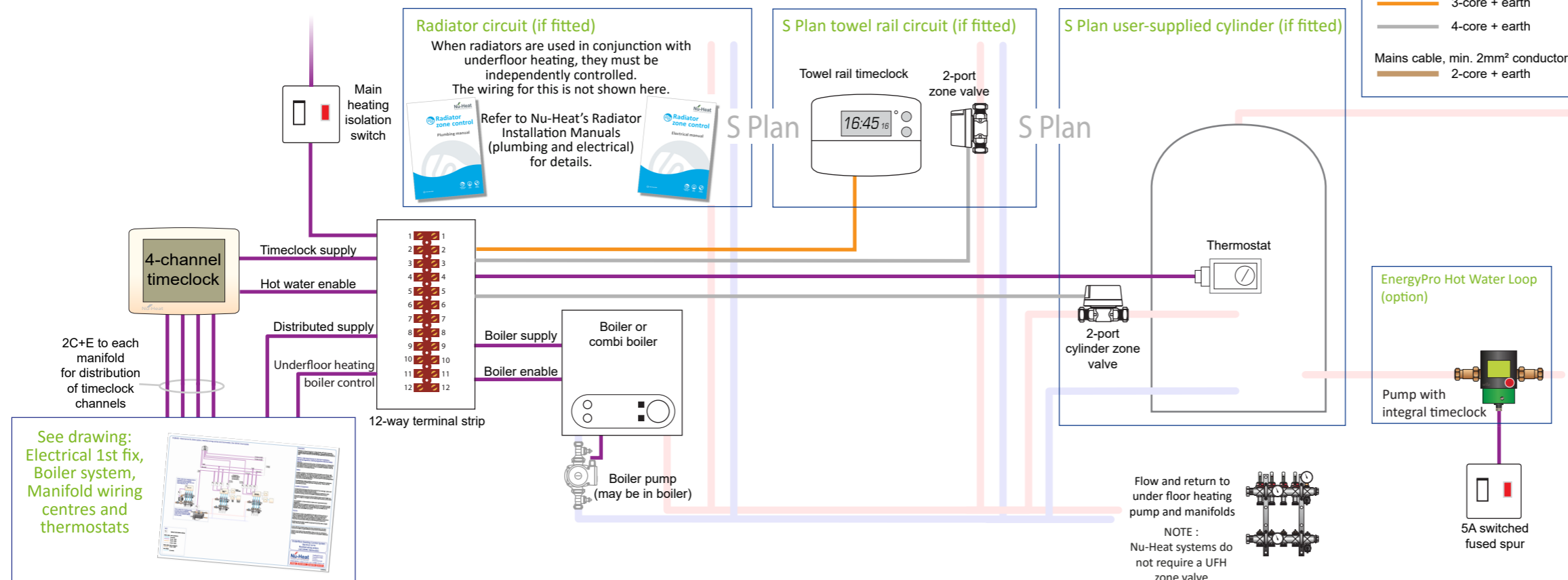


## W1BUDS - Electrical 1st fix, Boiler system, Combi or User supplied cylinder, Dial thermostats

### Installing a new complete heating control system

New installations should always use the S Plan control system based on 2-port zone valves and a 12 way terminal strip.  
When radiators and/or towel rails are used in conjunction with underfloor heating, they must be given independent control.



**KEY**

- Mains cable, min. 1mm<sup>2</sup> conductors
  - 2-core flex
  - 2-core + earth
  - 3-core + earth
  - 4-core + earth
- Mains cable, min. 2mm<sup>2</sup> conductors
  - 2-core + earth

**Important:**  
Attention to the advice given in these sheets will help to ensure a trouble free and and effective installation. The requirements of the relevant British Standards and IEE Wiring Regulations should always be met.  
**BS7671: 2008. Requirements for Electrical Installations, IEE Wiring Regulations, Building Regulations Electrical Safety (Part P)**  
Installation must be carried out by a Competent Person or, failing that, the local building control authority must be notified of the proposed work before commencement and the completed installation must be inspected by a Competent Person.

