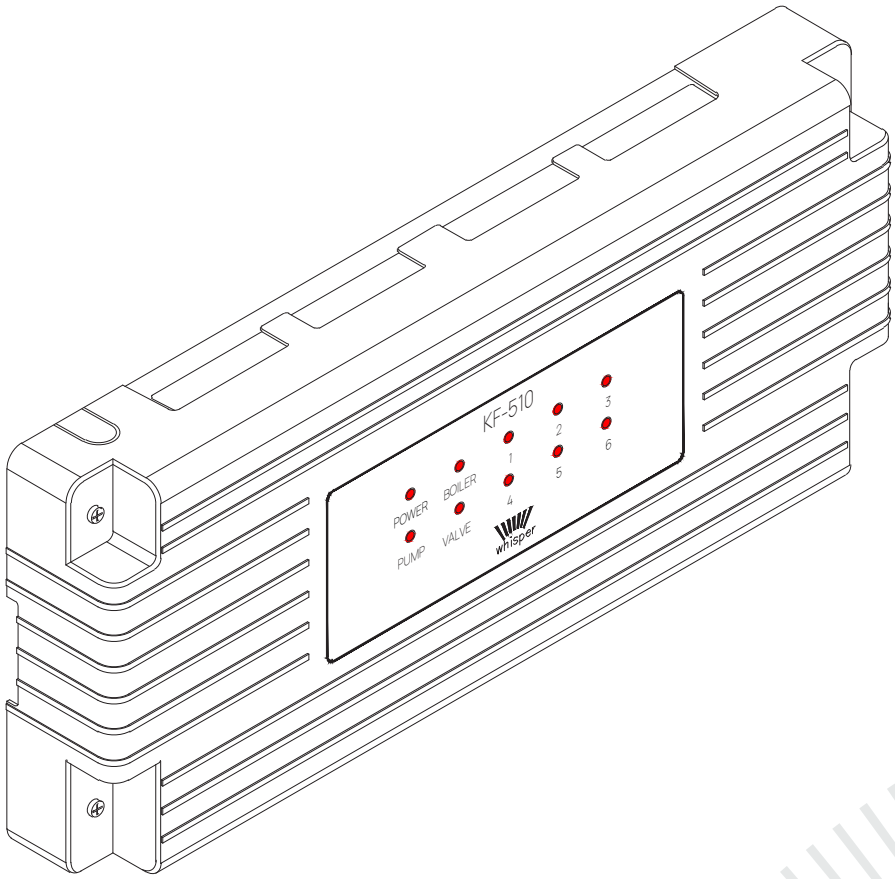
Installation Guide

KF-510 Kinetic 6-way Wiring Centre



whisper

KF-510 Kinetic 6-Way Wiring Centre - 230v

The KF-510 is an 6 Zone, 230v wiring centre, the outline dimension is 320mm x 140mm x 55mm. The KF-510 can be used to control 230v AC actuators or valves. A changeover relay is required if you wish to use mid position valves. At the same time the KF-510 offers the ability to operate a boiler or other heat source through a volt free output. A 230v signal can be given by simply adding a 230v live connection to the COM connection. Additional outputs designed for use with under-floor heating systems are also included as standard. These are the pump and valve outputs which would normally operate a manifold pump or a manifold valve.

Pump Delay

The pump delay time is 3 mins/0min.

The KF-510 has a feature of pump delay, the user can select either 3 mins or 0 min delay by adjusting the switch on the pcb , the pump output delay time is 3 minutes if switch is set to “1” ; the pump output delay time is 0 minute if switch is set to “ON” ; the pump delay switch is close to the fuse on the pcb board. A 0 minute delay is ideal for use when initially testing an installation and commissioning a system.

Zone 6

Zone 6 can be used as an isolated radiator zone, by using the UFH/RAD switch.

If the switch is set to RAD; Zone 6 will provide an output to a radiator zone valve and the boiler, but WILL NOT enable the under-floor heating pump/valve output when a heat demand signal is received into the thermostat S/L connection.

If the switch is set to UFH; This will act as an under-floor heating zone, by enabling the actuator, boiler and pump/valve outputs when a signal is received to the S/L connection.

Any output which is not needed can be ignored

Connections

Mains supply

Power supply into the KF-510, which should be fused at 5 amps, these connections are;

L = Live or phase 230v AC 50/60Hz
E = Earth
N = Neutral

Heat Enable

This is the main call for heat for the system, there are 3 connections;

NC = Normally Closed
COM = Common
NO = Normally Open

Electrically this is a volt free switch, whatever supply is placed on the COM connection, is fed to the NO connection when there is a call for heat.

