# L641A - Cylinder Thermostat

#### Installation Instructions

The L641 is a water temperature thermostat designed for surface mounting on domestic hot water cylinders. It is supplied complete with mounting strap for rapid and easy installation, so draining of the system or tapping the cylinder is not necessary. The desired temperature control point is set by the clearly scaled temperature selector on the front cover.







#### **Features**

- Snap action SPDT Micro Switch™.
- · Wiring terminals are easily accessible.
- Tamperproof temperature setting.
- Optional manual setting knob supplied

#### **Specification**

Switch Action: SPDT, Type 1 CL.

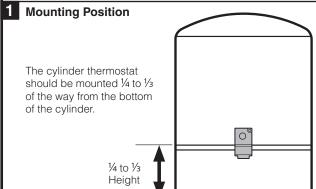
Switch Rating: 230V~ 4(2)A 50...60Hz

Temperature Setting Range: 40...80°C

Differential: Approximately 10°C non-adjustable

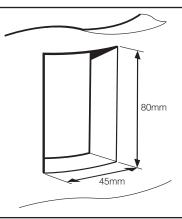
Ambient Temperature Range: 0...55°C

Cylinder Surface Temperature Range: 0...95°C



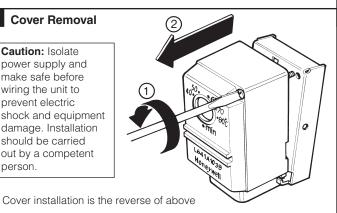
Pre-insulated cylinder preparation

> Remove a section of insulation as specified. Clean cylinder surface to ensure good surface contact.

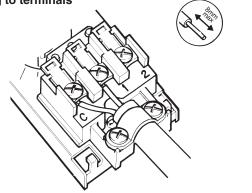


3 Cover Removal

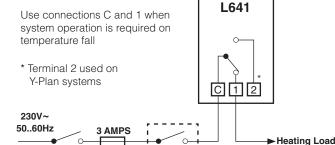
Caution: Isolate power supply and make safe before wiring the unit to prevent electric shock and equipment damage. Installation should be carried out by a competent person.



Wiring to terminals



5 Wiring Diagram



Timer/Programmer

All wiring must be in accordance with I.E.E. regulations.

Use heat resisting flexible cable rated at 85°C.

A switch, having contact separation of at least 3mm in all poles, must be incorporated in the fixed wiring as a means of disconnecting the supply.

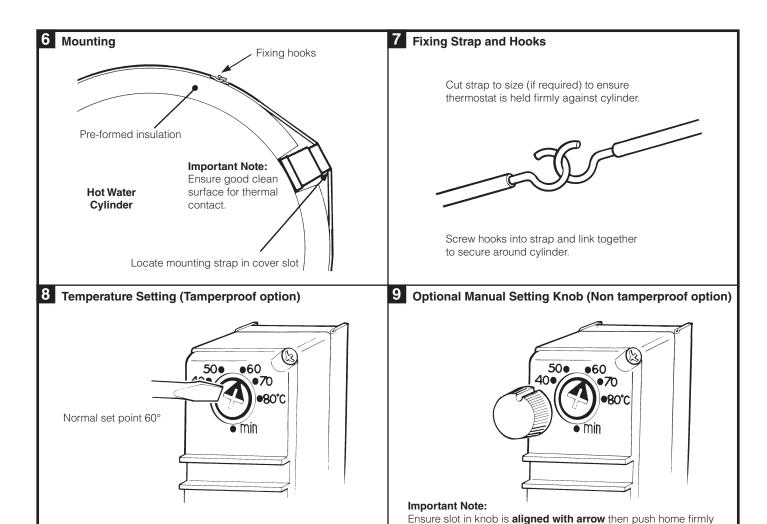
The thermostat is a class II (double insulated device) requiring no earth connection.

The heating system must be appropriately fused with a fuse rating of no higher than 3 amps.

For use in normal domestic environments.

#### **EMC** compliance considerations

Keep AC mains supply/load cables separate from signal wiring. Refer to Code of Practice EN61000-5-1 and -2 for guidance.



### What is a cylinder thermostat? ... an explanation for householders

A cylinder thermostat switches on and off the heat supply from the boiler to the hot-water cylinder. It works by sensing the temperature of the water inside the cylinder, switching on the water heating when the temperature falls below the thermostat setting, and switching it off once this set temperature has been reached.



Turning a cylinder thermostat to a higher setting will not make the water heat up any faster. How quickly the water heats up depends on the design of the heating system, for example, the size of the boiler and the heat exchanger inside the cylinder.

The water heating will not work if a time switch or programmer has switched it off. And the cylinder thermostat will not always switch the boiler off, because the boiler sometimes needs to heat the radiators.

Cylinder thermostats are usually fitted between one quarter and one third of the way up the cylinder. The cylinder thermostat will have a temperature scale marked on it, and it should be set at between 60°C and 65°C, then left to do its job. This temperature is high enough to kill off harmful bacteria in the water, but raising the temperature of the stored hot water any higher will result in wasted energy and increase the risk of scalding.

If you have a boiler control thermostat, it should always be set to a higher temperature than that of the cylinder thermostat. In most boilers, a single boiler thermostat controls the temperature of the water sent to both the cylinder and the radiators, although in some cases there are two separate boiler thermostats.

#### IMPORTANT: No user serviceable parts.

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