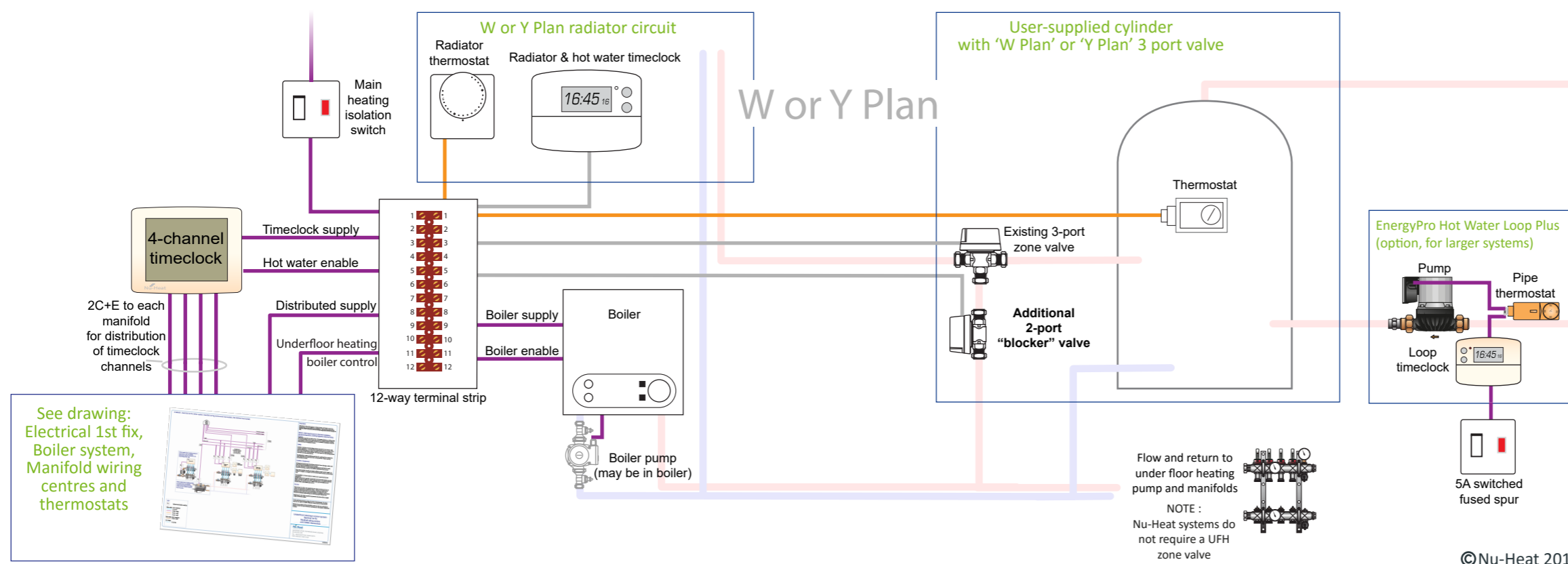
**Safety**  
Isolation switches must be fitted where required in accordance with current regulations. Nu-Heat recommends the use of a number of 5A switched fused spurs to supply the boiler and other electrical items that make up the heating system. All fused spurs for the heating system must be from the same source.  
Supplementary safety isolating switches for switched live conductors may optionally be positioned near wiring centres. These must be connected as shown.  
Compliance with Part G3 Building Regulations remains the responsibility of the installer.

**Location of equipment**  
All electrical equipment should be protected from damage, water and dust during the installation/build process. Nu-Heat electrical wiring centres are designed to be fixed to walls inside the building, close to the Optiflo manifolds they control.  
**First Fix**  
The choice of the correct cabling plan depends on the type of boiler to be installed, the type of cylinder and the type and location of room thermostats. Before starting, make sure these drawings match the equipment that is actually going to be installed.

### Extending an existing heating control system

Install the 12-way terminal strip (supplied). Check the type of control system already in place. The control valve(s) are usually located near the boiler or existing hot water cylinder.  
If the existing control system is W Plan or Y Plan, based on a 3-port zone valve, you should preferably convert it to S Plan based on 2-port zone valves (not supplied). If the existing system is based on 2-port zone valves then it is already 'S Plan' so leave the existing zone valves in place. For S Plan you can EITHER leave the installed timeclock in place OR remove it and use the TMTS4-C timeclock (supplied) to control radiators (channel 3) and hot water (channel 4). If you use the TMTS4-C timeclock in this way then see above for 1st fix cabling requirement.

For W Plan or Y Plan systems, if pipework prevents a change from 3-port to 2-port valves, you must fit an additional 2-port 'blocker' valve in the position shown below. Leave the installed radiator/hot water timeclock in place (see below). The TMTS4-C timeclock (supplied) should not be used to control hot water on a W or Y Plan system.



Parts shown in outline are generally supplied by others. Where connections are shown to equipment that is not supplied by Nu-Heat, this is for guidance only. In all such cases the supplier's installation information should be checked before fixing and connecting the equipment.

In line with the company policy of product development, Nu-Heat reserves the right to supply different components to those shown.  
If there is any aspect of the installation that you do not understand, please contact Nu-Heat Technical, quoting your QR (system reference) number.  
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This drawing is not site-specific. The number and type of cylinders, pumps and timeclocks might all vary from those shown.

## Underfloor Heating Control System

### W1BUDS - Electrical 1st fix, Boiler system, Combi or User supplied cylinder, Dial thermostats

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