Zones 1-6 (Inputs)

Zone inputs are clearly marked at the top of the circuit board;
L = Live supply to thermostat.
E = Earth
N = Neutral supply to thermostat.
S/L = 230v switch live from thermostat, this activates the corresponding zone output.

Zones 1-6 (Outputs)

Zones outputs are clearly marked
L = live out to actuator or valve
N = neutral to actuator or valve

whisper

Whisper Controls Limited
Unit 21D Avenue Two, Station Lane Industrial Estate, Witney, Oxfordshire, OX28 4YG, United Kingdom.
Tel: +44 (0)1993 640073 **whispercontrols.com**

KF-510 Kinetic 6-way Wiring Centre - 230v

There are two connections live (L) and neutral (N), both terminals marked L are the same and both terminals marked N are the same.
Each zone output corresponds to the thermostat wired in at the top of the pcb.

UFH Pump

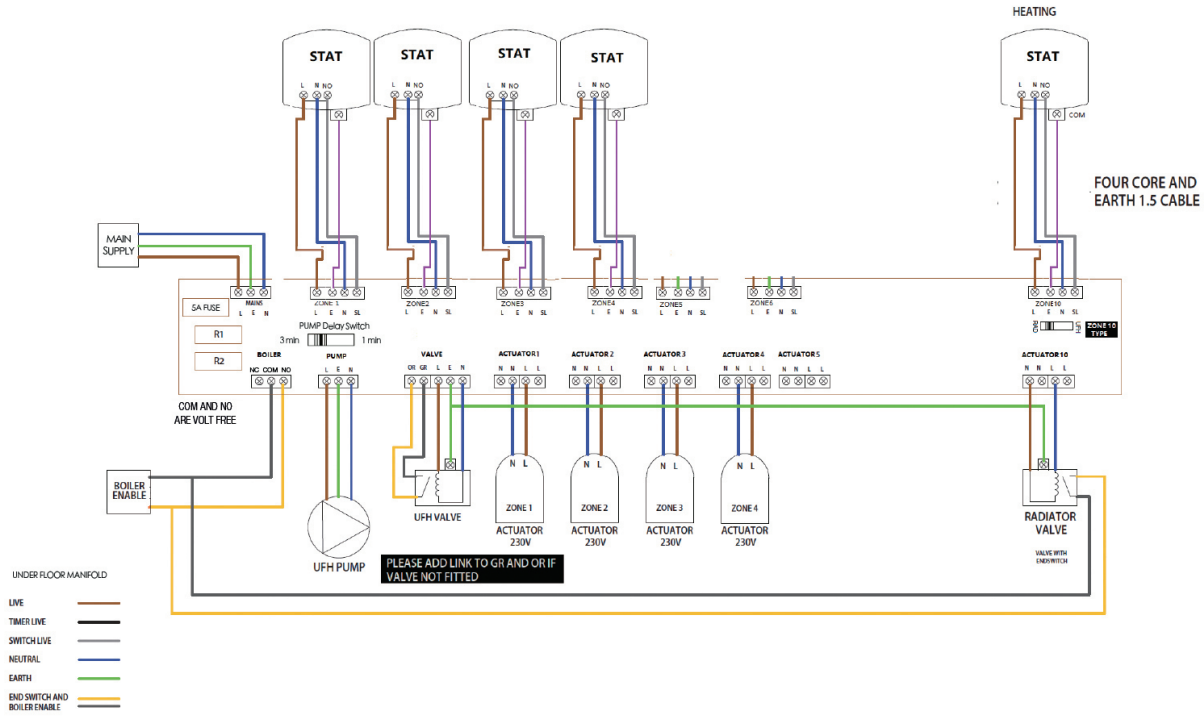
Used for an underfloor heating manifold pump, connections are;
L = Live
E = Earth
N = Neutral
When an under-floor heating zone sends a call for heat to the KF-510, the live & neutral output will supply 230v to the manifold pump.
The delay time is 3 minutes if switch in 1
The delay time is 1 minute if switch in ON
It is recommended that this is fed through a HL-109 high limit switch placed on the heating manifold, to protect against mechanical failure of the manifolds temperature control.

