

# Part G gets into hot water

The new Part G Building Regulations have changed the way cylinders must be installed, explains Geoff Egginton of HWA member Advance Appliances



Building Regulation Part G changed this year, with its new additions affecting the way unvented systems must be installed.

The Hot Water Association (HWA) has developed a series of diagrams to interpret the current requirements in a straightforward, easy to understand manner.

This series of diagrams has been produced and uploaded to the HWA website, which can be accessed at [www.hotwater.org.uk](http://www.hotwater.org.uk).

They can be downloaded free of charge, and show how Part G can be met in a number of different circumstances, including mains-pressure and tank-fed hot water storage cylinders.

Unvented systems keep the same level of control while open-vented (tank-fed) cylinders must be installed with additional levels of control.

Thermal stores are more closely defined by the new HWA specification and are also shown diagrammatically. Installers can download the full thermal specification from the HWA website.

Guidance for solid fuel and biomass systems is currently being developed and will appear on the website shortly to supplement the existing advice.

HWA members are seeing a huge rise in the number of technical enquiries seeking advice on linking solid fuel and biomass systems to hot water systems.

This is possible with both mains- and tank-fed systems and will open up a wider choice to the trade.

In turn, installers can offer consumers more environmentally friendly fuel sources while enjoying the benefits of mains pressure hot water services.

The Hot Water Association promotes hot water storage and is made up of manufacturers within the sector, a number of associated companies supplying controls and other ancillary equipment, as well as some of the larger industry players such as British Gas.

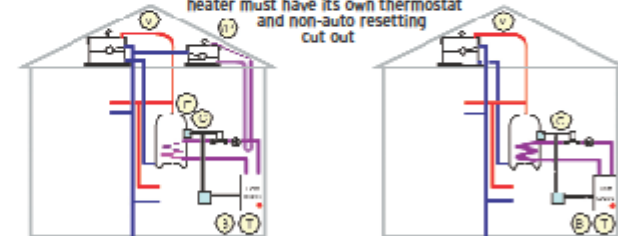
The HWA has been involved in the development of the Building Regulations and works with government to ensure that the highest standards are met within the constraints of offering the trade a practical and competitive product.

The Association has also been proactive in the development and promotion of using hot water storage with renewable energy. Without hot water storage, harvesting renewable energy would be difficult.

HVP 202

## Indirectly Heated Open Vented Cylinder Controls

Note: it is usual for the cylinder to also have an immersion heater. This immersion heater must have its own thermostat and non-auto resetting cut out



Open vented primary

User Comfort Control - (C) via two- or three-port valve/s

Level 1 Safety - Heat Source Thermostat (T)

Level 2 Safety - Heat Source Vent (VP)

Level 3 Safety - Either the Heat Source cut out if fitted (B) or if no heat source cut out then a cylinder energy cut out (E) wired to shut off the heat source or to close a two-port valve

Level 4 Safety - Cylinder Vent (V)

Note: All vent pipes to have a minimum bore of 19mm

Sealed System primary

User Comfort Control - (C) via two- or three-port valves

Level 1 Safety - Heat Source Thermostat (T)

Level 3 Safety - Heat Source Thermostat (B) \*see note 1

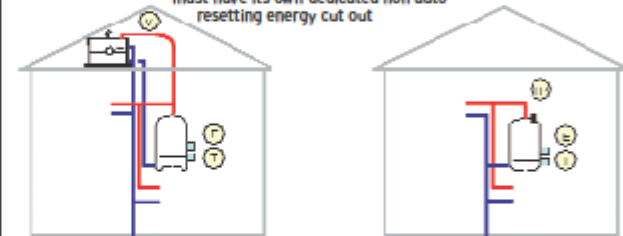
Level 4 Safety - Cylinder Vent (V)

\*Note 1: In theory if the heat source is a gas boiler the cut-out can be set as high as 112°C. The reality is that this is unlikely to cause the cylinder contents to approach 100°C by indirect heating

\*Note 2: If the heat source is not fitted with an energy cut out device (B), then a cylinder cut out (E) is required wired to the two-port valve

## Electrically Heated Cylinder Controls

Note: Where more than one immersion heater or heating element is used then each must have its own dedicated non auto resetting energy cut out



Open Vented Cylinder

User comfort control - Thermostat (T)

Level 1 Safety - Energy Cut Out (E)

Level 2 Safety - Cylinder Vent (V)

Most of these units are heated by immersion heaters where the control Thermostat (T) and the non auto resetting energy cut out (E) are incorporated in the head of the immersion heater. All vent pipes should have a minimum bore of 19mm. Where the installed system heat exceeds 15 metres consideration should be given to an additional level of safety

Open Vented Cylinder

User comfort control - Thermostat (T)

Level 1 Safety - Energy Cut Out (E)

Level 2 Safety - Temp Relief Valve (TP) (V)

\*Note: Some of these units are heated by immersion heaters where both the control Thermostat (T) and the non auto resetting Energy Cut Out (E) are incorporated into the head of the immersion heater.