

# SUNDIAL 'Y' PLAN

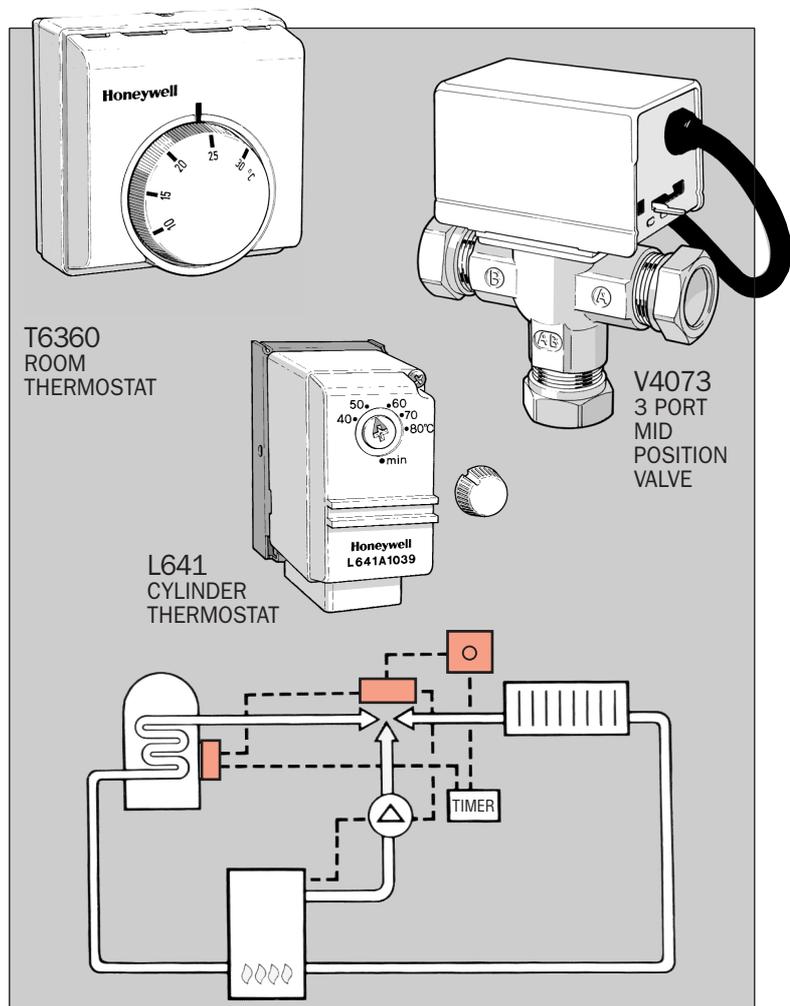
## 'Y' PLAN

### FEATURES

- Space temperature control from a central point.
- Independent control of domestic hot water temperature.
- Pump and boiler switched off when space and hot water temperature requirements are satisfied.
- Provides full control of fully pumped installations.

### OPTIONS

- Supplied as individual components or boxed.
- Radiator thermostats may be fitted to provide over-riding temperature control in selected areas.
- Automatic bypass valve.



### APPLICATION

The Sundial 'Y' Plan is designed to provide independent temperature control of both heating and domestic hot water circuits in fully pumped central heating installations. Time control must be provided by a programmer.

Sundial 'Y' Plan satisfies the minimum standard requirements of the Building Regulations which used in conjunction with radiator thermostats and an automatic bypass valve.

For systems in dwellings with a floor area greater than 150m<sup>2</sup>, Sundial 'S' Plan + should be used.

## Installation

**Valve** – Water flow **must** be into Port A B. Port A is the outlet connection to the radiator circuit and Port B to the cylinder primary circuit.

**Room Thermostat** – The thermostat must be located where it is not subject to extraneous heat gains, direct sunlight or draughts.

**Cylinder Thermostat** – For optimum performance the thermostat should be located between  $\frac{1}{4}$  and  $\frac{1}{3}$  up the vertical height of the cylinder.

**Time Control** – Any time switch or programmer may be used provided that if the programmer permits the selection of heating without hot water, and the hot water switch has SPDT controls.