UFH Valve

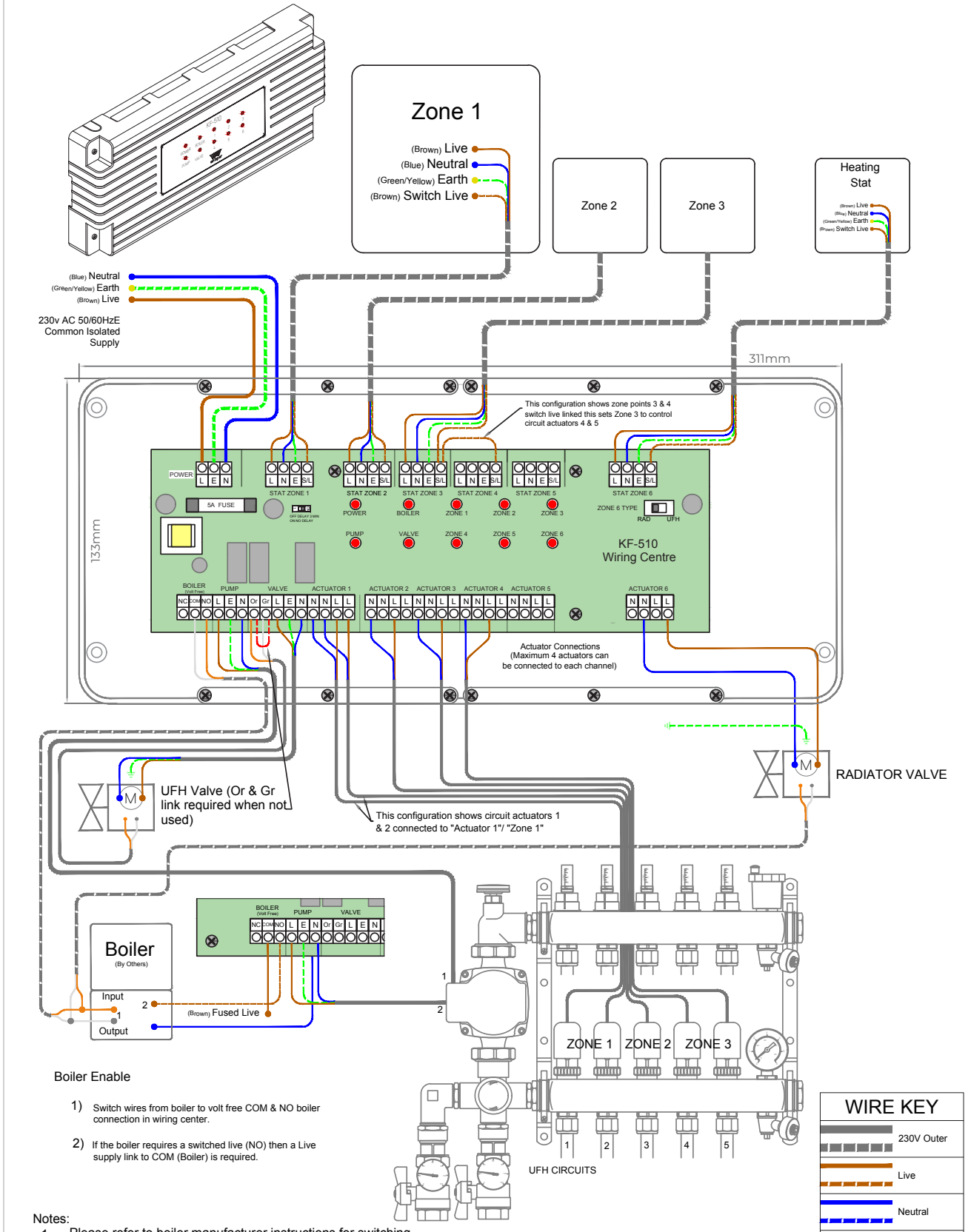
Used for an underfloor heating manifold valve.
Connections are clearly marked;
To enable Pump delay Or and Gr must be shorted.
Or = Orange
Gr = Grey
L = Live
E = Earth
N = Neutral
When an under-floor heating zone sends a call for heat to the KF-510, the live & neutral output will supply 230v to the manifold valve.
The auxiliary wires of the valve, usually grey & orange, are wired to the Gr & Or terminals.

Fuses

5amp, 30mm anti-surge fuse, this fuse supplies power to all 230v outputs from the board it protects the zone, pump/valve outputs.



Whisper Controls Limited
Unit 21D Avenue Two, Station Lane Industrial Estate, Witney, Oxfordshire, OX28 4YG, United Kingdom.
Tel: +44 (0)1993 640073 **whispercontrols.com**



Boiler Enable

1) Switch wires from boiler to volt free COM & NO boiler connection in wiring center.

2) If the boiler requires a switched live (NO) then a Live supply link to COM (Boiler) is required.

Notes:

1. Please refer to boiler manufacturer instructions for switching.
2. Thermostats connected with a 1.0 - 1.5 flexible cable, but must be specified by the installer.

This product must only be installed by a qualified electrician and comply with local installation regulations.

whisper

Whisper Controls Limited
Unit 21D Avenue Two, Station Lane Industrial Estate, Witney, Oxfordshire, OX28 4YG, United Kingdom.
Tel: +44 (0)1993 640073 whispercontrols.com