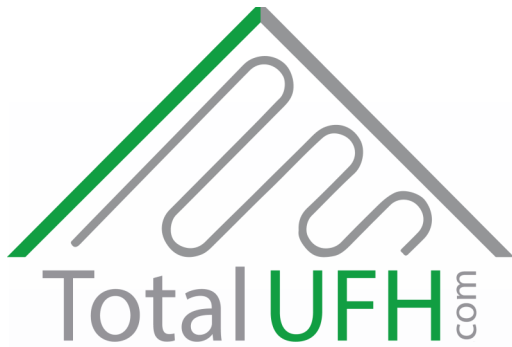


UNDERFLOOR HEATING INSTALLATION MANUAL

DESIGN | SUPPLY | INSTALL | SUPPORT | TRAIN



Introduction:

Supplying your underfloor heating needs

Many thanks for purchasing an underfloor heating system from TotalUFH.com, the specialist underfloor heating division of Total Renewable Solutions.

Please contact 01749 340490 with any installation queries.

On Delivery

The supplied components, documents etc should be checked against the delivery note ASAP following delivery to check for any shortages or damage sustained during delivery.

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Page 5: Schematics, combination boilers

Page 6: Schematics regular boilers

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Page 8: Schematics wiring center

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Installation

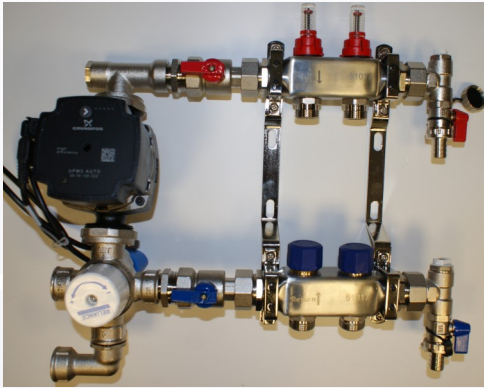
Some components are heavy, notably pipe rolls and care should be taken when lifting.

A qualified heating engineer should carry out the mechanical installation of this system and associated plumbing works, installation must be carried out to the design and in accordance with all current legislation.

A qualified electrician should carry out the electrical (controls) installation of this system and associated works, installation must be carried out to the design and in accordance with all current legislation.

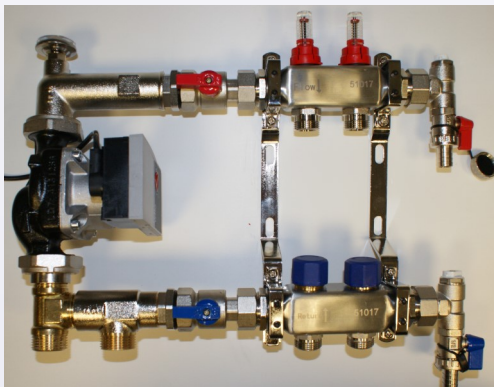
Components

Manifold assembly with mixer unit



Aluminum

Unmixed Manifold assembly



Pipe Connectors (Eurocone)



Wiring

Centre



Ball Valves



Pipe Staples



Edge Insulation



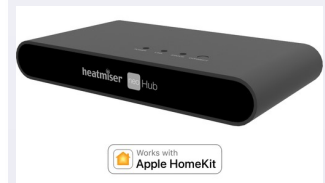
Night Set Back Thermostat



Programmable Thermostat



WiFi Enabled thermostat



and hub

Manifold actuators



Installation

The underfloor heating system should be installed in the following order.

Refer to CAD drawing to identify location of major components, also refer to cut calculator to identify pipe roll and zoning.

Different floor constructions will have differing preparation requirements, for instance plates, insulation etc.

1. Locate and mount manifold assembly. This is normally mounted between 500 and 700mm from floor level.
2. Prepare floor as necessary, laying and taping of insulation boards, slip membranes out any paneling as required.
3. Using CAD Plan, mark out floor to assist with pipe laying.
4. Connect manifold / mixer to primary circuit connections.
5. Identify manifold circuit 1. Use cut calculator to identify correct roll of pipe.
6. Use pipe flaring tool to prepare pipe end, place fitting nut over end of pipe. Slide split olive onto pipe and insert sleeve. Connect end to upper manifold, hand tightening initially followed by a further 1/4 turn. Roll out and fix pipe as per layout CAD plan. Connect return end to lower manifold.
7. Proceed to further zones.
8. Once all zones are connected, use hose pipe at mains water pressure to fill and purge the pipework of all air, this can typically take 10 minutes per circuit.
9. Pressure test all pipework and manifold, visually check for any leaks.
10. Install screed / dry-mix etc.