**Bypass** – An automatic bypass valve should be fitted to prevent any increase in pressure within the system. Even though there is always one valve outlet open: the bypass will guard against the possibility of the heating circuit being isolated by the radiator thermostats or manual operation of the radiator hand wheel valves.

## Operation

**Hot Water Only Requirement** – On a demand for heat from the cylinder thermostat, the valve remains open to DHW only and the pump and boiler are switched on.

**Heating Only Requirement** – On a demand for heat from the room thermostat, the valve motor is energised so that the CH port only is opened and the pump and boiler are switched on.

## Heating and Hot Water Requirement

– When both thermostats demand heat, the valve plug is positioned to allow both ports to be open and the pump and boiler switched on. When neither thermostat is demanding heat, the pump and boiler are off. The valve remains in the last position of operation whilst the time control is in the "ON" position.

## Specification

Standard Sundial 'Y' Plan comprises:-

V4073A1039 : 3 port mid-position valve having 22mm compression fittings

T6360B1028 : Room thermostat

L641A1039 : Strap-on cylinder thermostat

### OPTIONAL COMPONENTS

ST6100A1001 : Time switch

ST6100C1009 : 7 day time switch

ST6200A1009 : Mini-programmer

ST6300A1007 : Full programmer having 2 ON/OFF operations

ST6400C1003 : Full programmer having 3 ON/OFF operations and 7 day programming

ST699B1002 : Full programmer having 2 ON/OFF operations

ST799A1003 : Full programmer having 2 ON/OFF operations and 7 day or 5 day/2 day programming

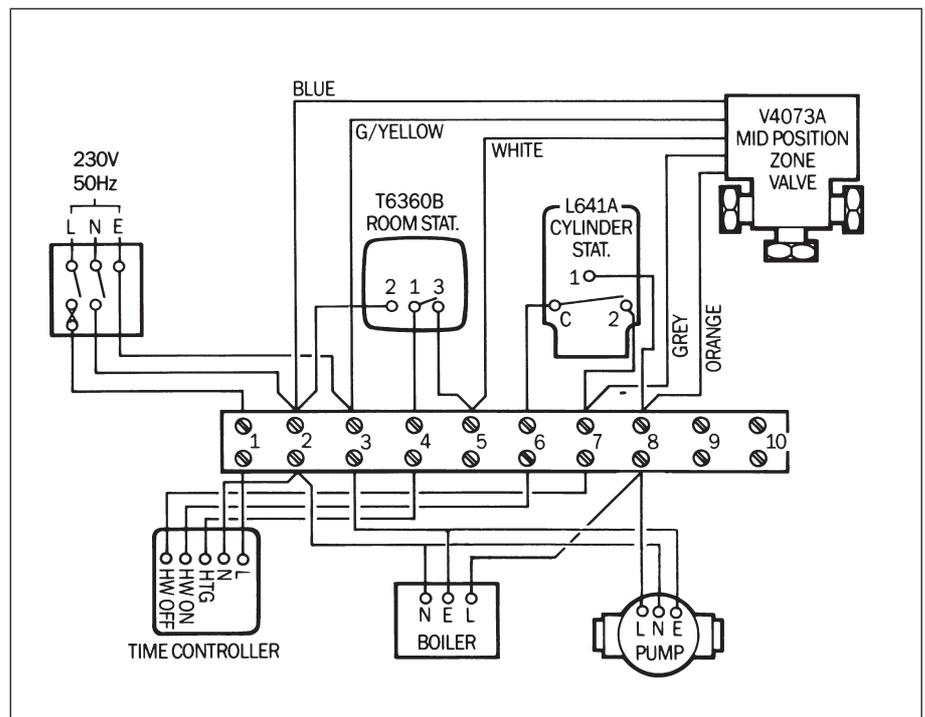
T4360A1009 : Frost thermostat

42005748-001 : Sundial Wiring Centre

42002116-001 : 10 way junction box

DU145/DU146 : Automatic by-pass valves

## Wiring



NOTE: It is recommended that either the 10 way junction box or Sundial Wiring Centre should be used to ensure first time, fault free wiring.