#### W1BNPbTsNe - Electrical 1st fix, Boiler system, EnergyPro cylinder(s), Programmable thermostats EnergyPro Hot Water Loop Plus Pumr Pipe thermostat 5A switched fused spur When radiators are used in conjunction with underfloor heating, independent control must be provided. Suitable generic parts are shown below. Loop Radiator circuit (if fitted) Nu-Heat EnergyPro cylinder 1 Nu-Heat EnergyPro cylinder 2 (option) Radiator timeclock EnergyPro Hot Water Loop Main for single cylinder heating 16:45 16 solation 2-port (option) 0 ) Pump with integral timeclock Immersion Immersion heater 1 heater 2 13A switched 13A switched 5A switched fused spur 2-port fused spur fused spur cylinder Thermostat 2 12-way terminal strip zone Boiler supply Boiler enable Boiler Boiler pump (may be in boiler) See drawing: Electrical 1st fix, Boiler system, Manifold wiring centre KEY Mains cable, min, 1mm2 conductors 2-core flex 2-core + earth 3-core + earth 4-core + earth Flow and return to Mains cable, min. 2mm2 conductors under floor heating 2-core + earth pump and manifolds

# Installing a new complete underfloor heating system

New installations should always use the S Plan control system based on 2-port zone valves and a 12 way terminal strip.

## Extending an existing heating system and fitting an EnergyPro cylinder

If you are extending your existing heating system and fitting an EnergyPro cylinder, you must ensure that the heating controls are S Plan. The control valve(s) are usually located near the boiler or existing hot water cylinder. If your existing control system is W Plan or Y Plan, based on a 3-port zone valve, you must convert it to S Plan based on 2-port zone valves (radiator zone valve not supplied) and a 12-way terminal strip.

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## 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

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.

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.

#### 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.

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)

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Electrical 1st fix - Heat source and cylinders Electrical 2nd fix - Heat source and cylinders Electrical 1st fix - Manifold wiring centres and room thermostats Electrical 2nd fix - Manifold wiring centres and room thermostats Setting up Commissioning

**Underfloor Heating Control System** W1BNPbTsNe - Electrical 1st fix, Boiler system, EnergyPro cylinder(s), Programmable thermostats



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