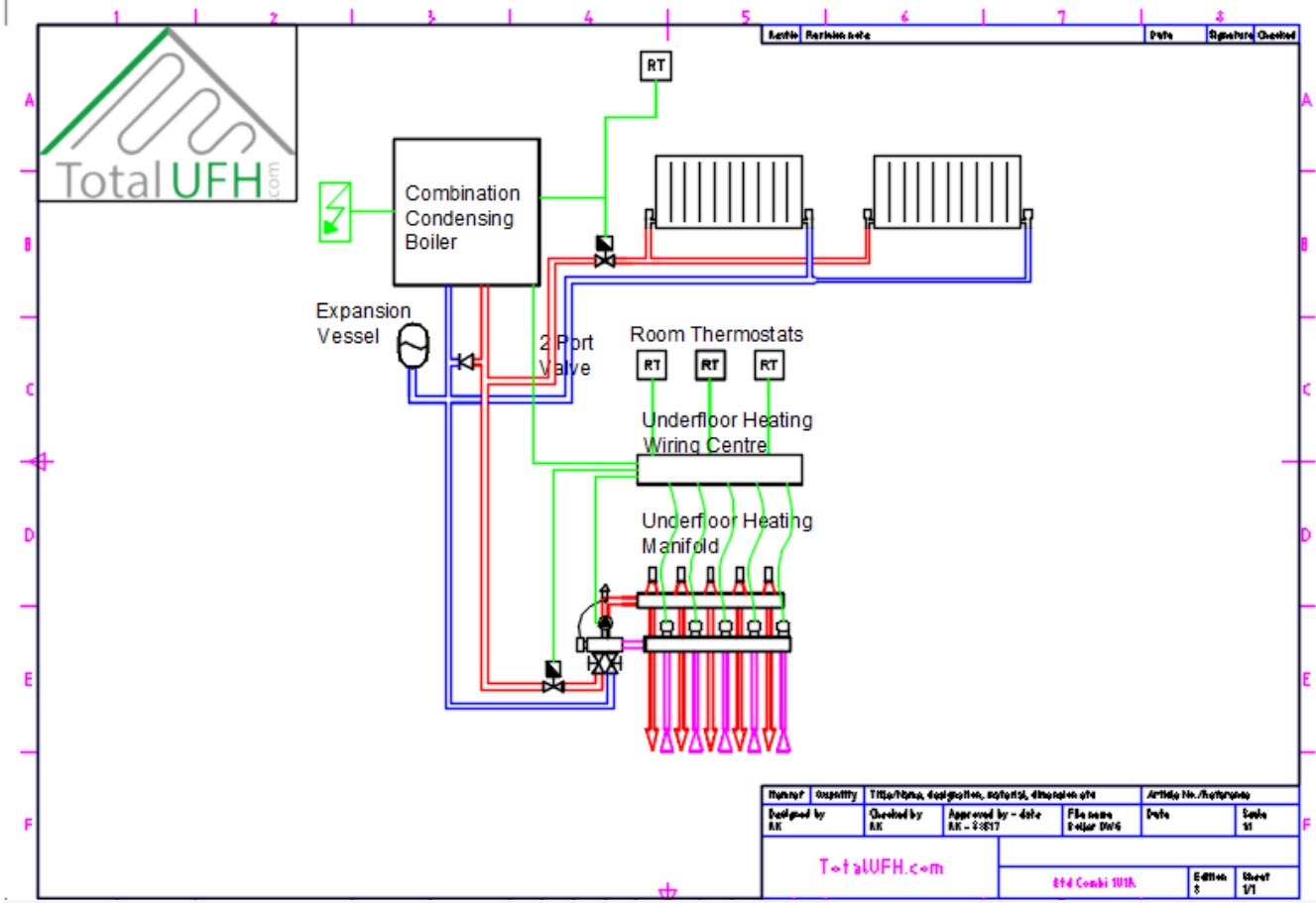
11. Install controls wiring.
12. Install thermostats and underfloor heating wiring centre
13. Test electrical wiring for safe operation and correct function
14. Test run UFH system.
15. Balance system by setting flow rates to those stated on CAD (adjustment is covered in manifold manual).
16. Set mixer / supply temperature (to minimum required).
17. Initial heating period including waiting time for screed to cure and drying cycle.
18. Once floor is dried out condition wood flooring in situ prior to laying.
19. Lay floor coverings.

NOTE, Once the pipework has been filled it can be damaged by freezing, either delay filling or add antifreeze to system.

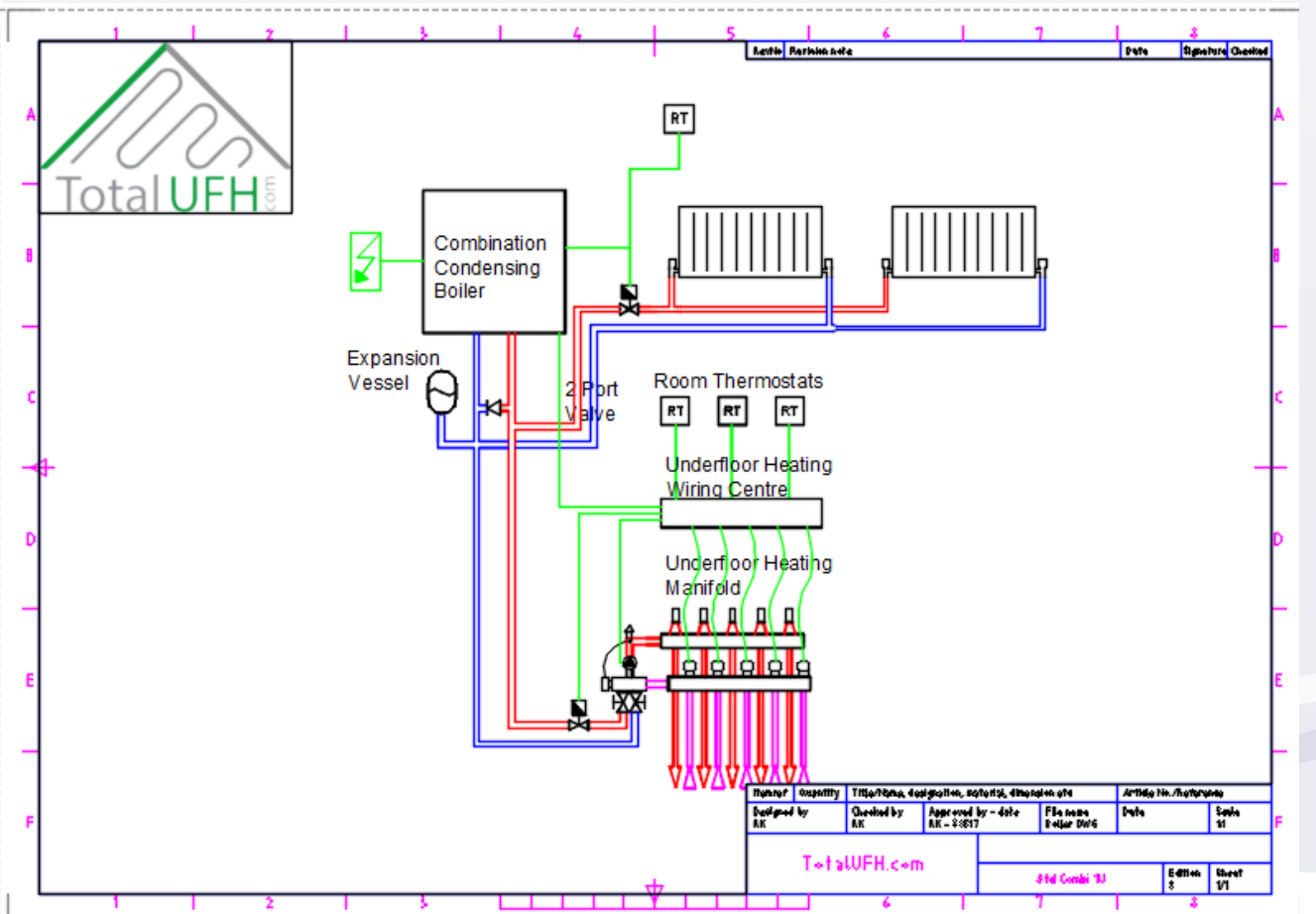


Combination Boiler Schematics

Underfloor Heating only:

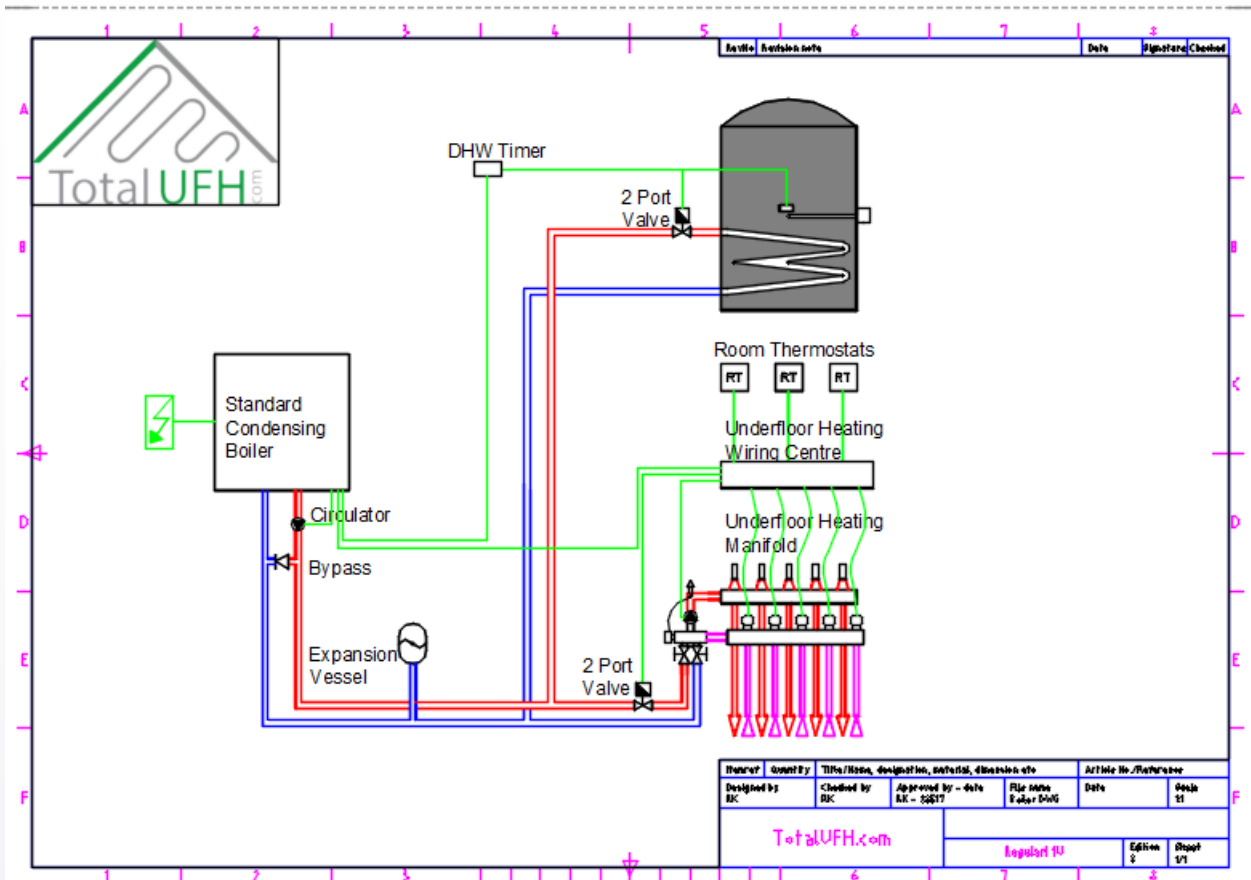


Underfloor Heating and radiators:

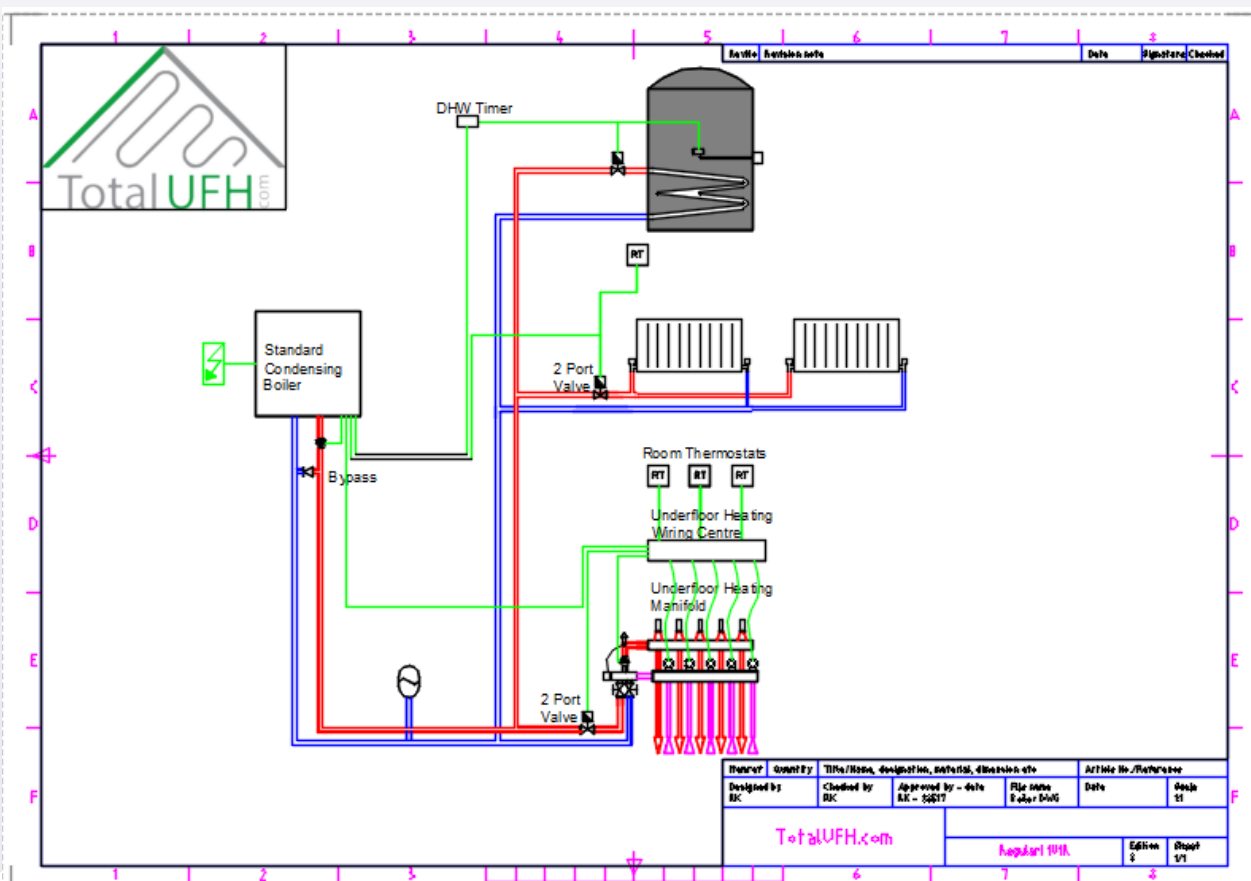


Combination Boiler Schematics

Underfloor Heating only:



Underfloor Heating and radiators:

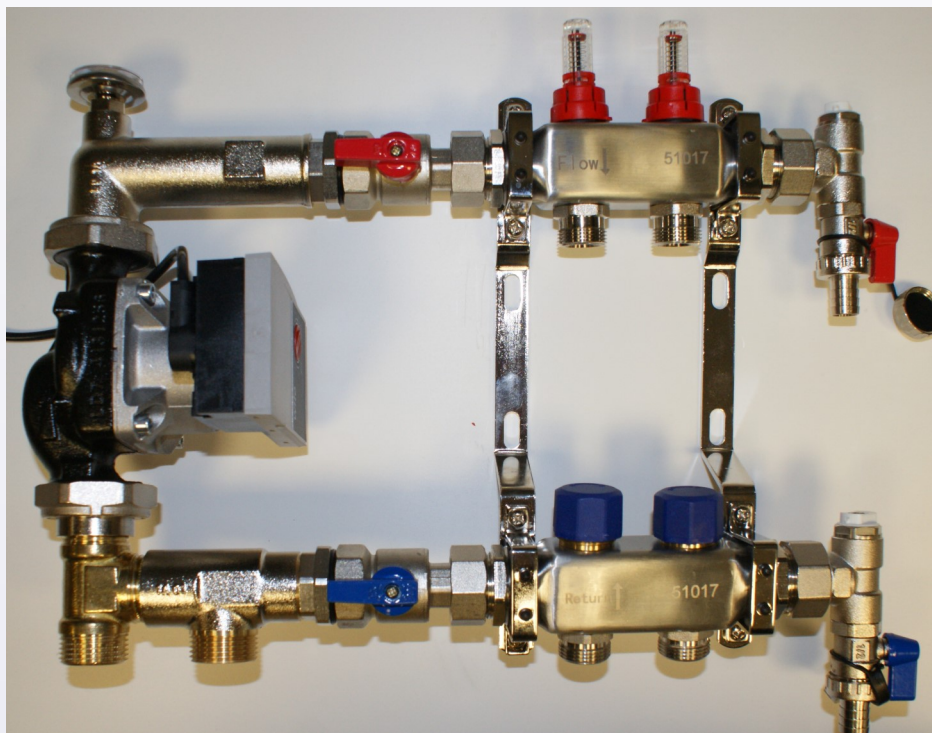


Manifold Assembly

Manifold assembly with mixer unit



Unmixed manifold assembly



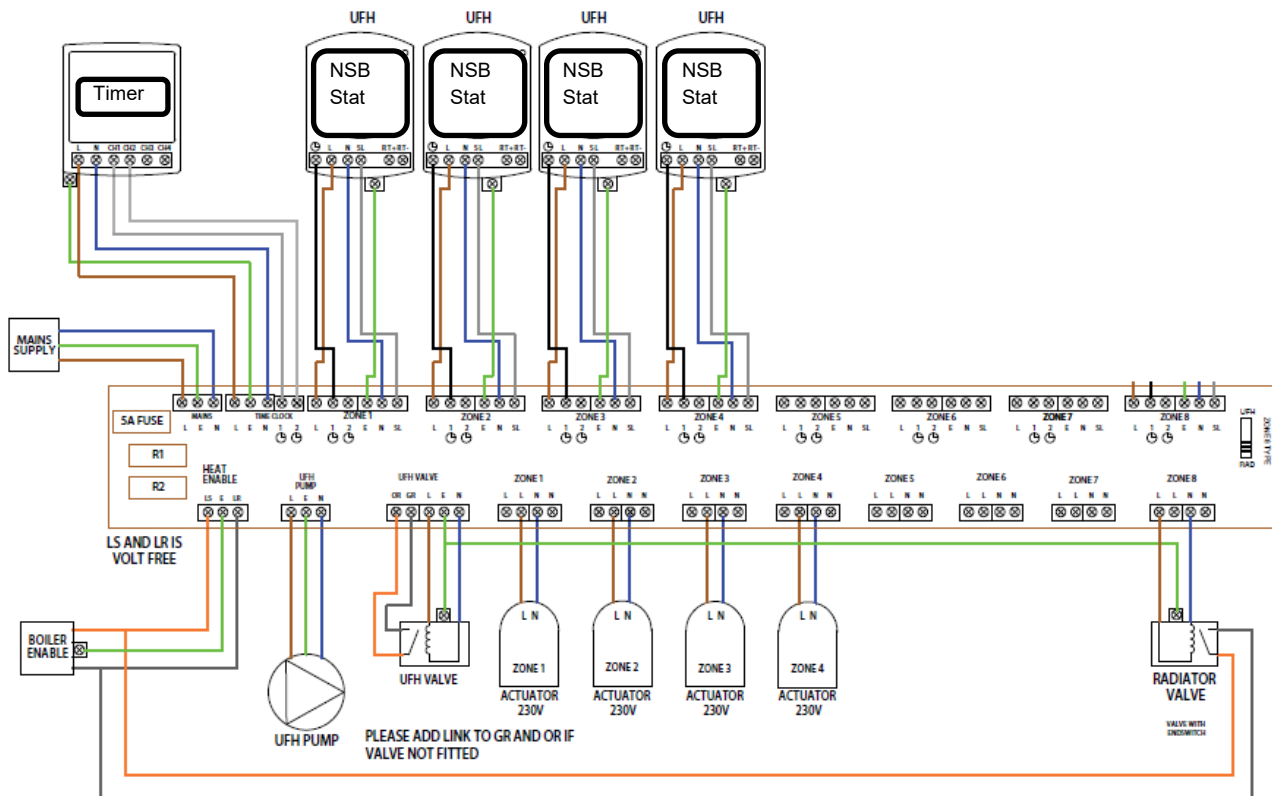
Wiring Centre Schematics

Key:

UFM UNDER FLOOR MANIFOLD	
LIVE	—
TIMER LIVE	—
SWITCH LIVE	—
NEUTRAL	—
EARTH	—
END SWITCH AND BOILER ENABLE	—

Wiring Centre Schematics

Night Set Back Thermostats:



Programmable room thermostats:

